FACTORS AFFECTING INVESTMENT CHOICES BY INSURANCE COMPANIES IN KENYA

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DECLARATION

Declaration by the Student

This research project is my original work and has not been presented to any other examination body.

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This research project has been submitted with my approval.

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ABSTRACT

Insurance companies as financial institutions play a significant role not only in the mobilisation of contractual savings but also in the efficient allocation of capital. Insurance companies depend on insurance premiums to raise money for their investments. Therefore, the need to develop a systematic and rational method of evaluating investment choices to maximise utility in the assets that they put their money in However, the choices on investment is affected by factors such as the market environment which influences the take up of investments being the micro and macro-economic factors that influence growth. This study therefore sought to establish the factors affecting investment choices by insurance companies in Kenya. The study was guided by the following specific objectives; to examine the effects of liquidity on investment choices by insurance companies in Kenya; to determine the effect of investment horizon on investment choices by insurance companies in Kenya; to assess the effect of risk appetite on investment choices by insurance companies in Kenya; and to examine the effect of profitability on investment choices by insurance companies in Kenya. The study applied the use of descriptive and longitudinal design. The study was conducted in insurance companies in Kenya. The study used the census approach to select all the 48 insurance companies in Kenya. The study then sampled six insurance companies that are listed in the NSE. The study covered a 5-year period, from 2014 to 2018. The six selected being the ones with high gross written premium in the industry. The study collected secondary data from insurance companies' websites, financial resort and IRA reports. Data analysis was carried out using STATA. Multiple regression analysis was performed to establish the association between the study variables. Correlation analysis and diagnostic tests were also performed. Presentation of the data was done by the use of tables. The study found that liquidity positively affects investment choices by insurance companies in Kenya; investment horizon positively affects investment choices by insurance companies in Kenya; risk appetite has a strong positive effect on the investment choices by insurance companies in Kenya and that profitability positively affects investment choices by insurance companies in Kenya. The study recommends management of insurance companies listed in the NSE should strive to achieve and maintain an optimal liquidity position that holds adequate cash/liquid resources for operational needs while the surplus liquid resources are invested. Listed insurance companies should have a well-maintained portfolio in order to achieve success. There is need for the companies to evaluate the various investments options available so as to ensure that the project chosen will give maximum value/profits.

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ACRONYMS AND ABBREVIATIONS

AKI	Association of Kenya Insurers
CMA	Capital Market Authority
GDP	Gross Domestic Product
IRA	Insurance Regulatory Authority
RBA	Retirement Benefits Authority

CHAPTER ONE

INTRODUCTION OF THE STUDY

1.0 Introduction

This chapter is an introduction of investments by insurance companies in Kenya; the background of the study brings out what has been happening in the insurance sector, statement of the problem highlights issue to be addressed, followed by objective and actual significance and importance of this study.

1.1 Background of the study

Insurance companies as financial institutions play a significant role not only in the mobilisation of contractual savings but also in the efficient allocation of capital. Mainly, insurance companies exist to reduce financial uncertainties as well as provide protection against insurable risks at the insurance company's own risk (Szyszka, 2011). One general characteristic of insurance operations is that premium receipt precedes claims or benefit payments. As a result, insurance companies have at any particular time keep cash that helps them in investments which will yield extra income as dividends, interests and realised capital gain. Thus, in the process of providing protection and other services, insurance companies hold or accumulate substantial amounts of assets, which they are capable of transferring from one sector of the economy to another (Cummins & Weiss, 2014).

There are a number of ways through which the insurance industries contribute towards efficiency and growth of country's economy. One of the ways is by improving economic allocation of risk and lowers the transaction cost. Secondly, it protects the assets that are in existent and through insurance, agents of the economy get financial

basis that is more stable. Thirdly insurance facilitate governance by holding assets that encourage mitigation of risk by exclusion of risk and warranties directly monitoring risks. Insurance can also act as a supplement and alternative financial support whenever there are losses in the economy which arise from bankruptcies, catastrophes and accidents (Berdin & Gründl, 2015).

Avram (2009) refers to the theory of universal investments as spending money now while expecting to have profits in the future. An organization is expected to have investment plans and goals so as to support its growth in any industry and to compete within its market. Insurance companies as investment vessels contribute in the growth of a country's economy; this is by them investing the funds received towards viable options and investment opportunities that have profitable returns ample enough to meet the risks that they shield their policyholders from. Hussein (2007) noted that what investors look out for in making investment decisions is expected profits, quick returns, stock marketability, past performances of organizations, government options in investments, and organized financial trade markets.

1.1.1 Insurance Companies

The insurance industry in Kenya is under the supervision and regulation of Insurance Regulatory Authority (IRA, 2017). The Kenyan sector is served by 48 insurance organizations, of which 23 are life insurers and 36 being non-life insurers (including personal accident and health insurance). As part of regulation the regulator has set a capitalization rule for insurance companies requiring general insurers to double their capital to Sh600 million and those in the life business to increase capital from Sh150million to Sh400 million (AKI Report, 2011).

The Kenya Insurance Act (2010) has restrictions regarding ownership of insurance companies, the act states that no individual can own more than 25% of organizations capital and no more than two thirds being foreign investment. There is also a proposed requirement to have the companies place 40% of the value of their property investments with the regulator and 30% of stock invested in also to be placed with IRA. Further the regulatory has proposed guidelines relating to the risk-based supervision framework allowing insurance companies a wider range of investment opportunities. The new rules will offer the option of investing up to 30% of their assets at the Nairobi Securities Exchange, 10% in real estate investment trusts and 5% outside the country. Insurers will also be allowed to invest in county government bonds. General insurer's investment in other companies is capped at 10%. The insurance companies are allowed to invest at least 20% in government securities, 65% in prescribed investments and the remaining 15% in investments of choice; this is according to the risk-based supervision model (AKI Report, 2011).

The insurance sector in Kenya has seen great growth amid a growing economy over the past few years; this is according to the 2017 World Bank group report. Kenya's financial services industry has contributed 10.1% of the GDP growth as compared to 3.5% ten years ago. There are several factors that contribute to this tremendous growth, some of the reasons are: adoption of different marketing channels that are more accessible and available to potential and existing clients. Innovation and acceptance of new technology that makes the processes more friendly, technology has really brought about great development and efficiency. Demographic changes, such that there is growth in the working-class age who are in a position to take up insurance covers (Kiragu, 2014).

Over the years Kenya's insurance sector has transformed significantly and greater penetration into the markets. Almost all insurance firms have their head office in Nairobi with a network of branches spanning the various counties within the country. IRA regulates and monitors the operations and performance of Kenya's insurance firms with an aim of maintaining a sober insurance industry at the same time protecting the interests of the policyholders. It is also mandated with encouraging growth and development of the industry for overall economic growth. There also exists the Association of Kenya Insurers (AKI) that is a membership body of insurance companies that works to affirm existence of good relations and dispute resolution amongst members. The essence of the insurance firms is to protect you against a sudden terrible loss by putting you back to the position you were before the loss. The presence of AKI and IRA guarantees protection and guidance in the industry towards growth and increase (AKI Report, 2011).

1.1.2 Factors Affecting Investment Choices

Investment choices can be viewed in two perspectives as being of great importance towards economic performance. The first perspective is the macro perspective for normal business cycles where they contribute for the majority of variations in GDP and in addition their magnitude acts as a crucial lead factor determining performance of the economy. Micro perspective plays a very important role towards the growth of individual organizations because they ensure that there is an increase in efficiency levels reducing unit cost incurred (Gatzert & Kosub, 2014).

Globally, there are several changes that have taken place in the insurance industry and recently there are a number of countries that have adopted the capital regimes that are risk based OECD markets and more countries are expected to embrace the same real

soon; some of the countries that have already embraced it are: Australia, Japan, Canada, Switzerland, South Korea, and US. The current trend in capital regimes which are risk based can affect the decisions and willingness of insurance companies to be involved in long term investments (OECD, 2016). Lack of certainties in macroeconomic is another challenge that insurance companies face globally and this challenge can be grouped into four. Most of the countries experienced the challenge of lack of employment opportunities because of the slow rate of recovery from the past financial crisis. Growth of insurance companies can be affected by this aspect and the fact that there is an increase in population of aging individuals (Mishkin & Eakins, 2012). There is also the tendency for insurance firms in developed nations to expand their territories to other emerging markets as they try to increase their yields. Insurance firms in developed nations find an opportunity to grow in emerging markets where there is an increase in the population of aging people and there is an increase in individual wealth. Nonetheless, the yield relate with risks, political as well as legal, this is because of the different regulatory standards and other uncertainties which include political (Zweifel & Eisen, 2012)

Assets and liabilities of insurance firms are affected by low rates of interest that run for too long. One impact of low rate of interest is that it lowers profitability through the generation of investment returns that are not sufficient, especially for those companies that invest in long term assets and fixed income security. Nonetheless, it lowers discounting rate. Therefore, when the rate of interest is low it negatively affects the insurance firms (OECD, 2015). Low interest rates have positive influence on investment returns of companies dealing with life insurance; this is the case in Germany, US and Italy, where saved products whose guarantee is high is sold in the

past suggest that one has a great share of life insurers overall portfolio (Swiss, 2012). A research on the association between interest rate guarantee, requirements for solvency and insurance company asset allocation was conducted by Schmeiser and Wagner (2014). They found that there is a tendency that investment strategies will be less risky if the interest rate is free of risk.

Hershman (2014) studied the impact of regulations on investment activities of a life insurer and concentrated more on the laws that were imposed in New York which in the past were applied restrictively. In his research he focused on determining how the regulations affected investment levels in corporate debt, real-estate, mortgage, and common as well as preferred stock. Findings were that from the attempt of the sector to liberalize restrictions that are of quality on corporate debt, the restriction had some limitations towards investment in low-grade bond aspects. Nonetheless, when this study was being conducted majority of the companies hadn't taken advantage of leeway provision for investing in securities which didn't meet the required earnings, the impact was seen as being small.

Insurance companies in developing countries have been faced with decreasing insurance premiums and this largely affects the level of income they earn since the investments are limited to the amount of money available. Some of the factors that have contributed to the worsening of this situation include high rate of unemployment; slower growth of the economy; because of financial crisis there is low income and competition levels have increased for business dealing with non-life. High levels of unemployment and slow growth affected the insurance compensation of workers which is a representation of a greater percentage of non-life market. In some of the countries,

pressure on premium growth was put down increase competition in motor insurance (OECD, 2013).

In Kenya the factors affecting the insurance industry include the cultural perception held by individuals whereby; insurance is at the end of the consumption line. People will first pay all their other expenses before considering taking up insurance other than the ones required by law like motor insurance (Mwangi & Murigu, 2015). The insurance firms focus on investment management which is the professional running of several securities and assets with the view of growing the investment portfolio on behalf of the interested parties. This is normally done in line with the expected goals and targets set. Insurance organizations carry out investment management with the aim of making profits at the same time safeguarding the welfare of the owners of the fund. Currently in Kenya there exists sixteen firms carrying out management of investments (RBA report, 2017). These funds are expected to run and manage the funds assigned to them in an efficient and profitable manner so as to ensure high competitiveness and ample returns.

The Kenyan industry is currently alive with mergers and acquisitions being public knowledge and also regulated by the authorities, the freedom of information allows for investor speculation and investing. Some of the insurance activities include portfolio management for derivative contracts and selection of portfolio investments. For insurers dealing with several products, rates of interest are different in different lines of business and both have risks that differ and relate with the subsequent expected returns. Each line of business is required to sustain itself without eating into each other's funds, this principle brought out a decision by the regulator to have clear separation of the business lines in the insurance companies. This is vital as it also helps to monitor the

performance of each line of business, which is also displayed in year-end financial reports by the insurance companies. Investment activities of the insurance company determine the solvency ratios which in turn addresses the risk faced by the company (Kimeu, 2014).

1.1.3 Investment Choices

Insurance companies have access to a variety of investment options in the market, deciding on appropriate investment model is a task that is to be taken seriously and needs a laid out plan (Ismail, 2013). Depending on the size of the insurance company a team or task force is created to address matters investments, this is a team that carries out research to ascertain the best investment models to adopt and run it through management. Larger organizations may opt to outsource the investment function as opposed to having one in-house or may have a combination of both in-house and outsourced investment functions, the overall goal being optimizing the company's investment portfolio (Taiana, 2012).

Managers need to apply technical and analytical skills to gauge and make the best investment decisions, decision tools are key in implementation of investment decisions. Application of decision tools ensures that there is merit to every decision that is arrived at and it is justified. Such a process also hedges the organizations from encountering unexpected losses that could have been avoided if not for poor decision making processes. Information which is readily available to use in the market is put to use to assist in forecasting and decision making (Ismail, 2013).

Sewell (2010) note that regular people looking to invest gather information from outside sources and current affairs in the market to arrive at a decision on investment

choice, whereas the more seasoned investors relied upon technical analysis and fundamental indicators to make decisions. Investors in any given market have access to information that is updated on a regular basis from the media, experienced participants and the government at large; from information or data collected they now need to make intelligent decisions that favor their interests which is not an easy task. Important information obtained includes stock statistics, market trends, industrial growth and other relevant indicators expected to influence investment business. There are also researches carried out by advisory institutions that provide valuable information to potential investors that are unbiased (Sultan, 2010).

Most institutional investors around the globe such as insurance companies invest the money they receive in various sectors in order to receive returns. The most common investment opportunities that are pursued by most of these institutions world over include investment in real estate, equities, treasury bills and bonds, deposits with banks, and certificates of deposits. For instance more than 80% of institutional investors' portfolio was invested in equities and bonds. Nonetheless, there is an emerging trend where most of the companies are deviating from bonds and bills and are starting to invest in other assets like real estate. The income earned by the institutions from these investments is largely positive in many countries despite the economic pressures that lead to economic instability in some countries (OECD, 2013).

According Harvey (2012) there are different types of investments that can be made by firms. Both individuals and companies can have investments. This may include stocks, mutual fund distributions, investment in Government securities, interest-bearing bank accounts, bonds, and other debt instruments. A firm may also opt to invest in rental property or real estate, or other assets owned for investment purposes. Insurance

organizations have the option of investing in short- or long-term investment choices. When determining the investment of choice, the company must do it in accordance with the expected demand for cash flow, generated income, premiums received and payouts expected.

1.2 Statement of the Problem

Investment managers and investors are the ones who make investment decisions. Most of the time, it is the investor who conducts the investment analysis using judgement or fundamental and technical analysis. It is common for decisions tools to be applied in supporting investment choices. The assumption is that market factors and structure of the information have systematic influence on investment choices and also on the outcome expected in the market (Rao, 2011). The assumption of conventional financial theory is that rationally, investors are wealth maximizers and adhere to financial rules and that the consideration of risk-return is their key foundational basis for investment strategies. Nonetheless, risk levels various investors are willing to tolerate varies depending mainly on their individual attitude towards risk. Shlcifcr (2010) noted that internal and external behavioural aspects affect investment choices. According to Shefrin (2010) investment choices are functions of various factors like characteristics in the market and profiles of individual risk and also the accounting information.

Insurance companies depend on insurance premiums to raise money for their investments. Therefore, the need to develop a systematic and rational method of evaluating investment choices to maximise utility in the assets that they put their money in (Mwangi, 2012). However, the choices on investment is affected by factors such as the market environment which influences the take up of investments being the micro and macro-economic factors that influence growth. Prevailing conditions in the industry

also determine how decision makers in the organization will invest funds. Choices of what to invest would be influenced by the rate of return that the company is looking to achieve and funds available emanating from profit margins by the ventures. The levels of risk that companies are willing to take depend on their individual preferences and are also unique. It is upon each organization to carry out due diligence and sufficient research regarding investment options available to them, since wrong choices are mistakes that cannot be recovered instantly and can be very costly for corporations (Mweu & Omwenga, 2017).

Tati and Baltazar (2018) evaluated factors that influence investment choice in India's life insurance companies. Chitra (2017) studied the factors responsible for investments in life insurance product in India. Chege (2013) reviewed factors that influence the choice of investment options by registered fund managers in Kenya. Awuor (2018) studied the behavioural aspects influencing investment decisions of individuals at the NSE. From past studies, there is minimal literature on factors affecting investment choices by insurance companies. This study seeks to establish the factors affecting investment choices by insurance companies in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to establish the factors affecting investment choices by insurance companies in Kenya.

1.3.2 Specific Objectives

The study was guided by the following objectives.

i. To examine the effects of liquidity on investment choices by insurance companies in Kenya.
ii. To determine the effect of investment horizon on investment choices by insurance companies in Kenya.
iii. To assess the effect of risk appetite on investment choices by insurance companies in Kenya.
iv. To examine the effect of profitability on investment choices by insurance companies in Kenya

1.4 Research Questions

The study sought to answer the following questions;

i. To what extent does liquidity affect investment choices by insurance companies in Kenya?
ii. How does investment horizon affect investment choices by insurance companies in Kenya?
iii. To what extent does risk appetite affect investment choices by insurance companies in Kenya?
iv. How does profitability affect investment choices by insurance companies in Kenya?

1.5 Significance of the Study

The research is being carried out in order to outline broadly the factors that influence decision making, it aims to highlight how the variables selected impact decision making. The research evaluates the guidelines and factors that are considered in the investment process towards arriving at an optimal decision, this clearly articulates what influences certain choices in the insurance companies. The study is important to the following stakeholders;

1.5.1 Management of Insurance Companies

The study findings are important to the managers. This is because it helps senior management of the insurance companies have an understanding of the factors affecting investments by the insurance Sector. This will help to improve efficiency in decision making.

1.5.2 Investors

Investors are keen to know how an organization is managing their wealth, they therefore need to understand the choices the managers are making and their rationality. This increases their confidence in getting returns from their investments, the study enhances understanding the factors involved in investment choices.

1.5.3 Financiers

Financiers of any organization need utmost clarity that their money is being put to best use and can be repaid without any doubt. This study provides an insight to them as to what criteria is applied to investment of capital granted to the beneficiaries.

1.5.4 Regulatory Authority

The regulatory bodies need to ensure compliance by the insurance company, this study gives guidelines on the factors considered in investment choices and narrows down the points of concern in the authority`s scrutiny.

1.5.5 Future Researchers

This study provides a platform from which future individuals willing to carry out further research can build on and refine the study.

1.6 Scope of the Study

The study focuses on factors which influence decision making in the insurance companies in Kenya. The research variables were; liquidity, investment horizon, risk appetite, profitability as the independent variables while investment decision as the dependent variable. The study focused on six insurance companies for a period of five years, these companies are listed in the Nairobi Securities Exchange. The insurance companies namely: Jubilee Holdings, Sanlam Kenya PLC, Kenya Re-Insurance Corporation, Liberty Kenya Holdings, Britam Holdings and CIC Insurance Group. Period of the study will be five years, the year 2014 to 2018. The study collected secondary data.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter of the study reviews literature on making of investment choices, covering the theoretical, empirical review and conceptualization of the research project.

2.2 Theoretical Review

This study sought to establish the factors affecting investment choices by insurance companies in Kenya. It was guided by the prospect's theory, regret theory, the Keynesian theory of investment and the q theory of investment.

2.2.1 Prospect Theory

Propensity theory was formulated by Tversky and Kahneman (1979). The theory indicates that people are always faced with decisions to make between alternatives which have risks involved and uncertainties for instance the probability of gaining or losing. This therefore suggests that people think based on the utilities they expect this is based on a reference point for instance current wealth instead of absolute results. Creation of this theory was based on framing of risky choices and suggests that individuals try to avoid risks; this is because people have the tendency disliking losses more than they do to same amount of gains, they are always ready to avoid losses by taking risks (Kahneman & Tversky, 1979; Kahneman, 2011).

The emotional effect caused by losses is greater than that caused by the same amount of gains, therefore when an individual is provided with the two choices both offering the

same amount of results, there is a greater chance that an individual will select the option that is perceived to result to gains (Tversky & Kahneman, 1992). The impact of certainty is evident when individuals prefer certain outcomes more than others yet those outcomes are just but probabilities. The impact of certainty causes a person to evade risk when there are expected gains. In addition, it drives people to seek risk when the other alternative is a sure loss.

In this theory, value plays a very significant and important role in the function of utility. The main role it performs is to diminish marginal value gain as well as losses; it is highly steep to loss as compared to gains and its reference as well as reflection points through which coding of outcome is done as gains when it is above and losses when it is below. Instead of coding results as levels, they are coded as changes. The weights of decisions in this theory are role same to that of probabilities in the utilities expected. There are a number of areas that are distinct to this theory. The distinction is inclusive of overweight low probability event and an overweight of events having high probabilities. One of the major processes in this theory is that of "Editing". It is the responsibility of the decision maker to reframe and edit the problem and therefore achieve a simpler choice/decision. The main challenge that is that of framing effects because unlike other values and weights that can be handled by other utility models, this is more challenging.

When individuals have presented two alternatives having similar output but the route taken to those outcomes are different then it’s said that isolation effect has occurred. In such a case, there is a likelihood that people will eliminate some similar information for the purpose of making understanding much easier and their conclusion won’t be similar based on framing of the options. Decision making is the focus of this theory. Therefore,

the investment choices made by companies will depend on that the gain or losses expected. This theory helped in explaining the effect of risk appetite on investment choices by insurance companies in Kenya.

2.2.2 Regret Theory

Loomes and Sugde (1982) develop this theory which is mainly discussing economics. This theory indicates that people expect regret whenever they make wrong choices and usually during decision making they consider this aspect of regret. For an individual to take action, the fear of regret play a very important role in either encouraging or discouraging them. Regret is the emotional reaction of people after making a mistake in decisions. Feelings of regret abound after making poor decisions, especially when the alternative choices would have led to better outcomes. Regret aversion exists because people hate to admit their mistakes. As such investors may avoid making decisions because they might turn out to be sub-optimal (Zeelenberg & Pieters, 2007).

According to Wakker (2010) during investments, regret theory can either encourage investors to take more risks or avoid risks. For instance an investor purchases stock from a company that is experiencing a slow rate of growth, based on recommendations from a friend, and after six months the prices of the stock drastically decrease by 50% and when the investor sells their stock they experience loss. This investor in the future will try avoiding the same regrets by researching and asking questions regarding any stocks he/she is recommended.

Investors can minimize the expected regret that influences their investments if they clearly understand and are aware of the regret theory's psychology. It is important for investors to try and understand the way regret affected their investments decisions in

the past and put that aspect into consideration when making other investment decisions in the future (Sarver, 2008). It is possible to lower the fear of regret by automating the process of investing. One of the strategies like formula investing which follows some set rules to the latter when investing saves the investor the process of deciding things like what, when and quantity to buy (Loomes's, 2010).

One of the assumptions of this theory is that the foundational basis of decisions made by agents is on the regrets expected and also the expected payoffs. In reaching investment decision, investors maximize expected value of the utility modified. Investors usually make anticipation of regrets expected and put them into consideration when making investment decisions; this is done consistently. There are two dimensions that risks take: regret risk and volatility of final wealth (traditional). Through this theory, there are strong cognitive and axiomatic bases that are formed. They predict the paradox of common consequence impact and other several axioms that the experiment reports (Kahneman & Tversky, 1979).

When making investment decisions, it is evident that regret plays a significant role when the focus of investors in on the outcome of the choices they make in relation to other strategies, and benchmark of their peers. The evidence observed supports the effects regrets have on decision making when there are uncertainties and axiomatic appeals on the regret theory for choices made on investments yet little attention has been drawn on the insurance sector. This theory has been applied by various researchers including Braun and Muermann (2014) who applied it when demanding for insurance; Muermann, Volkman and Mitchell (2015) applied this theory during allocation of assets and determine their contribution towards pension schemes.

The implications that behaviourally motivated investors will sell their past winners in order to reduce the associated regret that would amount from selling the losing stocks. Rational investors would on the other hand sell the stocks that have been losing value. This theory helped in explaining the effect of investment horizon on investment choices by insurance companies in Kenya.

2.2.3 The Keynesian Theory of Investment

The theory was advanced by (Keynes, 1973). According to Keynes investment choice by managers depend on the value they place on their profit prediction and their levels of confidence. This theory indicates that there are three factors that determine business investments and they are, cost, return and expectations. Keynes explained that decisions regarding investments are done based on comparisons of marginal efficiency of capital (MEC) or yields with actual interest rates (r). The MEC is the rate of discount which equates the present value of a series of cash flows obtainable from an income-earning asset like a machine over its entire economic life to the cost of the machine. The MEC is the rate of return at which a project is expected to break-even.

In instance where all projects that exists in the economy are organized in based on their MEC in a descending order, there is a high likelihood that investors will select those projects having higher interest rate (r) and reject those that have low r. There is difference between marginal capital product and MEC whose main concern is the immediate impact of added capital on possible outcome and not in regard to the length profit is expected to persist. The marginal efficiency of capital decreases as the amount of investment increases. The reason behind this is because the concentration of initial investment is on best opportunities which result in high return rate; there is less productivity of later investments and lower returns are progressively secured. Volume

of investment is dependent on the returns expected and the cost of capital which is the rate of interest. Profitability of investments will be to the point where capital is marginally efficient and equal to the capital cost.

The assumption of this theory is that there is autonomy in each investment and is therefore independent of national or per capita income. Nonetheless, acceleration investment theory indicates that investment also have some components that are induced. Therefore any component that causes an increase in demand of customer goods always benefits the sector that produces capital goods.

Keynes analysis of the instability of investments and the business cycle insisted on the impacts of uncertainty and changing expectations on decisions to invest, he focuses on the role of expectations about the future in influencing business decisions. Keynes model brings out the level of uncertainty that surrounds decision making in investment choices. As much as an organization's management yearn to select the best investments the markets and business environment are not entirely predictable. This theory explained the effect of profitability on investment choices by insurance companies in Kenya.

2.2.4 The Q Theory of Investment

This theory originated from Tobin and Brainard (1968) and Tobin (1969). The Q-theory is an extension of the neoclassical theory since it incorporates the adjustment costs as an explanation for output losses. According to the theory, firms choose investment levels, which maximize the estimated current firm value (Twine, Kiiza, & Bashaasha, 2015). The theory presupposes that the market estimation of equities is the major element of investment by firms. Thus, investment decisions are stirred when financing

sources are highly priced in the market place than it would cost to create it (Erickson & Whited, 2000).This theory relates to investment rate as a Q function where Q refers to market value ratio of new added investment resources to their replacement cost.

This investment theory suggests the metric q, which is the ratio between a unit of physical capital's market value and its value of replacement, done to recap the existence/absence of opportunities for investments for a precise firm (Eklund, 2013). Tobin reasons that, when the capital adds marginal units to a firm value more than it costs to obtain it, that is, q is greater than 1, installing new capital will be profitable to the precise firm. Hence 1<q indicates that the firm should accrue more capital (i.e. embark on extra investment) and vice versa (Balfoussia & Gibson, 2016).

The main focus of Q model is addressing two key challenges that were observed in the accelerator theory of investment and neoclassical theory. One of the challenges was the process of adjusting capital which initially was accepted to be instantaneous and in each period the Q model and the neoclassical model considered it to be complete, the cost of making adjustments is considered to be a convex function. This model of convex adjustment cost was initiated by Jorgenson (1963), Eisner and Strotz (1963), and it incorporates the cost of adjustment function into maximization of firm value which is a function in the neoclassical model. The other challenge was that the role of future opportunities for investing wasn’t evaluated by previous researchers and this challenge was resolved by Brainard and Tobin (1968) and Tobin (1969). Their suggestion was that the only time investments are made is when assets market values are the same as those of asset replacement cost (Eklund 2010).

It is not possible to observe the marginal Q variable and this makes its data unavailable. This was solved when Tobin (1969) made a replacement of the marginal Q variable with the average Q which is the ratio between the market value of the firm and the cost of replacement. It was more appropriate to use the average Q instead of marginal since there is likelihood that regression of investment might suffer misspecification. Hayashi (1982) gale solution to this challenge by explaining the marginal and average Q are $Q_m = Q_a = 1$, whenever the company is a perfect competition, and there is linear homogeneity of both installation and production function. Whenever there is violation of this condition, there is likelihood that the equation on investment will be biased.

According to the theory, investment decisions depend on the marginal Q level, defined as the imminent investment marginal returns over the existing marginal investment cost. The Q theory also argues that if the firm's value of market is more than the cost of replacement of firms will choose to invest until the value of capital equals the replacement cost, thus optimizing capital stock (Warström & Niemelä, 2015). In this study, the Q theory of investment was explored to explain effects of liquidity on investment choices by insurance companies in Kenya.

2.3 Empirical Review

Previously done studies on investments decision making are reviewed in this section. Specifically, it review empirical studies relating to the study objectives, these includes; liquidity and investment choices, investment horizon and investment choices, risk appetite and investment choices and lastly profitability and investment choices.

2.3.1 Liquidity Influence and Investment Choices

Cheung, Joong Im, and Selvam (2018) did a study on stock liquidity and investment efficiency: evidence from the split-share structure reform in China. Using the split-share structure reform in China as a quasi-natural experiment, it examined the effect of stock liquidity on investment efficiency. The study found that the investment efficiency of Chinese firms improves after the split-share structure reform but only for under-investing firms. When stock liquidity increases, compared to under-investing firms, over-investing firms face a reduction in institutional shareholding and witness no increase in takeover risk; thus, the over-investing firms face lower pressure to make optimal investments. This study focused on stock liquidity and investment efficiency. The current study will focus on liquidity influence on investment choices.

Malaquias and Pontes (2018) did a study liquidity restriction on investment funds: and whether they a response to behavioral bias. This study analysed the effect of lock-up periods on the profitability of multimarket funds in Brazil. The sample size was 4,662 multimarket funds for seven years i.e. 2006-2019. Lock-up periods were found to positively influence funds profitability and their risk-adjusted return. Funds' performance can be positively affected by the strategic measures that are taken by fund managers for the purpose of protecting fund investors from behaving impulsively. This study focused on liquidity restrictions on investment funds. The present study focuses on liquidity influence on investment choices.

Cheung, Joong Im, and Zhang (2017) reviewed the effect of stock liquidity on debt-equity choices in China. This study examined the impact stock liquidity has on choices that are made by a company between equity and debt when they are funding their

investments. With the use of decimalization regulations and Russell index reconstitutions for liquidity shock, stock liquidity was found to increase propensity of the company raising the debt capital instead of equity capital. In addition, the positive effects of debt financing and stock liquidity were attributed to two economic mechanisms: high sensitivity of cost of debt capital to liquidity of stock than equity capital stock and hostile takeovers exposure. This study focus was on stock liquidity on debt-equity choices. The current study will focus on liquidity influence on investment choices. Boyle and Guthrie (2013) did a review on investment, uncertainty, and liquidity. The study analysed the dynamic investment decision of a firm subject to an endogenous financing constraint in USA. The study revealed that investment sensitivity to cash flow can be very high for companies with high liquidity and great levels of uncertainties have ambiguous impact on investment.

Shammakhi and Mehrabi (2016) researched on the effect of liquidity of stock on stock returns in the companies listed in Tehran Stock Exchange The aim of this study was to investigate the relationship between liquidity and stock returns of companies listed in Tehran Stock Exchange. In terms of the purpose, this was an applied research and as for the method, this research was a descriptive – correlation one. Statistical population comprised all companies listed on the Tehran Stock Exchange; thus using systematic sampling and compliance with study inclusion criteria, 89 companies qualified for a period of 5 years were selected as sample. To test the hypothesis, statistical methods combined data statistical methods were applied using Eviews software. The results of the data analysis and test of research hypotheses showed that there is a significant positive relationship between both main dimensions of liquidity, i.e., the number of shares in circulation and the relative price gap and stock returns of companies listed in

Tehran stock exchange. Also, regardless of ratio of book value to market value in the first hypothesis, there is a significant positive correlation between stock returns and control variables of corporate size and financial leverage and in the second hypothesis, between the control variable of book value to the market value ratio, company size and financial leverage and. market stock returns. Since liquidity is an important factor in stock returns, it is recommended that investors consider liquidity in their investment decisions as an important variable in explaining stock returns. The research can be used by investment managers and other stakeholders in market.

Dey, (2015) examined the effect of growth of global markets on liquidity and survey if liquidity is a determinant factor for sectional return of the securities or not. He measures the liquidity by stock turnover of company. Stock turnover is measured by dividing value of shares traded on value of capital market. Dey used compound regression method and concluded that year, size, kind of transaction, order competition and growth rate are the most important determinants of liquidity. He used two-stage least regression method and concluded that investors expect more return in the markets with higher stock turnover.

Marshal and Yang, (2013) examined the relationship between return and liquidity in New Zealand stock exchange. They used bid and ask price difference of stock, stock turnover and bid price difference of stock depreciation (as criteria of stock liquidity) and concluded that the effect of liquidity in these three indices is not fixed. Also, there are some evidences on increasing the liquidity in the January. Marshal in 2016 examined the relationship between stock return and its liquidity in Australian stock exchange. In his study, he used a new liquidity criteria called “average value of orders”.

The results of this study suggested the liquidity as the most important determinants for stock return.

Amri, Ziani and Lovikel, (2014) examined the effect of liquidity on stock return in Tunisia stock exchange through sectional regression and founded a negative relationship between liquidity and stock return using monthly data from 1998 to 2003. Lee, (2011) examined the global price of liquidity risk based on CAPM model derived by Acharya and Pederson and concluded that market of United State is an important derive for global liquidity risk and pricing of liquidity risk is different across the world based on geographical, economic and political factors. His findings show that systematic aspect of liquidity provides some variations for international portfolio.

Sasaki (2015) reviewed impacts of liquidity shocks on corporate investments and cash holdings: evidence from actuarial pension gains/losses. Researchers focus was on ways in which expected liquidity shocks will influence investments of a corporation and cash holdings and this was possible by researching the way actuarial pensions losses/gains lowered the current internal resources but will lower the ones present in the future. The study selected a sample from manufacturing companies in Japan whereby their pension deficit greatly affected internal resources of the company sponsoring, the findings revealed that losses caused a significant decline in capital expenditure of the sponsor company. Loss of pension also increased corporate cash holding, which suggest that the funds set aside for pensions in the future will be demanded for precautionary. Generally, the findings suggest that managers always put into consideration liquidity shocks expected when determining present investment and policies on cash savings.

Amihud and Levi (2019) evaluated the effect of stock liquidity on the firm's investment and production. The study did control for endogeneity by the instrumental variables method and for an exogenous liquidity event, the 2001 decimalization. It found that stock market liquidity affects corporate investment and production decisions. The needed returns are raised by illiquidity and the company's capital cost which have a negative impact on fixed asset investment in inventory and research and development. Even companies that aren't financially constrained, the non-positive investment-illiquidity affects them. Consequently, illiquidity induces firms to adopt a production process that is less capital intensive. Illiquid firms have higher marginal productivity of capital, more labour input for a given increase in capital, and lower operating leverage that means a lesser reliance on fixed costs. This study failed to establish how liquidity influence on investment choices which is the focus of the current study.

Edmans, Fang and Zur (2013) did a study on impacts of liquidity on governance. Their main focus was to determine the way stock liquidity affects the choice of governance technique by block holders. In this study aside from investigating actual governance in place, the study used filings on section 13 to measure governance intention. In addition, the study adopted decimalization to measure exogenous liquidity shocks with the aim of identifying the cause impact. Liquidity was found to increase the probability of fund hedging acquiring a block of the company. For stake acquisition, it was conditional, liquidity lowers the probability of block holders governing through voice (intervention) which is the proof of great propensity file Schedule 13Gs (passive investment) instead of 13Ds (active investment). There is a greater probability that liquidity will cause 13G filing in instances where the wealth of a manager is sensitive to stock price, which has some level of consistency with governance vial exit (trading). The effect of a 13G filing

especially in liquid companies is that it causes positive announcement outcomes. The focus of the study was on liquidity on governance. The current study will focus on liquidity influence on investment choices.

Muiruri (2017) studied impacts of liquidity on profitability of Kenya's commercial banks. The study purposed to determine how liquidity influence banks profitability. Data was gathered from a total of 43 banks that were operational between 2011 and 2016. Secondary data was collected from the selected banks financial statements. Liquidity was measured using liquidity ratio, capital ratio and deposit to asset ratio While ROA was applied in measuring profitability. The association existing between the two variables was determined using descriptive statistics and regression analysis. The researcher was able to obtain the data from only 35 banks. For the period being investigated the association existing between liquidity and bank profitability was positive. This study covered liquidity and profitability. The current study focused on liquidity influence on investment choices.

2.3.2 Investment Horizon Influence on Investment Choices

Time horizon refers to the maximum time that an investor is willing to lock their investments in a particular portfolio. This simply refers to the number of years that an investor will have to wait before they are sure that they will experience returns from that particular portfolio (Sharpe, 2007). Generally, investments must be matched with ones need for money. Investment horizon that exceeds 5 years (long term) implies that one can invest in assets like equities because they have time but for short term, they need investments that are more stable and liquid.

Berman (2017) studied the effect time horizon has on diversification of investment portfolio.Although investors are often advised to diversify their investment portfolios as well as toconsider rebalancing them periodically research has shown that they often ignore this advice.We try to determine if this behavior is rational by analyzing a risk averse investor whochooses between buy and hold portfolio comprised of assets with dynamic uncertain returns.The assets in the portfolio evolve according to random walks, distinguishingthem from the traditional one shot or additive models. Solving for the optimal choice, we find an interaction between diversification and the time horizon an investor is facing. This interaction results in conditions fori which an optimal portfolio in one time horizon becomes suboptimal in a longer horizon. More over, we find that rebalancing may be suboptimal if theportfolio is diversified enough. Such effects are a consequence of the non ergodicity of the value of assets that follow multiplicative dynamics. Thus we are able to provide a rationalexplanation for observed behavior of investors and subjects in lab experiments who chooseto not diversify their portfolio or don't resemble as often as standard theory would prescribe.

A study on impacts of Siebenmorgen and Weber (2014) focused on establishing the effects of various investment horizons on selection of portfolio, risk perception and expected returns. Results revealed that individuals have varied perception to risks; there are short and long term differences. Investors whose portfolios are above the median profile for risks then their exposure to investment risks will tend to be higher (Hoffmann et al., 2010). A study conducted by Pandit and Yeoh (2014) established that a higher propensity to risk by investors have a lower likelihood that they will postpone purchasing of investments and shares.

Walsh (2014) did a study on the investment horizon and asset pricing models. This study estimated variations in heterogeneity of investment horizons and used demographic information that was collected for more than 2 centuries. CAPM and the assumption that equity risk premium was positive was tested with the use of estimates of investment horizons. It was revealed that on horizons accurately predicting the behaviour of an investor, CAPM isn't violated. Aase (2009) reviewed the investment horizon problem: a resolution. It was revealed that optimal fraction of risky assets isn't dependent on time horizons this is in canonical model of investments. The conclusion was reached based on the empirical evidence and against portfolio manager recommendations. It was further suggested that if risk aversion is allowed to depend on time or investors age the issue of investment horizons can be mitigated.

Aase (2017) conducted a research study on the challenge of investment horizon and possible ways of resolving them. In canonical investment model, it is risky to have optimal fraction of assets that are considered risky and they are not dependent on time horizon. Portfolio managers made recommendations based on the empirical evidence. It was established that allowing coefficients of relative risk to be dependent on time, or investors' age, then the challenge of investment horizon is resolved. From economic and financial point of view, reparability of time and state and intertemporal felicity is utility function of investors. Pension and life insurance are included and also preference is demonstrated. In a research by Qvigstad Sørensen and Aase (2018), it was established that the choice of portfolio investment is based on integral expectations of absolute tolerance to risk of direct utility function on selected time horizon.

Viceira and Wang (2016) did a study on global portfolio diversification for long-horizon investors. The study investigated diversification of global portfolio for

investors in the long horizons in existence of permanent shocks in cash flow and transitory discount rate shock to returns and prices of assets. It was revealed that an increase in correlation of discount rate shocks that arise from financial globalization are considered to be the key drivers for estimated secular rise in cross-country correlations for returns of both stocks and bonds from the late 90s. An increase in correlation of inflation shocks are very crucial source of shifts observed in bond correlation. This therefore suggest that the advantages of diversifying global equity haven't changed for investors of long horizons despite the fact that there has been an increase in correlations of global stocks and a decline has been observed in benefits of diversification of global bond.

Samuelson (2018) elaborated more regarding the impact of horizon by making the assumption that agents maximize the logarithmic utility expected for terminal wealth and are always cautious to maintain it above the subsistence level. Mossin (2018) made considerations of a multi-period model that has no intermediate consumption with the main focus being maximizing the wealth utility that is expected at horizons end. For the HARA utility function, where there is absolute tolerance of risk which is linear in wealth, the wealth horizon is characterised as: there is a positive impact of horizon that is investors lower he holding time for risky assets or negative in relative aversion of risks which either increases or decreases wealth. A definite argument seems to lack for or against reduction in risk aversion for wealth it is commonly agreed that absolute aversion of risk results to reduction in wealth.

Albagli (2012) did a study on investment horizons and asset prices under asymmetric information. The study focused on dynamic rational economic expectations having asymmetric information with agents having finite horizons of investment; T. Horizons

influence the prices of assets via two main techniques: With the increase of T, 1) there is decline in the risk aversion for age adjustment for average investors, and 2) there is decline in shift of risk to willing buyers from forced liquidators. The two types of equilibrium are the stable equilibrium whereby when the value of T is high the price of volatility declines and the second one is the unstable equilibrium which is the opposite of the stable one. In addition, equilibrium that fails to exist because its T value is low can be recovered if the life span is high enough. When the equilibrium is stable, an increase in T value causes the price of volatility to drop and increases levels of uncertainties for investors who are uninformed. When the environment is characterised by low risks, then informed investors tend to behave aggressively impounding their knowledge to prices. Returns expected and volatile returns are the same to the economy having full information regarding fundamentals even if the number of individuals having the information is low. In short horizons, trading that are cautious causing information disaggregation from prices and approach of the economy the one that has no privacy of information.

Cline, Fu and Tang (2017) did a review on shareholder investment horizons and the choice between bank debt and public debt. The focus was to determine the effect of investment horizons for institutional shareholders on the company's choice between the public bond and banks debt. The use of banks debt financing was negatively influenced by borrowing company's short-term institutional ownership. The results are consistent with incentives of short-term shareholders to avoid monitoring. On the contrary, institutional ownership of the long term positively affects reliance of the company on financing of the banks debt. The cause of these effects is high managerial ownership and investors who are highly motivated and this is worsened by high levels of

information opacity. The findings are robust to concerns of potential endogeneity, the impact of company size, and alternate measures of investment horizons. The main focus of this study was on impacts of investment horizons on long-term debt.

2.3.3 Effect of Risk Appetite on Investment Choices

In the UK, The Financial Services Authority (FSA) the body which regulated the UK financial services industry between 1985 and 2013, had implemented the risk focused approach to supervision in 1998. Their approach was first called Risk Assessment Tools of Supervision and Evaluation (RATE). This was later changed to Advanced Risk Response Operating Framework (ARROW). In this approach the FSA set the risk appetite for the institutions according to its own objectives. Supervision was then based on the magnitude of the risk's impact to the FSA's objectives and not on the shareholder's value (Sixishe, 2011). The FSA was replaced by two new regulatory bodies in 2013. This is known as the "twin peaks" system of regulation: The Prudential Regulatory Authority (PRA), which is part of the Bank of England, concerns itself with the safety and financial soundness of insurers, while protecting policyholders. The Financial Conduct Authority (FCA), regulates the behavior of those firms, and more broadly, the integrity of the financial markets.

The same way individual investors have to clearly comprehend their risk appetite, when it comes to management of their personal finances, companies also should clearly define the risk appetite for their organization (Bennet 2007). Risk management for enterprises is considered to be a standard practice in the business community globally, affecting financial institutions. Developments of regulations and pressure from the market have driven transformation of ERM.

Rahmawati, Kumar, Kambuaya, Jamil and Muneer (2015) did a review on the factors that determine tolerance level of individual investors to risk. Their study mainly purposed to investigate risk tolerance among Pakistani investors. The study mainly depended on information collected using questionnaire created by Dow Jones and Company in 1998 that is in Bodie et al. (2007). The findings revealed that women tend to averse risk more than men do, investors with more knowledge tend to be willing to take in more risks, investors with less wealth tolerate less risks and most interestingly there is no significant association existing between age of an investor and their risk tolerance levels despite the fact that the tolerance level to risk at different age group is different. Investors that are wealthy and educated have high correlations with tolerance to risk. There were a number of recommendations that were made: improve investors education levels to allow them be more risk tolerant towards investments that promise high gains, understanding gender in order to explain the reason why men tend to tolerate more risks than women and reasons they don't contribute towards economic growth, investors shouldn't be treated as an homogeneous group despite the fact that women and men in the society as treated as different market group having varying strategies and requirements.

Pak and Mahmood (2015) studied the effect of personality on investment decisions and risk tolerance. Researchers mainly aimed at determining the association that exists between character traits of an individual, attitude towards risk-taking and investment decisions among private investors in Kazakhstan. The study adopted quantitative research technique. To facilitate this study, the researcher conducted a survey in a business school among the students and their learners. From the reviewed literature, the study developed two regression models that were tested. The collected information was

analysed using SPSS and EViews. The results showed that individual character traits affected their behavior of risk tolerance which has a tendency of influencing investment decision relating with bonds, securities and stock. This therefore suggests that it's important for investment advisors to consider the character trains to an individual when advising private investors on investments.

Baghani and Sedaghat (2016) did a study on impacts of risk perception and tolerance on decision making on investments in Tehran stock exchange. Researcher focused on establishing the way risk perception and tolerance affected decisions to invest in Tehran Stock Exchange in 2015 between April and July. The study investigated investors in the exchange both professionals and non-professionals. The study selected a sample of 384 respondents using technique of simple random sampling. It was revealed that the independent variables were positively and directly related with assumption of investors' decision. In addition the study showed the effect of general risk tolerance and tolerance level of investors. Combination of the factors can be done with other aspects such as behavioural, personality and psychological aspects which have some level of influence on investor's process of decision making.

Dickason, Ferreira and McMillan (2018) did a study aimed at determining the link existing between risk tolerance, personality of the investor and behavioral finance in South Africa. In this study the focus of the researcher was to determine the behavioural finance biases that relate various risk tolerance levels and the personality of the investor. In addition, the aim of the study was to determine the way the behavioural financial biases affected decisions relating with investments. Investors having low levels of risk tolerance and investors whose personality is conservative tend to be focused on averting losses and are biases in their mental accounting. There is a

tendency of investors with high levels of risk tolerance to be drawn to bias of self-control. The findings were of great importance to investment firms that allow them to have profiles that are more accurate on their investors and provide them with investment options that are more refined to suit them.

Nguyen, Gallery and Newton, (2017) studied the effect tolerance of financial risk has on decision making regarding investment in the context of financial advice. The researcher used financial literacy of clients, trust in financial advice service, and relationship length with service as measures of risk tolerance. In his study a theoretical model was proposed and was tested using data collected in Australia from clients of financial advisers. The sample selected was 538 respondents. Risk tolerance of customers was positively linked to decision making on investments. In addition, the rust of clients and the length of the relationship had a positive relationship with financial literacy of clients and their tolerance to risk. The results obtained aided in clearly understanding the way tolerance of risk and antecedents affect decision making of clients, having the ability of improving advice in financial service sector.

Kanten, Girgin, and Kurt (2018) studied the antecedents of behaviour of individual investors, negative and positive effects, materialism and risk aversion. The aim was to examine the antecedent of behaviour of individual investment. Some studies note that personal factors affect individual's decisions on investment. This study considers negative and positive effects, materialism and risk aversion as factors that guide an individual to make investment decisions. The survey method was used. Data was obtained from 169 respondents from various industries which include finance, health, automotive and retailing. The structural equation modelling was used in data analysis.

Results revealed a positive and significant association between risk aversion and an individual investment decision.

2.3.4 Effect of profitability on Investment Choices

Odit and Chittoo (2008) in their study established that company profitability is essential because it provides managers with ideas on efficiency of investment and therefore provides managers with ideas which will influence the decisions they make in the future.

Basu and Das (2017) did a study on investment and profitability: the proof of manufacturing industries in India. To answer the research objective, the researcher made use of panel data that was collected from 55 companies from 19 major states from the years 1984 to 2008 which was analyzed in contemporaneous and in the long run affects profitability and other related components. From the findings, profitability rate has short and long term positive impacts on investments; profitability and capital capacity ratio mainly long run positively affects but utilization rate has more complicated pattern on effects it has on investment.

Lestari and Riyadi (2018) reviewed the impact of company size, leverage financial, and profitability on opportunities to invest and its effects on accounting policies. This study aimed to examine the impact of company size, profitability, financial leverage, and set of investment opportunities on accounting policy. Targeted population was listed manufacturing firms in Indonesia Stock Exchange (BEI). Model data processing using model equation structure. The results found that; firm size has no effect on accounting policies, financial leverage has no effect on accounting policies, profitability has an effect on accounting policies, sets of investment opportunities mediate firm size

variables, financial leverage, and profitability in influencing accounting policy, firm size has an effect on investment opportunity set, financial leverage has no effect on investment opportunity set, profitability has no effect on investment opportunity set.

A review on impacts profitability ratio, debt, and liquidity had on investment returns was reviewed by Komala and Nugroho (2013). The study determined return on investment using pay-out ratio in the manufacturing companies listed in Indonesian Stock Exchange (BEI/IDX) between the year 2008 and 2010. Researcher also measured profitability using ROE and liquidity ratio and current ratio. To answer the research question, a sample of 35 firms were selected purposively and analysis done using multiple regression. The findings obtained showed that ROA negatively and significantly affected return on investment. Also, CR and DER were found to have insignificant influence on return on investment.

Chen and Wong (2004) in their study established that increased profits results to high availability of funds and motivation to new investments. Insurance firms have two duties, they should make profits so as to invest in new business areas and they should also be profitable so as to meet with new business developments so as to remain competitive.

Trevor and Morgan (2006) did a study on the implications of differential values of profitability and earnings investment components. The study revealed that, the growth of earnings that was received through improved profits related with sustainability of large change in price which arise from added investments. The coefficient of valuation for profitability and components of investment differ in three perspectives and the variation is observed across various sectors. This simply means that overreaction of

investors results from growth of earnings while their under reaction results from declined rate of profitability growth.

Mohammed, Abubakar and Danrim (2016) studied the effects of profitability on investment decisions in Nigeria banks. The objective of the project was to examine financial reporting role in making decisions on investments. The study focus on investigating the extent to which banks rely on financial information to make decisions. The analysis in this study was carried out using percentage analysis and descriptive statistics. The t-test statistic was used in testing the hypotheses. In analysing the data and testing the hypotheses the statistical package for social sciences (SPSS) software version 17.0 was used. Results t-cal 74.500 > t-critical 6.314, 5% significance level implies that financial statements are used in making investment decisions to some significance extent. At t-cal (17.306) > t-critical (2.353), 0.05 significance level implies that financial information is used in forecasting the performance of banks. At t-cal (16.590) > t-critical (2.353), 0.05 significance level results showed that bank profitability is determined by financial statements. At t-cal 4.592 > t-critical 2.5323; 0.05 significance level, the hypotheses implied that financial statements are used in projecting new investors. The study conclusions were that profits play an important role in making investment decisions and therefore organizations should work to ensure that their profits are improving. Firms should analyse their financial statements before making any investment decisions, to know whether they are making the right decisions for the organization.

Nyoike (2002), study on, financing capital investments by quoted companies in Kenya, analysed data using, correlation between capital investments and new equity, long-term debt and short-term debt, these revealed varied correlations among the industry sectors

in the study. The study found that many factors influence managers in their financing capital investment decisions. Among the most important factors were stability of future cash flows, profitability of the business, level of competition in the industry, stability of future sales and level of interest rates in the economy. Nyoike concluded that management of corporate firms are confronted with many decisions affecting growth, profitability and survival of their organizations.

Shiundu (2013) conducted a survey of the factors that influence decisions on investment in NSE focusing on individual investors. The goals was to ascertain factors that impact on investment decisions at NSE. The population of the study was 50 investors while the study sample was 42 investors. Collection of data was by use of structured questionnaires which were administered by the researcher. It was established that the main factors impacting on investment decisions by individuals are; dividend expected by investors, the firm reputation, organization status in the industry, forecasted firm profit earnings and statement condition, firms stock and price per share in the past and economy feeling.

Obamuyi (2013) in his study established that factors influencing investment decision making include anticipated firm profits, plans on dividend distribution, the organization performance in the past years and forecasted increase in bonus and capital. The individual investor decisions about the investment products of the firm are affected by the investor's economic and social characteristics. They include level of education, sex, age, marital status and investment experience.

2.4 Conceptual Framework

A conceptual framework refers to a set of wide ideas and principles that are obtained from areas of relevance with the aim of acquiring ways of structuring subsequent presentation (Reichel & Ramey, 2017). It is also a research tool that helps the researcher in developing awareness and comprehension of the situation that is being scrutinized. The figurative representation of key concepts, variables or factors and their interaction with each other as reviewed in past studies is referred to as conceptual framework (Miles, Huberman, & Saldana, 2013). Mainly, it shows the interaction between the predictor and the response variables. Predictor variables are those variables that the researcher thinks that they can explain changes in the response variable while the response variable is the variable that the researcher aims to explain (Orcho & Kombo, 2014). In this study, the predictor variables are liquidity, investment horizon, risk appetite, and profitability while the response variable is investment choice.

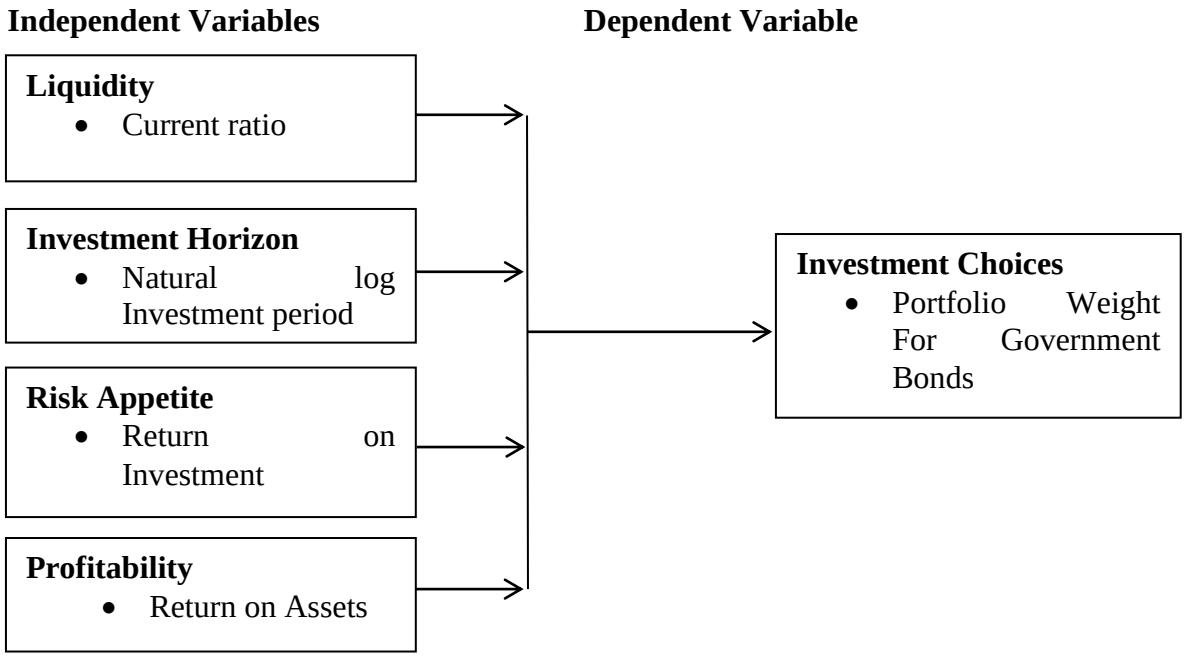

Figure 2.1: Conceptual Framework

2.4.1 Liquidity

Another determinant of investment choice is the level of liquidity. This refers to the degree to which short term maturing obligations can be paid from cash or assets that will be turned into cash at a short notice. Liquidity is the ability to pay claims to policyholders without having to sell off financial assets (Chaharbaghi and Lynch, as cited in Gonga and Sasaka, 2017). In insurance firms liquidity implies the insurers ability to pay current liabilities, which in nature are expenses on operations or payments on compensation to cover damages. Insurers primary source of liquidity are liquidation of assets, cash flow from net premiums and investment returns (Chen & Wong, 2014).

Liquidity ratios try to evaluate the ability of an organization to meet its short-term debt obligations. Its evaluation is by comparing the most liquid assets of an organization with its short-term liability. Regarding liquidity, there are various assets varying; less liquid are certificates of deposit, this is because there is usually a penalty if they are liquidated before they mature. Also, savings bonds are also quite liquid, this is because they can be sold with ease. Shares of stock, bonds, options and commodities are fairly liquid, since they can be sold with ease and the cash doesn't take long before one receives them. They are all considered to be cash equivalents because they can be converted with less effort into cash, but sometimes penalty cost is incurred. Current ratio is simple measure and its computed by dividing total current assets by the total current liabilities. Current ratio indicates the proportion of current assets to current liabilities and its computed as:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The IRA (2015) issued draft investment guidelines in November 2015. This was informed by the fact that investments formed an important part of any insurer's assets and that if not managed properly, losses from investments could affect the financial soundness of an insurer, affecting its liquidity. Further, it was deemed important that insurers practice prudent investment management practices in order to protect the policyholders. The purpose of the guidelines was to ensure that assets are managed in accordance with risk, liquidity requirements and liabilities of the insurers. The guidelines aim to raise investment practices to be at par with international best practices (IAIS, 2002). The guidelines also sought to highlight the critical guiding principles for prudent investment management practices.

The other purpose of the guidelines was to ensure that investments are made in a prudent manner in order to maintain security, liquidity, diversification and high return on investments (IRA, 2015). The guideline sets out certain governance requirements for example delineating the roles of the board, investment manager, senior management, risk management function and audit and internal controls as regards management of investment. The guideline also requires management to design and operationalize investment strategies, policies and procedures (IRA, 2015).

2.4.2 Investment Horizon

Investment horizon refers to the total duration time investors are willing to hold a portfolio or security. Measuring of investment horizon is done in terms of short, medium and long term. An investor may have a short term or a long term horizon; the short-term effectiveness examined through the event analysis of the abnormal return for the recommended stock around the financial announcement or due to market fluctuations whereas long-term investment horizon examined through the investment

value from a passive portfolio management strategy (Tao, 2010). The terms are categorized as follows in years:

Table 2.1: Investment Horizon

Period	Years
Short term	0-5 years
Medium term	5-10 years
Long term	10 years and above

The income needs of an investor and their desired exposure to risk is determined by investment horizon which also aids in selection of security. According to an empirical research that focused on establishing the association between Sharpe ratio and the investment horizon for portfolios of small stocks, larger stocks, and bonds revealed that at the initial stages, Sharpe ratio increases then later they decrease for each type of portfolio as the length of investment portfolio increases. In addition, there is change in portfolio for each Sharpe ratio rankings. Contrary to what was believed, bonds perform better than stocks, given a long sufficient holding period which is the length of time money is expected to be invested. The investment horizon of an individual depends when and also the amount of funds needed and the horizon is influenced by optimum investment strategy. Generally, a shorter investment horizon implies lesser risks.

The most important consideration in investment is the duration in which an investor have before getting back the amount of money that has been used in the investment. In general, the longer you have before you want to spend your money, the more aggressive you can be in investing it. Individual stocks, as well as mutual funds and exchange-traded funds that focus on stocks, can be a valuable component of a portfolio with a long time horizon. By contrast, if you only have weeks or months before you'll

need your money back, bank savings accounts or certificates of deposit help avoid the risk of an ill-timed downturn in the stock market leaving you with an unexpected loss.

Veld-Merkoulova (2009) stated that a longer investment horizon leads to an increasing share of risky financial investments, regardless of investors' age. The findings of Fagereng, Gottlieb and Guiso (2015) from research conducted in Norway showed that people tend to enter the stock market early in life as they accumulate assets and invest a greater share of their wealth in stocks. As they approach retirement, they adjust their portfolio, reducing it gradually.

2.4.3 Risk Appetite

Every investment option has a level of risk attached to it and the investor is at various levels of willingness to take up risk at a given time of decision making. Risk appetite depends on a comparison of probabilities that are risk neutral and correspond to subjective probabilities (PrasannaGai, 2009). Precisely, comparison involves comparing probabilities across full range of potential returns.

Risk appetite is context dependent. Quail (2012) goes on to illustrate the 5-points on the risk appetite continuum along four dimensions (philosophy, tolerance for uncertainty, choice, trade-off) that assist people to apply the scale to any particular strategic objective or risk. At the "adverse" end of the continuum, extremely conservative risk-taking and risk management behaviour is expected. An organization is able to align its real exposure to risk with its management and escalated activities using the risk appetite table. Assessment of event of risk is one using the risk appetite table then the event is assigned a risk score.

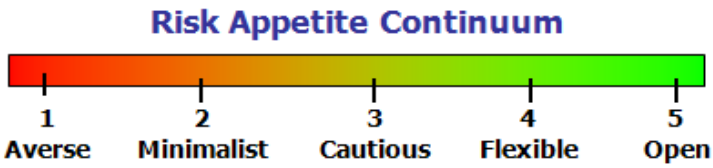

Figure 2.2: Risk Appetite Continuum

Ahmed and Ahmed (2010), larger firms can exploit economies of scale and hence be more efficient compared to smaller ones. Size is often measured through net earned premium. This is the premium earned after deducting reinsurance premiums ceded to reinsurer. Premium base determines the risk appetite of insurers. The bigger the base, the more risks the firm can take in (Teece, 2009).

The most important factors in choosing appropriate investments is knowing how comfortable you are with taking on the risk of investing. Certain types of investments see larger changes in their value than others. It's important to be able to stick with an investing plan even when the financial markets behave badly. Those who are comfortable with the daily ups and downs of the market should consider aggressive strategies that concentrate exposure in areas of high return and volatility. By doing so, you can maximize your prospective investment gains. On the other hand, if even gentle movements in the markets make you nervous, then a less aggressive portfolio will help you sleep better at night, even if it doesn't maximize your expected return.

Örerler and Taşpınar (2016) stated that in general there is lower risk tolerance for the unknown since the impacts are new, unobservable or delayed. Higher risk tolerance emerges when people feel more in control. Risk tolerance can be determined through consultation with affected parties or by assessing investors' response or reaction to varying levels of risk exposure. Risk tolerance may change over time as new information and outcomes become available or as societal expectations evolve (Evans,

2014). Investors should explore the connections, or lack thereof, between their risk tolerance profiles and their expectations of investment returns. Finally, those attributes should be made explicit and used as key inputs in structuring their portfolios.

2.4.4 Profitability

Profitability is one aspect of financial performance. Financial performance is much broader and can be measured on various aspects other than profitability such as revenue growth, expense controls and working capital management. Profitability of the firm will be of importance, because it gives managers an idea of the efficiency of the investments, which will be of influence on the decisions of future investments, as explained by Odit and Chittoo (2018). The return on assets (ROA) is a common measure of profitability and is an investment profitability ratio. ROA measures the return generated by a company on its total assets both fixed and current.

Return on assets shows the profitability of the assets in generating revenue. This ratio is normally measured by net income divided by the sum of total assets to estimate how many money a company makes for each euro of assets that the firm controls. The higher the ROA, the higher the profit generated by a given level of assets. It is computed as the net income divided by the average total assets from the current and prior year. The drawback with this computation is that net income is the return to shareholders, whereas assets are financed by both shareholders and creditors

Insurance companies charge premiums that are sufficient to cover the expected insurance claims plus a profit. Net profit refers to the profitability of a particular venture after all costs and taxes have been deducted. It’s the real profit which includes operation expense that’s not added in the gross profit. Profitability refers to the ability

of making profit, and profit is what's left from income after all deductibles have been made which include operational cost and expenses. Net profit is the measure of profitability.

2.4.5 Investment choices

The measure of investment choices will be guided by the portfolio weight of government bonds, various portfolio weights indicates distribution across the classes of investment choice options of shares in stocks, government bonds and treasury bills, banks fixed income options and property investments. Asset weight is an investment portfolio and represents the percentage of total value of portfolio that's tied up in each specific asset. Portfolio weight is the percentage composition of a particular holding in a portfolio. Computation of value weighed portfolio is by dividing value of single asset by the value of entire portfolio. The portfolio weight of government bonds will be used to measure the investment choice of the organization. The decision to select government bonds as an investment choice means that another option is foregone.

Investors choose an appropriate avenue depending on their specific need, risk preference and expected returns. Harry Markowitz (2012) in his paper "Portfolio Selection," (published in 2012 by the Journal of Finance) created the modern portfolio theory, which assumes that investors are rational and tend to create optimal portfolios that offer the maximum possible expected return for a given level of risk. Making investment decisions is an integral and vital part of managing a firm. An efficient investment decision may be expected to enhance firm valuation.

Complexity is reflected, in part, by the number of alternative courses of action from which the decision maker can choose. Uncertainty is inherent in all decision-making

but particularly pertinent to the investment decision-maker where the implications of their decisions are often very significant for the organization. Moreover, executives are usually trying to fulfil multiple objectives in their investment decisions and therefore have to make trade-offs between expected return and riskiness. Perhaps it is not surprising given this that entrepreneurs, on average, have nine failures for each major success (Pike & Neale, 2016).

Table 2.2: Operationalization Of Study Variable

Variable	Variable	Measure	Measurement Scale
Y	Investment Choice	Portfolio Weight For Government Bonds	Ratio
X_1	Liquidity	Current Ratio	Ratio
X_2	Investment Horizon	Natural log Investment period	Ratio
X_3	Risk Appetite	Return on Investment (ROI)	Ratio
X_4	Profitability	Return on Assets (ROA)	Ratio

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents the methods in data collection and analysis and forms the blueprint for conducting the research. It covers the research design that the study that will adopt. This section also describes the target population of the study and the sampling technique that will be used. The section also covers the data collection method that was used and how the data was analyzed

3.2 Research Design

The research design is a blue print that is used by the study in answering the research questions; it is the entire procedure to be followed in the research study (Robson, 2002). The study applied the use of descriptive and longitudinal design. Descriptive research design was applied in obtaining information describing what is already in existence. Longitudinal design assisted in tracking changes over a span of time and relating them to the variables in order to clarify the reasons why the changes occurred while addressing the study's objectives. Descriptive and longitudinal research design was more appropriate because the study sought to build a profile about the factors affecting investment choices by insurance companies in Kenya.

3.3 Target Population

A population is a group of individuals, events or objects with some character traits that are common and are observable (Mugenda & Mugenda, 2013). Mbithi (2013) defines a population as a distinct collection of people, services, and groups of things, elements, or households that are the focus of a study. The study was conducted in

insurance companies in Kenya. According to the IRA in 2018 there were 48 insurance companies in Kenya. The target population of the study was 48 Insurance Companies in Kenya. This aimed at achieving comprehensive coverage and 5-year period give much accurate results.

3.4 Sample Size and Sampling Technique

Sampling is the process of selection of appropriate number of subjects from a defined population. The study used the census approach to select all the 48 insurance companies in Kenya. The study sampled six insurance that are listed in the NSE, these companies are Jubilee Holdings, Sanlam Kenya PLC, Kenya Re-Insurance Corporation, Liberty Kenya Holdings, Britam Holdings and CIC Insurance Group. The study selected these companies as their information is readily available from the CMA and IRA reports. The study covered a 5-year period, from 2014 to 2018, from where secondary data was collected.

3.5 Data Collection Instruments

The study collected secondary data. Secondary data was collected through the use of data collection sheet. Secondary data was sourced from the reports and websites of the various insurance companies. The study collected information over a period of five years; 2014 to 2018. The period was selected so as to compare investments form one year to another. This is also important because it help in understanding factors affecting investment choices by insurance companies in Kenya. The researcher individually obtained data from the insurance companies' websites, financial resort and IRA reports.

3.6 Data Analysis and Presentation

Data analysis was carried out using SPSS and STATA. The study applied the use of both descriptive and inferential statistics in analysing the association, differences, trends and comparisons key to the research to establish factors affecting investment choices by insurance companies in Kenya. Multiple regression analysis was performed to establish the association between the study variables. Correlation analysis and diagnostic tests were performed. Presentation of the data was done by the use of tables to facilitate easy understanding.

3.6.1 Empirical Model

The Empirical Model helps the researcher to logically isolate and Sort out Complicated Chains of cause and effect and influence between the numerous interacting elements in an economy. The researcher conducted a test for moderation using Bryman and Bell (2007). Panel data regression analysis was conducted to establish the relationship between the study variables. Regression analysis with X predicting Y

$$\mathbf{Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}}$$

Whereby Y = Investment Choice

X_1 = Liquidity

X_2 = Investment Horizon

X_3 = Risk Appetitive

X_4 = Profitability

ε= Error term

3.7 Diagnostic Tests

3.7.1 Test for Autocorrelation

Time series data mostly experience autocorrelation. This is because the data follows a particular trend as time changes. This means that successive observations are mostly likely to show inter-correlation. Autocorrelation has no effect on unbiases, linearity and asymptotic nature of the estimators, the only effect is that it violates the best property of OLS, which results to wrong results in hypothesis testing. Breusch Godfrey test was applied to determine whether the data used had a serial autocorrelation (Gujarati, 2004).

3.7.2 Heteroscedasticity

Heteroscedasticity has no effect on unbiasness and linearity of the regression coefficient. The only effect it brings is on the best property of OLS, which results to wrong conclusion on hypothesis testing. Breusch-Pagan test was applied in this study to check for existence of heteroscedasticity (Gujarati, 2004).

3.7.3 Multicollinearity

In time series data it is common to find the existence of multicollinearity since the data tends to assume a particular trend. The variables may be increasing or decreasing over time. The issue brought about by existence of multicollinearity is that it makes coefficient of regression to be indeterminate. Multicollinearity also makes the standard errors to be infinite. What matters most is not the existence of multicollinearity but the degree (Gujarati, 2004). Variance inflation factors (VIF) test was used to check for multicollinearity (Nachtscheim, 2004).

3.7.4 Normality Assumption

Linear regression models assume that the error term is normally distributed with a mean of zero and a constant variance usually denoted as (μ 0, σ 2). The error term in the regression model captures other factors that affect the dependent variable but aren't included in the model. It is assumed that the omitted factors have very little effect. It is important that the error term be normal for OLS to be applied (Gujarati, 2004). Shapiro- Wilsk test was used in this study to establish normality of the error term.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the analyzed data and findings based on the research objectives. The main objective of the study was to establish the factors affecting investment choices by insurance companies in Kenya. Secondary data was collected from six insurance companies that are listed in the NSE over a 5-year period, from 2014 to 2018 and analysed using STATA. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.2 Descriptive Statistics

In this section, the study presented the research finding on the descriptive statistics in the data collected. The findings are as presented in Table 4.1.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
liquidity	30	5.167	5.03348	.43	14.9
Investment~n	30	.6753333	.1666864	.38	.99
Risk_Appet~e	30	3.079667	.3946057	2.3	3.69
Profitabil~y	30	1.768	1.791198	-.7	7.9
Investment~e	30	.7073333	.2268819	.41	1.3

From the findings, liquidity had a mean of 5.167, investment horizon had a mean of 0.675 and risk appetite had a mean of 3.0797. The findings further show that profitability had a mean of 1.769 and investment choices a mean of 0.707.

4.3 Trend Analysis

Trend analysis refers to a statistical method and procedure that is used in showing the movement of an observed data over a specified period of time. This section presents the trend analysis for the independent variable (liquidity, investment horizon, risk appetite and profitability) and the dependent variables (investment choices).

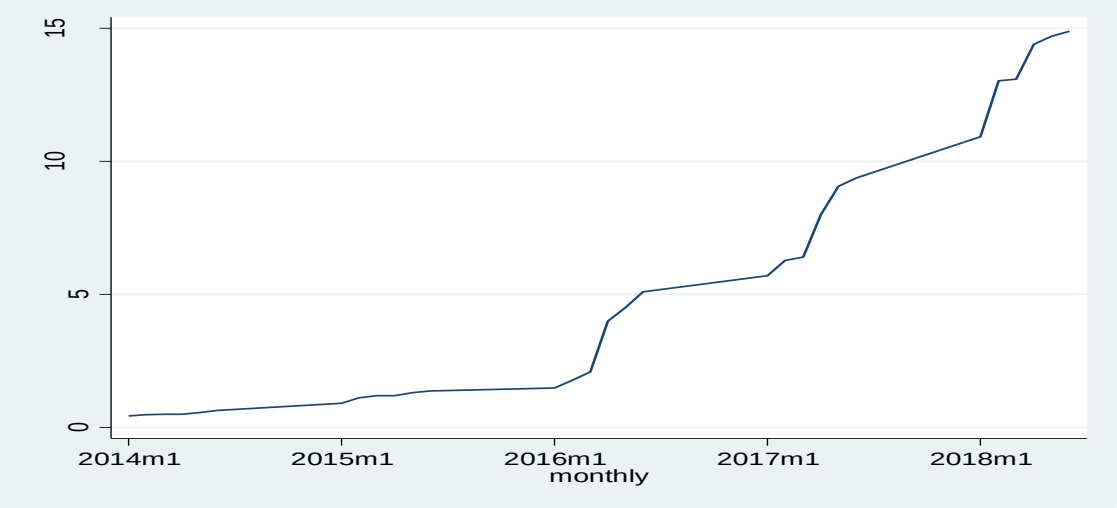

Figure 4.1: Liquidity

The study computed trend analysis for liquidity of the selected liquidity insurance companies over the selected period and the findings were as presented in Figure 4.1. The trend of the six insurance companies between 2014 and 2018 shows that during the period liquidity showed an increasing trend with the period between 2016 and 2018 recording high rates of increase. The highest liquidity level was in 2018 and the lowest was in 2014.

The study sought to determine the trend in total duration of time investors are willing to hold a portfolio or security. The findings were as presented in Figure 4.2.

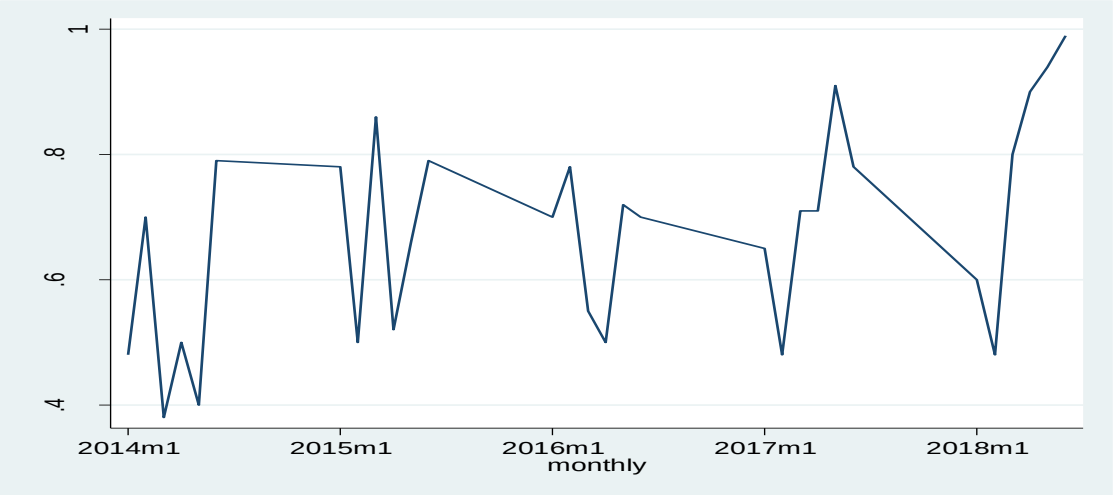

Figure 4.2: Investment Horizon

From the findings presented in Figure 4.2, investment horizon of the six insurance companies being investigated between 2014 and 2018 don't show any trend. These findings suggest that investment horizon for the insurance companies listed with NSE fluctuated the entire period.

The study sought to determine the trend for risk appetite of the insurance companies between 2014 and 2018 and the findings were as presented in Figure 4.3.

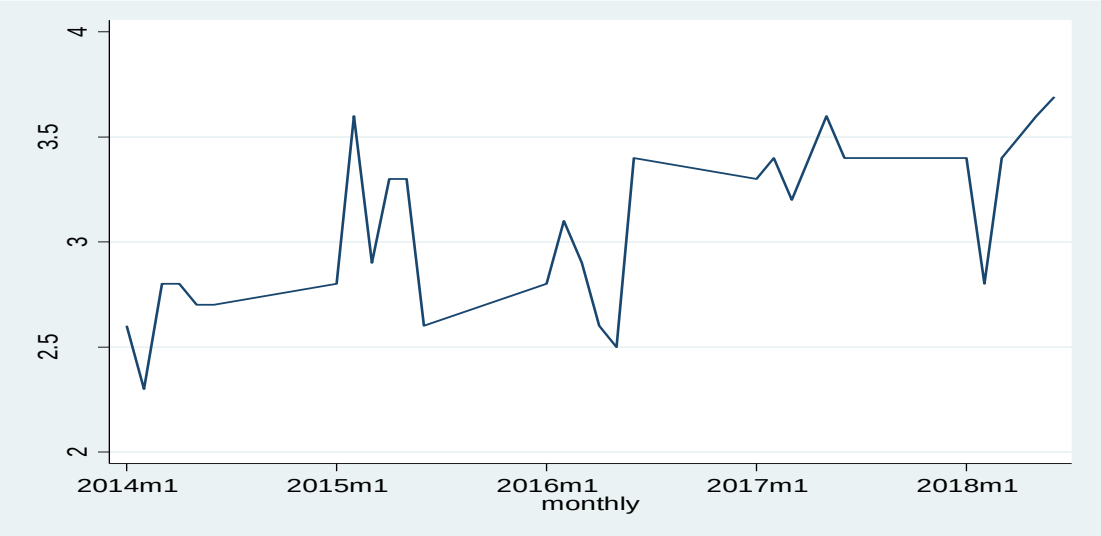

Figure 4.3: Risk Appetite

From the findings, there was no clear trend observed in risk appetite for the six selected insurance companies. Their level of risk appetite between 2014 and 2018 fluctuated. In

2017 the level of risk appetite for the six companied was relatively high compared to the rest years where risk appetite between the companies varied widely.

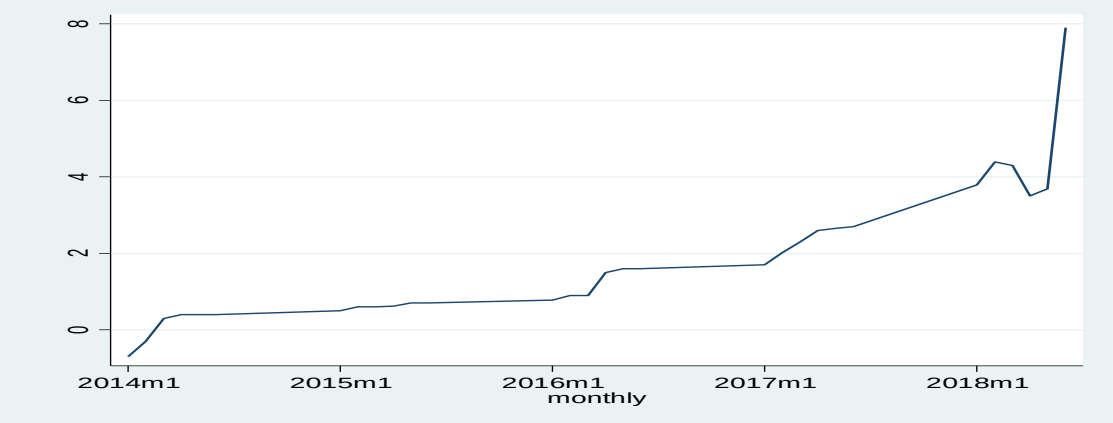

Figure 4.4: Profitability

Figure 4.4 presents the findings on trend analysis for the six insurance companies between 2014 and 2018. From the findings, insurance companies recorded an increase in profitability during the entire period under investigation. In 2018, there was a high increase in profitability levels. 2014 recorded the least profitability level while 2018 recorded the highest.

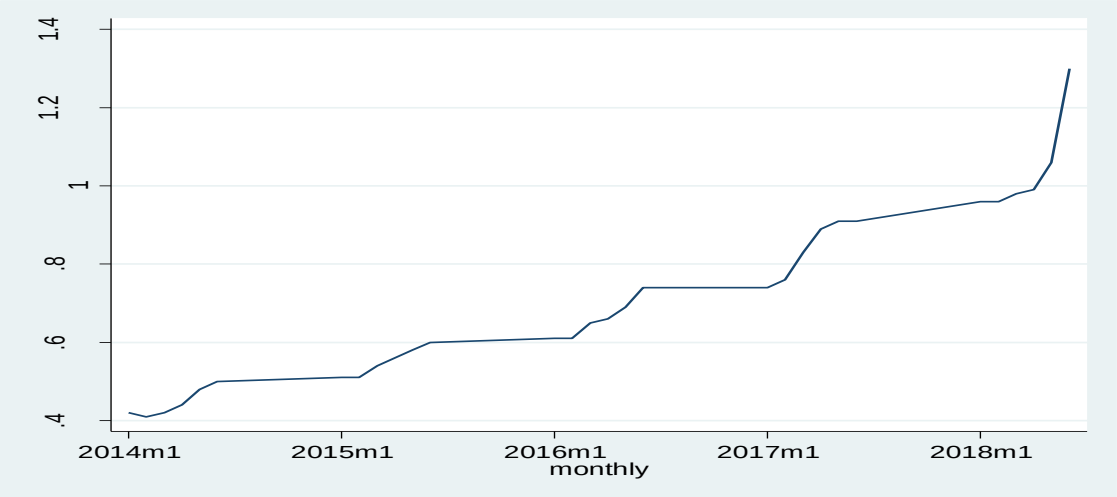

Figure 4.5: Investment Choice

Figure 4.5 presents trend in investment choice of all the six insurance companies between the year 2014 and 2018. From the findings, all the insurance companies

recorded an increase in their investment choice between the periods under consideration. Between 2014 and 2017 there was a steady increase which shot in 2017 and 2018.

4.4 Diagnostic Tests for Regression

Before computing regression analysis, the study tested the data collected to determine whether it met multiple regression assumptions. The study tested for Autocorrelation, Heteroscedasticity, Multicollinearity, and Normality Assumption.

4.4.1 Test for Autocorrelation

Serial autocorrelation was tested using Breusch Godfrey test and the findings were as presented in Table 4.2.

Table 4.2: Breusch-Godfrey Langrage Multiplier Autocorrelation test

Breusch-Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	14.915	1	0.0001

H0: no serial correlation

Durbin-Watson *d* test was used to check for autocorrelation where the value of *d* lies between 0 and 4. If the value is 2 then we conclude that no autocorrelation, when its 4 or close to 4 then there is negative autocorrelation if it's close to 1 and 0 then there is positive autocorrelation. From the findings, the p-value (0.0001), is less than the significance level (0.05), and hence we accept the null hypothesis that there is no serial correlation among the variables.

4.4.2 Heteroscedasticity

The study tested for heteroscedasticity using Breusch-Pagan test and the findings were as presented in Table 4.3.

Table 4.3: Breusch-Pagan/Cook-Weisberg Test for Heteroscedasticity

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: liquidity Investment_Horizon Risk_Appetitive Profitability

         chi2(4)      =     0.35
         Prob > chi2  =   0.9861
```

Heteroscedasticity (the violation of homoscedasticity) is present when the size of the error term differs across values of an independent variable. The impact of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroscedasticity increases. If the test statistic has a p-value below selected threshold ($p < 0.05$) then the null hypothesis of homoskedasticity is rejected and heteroskedasticity assumed. From the finding it was revealed that the p- value of 0.9861 was greater than 0.05 implying that the study accepts the null hypothesis of homoscedasticity.

4.4.3 Multicollinearity

The study tested multicollinearity using Variance inflation factors (VIF) and the findings obtained were as presented in Table 4.4.

Table 4.4: Test for Multicollinearity

Variable	VIF	1/VIF
liquidity	7.15	0.139775
Profitabil~y	6.88	0.145369
Risk_Appet~e	1.69	0.592558
Investment~n	1.31	0.760768
Mean VIF	4.26	

If the value of VIF is more than 10, we can say that the model is suffering from multicollinearity. Tolerance level formula is calculated as 1 divided by VIF. Variance

inflation factor (VIF) quantifies how much the variance is inflated. The findings indicate that the VIF values ranged between 1.31 and 7.15 indicating that the variance of the variables was inflated moderately. The analysis exhibits signs of multicollinearity though low levels. The results indicate that the overall VIF is 4.26 which is less than 10 implying that the study data did not exhibit multicollinearity problem as recommended by (Field, 2018). Thus, all the variables based on the VIF indicators have no severe multicollinearity problem.

4.4.4 Normality Assumption

The study used Shapiro- Wilsk test to establish normality of the error term. The findings of the test were as presented in Table 4.5.

Table 4.5: Normality Test

Variable	Obs	W	V	z	Prob>z
liquidity	30	0.83193	5.342	3.465	0.05027
Investment~n	30	0.96231	1.198	0.374	0.35438
Risk_Appet~e	30	0.93945	1.925	1.354	0.08792
Profitabil~y	30	0.86833	4.185	2.96	0.05154
Investment~e	30	0.93671	2.012	1.445	0.07421

The null-hypothesis of this test is that the population is normally distributed. Thus if the p-value is less than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population. In other words, the data are not normal. On the contrary, if the p-value is greater than the chosen alpha level, then the null hypothesis that the data came from a normally distributed is accepted. From the findings, the p values for each variable were as follows; liquidity (p-value=0.05027), investment horizon (p-value=0.35438), risk appetite (p-value=0.08792), profitability (p-value=0.05154) and investment choice (p-

value=0.07421). This shows that all variable were normally distributed and hence the data meets the regression analysis assumption of normality of data.

4.5 Inferential Statistics

The study computed inferential statistics to establish the relationship between the dependent and the independent variables. Specifically, correlation and regression analysis were computed.

4.5.1 Correlation Analysis

The study computed Spearman correlation analysis to establish the strength and the direction of the relationship between the dependent and the independent variables. The findings were as presented in Table 4.6.

Table 4.6: Correlation Analysis

	Invest~e	liquid~y	Invest~n	Risk_A~e	Profit~y
Investment~e	1.0000				
liquidity	0.9983*	1.0000			
	0.0000				
Investment~n	0.4760*	0.4769*	1.0000		
	0.0078	0.0077			
Risk_Appet~e	0.6747*	0.6735*	0.3684*	1.0000	
	0.0000	0.0000	0.0451		
Profitabil~y	0.9901*	0.9914*	0.4156*	0.6497*	1.0000
	0.0000	0.0000	0.0224	0.0001	

From the findings on the correlation analysis, the study found there was a strong positive and significant correlation coefficient between liquidity and investment choice

as shown by correlation factor of 0.9983, p=0.000. The study also found a strong positive significant correlation between investment horizon and investment choice as shown by correlation coefficient of 0.4760 and p-value of 0.0078. The study further found a strong positive correlation between risk appetite and investment choice as shown by correlation coefficient of 0.6747 and p-value of 0.000. Finally, the study established that there was a strong positive and significant correlation between profitability and investment choice as shown by correlation coefficient of 0.9901 and p-value of 0.0000.

4.5.2 Multiple Regression Analysis

Multiple regression analysis was performed to establish the factors affecting investment choices by insurance companies in Kenya.

4.5.2.1 Model Summary and Anova

Table 4.7: Model Summary and Anova

Source	SS	df	MS		
Model	1.44742005	4	.361855013	Prob > F	0.0000
Residual	.045366615	25	.001814665	R-squared	0.9696
Total	1.49278667	29	.051475402	Adj R-squared	0.9647
				Root MSE	.0426

Number of obs	30
F(4, 25)	199.41

From the ANOVA statistics, the study established the regression model had a significance level of 0.000 which is an indication that there was a significant relationship between the variables. The calculated F value was greater than the F critical value (199.41>2.759) an indication that there was a significant relationship between liquidity, investment horizon, risk appetite, and profitability and the dependent variable which was investment choices by insurance companies in Kenya. The p value

which was less than 0.05 indicated that the combined relationship between the selected factors on investment choices by insurance companies in Kenya was significant.

From the findings, the value of adjusted R squared was 0.9647, an indication that there was variation of 96.47% on investment choices by insurance companies in Kenya due to changes in liquidity, investment horizon, risk appetite, and profitability at 95% confidence interval. This shows that 96.47% of the changes on investment choices by insurance companies in Kenya could be accounted for by changes in liquidity, investment horizon, risk appetite, and profitability. This shows that the remaining 3.53% of the change in investment choices by insurance companies in Kenya was accounted for by other factors other than liquidity, investment horizon, risk appetite, and profitability.

4.5.2.2 Regression Coefficients

Table 4.8: Regression Co-efficient

InvestmentChoice	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
liquidity	.0197398	.0042035	4.70	0.000	.0110824	.0283971
Investment_Horizon	.1147808	.0544093	2.11	0.045	.0027228	.2268388
Risk_Appetitive	.0554914	.0260418	2.13	0.043	.0018574	.1091254
Profitability	.0577898	.0115829	4.99	0.000	.0339343	.0816454
_cons	.2547553	.078297	3.25	0.003	.0934996	.4160109

Assuming a linear relationship between the independent and the dependent variable and guided by OLS estimation methods, the relationship between the independent and dependent variables as presented by the regression model was tested. The multiple regression equation was;

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$

Whereby Y = Investment Choice; X_1 = Liquidity; X_2 = Investment Horizon; X_3 = Risk Appetitive; X_4 = Profitability and ε= Error term. From the data in the above table the established regression equation was;

$$Y = .2547553 + .0197398\ X_1 + .1147808\ X_2 + .0554914\ X_3 + .0577898\ X_4$$

From the above regression equation, it was revealed that holding liquidity, investment horizon, risk appetite, and profitability variables to a constant zero, to a constant zero, investment choices by insurance companies would be at 0.2547553. A unit increase in liquidity would lead to increase in investment choices by insurance companies in Kenya by .0197398. The study finding was in agreement with the findings of Cheung, Joong Im, and Zhang (2017) that stock liquidity increase propensity of the company raising the debt capital instead of equity capital. In addition, the positive effects of debt financing and stock liquidity were attributed to two economic mechanisms: high sensitivity of cost of debt capital to liquidity of stock than equity capital stock and hostile takeovers exposure.

The study also found that a unit increase in investment horizon would lead to an increase in investment choices by insurance companies in Kenya by .1147808. The investment horizon of an individual organization depends when and also the amount of funds needed and the horizon is influenced by optimum investment strategy. Generally, a shorter investment horizon implies lesser risks and less profit. The findings agree with Walsh (2014) that horizons accurately predict the behaviour of an investor. Aase (2009) also revealed that optimal fraction of risky assets isn't dependent on time horizons this is in canonical model of investments. It was further suggested that if risk aversion is allowed to depend on time or investors age the issue of investment horizons can be mitigated.

From the findings, a unit increase in risk appetite would result to an increase in investment choices by insurance companies in Kenya by .0554914. The findings concur with Nguyen, Gallery and Newton, (2017) that there exists positive relationship between client risk tolerance and investment decision-making. It also concurs with Dickason, Ferreira and McMillan (2018) that Investors having low levels of risk tolerance and investors whose personality is conservative tend to be focused on averting losses and are biases in their mental accounting; there is a tendency of investors with high levels of risk tolerance to be drawn to bias of self-control.

Finally, the study showed that a unit increase in profitability would result to an increase in investment choices by insurance companies in Kenya by .0577898. Company profitability is essential because it provides managers with ideas on efficiency of investment and therefore provides managers with ideas which will influence the decisions they make in the future. The findings disagree with Komala and Nugroho (2013) who reviewed the effects of profitability ratio, liquidity, and debt towards investment return and found that ROE has negative and significant effects to investment return. Nyoike (2012) established that many factors influence managers in their financing capital investment decisions. Among the most important factors were stability of future cash flows, profitability of the business, level of competition in the industry, stability of future sales and level of interest rates in the economy which concurs with the findings of this study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents and discusses the key data findings from the study, draws conclusion from the findings, and makes appropriate recommendations. The conclusions and recommendations drawn focused on addressing the major objective of the study. The researcher intended to establish the factors affecting investment choices by insurance companies in Kenya.

5.2 Summary of Findings

5.2.1 Effects of Liquidity on Investment Choices

From the regression finding the study found that liquidity positively influence the investment choices by insurance companies in Kenya. On the correlation findings the study found that there was a strong positive correlation between liquidity and investment choices by insurance companies in Kenya. The study findings are in agreement with the findings of Cheung, Joong Im, and Zhang (2017) that stock liquidity increase propensity of the company raising the debt capital instead of equity capital. In addition, the positive effects of debt financing and stock liquidity were attributed to two economic mechanisms: high sensitivity of cost of debt capital to liquidity of stock than equity capital stock and hostile takeovers exposure.

5.2.2 Effect of Investment Horizon on Investment Choices

From the regressions findings the study established that a unit increase in investment horizon would lead to increase in investment choices by insurance companies in Kenya.

The study further revealed that there was a strong positive correlation between investment horizon and investment choices by insurance companies in Kenya. The investment horizon of an individual organization depends when and also the amount of funds needed and the horizon is influenced by optimum investment strategy. Generally, a shorter investment horizon implies lesser risks and less profit. The findings agree with Walsh (2014) that horizons accurately predict the behaviour of an investor.

5.2.3 Effect of Risk Appetite on Investment Choices

The study also found that a unit increase in risk appetite would lead to increase in investment choices by insurance companies in Kenya. The study also found that there was strong positive correlation between risk appetite and investment choices by insurance companies in Kenya. The findings concur with Nguyen, Gallery and Newton, (2017) that there exists positive relationship between client risk tolerance and investment decision-making. Investors having low levels of risk tolerance and investors whose personality is conservative tend to be focused on averting losses and are biases in their mental accounting; there is a tendency of investors with high levels of risk tolerance to be drawn to bias of self-control.

5.2.4 Effect of Profitability on Investment Choices

The study revealed that a unit increase in profitability would lead to increase in investment choices by insurance companies in Kenya. The study established that there was a strong positive correlation between profitability and investment choices by insurance companies in Kenya. Company profitability is essential because it provides managers with ideas on efficiency of investment and therefore provides managers with ideas which will influence the decisions they make in the future. The findings disagree

with Komala and Nugroho (2013) who reviewed the effects of profitability ratio, liquidity, and debt towards investment return and found that ROE has negative and significant effects to investment return.

5.3 Conclusions

The study revealed that liquidity positively affects investment choices by insurance companies in Kenya. The study also found that there was strong positive relationship between liquidity and investment choices by insurance companies in Kenya. From the findings the study concludes that liquidity has a strong positive effect on investment choices by insurance companies in Kenya.

From the findings it can be concludes that investment horizon positively affect investment choices by insurance companies in Kenya, as the study established that there was strong positive relationship between investment horizon and investment choices by insurance companies in Kenya. The study also found that a unit increase in investment horizon would results to increase investment choices by insurance companies in Kenya.

The study revealed that a unit increase in risk appetite would lead to increase in investment choices by insurance companies in Kenya. The study also found that there was strong positive correlation between investment choices by insurance companies in Kenya and risk appetite. From the finding, the study concludes that risk appetite has a strong positive effect on the investment choices by insurance companies in Kenya.

The study established that there was a strong positive correlation between investment choices by insurance companies in Kenya and profitability. The study also found that there was a positive relationship between profitability and investment choices by

insurance companies. From the findings it can be concludes that profitability positively affects investment choices by insurance companies in Kenya.

5.4 Recommendations

5.4.1 Liquidity on Investment Choices

The study found that liquidity has a strong positive effect on investment choices by insurance companies in Kenya. The study therefore recommended that the management of insurance companies listed in the NSE should strive to achieve and maintain an optimal liquidity position that holds adequate cash/liquid resources for operational needs while the surplus liquid resources are invested in existing viable investment opportunities in the operating environment to enhance their growth and performance.

5.4.2 Investment Horizon on Investment Choices

The study found that investment horizon affects investment choices by insurance companies. The study recommends management of listed insurance companies to have a well-maintained portfolio in order to achieve success, they should also determine an asset allocation that best conforms to company's investment goals and strategies. The portfolio should meet the expected future needs for capital. The company should also be very clear about their investment objectives when considering switching funds, because their investment horizon can be directly affected.

5.4.3 Risk Appetite on Investment Choices

The study also found that a unit increase in risk appetite would lead to increase in investment choices by insurance companies in Kenya. The study therefore recommends

insurance companies to consider its risk appetite at the same time decides which goals or operational tactics to pursue. To determine risk appetite, management, with board review and concurrence, should take three steps: Develop risk appetite, Communicate risk appetite and Monitor and update risk appetite. Management should monitor activities for consistency with risk appetite through a combination of on-going monitoring and separate evaluations.

5.4.4 Profitability on Investment Choices

The study revealed that a unit increase in profitability would lead to increase in investment choices by insurance companies in Kenya. Therefore, the study recommends the need for the companies to evaluate the various investments options available so as to ensure that the project chosen will give maximum value/profits; decision makers in the companies should also weigh up risk involved in the projects chosen so as to provide the most suitable rewards for stakeholders including shareholders and customers.

5.5 Areas for Further Study

The study focused to establish the factors affecting investment choices by insurance companies in Kenya. The study focused on insurance companies listed with NSE, the study therefore recommends replication of the study in other investment companies to facilitate comparison and generalization of the research findings. The study also recommends a study to be conducted on the impact of country economic growth on performance of investment companies in Kenya.

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APPENDICES

Appendix II: Secondary Data Collection Sheet

	Liquidity	Investment Horizon (Investment Period in Years)	Risk Appetitive (Return on Investment)	Profitability (Return on Assets)	Investment Choice (Portfolio Weight for Government Bonds)
2014_1	8	0.48	3.6	3.6	0.74
2014_2	4	0.7	2.3	6.3	0.66
2014_3	2.08	0.08	0.8	0.6	0.58
2014_4	1.2	0.9	2.8	1.5	0.5
2014_5	0.5	0.3	0.7	0.4	0.42
2014_6	13.03	0.79	2.7	0.5	0.34
2015_1	17.1	0.78	4.8	3.7	0.76
2015_2	4.5	0.9	2.6	7.3	0.83
2015_3	1.12	0.86	0.9	0.7	0.91
2015_4	1.3	0.92	3.3	1.8	0.98
2015_5	0.47	0.96	1	0.3	0.61
2015_6	9.07	0.99	2.6	0.7	0.41
2016_1	17.4	0.7	6.8	4.1	0.51
2016_2	5.1	0.78	3	7.9	0.56
2016_3	1.37	0.15	0.9	0.9	0.6
2016_4	0.5	0.4	4.3	1.9	0.65
2016_5	0.43	0.72	1.5	0.4	0.69
2016_6	6.28	0.9	2.4	0.6	0.54
2017_1	29.2	0.95	6.1	4.3	0.96
2017_2	5.7	0.48	3.4	8.5	1.06
2017_3	1.48	0.71	1.2	1.2	0.51
2017_4	0.9	0.71	3.4	2	0.96
2017_5	0.56	0.91	1.6	0.3	0.74
2017_6	9.39	0.08	2.4	0.3	0.44
2018_1	29.7	0.6	6.3	4.2	1.01
2018_2	6.4	0.48	3.8	8.3	1.3
2018_3	1.77	0.99	1.4	1.3	0.61
2018_4	1.2	0.2	4.1	2.1	0.89
2018_5	0.63	0.54	1.7	0.5	0.91
2018_6	10.93	0.8	3	0.4	0.48