

**EFFECT OF FIRM SPECIFIC FACTORS ON STOCK RETURNS  
OF INSURANCE FIRMS LISTED AT THE NAIROBI  
SECURITIES EXCHANGE**

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## **DECLARATION**

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

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This research project has been submitted for examination with my approval as the University Supervisor.

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## **DEDICATION**

This project paper is dedicated to family, who have always encouraged and supported me throughout my life. They have been, and still are, the pillar of strength in my life. I thank you.

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## **LIST OF ABBREVIATIONS**

<b>ANOVA</b>	Analysis of Variance
<b>CBK</b>	Central Bank of Kenya
<b>DT</b>	Deposit Taking
<b>GDP</b>	Gross Domestic Product
<b>IRA</b>	Insurance Regulatory Authority
<b>NSE</b>	Nairobi Securities Exchange
<b>ROA</b>	Return on Assets
<b>SACCO</b>	Savings and Credit Co-Operative
<b>VIF</b>	Variance Inflation Factors

## ABSTRACT

Maximization of shareholder's wealth is the main goal of a firm and therefore it has been and will continue to be at the centre of discussions in finance. Because of the importance attached to generating returns to shareholders, great attempts have been made to understand it over time in terms of factors that contributes to its realization or none realization. The aim of this study was to ascertain the effect of firm specific factors on stock returns of insurance firms quoted at the NSE. The population for the study was all the 6 insurance companies quoted at the NSE. The independent variables for the study were underwriting risk, solvency margin, liquidity, firm size, management efficiency and age of the firm. Stock return was the dependent variable and was represented by change in share price plus any dividend issued during the period. Secondary data was collected over a ten-year time frame (January 2009 to December 2018) annually. Research design for this study was descriptive cross-sectional design while multiple linear regression was applied in determining the relationship between the variables. SPSS software was employed in the analysis of data. From the analysis an R-square value of 0.533 was produced which in other words mean that 53.3% of the changes in the stock returns of listed firms at the NSE can be described by the predictor variables studied while the other 46.7% in the changes in stock returns is affiliated to other variables that outside the scope of this study. It was further found out that independent variables of this study strongly correlated with the stock returns ( $R=0.730$ ). ANOVA outcomes revealed that the F statistic was significant at 5% level with a  $p=0.000$ . Henceforth, the model was appropriate in explaining the association between the selected variables. The findings also showed that firm size and management efficiency produced positive and statistically significant values for this study while underwriting risk produced negative and statistically significant values for this study. Solvency margin, liquidity and firm age were statistically insignificant determiners of stock returns. This study recommends that listed insurance firms should enhance their asset base and management efficiency and reduce underwriting risk as this will significantly improve their stock returns.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Maximization of shareholder's wealth is the main goal of a firm and therefore it has been and will continue to be at the centre of discussions in finance. Because of the importance attached to generating returns to shareholders, great attempts have been made to understand it over time in terms of factors that contributes to its realization or none realization (Jensen & Meckling, 1976). It is necessary to establish the firm specific factors that influence returns to shareholders. Stock returns may be impacted by operating decisions whenever company's resources are used effectively to increase the profitability of the firm (Kolapo, Ayeni & Oke, 2012). Much as the managers of these corporations attempt to influence performance at their functional levels be it either in marketing, finance or operations; there still remains a gap in understanding the combined effects of these firm-level characteristics in a more holistic view (Kusa & Ongore, 2013).

The current study was based on three theories namely; Keynesian liquidity preference theory, trade-off theory and agency theory. Liquidity preference theory determines the mix of assets and liabilities that an entity can hold. Therefore, a firm's decision problem will therefore be on how to balance returns and liquidity, consequently growing its returns (Dafermos, 2009). Trade-off theory puts forward the suggestion that for a company to achieve an optimum structure of capital there must be a balance between benefits-costs of borrowing and equity financing (Jensen & Meckling, 1976). Agency theory recognizes that maximization of share return may not be achieved, partly, due to the agency issues within the firms. The managers may act out of their own interests and not those of the shareholders.

The study focused on insurance sector since it is crucial in the economy because it facilitates the taking up of risky but profitable ventures. Insurance is based on the concept of pooling of risks in order to ensure that investors can participate in their activities without much worry. As a result, the stability of the sector is of significant importance to economic development (Kugler & Ofoghi, 2015). It is, therefore, thought that since it is necessary for this industry to remain successful, a study has to be conducted to assist the managers in this industry to manage the sector. Consequently, the study will contribute immensely to the improvement of returns of this important sector.

### **1.1.1 Firm Specific Factors**

Firm specific characteristics are those characteristic that are unique to firms. This is to mean that they are common to all firms in a given industry (Yin & Yang, 2013). According to Almajali (2012) firm specific factors are also known as micro factors because they are not generally experienced by the entire population of firms in a given country. In this respect, firm specific factors are those factors that firms have control over. They are mostly resource based and owe their existence to management decisions. It should be noted that the management of firms is responsible for making decisions with the objective of achieving the organizational goals. Kusa and Ongore (2013) views that firm specific factors of insurance firms includes: underwriting risk, solvency margin, liquidity, size of the firm, management efficiency, and age of the firm.

According to Ansah-Adu, Andoh, and Abor (2012) underwriting risk is ability that the premium collected will cater for the claims intimated in a given period. It is theoretically expected that for a general insurance company to be profitable it should

collect more premium which are more than the amounts of money spend towards settling claims. It is often measured as total insurance claims divided by total premium. Solvency margin is a mixture of the composition of the debt and asset structure in a firm (Adeyemo & Bamire, 2005). Solvency margin is commonly given as the ratio of total debt to total assets in a firm. Liquidity is defined as the degree in which an entity is able to honor the unpaid debts in the next twelve months through cash or cash equivalents for example assets that are short term can be quickly converted into cash and it is normally measured by quotient of current assets and current liabilities (Adam & Buckle, 2003).

Firm size determines the extent to which a firm is affected by legal and financial factors. The size of the firm is also closely linked with the assets because large firms have more assets and therefore to generate higher profits (Amato & Burson, 2007). Firm size is usually given by the book value of total assets held by a firm. Management efficiency measures the ability of the management to efficiently utilize the resources of the firm, their ability to maximize revenue and their ability to reduce the cost of operation of the firm and it is usually given by the quotient of total revenue and total operating expenses (Athanasoglou, Sophocles & Matthaios, 2009). Age of the firm is another firm specific characteristic and it is often given by the years in existence of the said firm (Liargovas & Skandalis, 2008).

### **1.1.2 Stock Returns**

Stock return refers to the loss or gain of the value of a share during a specific period usually presented in percentage form. It consists of capital gains and other forms of returns the investor receives from sale of stock (Mugambi & Okech, 2016). Stock returns can be used to predict output and investment since they are forward-looking

variable which outlines future discount rates and cash flow expectations. Stock returns serve as an index to governments or investors when deciding on the investments to undertake. Investors with different financial capabilities have the ability to invest in stocks provided they are guaranteed a return greater than the cost of the capital they invested (Wang, 2012).

The availability of adequate market information and how effective and efficient the stock is in allocating shares and equities is determined by stock returns. Changes in stock prices create some form of uncertainty for the investors which influence the stocks' demand and supply (Taofik & Omosola, 2013). Shares and stock markets react to any information that would influence the price of shares, pertinent to the development in the future market (Širucek, 2013). Firms with stocks that have high returns are more profitable and thus they generally contribute to economic growth (Aliyu, 2011). Therefore, stock markets returns' uncertainties is a fundamental factor in the aggregate economy since unstable economic growth trends makes consumption and investment difficult (Erdugan, 2012).

Stock returns are mostly measured using the stock market indexing. The measure of performance of a certain stock is the constant variations in it's price. Similar to the conclusion that the higher the price of a stock the etter the performance and vice versa, a higher stock index indicates better performance in a market or sector, in comparison to a lower stock index (Daferighe & Sunday, 2012). In Kenya, the NSE 20 share index is used in the calculation of stock returns since it is the basis for the measurement of the performance of the stock market.

### **1.1.3 Firm Specific Factors and Stock Returns**

The causative associations between firm characteristics and returns have been studied widely but have yielded varied results. According to Oigo (2015), high stock returns is correlated with level of credit risk management, diversity of revenue channels and control of operational expenses. The study further concluded that capital and liquidity directly influences financially based performance. Profitability of financial institutions is determined by the quality of their assets. Liquidity has a direct causality on the stock returns of firms (Ongore & Kusa, 2013).

Larger companies are performing better than smaller companies. This is because larger firms enjoy control of the market thus making them access to financial opportunities at a lower cost than the small firms (Pandey, 2015). This as a result means that firm size will experience impact on the results influenced by the firm's size (Nyabwaga, Lumumba, Odondo & Simeyo, 2013). Findings by; Nunes et al., (2008); Dogan (2013), leverage has a negative relationship with stock returns. By learning curve effect, large firms are able to lower their average total fixed costs per unit and also they are positioned at the upper part of the life cycle curve having positive cash flows as well as profits (Liargovas & Skandalis, 2010).

Dang (2011) tested the effectiveness of firm specific factors had on stock returns and it was found that financial leverage and size of the firm showed a positive link to returns, financial muscle demonstrated the firm's internal strength which enabled it to sustain losses during financial crisis. Sangmi and Tabassum (2011) found that financial institutions that had stable capital were stable and thus recorded better performances. Ayanda et al., (2013) tested factors that affected performance of firms in Nigeria and the findings showed that solvency margin recorded an insignificant

relationship with profitability. This view coincides with the observation of Haron (2014) who found an inverse link between solvency margin and stock returns. These results objects the findings by Dang (2011) who indicated that leverage and solvency ratio were significantly linked to stock returns.

#### **1.1.4 Insurance Firms in Kenya**

The Kenyan insurance industry is under the regulation of the Insurance Act (CAP 487 of the Laws of Kenya) as the principal legislation and the Insurance Regulatory Authority (IRA) regulates it. This industry is composed of a number of players, including insurance companies, reinsurance companies, insurance intermediaries (brokers, medical insurance providers and agents) and insurance service providers (claims settling agents, loss assessors, surveyors, investigators and risk managers) all of whom are licensed and regulated by IRA. As of today, there are a total of 59 regulated insurance underwriters operating in the Kenyan insurance market including 54 insurance companies and 5 reinsurance companies. Of the 54 insurance companies, 25 insurers are licensed to underwrite general (non-life) insurance business, 18 underwrite long term (life) business while 11 companies operate as composites (underwriting both life and non-life business) (IRA Annual Report, 2019).

Kenya insurance firms are reported to face various challenges arising from firm specific factors. For instance insurance brokers are face threats from Bancassurance and direct selling done through the internet and mobile services. Additionally, 20% of motor insurance claims are noted to be fraudulent due to collusion of clients with loss assessors and employees from the insurance companies. Hospitals are also reported to be giving documents with false claims of major surgeries and overpricing some treatments. The poor state of affairs continues to prevail as most of the insurers have



failed to report fraudulent cases as required by the IRA policy. Lack of awareness and understanding of insurance products stills remains a hurdle (IRA, 2017).

In regards to returns, IRA (2017) records that the total profits before tax decreased from KShs. 12.8 billion from Kshs.14.1 billion in 2015 and 2016 respectively. This indicates that performance of insurer is poor which is at 2.7 % of Gross Domestic Product (GDP). In addition, BlueShield Insurance Companies is under statutory management after a prolonged poor financial performance. Equally, Real Insurance Company was acquired by Britam due to uncertainty in its going concern. Other insurance companies that have gone under include: Standard Assurance, Kenya National Assurance Company, Access Insurance Company among others and Concord Insurance Company. There is therefore need to establish firm specific factors that influence stock returns among insurance firms.

## **1.2 Research Problem**

Maximizing stockholder's return is the main goal of a firm. The need to explain how two firms operating within the same environment would give different returns to shareholder is a concern and several research works in finance have been devoted towards understanding this mystery. This led to studies which focus on various internal factors as well as external issues thought to be the cause of differing stock returns. Some of the firm's characteristics that are thought to affect stock returns are firm size, age, leverage, liquidity and dividend payout ratio but scholars are yet to reach a consensus on the same (Dang, 2011).

Cytonn Report (2016) indicates that insurance uptake in Kenya is low approximately 2.9% which is below the continental average of approximately 3.5 %. This low penetration has in turn lowered performance of Kenyan insurance companies

(Mwangi & Murigu, 2015). More so, in the half year results Kenya Re-insurance Corporation (Kenya Re) recorded a 24 % drop in half year performance. IRA (2017) records that the total profits before tax decreased from KShs. 12.8 billion from Kshs.14.1 billion in 2015 and 2016 respectively. This indicates that performance of insurer is poor which is at 2.7 % of Gross Domestic Product (GDP). In addition, BlueShield Insurance Companies is under statutory management after a prolonged poor financial performance. Equally, Real Insurance Company was acquired by Britam due to uncertainty in its going concern. Other insurance companies that have gone under include: Standard Assurance, Kenya National Assurance Company, Access Insurance Company among others and Concord Insurance Company. There is therefore need to establish firm specific factors that influence stock returns among insurance firms.

Several research studies have been done in this area on the international context but most focused on financial performance and not stock returns. Anjum and Malik (2013) concluded that leverage is directly associated to financial performance of firms in Pakistan's stock exchange. Klingenberg, Timberlake, Geurts and Brown (2013) noted that operational efficiency is a factor of performance. Akben-Selcuk (2016) did a study to explore factors that influenced the competitiveness of a firm in Borsa Istanbul, panel data was utilized. The findings disclosed that ROA was positively associated with the size, growth, gross sales, and liquidity. Similarly, ROA was adversely associated with R&D outflows and leverage. Abdirashid (2017) established that quality of management affect financial performance and the bank has managerial restructuring policy with which the majority of the respondents agreed with.

Locally, Atsango (2018) conducted an investigation of how firm characteristics affect the profitability of deposit Taking SACCOs in Kenya. Findings showed that firm size, asset quality and operational efficiency had a statistically notable effect on profitability while leverage and capital adequacy did not show a notable effect on profitability of DT Sacco's. Odira (2018) investigated the effect of firm specific characteristics on financial performance of firms, evidence from companies in Kenya offering general insurance. The results of the investigation showed that liquidity, leverage and underwriting negatively and notably affected performance of general insurance companies in Kenya. Nduati (2018) sought to determine the effect of firm specific characteristics on the financial performance of companies in the insurance industry in Kenya and concluded that liquidity was positively but unsubstantially related to financial performance; firm size had a negative and unsubstantial effect on firm size while leverage had a negative but notable effect on financial performance. The lack of consensus among previous researchers is reason enough to conduct further study. Additionally, studies done before in Kenya on firm specific characteristics have focused on financial performance which does not necessary translate to stock returns. The current study leveraged on this gap and attempted to answer the research question; what is the effect of firm specific factors on stock returns of insurance firms listed at the NSE?

### **1.3 Research Objectives**

The study's intent was to determine the effect of firm specific factors on stock returns of insurance firms listed at the NSE.

The specific objectives were:

- i. To establish the effect of underwriting risk on stock returns of insurance firms listed at the NSE
- ii. To establish the effect of solvency margin on stock returns of insurance firms listed at the NSE
- iii. To determine the effect of liquidity on stock returns of insurance firms listed at the NSE
- iv. To establish the effect of firm size on stock returns of insurance firms listed at the NSE
- v. To establish the effect of management efficiency on stock returns of insurance firms listed at the NSE
- vi. To determine the effect of firm age on stock returns of insurance firms listed at the NSE

#### **1.4 Value of the Study**

The results of the research are of great importance to the future researchers, since it can be a point of reference. The findings might also be significant to scholars and researchers, in identifying the research gaps on the related topics of the study as well as reviewing of the empirical literature to institute further areas of research.

The stakeholders of the insurance industry will find this research very useful as this study will generate vital information in management of the industry. These stakeholders include researchers, managers in the sector and the legislative authorities in the sector. The management of insurance firms will derive the most out of this since it illuminates ways in which they can utilize firm specific factors as a channel to improve performance of the firms.

To the government and other policy makers, this study's inference will help them to guide and formulate policies and guidelines that would assist listed insurance firms and other firms in the sector adopt specific factors that will enhance their returns and therefore contribute to the sector performance.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

A review of theories which form the foundation of this study will be presented in this section. In addition, previous research carried before on this research topic and related areas are also discussed. The other sections of this chapter include determinants of stock returns, conceptual framework showing the relationship between study variables and a literature review summary.

### **2.2 Theoretical Framework**

This section is a review of theories which provide an explanation of the relationship between firm specific factors and stock returns. The theoretical reviews covered are liquidity preference theory, trade-off theory and the agency theory.

#### **2.2.1 Liquidity Preference Theory**

The Keynesian liquidity preference theory was formulated by John Keynes in 1936 and it laid a foundation for cash holding. In this theory, Keynes argues that holding all other factors constant, investors will have a preference for liquid investments as opposed to those investments that are attributed to having the ability to be sold in return for cash i.e. illiquid investments and shall seek a premium in investments that will take longer to mature. Liquidity is the expediency of holding cash. An individual or firm will hold money for various reasons at a given time (Bitrus, 2011). Based on the theory, firms hold cash to meet their business deals, financial risk, precaution, and compensation motives.

The transaction motive involves the firm's need to hold cash or money for purposes of meeting current transactions for business exchanges. Organizations require holding

cash for enhancement in paying current needs such as transport, raw materials, wages among others. Precautionary motive is whereby firms have to keep cash as security for unanticipated emergencies. Any given firm will set aside some money to manage hardships or to benefit from unforeseen deals. Speculative motive is whereby firms maintain assets in liquid form to benefit from prospective adjustments in the interest rates or bond prices (Pandey, 1997).

Keynesian liquidity preference theory is applicable for this study since the necessity of liquidity to facilitate daily activities of a firm cannot be ignored. However, Gakure et al., (2012) noted a significant negative correlation between organization's liquidity and the way it performs financially. Firms have to ensure they minimize the sum of cost of liquidity and cost of illiquidity to maximize stock returns.

### **2.2.2 Trade-off Theory**

This theory was proposed by Myers (1984). The theory holds that, there exists an optimal capital structure for each institution, which can be determined by balancing the costs and benefits of equity. As a result, a firm decides on how much debt capital and how much equity capital to include in their capital structure by balancing on the costs and benefits of each source. Debt capital results to benefits such as tax shield though high debt levels in the capital structure can result to bankruptcy and agency expenses. Agency expenses results from divergence of interest among the different firm stakeholders and because information asymmetry (Jensen & Meckling, 1976).

Thus, including cost of agency into the trade-off theory signifies that a corporation ascertains its optimal financial structure by balancing the benefit of debt (tax benefits) and costs of excessive debt (financial distress) and the resultant equity agency expenses against debt agency costs. The theory further assert that, as firm increases

debt in their capital structure, the marginal cost associated with debt increases while the marginal benefits associated with debt decreases until an optimal point is reached. Beyond that point, the marginal costs of debt exceed the marginal benefits resulting to reduced firm value. In this regard, the firm should set an optimal financial structure in order to enhance its stock returns (Jensen & Meckling, 1976).

According to Myers (1984), firms with more tangible assets should have high debt ratios as opposed to firms with more intangible assets which should place much reliance on equity capital since they are more likely to experience a decline in value in case of liquidation. Under this theory, firms should evaluate the various costs and benefits of each debt level and determine an optimal debt structure that balances the incremental costs and incremental benefits. This further explains why firms are partly financed by equity and also partly financed by debt in their capital structure. The theory has relevance to the current study as it explains the factors which are considered by a firm before deciding on the level of debt financing. The debt financing is in return expected to influence some variables such as stock returns and the current study will investigate this relationship.

### **2.2.3 Agency Theory**

This theory was developed by Jensen and Meckling in 1976. The theory argues that a relationship exists between the principals who are the company's shareholders and the agents who are the managers and executives of the entity. Meckling's and Jensen's proposition on agency theory commend that the segregation between ownership and management may result in agency problems being experienced in many modern organizations (Jensen & Meckling, 1976).



The principal, who gives the agent some decision-making authority, incurs agency costs arising from the divergence of shareholders' interests with those of company managers. Meckling and Jensen defined agency costs as the summation of bonding cost, monitoring cost, and residual loss. Despite monitoring and bonding costs incurred, residual loss will still occur as a result of managers and shareholders' interest not being fully aligned. Alignment of interests occurs when there is harmony between objectives of agents acting within an organization and those of the organization as a whole (Jensen & Meckling, 1976).

The maximization of share return may not be achieved, partly, due to the agency issues within the firms. The managers may act out of their own interests and not those of the shareholders. The employees may not effectively manage the organization's policies and goals since the success of the goals may not be beneficial to them though it may maximize the wealth to the shareholders who are the principals. As a result the relationship between management efficiency and stock returns of a firm will depend on the manifestation of the agency relationships.

### **2.3 Determinants of Stock Returns**

The determination of an organization's stock returns can be ascertained by a number of factors; these factors are either internal or external. Internal factors differ from one firm to the next and are within a firm's scope of manipulation. These consist of capital size, quality of management, solvency margin, underwriting risk, age and firm size. External factors affecting a firm's returns are mainly gross domestic product, Inflation, stability of macroeconomic policy, Political instability and the rate of interest (Athanasoglou, Brissimis & Delis, 2005).

### **2.3.1 Underwriting Risk**

According to Ansah-Adu, Andoh, and Abor (2012) underwriting risk is ability that the premium collected will cater for the claims intimated in a given period. It is theoretically expected that for a general insurance company to be profitable it should collect more premium which are more than the amounts of money spend towards settling claims. In this respect, the claims ratio should be favourable. It is for this reason that insurance companies are expected to critically stipulate their underwriting policies in order not to hamper their performance. For instance, general insurance should diversify and avoid those risks that are bound to happen in certain terms as evidenced by their claims experience (Giesbert & Steiner, 2011).

Risks that insurance companies take from individuals and enterprises can consequently be taken by reinsurers from insurance firms through reinsurance (Chhibber & Majumdar, 2011). Reinsurance enables insurance firms to mitigate the impact of unanticipated losses and ensuring earnings stability and enhance underwriting capacities (Charumathi, 2012). Premium growth and market are other determinants of insurance performance. However, premium growth is not always a positive indicator of the insurer's success; it can be achieved through underwriting of new policies unlike depending on insurance rate increases.

### **2.3.2 Solvency Margin**

The financial state of the firm is affected by a number of factors not limited to; size and total assets. While the regulators (IRA) might not liquidate large insurers easily, it is expected that small insurers might be exposed to insolvency. Cash flow and asset liquidation are two important components of liquidity (Pastor & Veronesi, 2013). Bhunia (2012) indicated that current liquidity ratio was an essential indicator of

solvency. The level of stability of liquidity ratio was considered a key measure of corporate solvency. Intuitively, being profitable implied that insurers accumulated more revenues as compared to money that was disbursed as expenses.

Harris and Raviv (2013) showed that there was a positive linkage between operating margin and financial solidarity; operating margin was found to be negatively related to insolvency ratio. A few cases have been cited showing that financial performance of insurers is essential and as such it is also essential to highlight the level of solvency and factors that affect the solvency of the insurers. Some firms fail because of poor solvency margin that hinders them from meeting their financial obligation. Firms that aspire to be profitable; one of the ways of achieving this fundamental objective is ensuring that they maintain their levels of solvency margins for purposes of investing and meeting their financial obligation (Chakraborty, 2008).

### **2.3.3 Firm Size**

The level of economies of scale enjoyed by is determined by its firm size. A larger firm size is associated with lower average production scales and more efficiency in operational activities as a result of economies of scale. Thus means that higher return on asset is generated by large firms. Larger firms could however lead to the deprivation of their jurisdiction over operations and master plan actions by the management which leads to a decline in the firm's efficiency (Mule et al., 2015).

Large firms have greater market power and more diversified and are likely to undergo more organizational slack when business is at boom. The firm size has an impact on the investments of cash flow to investment. In measuring the magnitude of an organization, the sum of the organization's employees, amount of property as well as

volume of sales are key elements that are normally measured (Salman & Yazdanfar, 2012).

#### **2.3.4 Firm Liquidity**

Liquidity is defined as the degree in which an entity is able to honor debt obligations falling due in the next twelve months through cash or cash equivalents for example assets that are short term can be quickly converted into cash. Liquidity results from the managers' ability to fulfill their commitments that fall due to creditors without having to liquidate financial assets (Adam & Buckle, 2003).

According to Liargovas and Skandalis (2008), liquid assets can be used by firms for purposes of financing their activities and investments in instances where the external finance is not forthcoming. Firms with higher liquidity are able to deal with unexpected or unforeseen contingencies as well as cope with its obligations that fall. Almajali et al., (2012) noted that firm's liquidity may have high impact on efficiency of firms; therefore firms should aim at increasing their current assets while decreasing their current liabilities as per his recommendation. However, Jovanovic (1982) noted that an abundance of liquidity may at times result to more harm.

#### **2.3.5 Management Efficiency**

Management efficiency is a key internal factor that qualitatively measures and determines the operational efficiency of a firm. The ability of the management to efficiently utilize the resources of the firm, their ability to maximize funding and their ability to efficiently allocate those funds are some of the ways of assessing the management efficiency (Kusa & Ongore, 2013).

Management efficiency is a qualitative measure and determinant of operational efficiency and it can be assessed by looking at the quality of the staff, the effectiveness

and efficiency of the internal controls, the discipline within the organization and the effectiveness of the management systems (Athanasoglou, Sophocles & Matthaios, 2009). The quality of the management has an influence on the level of operating expenses which affects the bottom line of a firm hence management efficiency significantly affects the returns of firms (Kusa & Ongore, 2013).

### **2.3.6 Age of the Firm**

According to Sorensen and Stuart (2000), company's age may have an effect on firms' value. They further noted that older firms may have organizational inertia which tends to make them inflexible which may result to their inability to appreciate the changes that occur in changing environment. However, Liargovas and Skandalis (2008), noted that older firms may have more skills because they have been in operation longer thus have more experience having enjoyed the benefits that come from learning and aren't easily prone to the liabilities that result from newness, therefore they tend to have performance that is superior as compared to newer firms.

According to Loderer and Waelchli (2009), the association present between the company's age and profitability is positive. However, it has also been observed that a firm's performance may at times decline as companies grow older due to the fact that old age may lead to knowledge, abilities and skills being obsolete thereby resulting to decay in organizations. According to Agarwal and Gort (2002), this may explain why some older companies are usually taken over.

## **2.4 Empirical Review**

Local and international studies have been done to support the relationship between firm specific factors and stock returns, but these studies have produced mixed results.

### **2.4.1 Global Studies**

Ben-Caleb (2013) conducted a research on liquidity management and profitability of manufacturing firms in Nigeria. Representative of 30 manufacturing firms in the Nigeria Stock Exchange listing were employed. Study covered a 5 year period (2006-2010). Quantitative study was applied. Correlation analysis showed that liquidity ratios (current ratio and quick ratio) are linked in a positive manner to profitability, whereas cash conversion cycle had a negative association. The finding was that liquidity has a small effect on profitability of Nigerian manufacturing firms.

Adams and Buckle (2013) sought to establish the determinants of performance of Bermudian Insurance Companies industry. The study adopted a panel data analysis where a total of 47 insurance companies were considered. The study revealed that liquidity, underwriting risk and capital structure affected operational performance of the firms. Further, it was revealed that leverage and low liquidity ratio had a positive effect on performance while underwriting risk had a positive effect. In addition, the study found out that the size of the company and market development did not have significant effects on performance of firms.

Muhammed (2014) did a study in Japan. The study was to examine factors affecting financial performance of energy and electricity companies. The study covered 46 companies for a period running from 2001-2010 and collected the data from S&P Capital IQ. The predictor variables used for the study were location, ownership, age and size. Profitability was measured using return on equity, share prices and return on sales. The study concluded that, size of the firms' leads to economies of scale advantages thus assist in lowering operational costs. It also concluded that the higher

the debt finances, the higher the interests payment thus affecting financial performance. Lastly, firms with high liquidity ratios enjoy profits in a short run.

Attah-Botchwey (2014) did an examination on the impacts of dividend payment on the shares prices of several Listed Companies on the Ghanaian Stock Exchange. Out of 36 companies, Cal Bank, Eco bank and AngloGold Ashanti along with sixty of their respondents were selected by chance for the study. The use of questionnaires was applied as the primary source of data whereas information pertaining dividend policy was extracted from available fonts. The findings revealed that share price rised as the company's dividends increased.

Akben-Selcuk (2016) did a study spanning amid 2005 to 2014, the study sought to explore factors that influenced the competitiveness of a firm in Borsa Istanbul, panel data was utilized. A longitudinal design was employed and panel data and the findings disclosed that ROA was positively associated with the size, growth, gross sales, and liquidity. Similarly, ROA was adversely associated with R&D outflows and leverage. Additionally, there was higher Tobin's Q ration when debt and liquidity levels were high. The study's limitation is that it was conducted in a developed economy, broadness, and firm competitiveness being considered as the dependent variable.

#### **2.4.2 Local Studies**

Abdulkadir (2016) researched on impact of leverage, liquidity and firm size of non-financial companies .Yearly data covering the entire research period was extracted from the NSE hand books. The study used data for five year period (2009 -2013) to examine the effect of firm size, liquidity and leverage. Day's accounts receivables and accounts payables on Returns on Assets and on Return on Equity on financial performance of listed non-financial firms. An interpretation of the regression

coefficients was made using the E-views software output. Results show that liquidity and firm size influence both financial and non-financial firms in their performance. Secondly, factors such as amount of debt, the risks associated with indebtedness, interest rates and debt equity combination and the management of accounts receivables and accounts payables could affect the financial performance of firms.

Githinji (2016) sought to examine the impact of dividend policy on the shareholders' value in companies listed at the NSE. The researcher used a descriptive study in carrying out the research. Test of significance was performed at 95% confidence level. Analysis of Variance determined the significance of the regression representation. The study established a weak affirmative association between growth rate, dividend yield and payment rate with the value of shareholders. The study also determined profitability to be a study variable with a strong and positive relationship with the value of shareholders. The researcher concluded that dividend policy is a critical financial decision that has to be taken as one of the ways a firm can use to raise its value of shareholders.

Abwao (2017) sought to establish the impact of liquidity risk on stock returns of quoted commercial banks at the NSE. The population of the study was all the 11 commercial banks quoted at the Nairobi Securities Exchange. Collection of secondary data was done annually for a 5 year time frame (January 2013 to December 2017). A descriptive cross-sectional research design was adopted and for analyzing the association amongst the variables, multiple regression model was used. The findings revealed that the size of bank gave positive and statistically significant values for the research while liquidity risk and capital adequacy were established to be statistically insignificant determinants of stock returns of listed commercial banks



Nduati (2018) conducted an investigation of the effect of firm specific characteristics on financial performance of insurance companies in Kenya. The study period was five years (2013-2017). Descriptive statistics was employed for analysis while inferential statistics such as correlation and regression analysis were used to test the causal relation between the response and predictor variables. The study established a strong positive and statistically notable correlation between financial performance and solvency margin. The study also revealed the relationship between liquidity management and financial performance was positive but insignificant. There was a negative and insignificant association between (premium retention, firm size) and financial performance. However, the relation between firm age, financial leverage and financial performance was negative and significant.

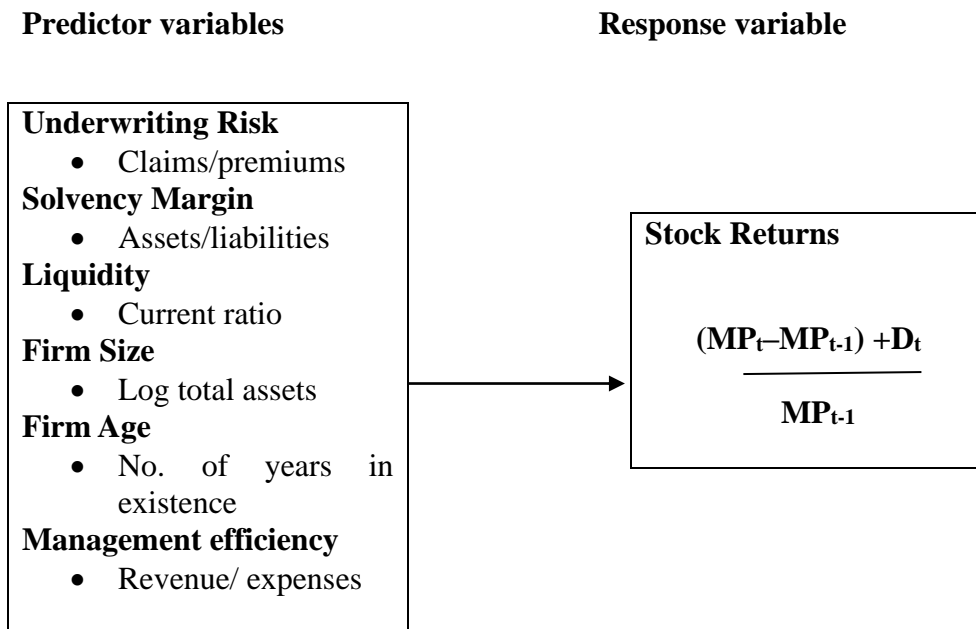
Atsango (2018) did an examination on how firm characteristics affect profitability of deposit taking SACCOs in Kenya. The research design adopted was a descriptive survey design. The study targeted 135 DT-SACCOs that are fully licensed by SASRA before the study period and have financial data for the five year period of the study from 2013-2017. The data was analyzed with aid of stata where descriptive and inferential statistics were generated. The study concludes that Firm size, asset quality and operational efficiency had statistically significant effect on profitability while leverage and capital adequacy did not show significant effect on profitability of DT saccos.

## **2.5 Conceptual Framework**

The conceptual model developed below portrays the expected association existing between the variables. The predictor variables were underwriting risk, solvency

margin, liquidity, firm size, management efficiency and age of the firm. The dependent variable was stock returns.

**Figure 2.1: The Conceptual Model**



**Source: Researcher (2019)**

## 2.6 Summary of the Literature Review

A number of theories have explained the theoretically expected relationship between firm specific factors and financial performance of firms. The theories covered in this review are; liquidity preference theory, trade-off theory and agency theory. A number of the primary influencers of stock returns have been addressed in this chapter. A number of local and international empirical studies have been carried out on firm specific characteristics. The findings of these studies have also been explored in this section.

The lack of consensus among international and local studies on the effect of firm specific characteristics on stock returns of firms is an enough reason to conduct further studies. Additionally, studies done before in Kenya on firm specific

characteristics have focused on financial performance which does not necessary imply an increase in stock return which is the gap the current study leveraged on by answering the research question; what is the effect of firm specific characteristics on stock returns of insurance firms at the NSE?

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section comprises of the research structure, the research population, the procedure of data gathering, test of assumptions under diagnostic tests and techniques of analyzing the collected study data.

### **3.2 Research Design**

The research utilized a descriptive cross-sectional research design in the determination of the relation between firm specific factors and stock returns of insurance firms. Descriptive design was utilized as the researcher is interested in finding out the state of affairs as they exist (Khan, 2008). This design is more appropriate since the researcher is familiar with the phenomenon under study but is more interested in finding out the nature of relationships between the study variables. In addition, a descriptive research aims at providing a valid and accurate representation of the study variables and this helps in responding to the research question (Cooper & Schindler, 2008).

### **3.3 Population**

A population is the totality of observations of interest from a collection such as persons or events as specified by a research investigator (Burns & Burns, 2008). This study's population comprised of the 6 insurance firms listed at the NSE as at 31<sup>st</sup> December 2018. Since the population is small, a survey of the 6 firms was undertaken for the study (see appendix I).

### **3.4 Data Collection**

The source of the secondary data was the published annual financial reports published

by insurance firms listed at the NSE between January 2009 and December 2018 and captured in a data collection sheet. The reports were obtained from the CMA and individual firms annual reports. The specific data collected were share prices, total revenue, current liabilities, current assets, total claims, total premiums and age of the firm.

### **3.5 Data Analysis**

The SPSS software version 23 was used in the analysis of the data. The researcher quantitatively presented the findings using graphs and tables. Descriptive statistics were employed for summarizing and explaining the study variables that were observed in firms. The results were presented by use of percentages, frequencies, measures of central tendencies and dispersion displayed in tables. Inferential statistics included Pearson correlation, multiple regressions, ANOVA and coefficient of determination.

#### **3.5.1 Diagnostic Tests**

The study undertook several diagnostics test to assess the applicability of the research structure. The study first assessed for normality which through the Kolmogorov-Smirnov and Shapiro-Wilk tests of the residuals where in both tests, a non-important result (a p factor of greater than 5%) was deemed an indication for normality. The study also assessed for multicollinearity using the tolerance and the variance inflation factors (VIF) where a tolerance figure of less than 0.2 or a VIF of more than 10 was an indication of the presence of multicollinearity. Additionally, the study assessed for heteroskedasticity using the Breuch pagan test and the plotting of residual graphs and assessed for serial correlation (autocorrelation) using the Durbin Watson test where a value of between 1.5 and 2.5 indicated that there exists no auto-correlation.

### 3.5.2 Analytical Model

The model below was used:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon.$$

Where: Y = Stock returns as measured by the change in stock prices as shown in the following formula  $\frac{(\mathbf{MP}_t - \mathbf{MP}_{t-1}) + \mathbf{D}_t}{\mathbf{MP}_{t-1}}$

$$\mathbf{MP}_{t-1}$$

Where MP is the market price of the share and  $D_t$  is the dividend paid in a given year

$\beta_0$  = y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$  = are the slope of the regression

$X_1$  = Underwriting risk given by the ratio of total claims to total premiums on an annual basis

$X_2$  = Solvency margin given by the ratio of total assets to total liabilities on an annual basis

$X_3$  = Liquidity given by the ratio of current assets to current liabilities on an annual basis

$X_4$  = Firm size as given by the natural logarithm of the total assets

$X_5$  = Management efficiency given by the ratio of total revenue to total operating expenses on an annual basis

$X_6$  = Age of the firm as measured by years of existence of the firm

$\varepsilon$  = error term

### 3.5.3 Tests of Significance

Parametric tests were carried out by the researcher to establish the statistical significance of both the overall model and individual parameters. The F-test was used

in the determination of the significance of the overall model and it was obtained from Analysis of Variance (ANOVA) while a t-test established statistical significance of individual variables.

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.1 Introduction

The focus of this chapter was to analyze the collected data in order to determine the influence of firm specific factors on stock returns of insurance firms quoted at the NSE. Applying analytical tools which include descriptive statistics, regression analysis and correlation analysis, the research findings were represented on tables as illustrated in the subsequent sections.

### 4.2 Descriptive Analysis

This explains the qualities of each of the variable of the study in terms of mean, minimum, maximum as well as the standard deviation. The analysis of the variables was done by means of SPSS software for the time frame of ten years (2009 and 2018) on an annual basis. Stock returns had 3.9958 as mean with a 4.9590 standard deviation. Underwriting risk resulted to 0.2899 mean with a 0.1987 standard deviation. Solvency margin, liquidity, firm size, management efficiency and age had means of 0.6487, 5.1446, 7.5189, 5.0932 and 60.6667 and standard deviations of 0.1929, 2.7007, 0.2944, 3.1597 and 19.9165 respectively.

**Table 4.1: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Stock returns	60	-8.7590	12.8862	3.995800	4.9590256
Underwriting risk	60	.0050	.8874	.289982	.1986670
Solvency margin	60	.1200	.9455	.648667	.1929139
Liquidity	60	.0743	8.3139	5.144643	2.7006640
Firm size	60	6.7274	8.0575	7.518857	.2943571
Management efficiency	60	1.9733	12.8617	5.093210	3.1597066
Age	60	39.0000	101.0000	60.666667	19.9164923
Valid N (listwise)	60				

**Source: Research Findings (2019)**



### 4.3 Diagnostic Tests

Diagnostic tests were completed before running the regression model. In relation to this study the diagnostic tests that were done include normality test, Multicollinearity test, autocorrelation and heteroscedasticity tests.

#### 4.3.1 Normality Test

To test for normality, the researcher used the Shapiro-Wilk test and Kolmogorov-Smirnov tests. Below are the null hypotheses as well as the alternative hypotheses.

H0: the secondary data was not normal.

H1 the secondary data is normal

A p-value more than 0.05, would lead to rejecting the null hypothesis and vice versa.

The table 4.2 below summarizes the outcomes.

**Table 4.2: Normality Test**

Stock returns	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Underwriting risk	.178	60	.300	.881	60	.723
Solvency margin	.173	60	.300	.918	60	.822
Liquidity	.173	60	.300	.918	60	.822
Firm size	.175	60	.300	.874	60	.812
Management efficiency	.174	60	.300	.913	60	.789
Age	.176	60	.300	.892	60	.784

a. Lilliefors Significance Correction

**Source: Research Findings (2019)**

The data revealed a p- value of higher than 0.05 hence rejecting the null hypothesis and accepting the alternative hypothesis which means the normality test revealed the data was normally distributed. This data was henceforth suitable for usage in guiding parametric tests like ANOVA, Pearson's correlation as well as regression analysis.

### 4.3.2 Multicollinearity Test

Multicollinearity in statistics can be defined as an instance where more than one predictor variables are highly correlated. Strong correlations among independent variables are an undesirable situation. In situations where there is one or more linear relationship between some of the variables perfect Multicollinearity is said to exist.

**Table 4.3: Multicollinearity Test for Tolerance and VIF**

Variable	Collinearity Statistics	
	Tolerance	VIF
Underwriting risk	0.352	2.841
Solvency margin	0.360	2.778
Liquidity	0.646	2.513
Firm size	0.398	2.513
Management efficiency	0.388	2.577
Age	0.376	2.659

**Source: Research Findings (2019)**

Multicollinearity test was carried out on the data collected. VIF value together with the Tolerance of the variable was applied. Result where tolerance value exceeds 0.2 and the value of VIF is below 10 means that multicollinearity is nonexistent. The analysis found a tolerance value of greater than 0.2 and a VIF value of less than 10 meaning that there was no multicollinearity existing.

### 4.3.3 Autocorrelation Test

Correlation of error terms were checked across time period by conducting a serial correlation test. In testing the autocorrelation in the Durbin Watson test was applied for serial correlation which is a major challenge in panel analysis of data and it has to be factored in in order to achieve the right model specification. A DW statistic of 1.547 implied there is no serial correlation as it was within the accepted limit of 1.5 to 2.5

**Table 4.4: Autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.730 <sup>a</sup>	.533	.481	3.5742694	1.547

a. Predictors: (Constant), Age, Underwriting risk, Firm size, Management efficiency, Liquidity, Solvency margin  
b. Dependent Variable: Stock returns

**Source: Research Findings (2019)**

#### 4.3.3 Heteroskedasticity Test

The researcher checked for heteroskedasticity by use of Likelihood Ratio (LR) as indicated in the Table 4.5. This test used the alternative hypothesis that the error was homoscedastic. A chi-square value of 34.68 was produced by the likelihood-ratio test with a 0.0000 p-value. The chi-square esteem was significant at 1 percent level, in this manner the invalid speculation of consistent fluctuation was rejected meaning the nearness of heteroskedasticity in the examination information as suggested by Poi and Wiggins (2001). To deal with this issue the examination utilized the FGLS estimation method.

**Table 4.5: Heteroskedasticity Test**

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Breusch-Pagan / Cook-Weisberg test for heteroskedasticity  
Ho: Constant variance  
Variables: fitted values of ROA

chi2(1) = 34.68  
Prob > chi2 = 0.0000

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**Source: Research Findings (2019)**

#### 4.4 Correlation Analysis

To test the relationship existing between two variables a correlation analyses was done. A negative and positive correlation coefficient indicates a negative and positive correlation respectively. Pearson correlation test was applied in evaluating the correlation between stock returns and the independent variables under study.

From the results of correlation analysis, it was acknowledged that underwriting risk has a moderate, negative and significant correlation with stock returns as evidenced by ( $r = -.510$ ,  $p = .000$ ). The study further revealed that solvency margin, liquidity, management efficiency and firm age exhibited positive but statistically insignificant correlations with stock returns as evidenced by positive signs and p values above 0.05. More findings established that a positive and significant correlation exists between firm size and stock returns of quoted firms as shown by ( $r = .426$ ,  $p = .001$ ).

**Table 4.6: Correlation Analysis**

		Stock returns	Underwriting risk	Solvency margin	Liquidity	Firm size	Management efficiency	Age
Stock returns	Pearson Correlation	1						
	Sig. (2-tailed)							
Underwriting risk	Pearson Correlation	-.510**	1					
	Sig. (2-tailed)	.000						
Solvency margin	Pearson Correlation	.160	.246	1				
	Sig. (2-tailed)	.222	.058					
Liquidity	Pearson Correlation	.021	.083	.017	1			
	Sig. (2-tailed)	.873	.529	.895				
Firm size	Pearson Correlation	.426**	-.037	.549**	.120	1		
	Sig. (2-tailed)	.001	.781	.000	.360			
Management efficiency	Pearson Correlation	.089	.410**	.228	.347**	.124	1	
	Sig. (2-tailed)	.497	.001	.079	.007	.345		
Age	Pearson Correlation	.138	.080	.623**	.579**	.176	.130	1
	Sig. (2-tailed)	.292	.543	.000	.000	.180	.324	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=60

**Source: Research Findings (2019)**

#### 4.5 Regression Analysis

Firms listed at the NSE Stock returns was regressed against six predictor variables; underwriting risk, management efficiency, solvency margin, firm size, firm age and liquidity. The results are as shown in table 4.7. In determining the influence of selected predictor variables on stock returns, the research employed the coefficient of determination- R- squared. The study findings indicate that the value of the R-square was 0.533 implying that the selected predictor variables explain 53.3% of changes in stock returns. The R-square column highlights the quality of prediction by the independent variables. The study revealed that the independent variables and the dependent variable have a strong relationship as shown by an R value of 0.730.

**Table 4.7: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.730 <sup>a</sup>	.533	.481	3.5742694	1.547

a. Predictors: (Constant), Age, Underwriting risk, Firm size, Management efficiency, Liquidity, Solvency margin  
b. Dependent Variable: Stock returns

**Source: Research Findings (2019)**

Table 4.8 provides the outcomes of the ANOVA. With P value being 0.000 and below the critical p value of 0.05, the model was considered statistically significant wholly and this is confirmed by an F statistic of 10.095 which implies that the selected predictor variables are good predictors of stock returns.

**Table 4.8: Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	773.828	6	128.971	10.095	.000 <sup>b</sup>
	Residual	677.096	53	12.775		

Total	1450.924	59
a. Dependent Variable: Stock returns		
b. Predictors: (Constant), Age, Underwriting risk, Firm size, Management efficiency, Liquidity, Solvency margin		

**Source: Research Findings (2019)**

T-test was applied in determining the significance of each variable individually as a predictor of stock returns. P value indicated in the Sig. column shown the significance of the relationship of the variables. When P value is below 0.05 and confidence level at 95% it is considered to be a statistical significant measure. On the contrast when the p value falls above 0.05 it is concluded that there exist a statistically insignificant association between the response variable and the predictor variable. Table 4.9 below summarizes the outcomes.

**Table 4.9: Model Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-37.986	17.525		-2.168	.035
Underwriting risk	-15.968	3.048	-.640	-5.239	.000
Solvency margin	-3.035	5.899	-.118	-.514	.609
Liquidity	.049	.328	.027	.150	.881
Firm size	6.361	2.481	.378	2.564	.013
Management efficiency	.582	.183	.371	3.180	.002
Age	.057	.056	.229	1.022	.312

a. Dependent Variable: Stock returns

**Source: Research Findings (2019)**

Following the outcomes above, firm size generated as t value of 2.564 while firm size value of t was 3.180 both with P values less than 0.05 and this is interpreted to mean they are positive and statistically significant in the study. Underwriting risk generated negative and statistically significant values as shown by a p value less than 5%.

Liquidity, firm age and solvency margin generated insignificant values as evidenced by high p values.

The below regression equation was formed:

$$Y = -37.986 - 15.968X_1 + 6.361X_2 + 0.582X_3$$

Where,

Y = Stock returns

X<sub>1</sub> = Underwriting risk

X<sub>2</sub> = Firm size

X<sub>3</sub> = Management efficiency

From the above formulated regression model, the constant = -37.986 indicates that if selected dependent variables (underwriting risk, management efficiency, solvency margin, firm size, firm age and liquidity) were rated zero, insurance firms' quoted at the NSE stock returns would be -37.986. A rise in underwriting risk with a unit would lead to a decline in stock returns of firms quoted at the NSE by 15.968. A unit increment in size of a firm would lead to an increment in stock returns of companies listed at the NSE by 6.361 while rise in management efficiency by a unit would cause the stock returns to increase by 0.582.

#### **4.6 Discussion of Research Findings**

The researcher sought to ascertain the influence of firm specific factors on stock returns of insurance firms at the NSE. The independent variables were underwriting risk, solvency margin, liquidity, firm size, management efficiency and firm age. Stock returns of the listed firms at the NSE were measured by fluctuations in stock prices in



addition to stock dividend if issued. All the predictor variables were analyzed independently in terms of their strength and direction in influencing the dependent variable.

A moderate and negative correlation of underwriting risk against stock returns was shown by Pearson correlation. The association is also significant as shown by a p value that was below 0.05. Firm size produced positive and statistically significant correlation with stock returns of listed insurance firms. The study further established that liquidity, solvency margin, firm age and management efficiency exhibit positive and insignificant correlation with stock returns of quoted firms.

Regression analysis undertaken discovered that the model would predict 53.3% of variations in returns of the firms. The other 46.7% however would be as a result of factors not in this model. The analysis showed that the alpha value was more than the p value and therefore the relationship was significant. The calculated value of F was higher than F statistic making the null hypothesis to be rejected. In conclusion the study outcomes were existence of a significant effect of the selected independent variables on stock returns.

The study findings concur with Abwao (2017) who sought to establish the impact of liquidity risk on stock returns of quoted commercial banks at the NSE. The population of the study was all the 11 commercial banks quoted at the Nairobi Securities Exchange. Collection of secondary data was done annually for a 5 year time frame (January 2013 to December 2017). A descriptive cross-sectional research design was adopted and for analyzing the association amongst the variables, multiple linear regression model was employed. The findings revealed that the size of bank gave positive and statistically significant values for the research while liquidity risk and

capital adequacy were established to be statistically insignificant determinants of stock returns of listed commercial banks.

This study is in contrast with Adams and Buckle (2013) who sought to establish the determinants of performance of Bermudian Insurance Companies industry. The study adopted a panel data analysis where a total of 47 insurance companies were considered. The study revealed that liquidity, underwriting risk and capital structure affected operational performance of the firms. Further, it was revealed that leverage and low liquidity ratio had a positive effect on performance while underwriting risk had a positive effect. In addition, the study found out that the size of the company and market development did not have significant effects on performance of firms.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This is a review of the results from the previous chapter, it further derives conclusions as well as the limitations encountered during the study. In addition, recommends policies that can be enforced to boost the expected stock returns of listed insurance companies. Finally, the chapter gives suggestions of areas where further studies can be done.

### **5.2 Summary of Findings**

Aim of researcher was seeking to investigate the effect of firm specific factors on stock returns of insurance companies enlisted at the NSE. The independent variables were underwriting risk, solvency margin, firm size, liquidity, management efficiency and age of a firm. The research design was descriptive cross-sectional design. Data for all the CMA reports were used to retrieve secondary data and SPSS software 22 was used to analyze it. The period for this study was the ten years from the year 2009 to 2018 for the 6 listed insurance firms.

The Pearson correlation showed moderate and negative correlation of underwriting risk against stock returns. The association is also significant as shown by a p value that was below 0.05. Firm size produced positive and statistically significant correlation with stock returns of listed insurance firms. The study further established that liquidity, solvency margin, firm age and management efficiency exhibit positive and insignificant correlation with stock returns of quoted firms.

From the regression analysis results, the findings revealed that 53.3% of changes in stock returns of entities are described by the six selected predictor variables. It is

implied that 46.7% of fluctuations in returns of entities trading in the NSE are represented by other factors outside the scope of this study. The model wholly was said to be significant as the P value below 0.05. Meaning that the selected independent variables significantly influence returns of insurance firms enlisted entities at the NSE.

The regression model further established that underwriting risk alone has a significant negative influence on stock returns of quoted insurance entities. This implies that an increase in underwriting risk will lead to a substantial stock return decrease. It was also revealed that firm size and management efficiency have a notable positive influence on stock returns of listed firms and this implies that an increase in assets held by a firm and efficiency of managers will result to stock returns increasing.

### **5.3 Conclusion**

A conclusion can be drawn that stock returns is significantly affected by underwriting risk, solvency margin, firm size, liquidity, management efficiency and firm age. Underwriting risk was established to negatively influence stock returns of listed insurance firms and hence this study concludes that underwriting risk does significantly influence stock returns. Management efficiency was found to have a positive and significant effect on stock returns and therefore this study concludes that management efficiency influences stock returns positively and in a significant manner.

Solvency margin was noted to have a negative but not statistically significant influence on stock returns of insurance firms enlisted at NSE meaning a rise in debt levels leads to a reduction in stock returns but not to a significant extent. Liquidity on the other had was revealed to have a positive but insignificant impact on stock returns

of companies quoted at the NSE and hence it is resolved that higher levels of liquidity results to an increase in stock returns but not significantly. Firm size established to have a positive and statistically significant effect on stock returns and hence this study resolves that firm size does significantly influence stock returns of insurance firms listed in NSE. Although age of a firm had a positive effect on stock returns, the influence was not statistically significant.

Conclusion on this study is that the predictor variables of this study; underwriting risk, solvency margin, firm size, management efficiency, liquidity and firm age largely affect stock returns of listed firms in NSE. The p value of the ANOVA summary also assists in concluding that these variables significantly affect the stock returns. Since the independent variables of this study have been found to explain 53.3% the stock returns of listed firms in the NSE, it is implied that 46.7% of variation in stock returns can therefore be related to factors that were not covered in the current study.

This finding concurs with Abwao (2017) who sought to establish the impact of liquidity risk on stock returns of quoted commercial banks at the NSE. The population of the study was all the 11 commercial banks quoted at the Nairobi Securities Exchange. Collection of secondary data was done annually for a 5 year time frame (January 2013 to December 2017). A descriptive cross-sectional research design was adopted and for analyzing the association amongst the variables, multiple linear regression model was employed. The findings revealed that the size of bank gave positive and statistically significant values for the research while liquidity risk and capital adequacy were established to be statistically insignificant determinants of stock returns of listed commercial banks.

#### **5.4 Recommendations**

Underwriting risk was revealed to have a negative and statistically significant influence on stock returns of insurance firms listed at the NSE. This study recommends that insurance firms whether listed or not should strive to reduce underwriting risk as it does significantly reduce their stock return that is the primary objective of any firm. Solvency margin was revealed to having a negative effect on stock returns of listed insurance firm's quoted at the NSE. The research therefore recommends firms to evaluate the tax benefits and the bankruptcy costs that come along with debt financing. Debt levels should be kept at optimal points since it has been found out that high level of debts reduces stock returns. This will ensure the goal of maximizing shareholders' wealth is attained.

Firm size was found to have a positive impact on the stock returns of insurance firms quoted at the NSE. This study recommends suitable measures should be adopted by managers of these firms so as to boost the growth of their stock returns by increasing their asset base. Generally, insurance firm's despite being listed or not should work on growing their assets and consequently this will improve stock returns and eventually lead to shareholder wealth maximization which is the primary objective of the firm.

The study found out that a positive relationship exists between stock returns and management efficiency. This study recommends that a comprehensive assessment of listed insurance firm's management efficiency should be undertaken to ensure that managers are efficient and this will lead to improved stock returns of firms. This is because management efficiency is of high importance since it influences the firm's current operations.

### **5.5 Limitations of the Study**

The study period selected for this study was 10 years that is from 2009-2018. There is no proof that similar results will remain the same for a longer time period. Additionally, it cannot be determined if the same results will hold beyond 2018. A lengthier period of time would prove more dependable since it will include cases of major economic changes like recessions and booms.

The most significant limitation for this study was the quality of the data. It cannot be concluded with accuracy from this study that the findings are a true representation of the situation at hand. An assumption has been made that the data used in the study is accurate. Additionally, a lot of inconsistency in the measurement of the data was experienced due to the prevailing conditions. The study utilized secondary data contrast to primary data which is considered more superior. The study also took into consideration a few of the determinants of stock returns and not all factors because of the limit imposed by data availability.

To complete the analysis of the data, multiple linear regression model was utilized. Because of the limitations involved when using the model like erroneous and misleading results resulting from a change in variable value, it would be impossible for the researcher to generalize the findings with accuracy. In case of an addition of data to the functional regression model, the model may not perform as per the previous.

### **5.6 Suggestions for Further Research**

This study concentrated on firm specific factors and stock returns of firms quoted at the NSE and secondary data was relied on. Further research study that uses primary data such as questionnaires and interviews as well as covering all the insurance listed firms is recommended.

Not all the independent variables affecting stock returns were covered in this study and henceforth further studies that can accommodate different variables for examples ownership structures, opportunities for growth, industry practices, political instability, corporate governance of the firm or any other variables. Determining the impact of each variable on stock returns of insurance companies quoted at the NSE will assist policy makers in identifying the tool that should be used to maximize shareholder's wealth.

The study focused on the most recent ten years because it was the latest information accessible. Subsequent research may study a longer time frame like 20 years which can be useful in complementing or disapproving the results from this study. This research was constrained by concentrating on listed insurance firms at the NSE. Further recommendation is that subsequent research examines other insurance firms operating in Kenya. Lastly, due to the limitation of regression models, adopting different models like the Vector Error Correction Model (VECM) may be applied in explanation of the various relationships among variables.



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## **APPENDICES**

### **Appendix I: Insurance Firms Listed at the Nairobi Securities Exchange**

1. Britam Holdings Ltd
2. CIC Insurance Group Ltd
3. Jubilee Holdings Ltd
4. Kenya Re-Insurance Corporation Ltd
5. Liberty Kenya Holdings Ltd
6. Sanlam Kenya PLC

**Source: NSE (2019)**



## Appendix II: Research Data

COM PANY	Year	Stock returns	Under writing risk	Solven cy margin	Liquidi ty	Firm size	Managem ent efficiency	Age
Jubilee	2018	9.9640	0.1714	0.7541	8.3139	8.0575	3.3575	82
	2017	12.3703	0.1659	0.7596	8.2777	8.0211	3.5259	81
	2016	11.1587	0.1869	0.7635	8.2736	7.9570	3.6600	80
	2015	9.4744	0.1991	0.7526	8.0077	7.9158	3.2878	79
	2014	10.3636	0.1945	0.7788	7.9563	7.8722	4.1387	78
	2013	10.0372	0.2074	0.7744	7.8703	7.8219	3.9912	77
	2012	9.8276	0.2153	0.7787	7.7718	7.7743	4.1237	76
	2011	9.6179	0.2233	0.7829	7.6733	7.7267	4.2561	75
	2010	9.4083	0.2312	0.7871	7.5748	7.6791	4.3885	74
	2009	9.1986	0.2392	0.7914	7.4762	7.6315	4.5209	73
Pan Africa	2018	-2.7492	0.4867	0.9455	7.9556	7.4639	2.9566	101
	2017	0.0737	0.6345	0.8641	7.5650	7.4744	4.0002	100
	2016	0.0981	0.3445	0.8617	7.5081	7.4540	4.2849	99
	2015	0.0380	0.7782	0.8598	7.4809	7.4331	4.9345	98
	2014	1.8150	0.1275	0.8464	7.2248	7.3909	8.1949	97
	2013	2.5829	0.3019	0.8148	7.0832	7.3871	8.2974	96
	2012	3.4922	0.2444	0.7945	6.9286	7.3684	9.4385	95
	2011	4.4014	0.1869	0.7743	6.7740	7.3496	10.5796	94
	2010	5.3107	0.1295	0.7541	6.6195	7.3309	11.7206	93
	2009	6.2200	0.0720	0.7338	6.4649	7.3122	12.8617	92

<b>COM PANY</b>	<b>Year</b>	<b>Stock returns</b>	<b>Under writing risk</b>	<b>Solven cy margin</b>	<b>Liquidi ty</b>	<b>Firm size</b>	<b>Managem ent efficiency</b>	<b>Age</b>
Kenya Re	2018	1.0074	0.1385	0.3604	7.1487	7.6470	7.0332	48
	2017	1.0074	0.1663	0.3634	7.0178	7.6308	8.0043	47
	2016	1.6101	0.1660	0.3731	6.9753	7.5854	7.2906	46
	2015	1.3205	0.1531	0.3900	6.9370	7.5557	9.4025	45
	2014	1.9531	0.1563	0.3787	6.8502	7.5075	9.4389	44
	2013	2.0411	0.1627	0.3920	6.7825	7.4791	10.0967	43
	2012	2.2615	0.1649	0.3983	6.7148	7.4437	10.7176	42
	2011	2.4820	0.1672	0.4046	6.6470	7.4083	11.3386	41
	2010	2.7024	0.1694	0.4109	6.5793	7.3729	11.9595	40
	2009	2.9229	0.1716	0.4172	6.5115	7.3375	12.5805	39
Libert y	2018	1.0258	0.5435	0.7917	6.4954	7.5632	2.2205	55
	2017	1.2592	0.4098	0.8041	6.2534	7.5696	2.4037	54
	2016	1.1720	0.5398	0.8085	6.1879	7.5431	2.1847	53
	2015	1.3740	0.8874	0.8195	5.9272	7.5382	1.9733	52
	2014	2.1448	0.2000	0.3580	5.7614	7.0594	2.3658	51
	2013	2.1010	0.4533	0.4608	5.5868	7.1430	2.1876	50
	2012	2.3363	0.4323	0.3756	5.4074	7.0391	2.1736	49
	2011	2.5715	0.4114	0.2904	5.2279	6.9352	2.1596	48
	2010	2.8068	0.3905	0.2052	5.0485	6.8313	2.1457	47
	2009	3.0421	0.3695	0.1200	4.8691	6.7274	2.1317	46

<b>COM PANY</b>	<b>Year</b>	<b>Stock returns</b>	<b>Under writing risk</b>	<b>Solven cy margin</b>	<b>Liquidi ty</b>	<b>Firm size</b>	<b>Managem ent efficiency</b>	<b>Age</b>
Britam	2018	-8.7590	0.8754	0.7689	5.2016	8.0156	3.0306	54
	2017	2.4391	0.3462	0.7711	2.8665	7.9957	3.2707	53
	2016	12.7950	0.2381	0.7863	2.8029	7.9224	2.9911	52
	2015	-5.2077	0.6000	0.7723	2.6155	7.8900	3.0259	51
	2014	12.8862	0.2290	0.7041	2.5380	7.8600	3.1934	50
	2013	11.4485	0.1460	0.7220	1.5315	7.8117	3.1265	49
	2012	12.3475	0.0422	0.7092	0.9737	7.7700	3.1346	48
	2011	12.2298	0.0617	0.6963	0.4159	7.7284	3.1427	47
	2010	11.9965	0.1656	0.6835	0.1419	7.6867	3.1507	46
	2009	12.3451	0.2695	0.6707	0.6998	7.6450	3.1588	45
CIC	2018	0.2915	0.5417	0.7610	2.4794	7.5182	4.2136	51
	2017	0.1350	0.6667	0.7496	2.2596	7.4844	3.4907	50
	2016	-0.0158	0.4286	0.7212	2.2289	7.4286	3.1260	49
	2015	0.2990	0.2326	0.6858	2.0584	7.3966	3.6043	48
	2014	0.4300	0.2381	0.6958	0.0743	7.3746	4.2792	47
	2013	0.3602	0.1091	0.6644	0.3167	7.3279	3.8162	46
	2012	0.4043	0.0050	0.6450	0.1845	7.2904	3.8407	45
	2011	0.4484	0.0991	0.6255	0.6856	7.2529	3.8652	44
	2010	0.4925	0.2032	0.6061	1.1867	7.2154	3.8897	43
	2009	0.5366	0.3074	0.5867	1.6879	7.1779	3.9142	42