ANALYSIS OF SELECTED FACTORS INFLUENCING FINANCIAL PERFORMANCE OF INSURANCE COMPANIES LISTED AT THE NSE, KENYA

Titus Tilu Maseki[1i],
James N. Kung'u[2],
John W. Nderitu[2]
[1]Laikipia University, Main Campus
P.O Box 1100-20300, Nyahururu
Kenya
[2]Dr., Laikipia University, Main Campus
P.O Box 1100-20300, Nyahururu
Kenya

Abstract:
Insurance businesses are designed to pool and accumulate large sums of money in order to settle claims arising from their clients in the event of loss. The companies venture into stock trading, underwriting ventures and property investments in addition to their core activities of generating income from net premiums. Several factors influence the operation results of these firms. The study used descriptive research design where a sample of thirty six (36) respondents was chosen through stratified sampling. Questionnaires were administered through drop and pick method. Both descriptive and inferential statistics were analysed. Inferential analysis failed to accept the null hypotheses that there was no statistically significant influence of selected factors; risk perception, macroeconomics and investment portfolio choice on financial performance of insurance companies. The results of the study indicated that considered in isolation risk perception explained 19.6% of the variability in financial performance while macroeconomic and investment portfolio choice factors accounted for 18.2% and 15.9% respectively of the changes in financial performance. The joint independent variables were associated to 74.9% of the variability in financial performance of insurance firms. However, there are other factors that explain the variance of financial performance of insurance companies in Kenya that were not included in the model.

---

[i] Correspondence: email titusmaseki@yahoo.com, titusmaseki@gmail.com

1. Introduction

Institutional investors according to Hellman (2000) relates to legal persons who act as instructed by their principals. At the Nairobi Securities Exchange, these artificial entities hold over 63.6% of the equity stocks compared to individual investors who hold 36.4%. This is associated to vibrant investors' equity and corporate bond trading at the NSE where local corporate trades more at 93.28% than local individuals at 5.23% (CMA Statistical Quarterly Report 1st Q, 2017). Insurance companies like the other institutional investors provides economic intermediation by enabling flow of funds from surplus units to deficit units through the process of issuing policy holders with insurance covers and investing the premium received in productive industries (Gatsi & Gadzo, 2013). The insurers face great risk at operational and strategic level which endangers their financial performance (Wani & Showket, 2015). Hence, this requires the firms to take calculated measures in order to survive in the competitive market.

In the USA variety of factors determines the financial performance of institutional investors even under regular business cycle (Zarnowitz, 1992). Perception of information relationship was found to be a comparative advantage to local fund managers who operated in the US stock exchange. According to Shukla and Van Inwegen (2005) knowledge on differential tax treatment, investment expenses, investment objectives and currency risk lead to superior returns for local managers investing in US relative to UK fund managers. Studies also showed that macroeconomic factors accounted for majority of the volatility in the GDP and performance of firms. In a study carried out by Burca and Batrinca (2014), it was established that financial leverage, company size, growth of written down premiums, underwriting risks, retention ratio and solvency margin were among factors influencing financial performance of Romania insurances companies. In a related study in the US by Bodie, Kane and Marcus, (2009) on financial performance of institutional investors, it was further construed that to increase the performance and reduce the risk in an overall investment portfolio, one ought to or should combine investments that are non-correlated with one another.

Like other countries of the word, Ghana has also been experiencing influx in financial performance of insurance companies as a result of internal and external environment. According to Gatsi and Gadzo (2013) financial performance of insurance companies were significantly influenced by leverage, tangibility, liquidity, risk and premium growth which were firms' specific characteristics. The critical macroeconomic determinant was general inflation in the country. The studies further implied that factors like firm size, age, GDP and exchange rate had statistically insignificant relationship with financial performance of Ghanaian insurance companies.

In Kenya, financial performance is said to be influenced by internal and external environmental factors. Internal factors are those specific variables that are within the control of an industry while external factors are those variables that are beyond the control of industry sectors. A study done by Ndung'u (2012) on developments in

Kenya's insurance industry sector revealed that financial performance was adversely affected by lack of adherence of policies and standards that are formulated by the governing and regulatory authorities. An inquiry done by Mwangi (2017) concerning the effect of macroeconomic variables on financial performance of insurance companies in Kenya found that macroeconomics had contributory effects on the financial performance and the economy of a country. Notwithstanding the environmental scanning for the determinants of financial performance of insurance firms in Kenya, psychology of the minds of key corporate personnel impact on growth and expansion of these companies. Profitability as a measure of return on assets is determined by how directors and managers consider and make investment decisions. Kimani (2011) did a research on behavioural factors influencing investors' choice of securities at the Nairobi security exchange and established that there were several human biases in choice of stocks by both individual and institutional investors.

Several studies done in developed countries reflected that financial performance of institutional investors was affected by variety of factors ranging from macroeconomics, behavioural attributes, environmental and internal factors. Developing and undeveloped nations have also faced similar threats and challenges. Well said these factors are variety with different magnitude on the profitability of firms. The effect of these factors needed to be examined so as to assist the decision makers come up with strategies for handling the most significant ones.

1.1 Statement of the Problem

There have been serious challenges facing insurance companies in Kenya which have resulted to a steady decline in their financial performance. In the last three years the ROA of the insurers' industry (general business) show a declining tendency as follows; Year 2015 of 1.81, Year 2016 of 1.20 and Year 2017 of 0.9 while that of long term business indicates irregular trend (https://www.ira.go.ke). The insurance growth and penetration rate have also remained constant at 3% over a number of years compared to average of 3.8% in Africa (Financial Standard, 2015). This has multiplier adverse effects on the financial performance of insurance companies whose main goal is to maximize on their customers ' net premiums, commission on subscription and investment earnings. The poor performance has resulted into loss of trust among clients forcing insurance companies to maintain cash for transaction reasons, form mergers and other types of corporate restructuring. Ten insurance companies have in the past been placed under statutory management or liquidation (Kariuki, 2017). This is a high collapse rate from the insurance industry in relation to the fifty five registered insurance companies. The effect of downturn of the companies has further resulted to increased levels of unemployment, staff turnovers, reduced employee morale and reduction of money saved by investors in insurance products.

The Government of Kenya has done a lot in development, expansion and promotion of insurance industry. It established insurance regulatory authority (IRA) which formulates policies and standards, licenses all prayers and protects the interest of

policy holders and beneficiaries. It has also set up policy holder compensation fund (PCF) to safeguards insurers' premiums and guarantees them of payments of sum assured or insurance claims in the event of any of the company winding up. Despite the government's efforts to encourage and control insurance businesses, their financial performance still remains dismal. This research seeks to evaluate influence of selected variables linked to risk perception, macroeconomics and investment portfolio choice that on the performance of insurance companies listed at the NSE. This would help insurance companies to strategize in order to achieve their financial goals of profitability and wealth maximization.

This study was guided by three null hypotheses.

H_{01}: There is no statistically significant influence of risk perception factors on financial performance of insurance companies listed at Nairobi Securities Exchange, Kenya.

H_{02}: There is no statistically significant influence of macroeconomic factors on financial performance of insurance companies listed at Nairobi Securities Exchange, Kenya.

H_{03}: There is no statistically significant influence of investment portfolio choice on financial performance of insurance companies listed at Nairobi Securities Exchange, Kenya.

2. Literature Review

There are three important theories that have laid foundation for this research study. Firstly, Harry Markowitz advocated the concept of modern portfolio in 1952. The theory is suggestions of mathematical framework for assembling an asset portfolio in to order maximize the expected return for a specified risk level. Modern Portfolio Theory (MPT) assumes that investors are risk-averse and therefore they would wish to avoid those investments whose risks are highly uncertain. According to Omisore, Yusuf and Nwufo (2012) supposing an investor is given two portfolios offering the same anticipated return, he would prefer the less risk one. Markowitz also depicted that an investor could decrease portfolio risk merely by holding combinations of instrument that are not absolutely positively correlated. Other scholars like Brennan, Lo and Nguyen (2007) , (Bodie, Kane, & Marcus (2009) argued that simply putting a diversified portfolio of non-correlated investments can provide the highest returns with the least amount of volatility given that the risk of loss in future trading can be substantial and an investor could potentially lose more than the initial investment.

Richard Thaler (1974) criticized MPT as not being an ideal investment tool as its financial market model does not represent the true world condition. The risk, return and correlation measures used by MPT are based on expected values. MPT also tries to model risk in terms of the probability of losses but it does not clarify why such losses could happen and therefore investors are stuck with estimating important parameters precisely for the industry. Most classical investors would regard MPT for its consistent

support of investment portfolio choices where it gives guidelines to those who wish to maximize their returns at the lowest risk possible.

Professor Eugene Fama was also credited for his establishment of the Efficient Market Hypothesis in the 1960s. The theory stated that asset prices completely represent all accessible data directly suggesting that it is impossible to consistently beat the market on risk-adjusted model. This implies that stock market prices always respond to fresh data and changes in discount rate where the latter may be predictable or unpredictable (Bodie, 2009). The theory asserts that stocks are always trading at fair value making it difficult for investors to either purchase undervalued stocks or sell inventories at inflated prices. This means that there is no single investor who may derive excess returns from investment in securities by doing prudent speculations at the securities exchange. Researchers such as Shikuku (2014) discovered that the overall market cannot be outperformed by professional stock choice or market timing and that the only way an investor can achieve greater yields is by pure luck or by purchasing riskier investments.

EMH indicates that stock prices on the security market already factors all the potential risks associated with the micro and macro environment but the theory does not explicitly suggest the extent to which the variables affect financial performance. The Weak form hypothesis assumes that security prices reflect all previous data accessible to the public and that excess returns cannot be achieved by technical analysis. The EMH's semi-strong form states that prices represent all previous and current data accessible to the public and fundamental analysis might not help much in prediction of stock prices. The strong EMH form presumes that all past, current and personal data is fully reflected in present inventory prices. It argues that market, non-market and in-house data are all factored into security prices and no one has monopoly access to appropriate data. It presumes an ideal market and concludes that there is no one who can constantly achieve surplus yields. Scholar like Kenneth French (2012) strengthened the EMH confirming that the distribution of abnormal returns from US mutual funds was very comparable to what would be anticipated if fund directors did not have any skills. Generally, stock trading was deemed to a venture for the resourceful investors who should expect or not expect returns at any given time period. Since macroeconomic factors are beyond the control of the industrial sector then should investors classify the aggregate determinants of financial performance to acts of nature? The present study would suggest these influences and make a generalization.

Samuelson agreed to Fama's proposal that market efficiency was a simplification of world situations that would not always be true and that for most individuals the market was practically inefficient for investment purposes. The main criticism of the market hypothesis was observed when testing the EMH where either the market is inevitably inefficient or the asset pricing system used to evaluate market efficiency is inaccurate. The efficient market hypothesis needs to be modified to embrace rational expectations beyond the ordinary utility maximizing agents. There is belief that average

population is right (even if no one is) and the agents update their expectations properly whenever fresh appropriate data appears.

Contrast to classical theorists, Reality has shown that investor behavior is far more dynamic than quantitative action by rational decision-makers seeking to maximize their goals and objectives. There are three schools of thought; firstly Economists focus on the rationality of investor's decision-making. Secondly, Sociologists explain investor behavior by investigating investors' social environments. Lastly, Psychologists concentrate on investor's individual characteristics. However, all of them end up discovering anomalies in individual and institutional investor behavior as well as proof against financial theory that all investors are presumed to be economically rational and utility-maximizing agents.

Behavioral finance is the study of psychological influence of financial practitioners' conduct and their impact on securities market (Sewell, 2005). Bernstein (1996) notes that there is evidence to show repeated patterns of irrationality, inconsistency and incompetence in the way human beings arrive at decisions and choices when faced with uncertainty. Behavioral finance is of concern because it helps clarify why and how markets might be inefficient. Two brilliant psychologists Amos Tversky and Daniel Kahneman outlined three fundamental ideas used by investors when making decisions in complicated uncertain investment settings in 1974: Representativeness, Anchoring and Over-confidence. They acknowledged that under such situations, people often tend to deviate from rationality and apply mental short-cuts even when relevant information is collected and objectively evaluated. They also launched heuristic biases: a judgmental attribute in which an individual evaluates the frequency of courses or the likelihood of occurrences by the ease with which appropriate instances come to mind. Heuristic impulses results into systematic behavioral biases. Behavioral factors were then those influences related to personal characteristics, social environments and psychological views of a particular investors or financial analysts. In essence, investors' attitudes towards the inherent risks in the specific assets do not largely depend on the fundamental and the technical analysis but on the investors' mental faculty at that particular time. This theory concerns investors ' attitude thus comparing the impact of risk perception on insurance firms' economic results.

Majority of scholars have found that people tend to make decisions based on a general trend of events in the market. Empirical study by Barberis, Huang and Santos (2001) found out that investors presume the average statistical laws and try to purchase winning stocks but avoid stocks that have performed poorly in the latest past. Investors purchase more shares when a company reports improved earnings in subsequent quarters in a row even when prices are high in anticipation of a high long term earnings growth rate. In his research, Murumba (2012) discovered that return is a significant variable and that it has a direct connection as the final measure of an investment. The higher the return the more investors would make a decision to invest in a particular security. According Shukla and Van Inwegen (1995) in their study it was hypothesized

that local knowledge and contacts lead to superior returns for local investment managers relative to foreign manager. The study examined the effectiveness of UK open end investment managers (foreigners) investing in the US relative to US open end investment managers (locals) investing in the US. Variables considered included differential tax treatment, investment expenses, investment objectives and currency risk. They found that UK mutual investments managers who invested in the US performed worse than US counterparts using domestic funds. The conclusions drawn was that information/relationship disadvantages and fund size contributed to the poor performance. Investors basing on this overall concepts form judgments considering patterns of events that are simply random in data and not full representative of the facts over long period of time.

At time individual make decisions about an appropriate market value of securities based on numerical prediction using readily accessible information. They create estimates beginning from an original value (the anchor) which is adjusted to give the final response. The anchor may be suggested in terms formulation of a model or it may be a partial computation of outcomes. According to Kahnman and Riepe (1998) as noted by Kimani (2011) some investors usually use the purchase price as a reference point and react to changes in prices relative to the initial purchase price. Prices of today are normally determined by those of the past (Shiller, 2004). Anchoring principle can lead investors to expect the prices of stocks to appreciate and trade in a defined range or company's earnings to reflect the historical trends. This might cause a possible under reaction to trend changes. Investors therefore form opinions about an asset purchase or sell and they become unwilling to change their mindset despite new information that might have a significance impact and is contrary to what they presently believed. When the market price trends are rising and going down investors are optimistic and pessimistic hence influencing investment setting and decision making positively and negatively respectively. Empirical studies have also shown contradicting results that funds which perform well or poorly in the previous year tend to continue performing well or poorly in the following year or period and that investors' timing of returns is negatively related to fund performance, (Tony Chieh-Tse Hou, 2012).

Perception of overconfidence is a fundamental notion that indicates investors are unwilling to change investment choices on the assumption that using their understanding and predictive abilities they can time the market. Subrahmanyam (2007) suggested a security market theory based on investor overconfidence in the accuracy of personal data and partial self-attribution resulting into modifications in the confidence of shareholders as a function of their investment results leading to market under reactions and overreactions. According to the study by Evans (2006) and another carried out by Allen & Evans (2005) overconfidence resulted to excessive trading and financial analysts were adversely affected to revise their previous assessment of company's likely future performance even when there was strong evidence that their previous assessment was incorrect. Investors are ordinarily overconfident in their own abilities while financial experts are overconfidence in the area of their specialization.

Odean (1999) also showed excessive general quantity of trading in equity markets and one possible explanation was overconfidence. Experimentally, Camerer and Lovallo (1999) discovered that excessive confidence and optimism lead to unnecessary company entry.

The advocates of prospect theory Kahneman and Tversky (1979) assessed the inadequacies described by the expected utility theory as a descriptive model of risk-taking decision-making. Kahneman and Tversky (1979) described how behavioural factors influence risk tolerance in investment choices. Empirically, they discovered that individuals under weigh results that are only probabilistic compared to results that are acquired with certainty and that individuals usually discard parts that are shared by all prospects under consideration. According to prospect theory value is assigned to profits and losses rather than to final assets and probabilities are substituted by weights of choice (Plous, 1993). The value function is defined as deviations from a reference point usually concave for profits (implying risk aversion) and frequently convex for losses (risk acceptance) and usually steeper for losses than gains. In general, decision weights are lower than the corresponding probabilities except in the low probabilities range.

Mostly investors are found to be more distressed at the prospect of losses than they are happy on achieving corresponding profits. This notion referred to as the loss aversion has an inverse effect on decision-making resulting in bad business results. These prospect variables concern an anticipated state of mind that affects investment decision-making. Thaler (1980) stated that there are conditions in which customers behave in a manner incompatible with economic theory and he suggested that the prospect theory of Kanneman and Tversky be used as the grounds for an alternative theory of description. The paper introduced three notions of investment decision making: Mental accounting, Regret aversion and Herding.

Richard Thaler (1980) suggested that financial decisions should be based on rational calculation of their effects on overall wealth position. According to Tversky and Kahneman (1981) mental accounting was a psychological principle that governs the perception in making decisions. In this view investors categorize securities into different mental compartments or accounts where each is evaluated separately. Thus investor assessment of probabilities and results produces predictable preferential changes when the same issue is framed in distinct ways. This greatly affects financial performance of different investors thus taking different investment options. This clearly indicates that mental accountings do impact on firms' financial performance. By integrating loss aversion and tight framing into two asset-pricing frameworks, Barberis and Huang (2001) contrasted two types of mental accounting: individual inventory accounting and portfolio accounting. The former succeeded more. Mental accounting was the collection of cognitive operations that people and families used to organize, assess and monitor economic activities.

Investors at other times regret on continually holding a losing stock for his/her speculative purpose. According to Fogel and Berry (2006) regret aversion was as a result of holding a losing stock too long and selling a winning stock too soon. Fama

(1999) proposed that proof existed on the exchange markets of the disposition effect that led to the sale of lucrative stocks too quickly and the retaining of losing stocks for too long. Veronesi (1999) provided a vibrant, reasonable balance expectations model of asset prices in which among other characteristics prices overreacts in good times to bad news and under reacts in bad times to excellent news. He showed that a frequently observed but unexpected adverse correlation existed between perceived risk and perceived benefit.

Investment decision makings are to a larger extend skewed especially when more investors group and act together without a planned direction. This behaviour was borrowed from animal species which group together in different times and seasons. As per Robert Shiller (2004) large stock markets have got a common trend starting and ending with frenzied buying (bubbles) or selling (crashes). In herding model, it is assumed that investors are rational but only have partial information about the economy. According to the model when few investors buy some type of assets; this reveals that they have positive information about them which motivates other investors to buy the same asset. Though this is a rational decision it may mistakenly lead to high asset values since the first investor may by chance made an error (Shiller, 2004). Wermers (1999) researched herding by mutual fund executives and discovered the largest concentrations in trading of growth-oriented assets as well as in trading of small stocks. Hong et al. (2000) modelled that there were two groups of bounded-rational agents who populated a market: News-watchers' and' momentum traders' and who result in brief horizons response and lengthy horizons overreaction respectively. In creating positive feedback, institutional investors traded more than individual investors and thus institutional herding rates were found to be more than individual investors ' herding rates (Nofsinger & Sias, 1999).

Gregory and Whittaker (2007) in their research observed that investment managers search for suitable properties is conducted in an inefficient marketplace where data limitations on risk and return analysis can present fundamental problems to the management of the investment. Moreover, in the property portfolio the switching of investments among assets is complicated by high transfer costs which need to be considered in the setting of policy. Investment is not just about selecting stocks according to Cass and Stiglitz (2011) but about choosing the correct mixture of stocks to distribute one's nest egg. Omasete (2014) conducted a separate research to determine the impact of risk management methods taken by Kenyan insurance companies on operation results. Risk identification was discovered to be the most important factor affecting financial performance followed respectively by risk mitigation, execution of risk management program and tracking and risk assessment and evaluation. This research found that the implementation of risk management procedures and the economic performance of insurance companies in Kenya have a favourable connection.

Macroeconomic factors relate to aggregate variables that are outside control of an organization and affect the economy as a whole. They limit firms in attainment of their financial goals and objectives. They include effects of unemployment, inflations, interest

rates, foreign exchange rates, taxation and GDP. Roll and Ross (2012) anticipated a connection between portfolio yields and a single asset returns through a linear combination of many autonomous macroeconomic factors using Arbitrage pricing theory. An asset pricing model based on the idea that an asset's returns can be predicted using the relationship between that same asset and many common risk factors. Most institutional investors have been discovered to keep a conservative investment style, attempting to combine the greatest yield with the smallest investment portfolio risk rate. In practical terms this results in the selection of market areas which fit the criteria of the investment policy. According to a research undertaken by Gruber (2012), the research findings show that a reduction in interest rates should reduce the price of investment relative to the future yield and as a consequence scheduled marginal capital investment projects may be worthwhile. A firm will only invest if the discounted yield exceeds the cost of the project.

Merikas, Andreas, George and Prasad (2004) identified that the most important macroeconomic variable was that related to classic wealth maximization criteria. They found out that other environmental criteria like coverage in the press, statements from politicians and government officials and political party affiliation were totally unimportant to most Greek stock investors on the Athens Stock Exchange. Baker, Hargrove and Haslem (1977) discovered that the risk-to-total return relationship was more beneficial but lower than the risk-to-capital appreciation relationship. It had been reduced by the negative risk-dividend relationship. As dividends and capital appreciation together sums to total return therefore the presence of a positive risk-total returns relationship even after negative risk-dividends means that the positive association between risk and expected return appears to be due to the impact of capital appreciation in investor expectations of total return. Also it means that lower risk investors seek high dividends while higher risk investors seek higher capital appreciation in growth stocks. Nagy and Obenberger (1994) studied the factors that were involved in the individual stock investor influence and also examined the wealth maximization criteria which proved to be the most influencing factor in Individual Investor Behavior.

Investing in different investment options improves a company's chances of earning a good return although not guaranteed because of the uncertain environment. Gregory at el (1997) analysed risk in a portfolio of various individual stocks and found it to be less than the risk inherent in holding any of the individual stocks as long as the risks of the different stocks are not highly positively associated. By considering a portfolio that holds two risky stocks: one that pays off when it rains and another that pays off when it doesn't rain. Sharpe (1963) shows that a portfolio that contains both assets will always pay off regardless of whether it rains or shines. Adding one risky asset to the two securities could reduce the overall risk of an all-weather portfolio. Building an effective investment portfolio allows the company to diversify its hazards and thus improve the portfolio's earning capacity (Oyatoye & Arileserre, 2012). According to Hendricks and Patel (2012) in their research they found out that

investment in mutual funds is some-what not very much risky as investment in stock market. Mutual fund schemes are designed for smaller investors.

In Kenya, Kamanda (2000) evaluated the equity portfolios held by Kenyan insurance companies over the period January 1998 to December 1999 and observed that majority of the insurance companies' maintained poorly diversified portfolios and the market portfolio outperformed the insurance industry portfolio. He also observed that the market rate of return for the Nairobi Securities Exchange was less than the risk free rate during the study period. Karimi (2013) carried out a research to assess the connection between the selection of investment portfolio and the profitability of investment firms listed at the Nairobi Securities Exchange. The research discovered that investment involved selecting the correct stock mix to distribute one's nest egg. It also expounded that the approach of investment managers is to invest funds in different assets so as to produce optimum yields while minimizing risks. The study also concluded that investment projects which tend to promise both high returns and a high risk are not attractive for most institutional investors. The study further revealed that risk assessment of the investment opportunities has an effect on performance.

Kamwaro (2013) conducted a survey to determine the effect of selection of investment portfolio on investment firms ' economic results. The research discovered that investment in bonds, real estate, equity, mutual funds and company size has a positive impact on the economic results of investment firms listed in the NSE. Njiiri (2015) established the association between investment and economic results of insurance companies in Kenya. The research found out that insurance companies in Kenya invest their money in three common investment fields: property and estate, deposit certificates and government securities. Investments in real property, deposit certificates, public securities, corporate bonds and stocks have a significant effect on insurance companies' economic performance as they account for more than 50% of the economic performance variance. However, there were other variables outside the research study that accounted for the remaining 47.6% of the variance on the insurance companies' economic results.

Oyatoye and Arileserre (2012) stated that as it is crucial for insurance industry to survive and develop. Therefore, investments in different assets should enable insurance companies to offset their possible underwriting losses and make a considerable profit. The company's financial performance can be assessed by its risk and profitability outcomes that collectively determine the value of the business (Pi & Timme, 1993). Investment choices that increase risks decrease the company's value while those that boost profitability enhance the company's value. Risk and profitability are two key components of an enterprise concern.

A corporation's financial performance is of paramount significance to many stakeholders and people such as executives, lenders, buying agents, prospective investors and investment analysts (Kamwaro, 2013). The financial statements of the company are the primary sources of data used by these stakeholders to assess the performance of the firm. Financial performance evaluation through the evaluation of

financial statements is based on previous and present information. Any choice to be taken as a consequence of such an evaluation of results can only influence the future as the past is gone or sunk (Kamwaro, 2013). When analysing financial statements, the purpose of the analysis must be taken into account as different analysts are interested in different aspects of the performance of a corporation and no single analytical technique or type of analysis is suitable for all situations.

In general, majority of studies on factors affecting financial performance of firms in the securities exchange have been predominantly done in the developed markets: USA, U.K, EU and Japan. The notable influencing factors being macroeconomic factors which cover wealth maximizing criteria of the investors, monetary and fiscal policies while socio-cultural, legal, political, and technological risk factors have insignificant effects. Other researchers have shown that investors do not follow consistent and systematic approaches in investment decision making but they are influenced by behavioural errors and biases. This present research aims to bridge the gap by exploring selected variables; risk perception, macroeconomics and investment portfolio choice that affect the financial performance of listed insurance companies in Kenya. It is considered to be a hybrid type of research that would determine the effect of these predictor variables on the economic performance of insurance companies in Kenya.

3. Material and Methods

The study used descriptive research design. The target population was seventy eight (78) respondents. This included sixty (60) board members, twelve (12) senior executives and six (6) investment consultants. Thirty six (36) respondents from the target population were selected as a sample using stratified sampling technique. They consisted of eighteen (18) respondents given by thirty percent (30%) of (60) sixty boards of directors chosen on proportionate basis. Twelve (12) senior managers and six (6) investment advisors for the six listed insurance companies were engaged on census basis. Out of 36 respondents, only 30 respondents filled and returned the questionnaires constituting a response rate of 83.3%. Primary data was gathered through the use of structured questionnaires that were personally administered to the participants by dropping and subsequently picking after completion. Data analysis sheet was used to collect the secondary data from the published financial statements available in the respective insurance companies' and regulatory authorities' website (IRA). Descriptive data analysis involving calculation of frequencies, percentages and mean was done. Quantitative data analysis was established through Pearson's product moments correlation, standard regression analysis and ANOVA statistics. Multiple regression Model was to be developed given by:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \tag{1}$$

4. Results and Discussions

4.1 Summary Descriptive Statistics

Descriptive statistics was carried out to assess whether the selected factors influence financial performance of insurance companies listed at the NSE. The perception of risk was found to influence financial performance of insurance firms. This was represented by mean average of 2.39 very close to the total value of 2 rounded off and 54.5% of the respondents who agreed that risk perception influenced financial performance of insurance firms. However, only a small proportion of 12.3% of the respondent disagreed with 33.2% who were neutral. The macroeconomic variables relatively impacted on the economic results of insurance firms listed at the NSE with a mean of 2.63. On average, the majority forty three (43) percent of participants agreed with the construction but only a tiny proportion of eighteen (18) percent of participants were opposed to the structure with 39% of the participants remaining neutral. The construction of the general investment portfolio choice variables had an impact on the economic performance of insurance companies listed at the NSE, Kenya with an average mean of 2.41. This was evident from the reality that on average 55% of participants agreed with the structure, 30% of participants were neutral, while only a fraction 15% of the participants were against the structure.

Table 4.1: Summary Descriptive Statistics

Variables	1 %	2 %	3 %	4 %	5 %	Likert Mean
Risk Perception	19.4	35.1	33.2	9.0	3.3	2.39
Macroeconomics	14.6	28.8	38.8	14.6	3.2	2.63
Investment Portfolio Choice	19.8	35.6	29.8	13.2	1.4	2.41

Key: 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree.

4.2 Summary Inferential Statistics

The Univariate regression analysis was also done to determine the variability of financial performance as occasioned by each individual independent variable. The results showed the R^2 for risk perception was 0.196. This means that 19.6% of the differences in financial performance are associated to a unit shift in risk perception. The remainder of the shift (80.4%) can be ascribed to other variables not included in the model. The 0.443 correlation coefficient meant that a moderate positive relationship exists between investors' view of risk and economic performance of insurance companies. The ANOVA results were; an F-value of 6.317 and a p-value of 0.000. The value was less than 0.05 implying that the general model is important and can be used to forecast the economic performance of insurance companies listed in the NSE, Kenya. The researcher failed to accept the null hypothesis that risk perception had no statistically significant influence on financial performance of insurance firms.

The model is given as:

$$Y= 3.11 + 0.257X_1 \qquad\qquad (2)$$

Where;
Y= Financial Performance;
X_1 = Risk Perception.

The R^2 for macroeconomic factors was 0.182. Therefore, a unit shift in macroeconomic variables explains 18.2% of the disparity in economic performance of insurance companies. The rest of the change (81.8%) can be attributed to other factors not in the model. The 0.425 correlation coefficient means there is moderate positive connection between macroeconomic variables and insurance companies ' economic performance. The ANOVA results for the linear model were; an F-value of 6.317 and a p-value of 0.001. This value was less than 0.05 which meant that the overall model is significant and can be used to predict financial performance of insurance companies listed at the NSE, Kenya. The researcher drew conclusion to fail to accept null hypothesis that there was no statistically significant influence of macroeconomic factors on financial performance of insurance firms.

The model is given as:

$$Y= 4.09 + 0.381X_2 \qquad\qquad (3)$$

Where;
Y= Financial Performance;
X_2 = Macroeconomic factors.

Lastly, the R^2 for investment portfolio choice factors was 0.159. This means 15.9% of the variations in financial performance are explained by a unit change in investment portfolio choice factors. The rest of the change (84.1%) can be attributed to other factors not in the model. The correlation coefficient of 0.399 means that selection of investment portfolio and the economic performances of insurance companies have a moderate positive association. The ANOVA results for the linear model are; an F-value of 5.474 and a p-value of 0.001 which is less than 0.05 meaning that the overall model is significant and can be used to predict financial performance of insurance companies listed at the NSE, Kenya. The researcher henceforth failed to accept the null hypothesis that there is no statistically significant influence of investment portfolio choice on financial performance of insurance firms.

The model fit is given as:

$$Y= 3.32 + 0.243X_3 \qquad\qquad (4)$$

Where;
Y= Financial Performance;
X_3 = Investment Portfolio Choice factors.

The coefficient of determination for the summary model was $R^2 = 0.749$. The results of the study explained that 74.9% of the changes in economic performance of insurance companies listed in the NSE are jointly attributed to the changes in risk perception, macroeconomics and investment portfolio choice factors. Only a fraction of 25.1 is attributed to factors outside the model. The ANOVA test statistics were: an F-value of 120.16 and p=.000 at 27 degrees of freedom. This value was less than 0.05 demonstrating that there is an imperative influence on the economic performance of insurance companies listed at the NSE caused by risk perception, macroeconomics and investment portfolio choice variables. The multiple regression equation was:

$$Y = 0.051 + .087X_1 + .230X_2 + .179X_3. \tag{5}$$

Table 4.2: Multiple Regression Coefficients

	Un-standardized Coefficient		Standardized Coefficients		
	B	Standard error	Beta	t	Sig
(Constant)	0.051	0.041		3.294	.000
Risk perception	0.243	0.023	0.081	5.400	.000
Macroeconomic factors	0.087	0.021	0.221		
Investment portfolio choice	0.179	0.025	0.173		

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), Risk Perception, Macroeconomic Factors, Investment Portfolio Choice.

5. Recommendations

The following are recommendations of the study:

1) Awareness and exposure need to be created by regulatory authorities such as NSE, IRA, and A.K.I to all investors concerning psychological, social and personal characteristics (mental short cuts) that influences financial results of listed firms to help them make prudent investment decisions. This could be done by arranging convenient and affordable training, workshop or programs to individuals and institutional investors.

2) Policy is recommended to the government to create conducive environment for industrial growth through regulating macroeconomic variables of unemployment, inflation, interest rate, GDP and taxation since they are beyond company control. Exposure training by CMA and NSE is also hereby recommended to individual investors to effectively compete in stock market to make it more vibrant.

3) All institutional investors such as investment firms, banks, insurance firms and mutual funds should develop a hybrid model based on diversification strategies to help in evaluation and prediction of security market trends in order to maximize their returns at minimum risk level.

4) A similar research can be carried out covering an extended time period like five to 10 years to draw a general trend on effect of the selected factors on financial

performance of insurance companies and or other companies in the different industrial sectors of the country.

6. Conclusion

Descriptive results using frequencies, percentages and mean showed that all the independent variables of risk perception, macroeconomics and investment portfolio choice had an influence on financial performance of insurance companies, Kenya. Accordingly risk perception factors showed higher tendency followed by investment portfolio choice and macroeconomic factors respectively. The results of inferential statistics test failed to accept all the null hypotheses since the p-value was less than 0.05. This implies that the selected variables had statistically significant influences on financial performance of the insurance firms.

The results also indicated that 74.9% of the Changes in the financial performance of listed insurance companies, Kenya are jointly explained by change in risk perception, macroeconomics and investment portfolio choice factors. However, if the independent variables were considered in isolation, the selected factors have a small contributory influence on the financial performance of insurance firms with risk perception, macroeconomics and investment portfolio choice accounting for 19.6%, 18.2% and 15.9 % of the variance in financial performance respectively.

6.1 Implications to Research and Practice
In the old times individuals had little knowledge on investments. They ventured into businesses as sole traders, partners and shareholders dealing with limited forms of ordinary manufacturing and merchandizing activities. The business community experienced challenges in terms of insufficient funds for expansion and lacked better skills for running affairs of the enterprises. Necessity has seen emergence of security markets where companies could float their shares to raise funds for establishment, diversification and increasing their scale of operations. The government also got involved to regulate the trade in order to afford consumers maximum protections through developing policies, rules and guidelines. These made individual and institutions to feel safer and to actively trade in the shares of the listed companies in addition to their core business of manufacturing, merchandizing or just offering services

Due to the stiff competition along and across industrial sectors investments by all parties has attracted adverse challenges construed to be both natural and sometimes manmade. Importantly to note is that the variables that affect investment decision making remains to be the key determinants of its financial performance success. With more emphasis on government involvement in trade and the development of regulatory authorities, some environmental factors such as macroeconomics affecting economic results of firms including insurance companies could be reduced. The other factors are human related involving games of mind and can be fairly handled by developing a

decision model. The today's researchers need to customize those decision models to the changing dynamics of culture, demography, technology and economic trends.

References

Allen, D., W. & Evans, A., D. (2005).The bidding and overconfidence in experimental financial markets. *Journal of Behavioral Finance*, 6(3),108-120

Barberis, N., Huang, M., & Santos, T. (2001). Prospect theory and asset prices. *Quarter Journal of Economics, 116*, 1-53.

Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational research: determining appropriate sample size in survey research. *Information Technology, Learning and Performance Journal, 19*(1), 43-50. Retrieved August 6th, 2018

Basu, S. (1977). Investment performance of equity stocks in relation to their price-earnings ratio. *A Test of Efficient Market Hypothesis, 32*, 663-682.

Battauz, A., De Donno, M., & Sbuelz, A. (2009). Risk tolerance level for insurance companies, 289-300.

Bennet, E., Selvam, M., Vivek, N., & Shalin, E. (2012). The impact of investors' sentiment on equity market: evidence from the Indian stock market.

Bernstein, P. L. (1996). *Against the gods: The remarkable story of risk.* New York, USA: John Wiley & Sons.

Bodie, Z., Kane, A. & Marcus, J. (2009). *Investments.* New York, USA: McGraw Hill.

Brennan, T., Lo, A. & Nguyen, T. (2007). Portfolio theory. *A Review to Appear in Foundations of Finance.*

Burca, M. & Batrinca, G. (2014). The determinants of financial performance in the Romanian insurance market. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 4*(1), 299-308.

Camerer, C. & Lovallo, D. (1999). Overconfidence in excess entry: an experimental approach. *American Economic Review, 89*(1), 306-318.

Fama, E. (1965). The Behavioural of stock market prices. *Journal of Business, 38*, 34-105.

Gatsi, J. G. & Gadzo, S. G. (2013). Firm level and macroeconomic effects on financial performance of insurance companies in Ghana. International. *Journal of Business Administration and Management, 3*(1), 1-9.

Gregory, A., Matatko, J. & Luther, R. (1997). Ethical unit trust financial performance: small company effects and fund size effects. *Journal of Business Finance and Accounting, 24*(5), 705-725.

Hellman, T. & Puri, M. (2000). The interaction between product market and financing strategy: the role of venture capital. *Review of Financial Studies, 13*(4), 959-984.

Hendricks, C. & Patel, S. (2012). Investments in mutual funds. *The Journal of Business, 57*(1), 134-137.

Hou, T. C.-T. (2012). Return persistence and investment timing decisions in Taiwanese domestic equity mutual funds. *Managerial Finance, 38*(9), 873-891.

Kahneman, D. & Tversky, A. (1979). Prospect theory: an analysis of decision making under risk. *Econometrica, 47*(2), 263-291.

Kamanda, N. S. (2000). An empirical evaluation of equity portfolio held by insurance companies in Kenya. *Unpublished MBA Project, UON*.

Kamwaro, E. K. (2013). The impact of investment portfolio choice on financial performance of investment companies in Kenya. *Un-Published Journal, UON*.

Karimi, D. (2013). Relationship between investment portfolio choice and profitability of investment companies listed in the Nairobi Securities Exchange. *Unpublished Project, Kenyatta University*.

Murumba, K. (2012). Performance measures for mutual funds' performance. An emphirical review. *Unpublished project UON*.

Mwangi, G. (Summer 2017). Effects of macroeconomic variables on financial performance of insurance companies in Kenya. *Unpublished Research Project, USIU-Africa*.

Ndung'u, N. (2012). Developments in Kenya's insurance industry sector. *Launch of Continental Reissurance Brand and Products.* Nairobi Office, Nairobi.

Njiiri, V. (2015). the relationship between investment and financial performance of insurance companies in Kenya. *Un-published Research Project, UON*.

Nofsinger, J., & Sias, R. (1999). Herding and feedback trading by institutional and individual investors. *Journal of Finance, 54*(6), 2263-2295.

Odean, T. & Oslen, R. (1998). Behavioral finance and its implications for stock prices volatility. *Financial Analysts Journal, 54*(2), 10-18.

Omisore, I., Yusuf, M., & Nwufo, C. (2012). The modern portfolio theory as an investment decision tool. *Journal of Accounting and Taxation, 4*(2), 19-28.

Oyatoye, E. O. & Arilesere, W. O. (2012). A non linear programming model for insurance company investment portfolio management in Nigeria. *International Journal of Data Analysis Techniques and Strategies 2012, 4*(1), 83-100.

Pi, M. & Timme, S. (1993). A study of monthly fund returns and performance evaluation techniques. *Journal of Financial and Quantitative Analysis, 29*(3), 419-444.

Plous, S. (1993). *The psychology of judgement and decision making.* New York, USA: McGraw-Hill Inc.

Sharpe, W. F. (1963). A Simplified model for portfolio analysis. *Management Science, 9*(2), 277-293.

Shikuku, C. (2014). The effect of behavioral factors on individual investor choices at the Nairobi securities exchange. *Unpublished MBA Project, UON*.

Shiller, R. (1984). Stock price and social dynamics. *Brookings Papers in Economic Activity, 2*, 457-498.

Shukla, R. K. & Van Inwegen, G. B. (1995). Do locals perform better than foreigners? an analysis of UK and USA mutual fund managers. *Journal of Economics and Business, 47*(3), 241-254.

Thaler, R. H. (1974). The value of saving a life: a market estimate. *PhD Thesis*, University of Rochester.

Veronesi, P. (1999). How does information quality affect stock returns? Results from a dynamic model of learning, "CRSP Working Paper". *Journal of Finance*, 462.

Wani, A. A. & Showket, A. D. (2015). Relationship between financial risk and financial performance: an insight of Indian insurance industry. *International Journal of Science and Research*, 4(11), 1424-1433.

Zarnowitz, V. (1992). *Business cycles: theory, history, indicators and forecasting*. Chicago, USA: The University of Chicago Press.