

**THE IMPACT OF INVESTMENT PORTFOLIO CHOICE ON FINANCIAL
PERFORMANCE OF INVESTMENT COMPANIES IN KENYA**

BY

EZEKIEL KINGORI KAMWARO

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DECLARATION

This research project is my original work and has not been submitted for a degree in any other university or college for examination/academic purposes.

Signed _____

Date: _____

EZEKIEL KINGORI KAMWARO

Reg No. D61/70201/2008

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

Signed: _____ **Date:** _____

MR. BARASA

Lecturer

School of Business

University of Nairobi

DEDICATION

This research project is dedicated to my wife Margaret, my son Ethan and my parents Mr. and Mrs Kamwaro for their sacrifice, support and motivation throughout my academic life.

ACKNOWLEDGEMENT

I thank God for being my source of strength in all that I do. I sincerely thank my supervisor Mr. Barasa for his guidance and patience throughout the research period. I am grateful for his advice that led to the successful completion of this research.

ABSTRACT

Investment is the sacrifice of current consumption for future consumption whose objective is to increase future wealth. Effective organizational decision-making is the primary responsibility and the raison of management (Dearlove, 1998). There is a long standing concern that the strategy literature needs a better understanding of how organizational structure and decision-making affect organizational performance. Despite the advantages of Investment Companies, Kenyans have been wary of investing through them challenging the premise that improved market performance should attract new investments. The only entrants into these investment channels are corporates and high net worth individuals. The study sought to determine the impact of investment portfolio choice on financial performance of investment companies.

This study took a causal research design approach. The study entailed a census of all the investment companies operating in Kenya and listed in the Nairobi Securities Exchange. There are four investment companies listed in Nairobi Securities Exchange. The study covered a period of five years starting in the year 2007 to year 2011. The study used secondary data sources available at the companies' books of account and the NSE or Capital Market Authority offices. The study used the multiple linear regression equation and the method of estimation was Ordinary Least Squares (OLS) so as to establish the impact of investment portfolio choice on profitability of investment companies.

The study revealed that investment portfolio choice affects the financial performance of investment companies listed in the Nairobi Securities Exchange. The study found that investment in bonds positively influences the financial performance of investment companies listed in the NSE. The study also found that investment in real estate and equity by investment companies positively impacted in the financial performance, it was found that size of the company positively impacted in the financial performance of investment companies. There is need for the management of investment companies to have solid organization structure, organization structure will influence their investment portfolio choice which impact on their financial performance.

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LIST OF ABBREVIATIONS

CIS	Collective Investment Scheme
CMA	Capital Market Authority
EUT	Expected Utility Theory
GIASE	General Index of the Athens Stock Exchange
MPT	Modern Portfolio Theory
NSE	Nairobi Securities Exchange
OECD	Organisation for Economic Co-operation and Development
ROA	Return on Equity
ROE	Return On Equity
TI	Treynor Index
UNCTAD	United Nations Conference on Trade and Development

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

An investment is the current commitment of resources for a period of time in the expectation of receiving future resources that will compensate the investor for the time the resources are committed, the expected rate of inflation and the risk – the uncertainty of future payments. Investment may also be defined as the change in capital stock during a period. Consequently, unlike capital, investment is a flow term and not a stock term. This means that capital is measured only at a point in time, while investment can only be measured over a period of time (Trygve, 2006). Companies invest because of the desire to pass money from the present into the future. Institutions investors anticipate future cash needs, and expect that their earnings in the future will not meet those needs. Another motivation is the desire to increase wealth, which requires risk taking as the return to investment in future and not guaranteed. The investment return is a measure of the growth in wealth resulting from that investment. This growth measure is expressed in percentage terms to make it comparable across large and small investors.

The effects of uncertainty, risk and volatility on the investment performance of developing countries have been of particular interest in the recent economics literature especially given the declining fixed capital formation rates in major developing countries during the 1990s (UNCTAD, 2003). In this respect, the empirical work so far suggests a general consensus regarding their negative effects on private investment performance in both developed and developing countries. Nevertheless, there are relatively few empirical studies exploring the channels through which uncertainty and risk affect investment. In

particular, the interactions among fixed investment, uncertainty, and portfolio choice remain an unexplored field of research. The absence of empirical work on the portfolio choice and its impact on performance for investment firms is particularly surprising given the increasing integration of international goods and capital markets and the widening gap between the real and financial sector transactions.

The portfolio choice problem and the optimum allocation of resources under multiple investment options is not a new topic in the economics literature. Grube (2012), for example, already pointed out the substitutability of real and financial assets in portfolio balances. Accordingly, depending on the respective rates of returns investors decide how to allocate their portfolios between real and financial investments.

Tornell (2010) argued that given the uncertain environment in developing countries, real sector firms may prefer to invest in more liquid *reversible* assets in the financial sectors that also offer comparable or higher rates of return on their investments rather than on *irreversible* fixed assets. However, despite such insights, there was no empirical study looking into this question of substitution between real and financial assets by real sector firms. Only recently, there is a growing body of research exploring this issue that can be referred to as the *financialization* literature that focuses on the following key points: i) increasing rates of return on financial capital over and above those on fixed capital, ii) increasing acquisition of short term financial assets by real sector firms, and iii) decreasing fixed investment rates. Accordingly, using macroeconomic data, Stockhammer (2004), Crotty (2005), Dumenil and Levy (2005), Epstein and Jayadev

(2005) provide empirical evidence on this structural change in the portfolio allocation decisions of non-financial corporations in high-income Organisation for Economic Co-operation and Development (OECD) countries.

1.1.1 Investment Portfolio

Investment is driven by three basic needs: income, capital preservation and capital appreciation. For income, investments can be made in the hope of providing future income. Usually investors want income to begin in the immediate future. For capital preservation, investments are made to preserve capital, or the original value. These are generally conservative investments. The investor wants the money set aside with the assurance that the funds will be available, with no risk of loss of purchasing power, at a future point in time. Because the investor wants to preserve the real value of the invested capital, the nominal value of the investment should increase at a pace consistent with inflation trends. For capital appreciation, investments are made so that funds will appreciate, or grow in value, to meet a future need. The aim is to have the value of the invested money grow at a faster rate than inflation so there is a positive return after the effects of taxes and inflation. Typically, investments made for capital appreciation include some risk exposure to get the desired return. Optimal investment implies that on profit margins, the firm must be indifferent between investing today and transferring those resources to tomorrow, as long as appropriate discount rate is identified to discount the payoff in the next period (Trygve, 2006).

In most emerging markets financial liberalization has been accompanied by sharp fluctuations in key macro and micro prices together with increasing uncertainty. Consumption volatility, for example, has increased in emerging markets during the 1990s (Kose et al., 2003). Likewise, capital flows to developing countries during the 1990s compared to late 70s and 80s are found to be ‘high, rising and unpredictable’ (Gabriele et al., 2000: 1051). The existing evidence also shows an increase in the volatility of stock markets as well as sales and earnings of firms in both developed and developing country markets for the last three decades (Gabel, 1995; Comin and Mulani, 2006).

In the case of growth volatility, although it has declined across developed countries during the 1990s, Montiel and Serven (2004) reported an increase in one third of 77 developing countries with an overall volatility being twice higher across developing countries. In addition, capital flows can have significantly negative effects on investment in tradable goods sectors through changing relative prices, which partly explain the decreasing business savings and employment contraction in these sectors (Frenkel and Ros, 2006). In addition, excess volatility in exchange rates raises inflation uncertainty and encourages financial investments by real sector firms (Felix, 1998; UNCTAD, 2006). Overall, increasing volatility may also become self-exacerbating as the investors shorten their time horizons either to benefit from speculative gains or to avoid excess risk (Gabel, 1995).

1.1.2 Financial Performance in Portfolio Industry

Several financial profitability measures have been adopted in financial statements analysis and long term planning (Ross, Westerfield, Jafee, & Jordan, 2008). Organizations are held accountable by measuring performance measurement; such become the consequences for performance, (Ross, et al , 2008). Managers need these to improve performance as well as value judgement from customers and citizens. In this study several financial ratios have been adopted. Return on Equity (ROA), a measure of profitability which divides the net income by the amount of its assets. ROA measures how well a fund is doing. It indicates how well the fund's assets have been invested used to generate optimal returns. In their study Kosmidou, Pasiouras, & Tsaklanganos, (2007) points out; the ROA has emerged as key ratio for the evaluation of profitability and has become the most common measure of profitability in the literature.

$$\text{ROA} = \frac{\text{Net income}}{\text{Total assets}}$$

ROA provides useful information about profitability, however the investors (unit holders) care more about how much the fund is earning on their investment, an amount that is measured by the return on equity (ROE), the net income per dollar of capital.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Capital}}$$

According to an indication by Willie and Hopkins, (1997) that the ultimate measure of the strength of any financial institution is not its asset size, the number of branches, or the pervasiveness of its electronics rather the true measure is its return on unit holders (ROE). Hence ROE is the preferred method of measuring profitability.

Thus, on review of the financial performance measures of funds, ROA and ROE will be considered as a general measure of funds profitability. Other ratios to be used in the study to indicate profitability and liquidity are as shown below;

$$\text{Return on Capital Employed} = \frac{\text{Operating Profit} \times 100\%}{\text{Capital Employed}}$$

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

1.1.3 Impact of Portfolio Choice on Financial Performance

The performance of the firm can be measured by its financial results, i.e., by its size of earnings riskiness and profitability are two major factors which jointly determine the value of the concern, (Pi and Timme, 1993). Financial decisions which increase risks will decrease the value of the firm and on the other hand, financial decisions which increase the profitability will increase value of the firm. Risk and profitability are two essential ingredients of a business concern. There has been a considerable debate about the ultimate objective of firm performance, whether it is profit maximization or wealth maximization (Pi and Timme, 1993). It is observed that while considering the firm

performance, the profit and wealth maximization are linked and are effected by one-another.

The financial performance of a corporation is of vital interest to many different groups and individuals. Lenders are concerned with the corporation's ability to repay loans as well as whether it is abiding by loan contracts. Purchasing agents for other companies are concerned with its viability as a supplier of goods or services for its products. Potential investors are interested in determining the financial strength of a company as an element in assessing the company's value. In addition to these external analysts, managers within the corporation are also concerned with analyzing its financial performance. These internal analysts compare the actual performance of the company and its divisions and lines of business with plans, budgets, or objectives; they also compare the company's performance with that of current and potential competition (Scott, 2007).

The primary sources of information these analysts use to evaluate firm's performance are its financial statements. Performance assessment via financial statement analysis is based on past data and conditions from which it may be difficult to extrapolate future expectations. Any decision to be made as a result of such performance assessment can affect only the future as the past is gone, or sunk.

While past performance is interesting, many managers and analysts are more interested in what will happen in the future. The past performance of a company, as shown in its financial statements, may be used to help predict future performance (Pi and Timme,

1993). When analyzing financial statements, one must keep in mind the purpose of the analysis. Since different analysts are interested in different aspects of a corporation's performance, no single analytical technique or type of analysis is appropriate for all situations.

1.1.4 Investment Companies in Kenya

In Kenya, the establishment and licensing of Investment Companies is done by the Capital Markets Authority (CMA). These firms are registered as Collective Investment Schemes (CIS) each mandated to operate investment based on the license granted. Kenya represents over 50% of the economic power of the East African countries, with the most active securities exchange, Nairobi Securities Exchange. Even with the growth in the number of investment firms, the uptake of these investment opportunities has been wanting. The volume of funds channeled to funds in comparison to other securities, questions the knowledge of the operations of funds, investor confidence and knowledge of the different investment vehicles available. The listed collective schemes are managed by investment companies. In Kenya there are four investment companies listed in the Nairobi Securities Exchange. This indicates that such investments are professionally managed and the returns derived should mimic the market trends. The Investment companies listed at are City Trust, Olympia Capital Holdings, Centum Investments and Trans Century.

1.2 Research Problem

Investment is the sacrifice of current consumption for future consumption whose objective is to increase future wealth. The sacrifice of current consumption takes place at

present with certainty and the investor expects desired level of wealth at the end of his investment horizon. The portfolio choice problem and the optimum allocation of resources under multiple investment options is not a new topic in the economics literature. Tornell (2010) argued that given the uncertain environment in developing countries, real sector firms may prefer to invest in more liquid *reversible* assets in the financial sectors that also offer comparable or higher rates of return on their investments rather than on *irreversible* fixed assets.

Effective organizational decision-making is the primary responsibility and the raison of management (Dearlove, 1998). There is a long standing concern that the strategy literature needs a better understanding of how organizational structure and decision-making affect organizational performance. Lack of knowledge regarding how decision making structure affects organizational performance continually resurfaces in different areas of management.

Despite the advantages of Investment Companies funds, Kenyans have been wary of investing through them challenging the premise that improved market performance should attract new investments. The only entrants into these investment channels are corporates and high net worth individuals.

Studies done in Kenya includes , Bowa (2001) who did a study to determine the risk minimizing portfolio at the NSE, Ngene (2002) did an empirical investigation into portfolio performance measures by pension fund managers and the challenges they face in portfolio management in Kenya, Okwach (2001) conducted study on the predictive

ability of closed-end value at risk model on changes to portfolio composition for selected intermediaries in Kenya, Sallah (2005) did a study on the portfolio returns using different portfolio management styles at the NSE, Mwangangi (2006), did a survey of the applicability of Markowitz portfolio optimization model in overall asset allocation decisions by pension fund managers in Kenya, Obusubiri (2006) conducted study on corporate social responsibility & portfolio performance at the NSE and Karanja (2007) conducted a study on factor influencing investment company portfolio choice, to the researcher knowledge no known local study has sought to determine the impact of investment portfolio choice on performance of investment companies, this study sought to fill the existing researcher gap by conducting a study to determine the impact of investment portfolio choice on performance of investment companies in Kenya, by answering the following research question, what was the impact of investment portfolio choice on financial performance of investment companies?

1.3 Research Objective

To determine the impact of investment portfolio choice on financial performance of investment companies

1.4 Value of the study

Investment Companies Managers make investment decisions for the investors. They seek to increase the penetration ratio in the market. Firm Financial performance is therefore affected by the decisions made by these managers. This study will therefore, be of help to them execute their role effectively and have the right investment portfolio for their firm.

Regulatory authorities play a crucial role in ensuring that there is fair play in the market by all relevant market players in the industry. This study will therefore assist the regulatory authorities in assessing the suitability of the current investment regulations for investment firms. What drives an industry forward or backward is highly dependent on the policies governing the industry. This study will enlighten Policy makers who are seeking a better understanding of the industry in order to formulate appropriate legislation.

Research and Development play a key role in any given economy .This study will be a source of reference material for future researchers and academicians who would study on related topics hence it formulates a basis for further research. Financial analysts carry out a research on market performance and on issues affecting the financial market players. Findings from the study will help them give sound information that will enable them to give informed decisions and offer appropriate advice to investors to make sound investment decisions.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter has three sections: theoretical framework, empirical studies and performance from the literature review. Theories and empirical studies on portfolio have been reviewed in this section. Theories and empirical studies questioning performance have been reviewed too.

2.2 Theoretical Review

Investor looks forward to getting good return for their investment as a compensation or reward for taking a risk in an investment. The study will be guided by the modern portfolio theory, expected utility theory and Financial Intermediation Theory which tries to show the relationship between the returns of a portfolio and the returns of a single asset through a linear combination of many independent macro-economic variables.

2.2.1 Modern Portfolio Theory

Balancing risk and returns is a cornerstone of modern portfolio theory. Markowitz's (1952) seminal work derived measures for calculating expected returns and expected risk of a portfolio. He presented variance as a meaningful measure of risk, and created a method of calculating the overall portfolio risk – taking into account the imperfect correlation of price movements between assets. Variance is a statistical measure of how widely dispersed a set of probability outcomes are around its mean value. When combining multiple assets that are less than perfectly correlated, the combined variance of the portfolio reduces. Markowitz's work into calculating these measures at a portfolio

level allows today's investors to quantify the relationship between risk and return rather than relying on the investor's best guess.

Markowitz makes a number of important assumptions (Reilly & Brown, 2009, pp. 182-183): Each asset has a set of probable outcomes which can be thought of as a probability distribution. Investors aim to maximise their single period utility of wealth. Investors are risk averse – that is, they have diminishing marginal utility of wealth. Investors can estimate risk based on the variability of returns. Investors only base their investment decisions on the first and second moments of the distribution – expected return and variance. For any given level of risk (or variance), the investor prefers a higher expected return. Similarly, for any given expected return, the investor prefers a lower level of risk.

2.2.2 Expected Utility Theory (EUT)

It makes sense that the explanations in human and social psychology would help in advancing our understanding of stock market behavior. The latest research has made great strides in explaining the persistence of anomalies by adopting a psychological perspective. In psychology literature reveals that individuals have limited information processing capabilities, exhibit systematic bias in processing information, are prone to making mistakes, and often tend to rely on the opinion of others. Rabin and Thaler (2001) discusses the explanation of risk aversion in the EUT is not plausible by providing examples of how the theory can be wrong and misleading. They call for a better model of describing choice under uncertainty. It is now agreed that the failure of EUT is based on

the fact that the psychological principles governing decisioning were not fully recognized and as a consequence it wasn't successful.

2.2.3 Financial Intermediation Theory

Intermediaries provide services: this is clear because intermediaries issue “secondary” financial assets to buy “primary” financial assets. If an intermediary provided no services, investors who buy the secondary securities issued by the intermediary might as well purchase the primary securities directly and save the intermediary's costs. To explain the sorts of services that intermediaries offer, it is useful to categorize them in terms of a simplified balance sheet. Asset services are those provided to the issuers of the assets held by an intermediary, e.g., to bank borrowers. An intermediary that provides asset services is distinguished by its atypical asset portfolio. Relative to an intermediary that provides no asset services, it will concentrate its portfolio in assets that it has a comparative advantage in holding (Allen, 1998).

The existence of financial intermediaries needs to be justified in economic terms because in the financial world, the financing of firms (and governments) by households occurs via financial markets in a frictionless manner - there are no transactions costs - which leaves no role for financial intermediaries. There are no transactions costs and there exists a full set of contingent markets in which all can participate. Credit markets also being perfect, individuals do not face credit rationing.

Allocation of resources is Pareto optimal and there is no role for intermediaries to add value. In addition, (employing Modigliani-Miller), financial structure is irrelevant as in a world such as that described; households can construct portfolios which offset the actions of an intermediary and intermediation cannot add any value (Fama, 1980). As noted by Allen and Santomero (1998) the traditional theory of financial intermediation is focused on the real-world market features of transactions costs and asymmetric information. These are central to the activity of banks and insurance companies. The idea of transactions costs, first developed in the context of the theory of the firm by Coase (1937), was introduced as a key form of friction in financial markets by Gurley and Shaw (1960). Economies of scale which benefit intermediaries result from indivisibilities and non-convexities in transactions technology which restrict diversification and risk sharing under direct financing. Examples include fixed costs of evaluating assets, and declining average trading costs which mean intermediaries may diversify more cheaply than individuals. The “liquidity insurance” banks provide to depositors and borrowers whereby deposits can be cashed on demand while banks' assets are mainly long-term and illiquid.

2.3 Investment Portfolio Choice

Effective organizational decision-making is the primary responsibility and the raison of management (Dearlove, 1998). According to Drucker (1979): Executives do many things in addition to making decisions. But only executives make decisions. The first managerial skill is, therefore, the making of effective decisions (Drucker, 1979 p2) Furthermore, of all the decisions that business executives must make, none is more challenging than

choosing among alternative capital investment opportunities (Hertz, 1964). Here executives must decide to invest some fixed amount today in exchange for an uncertain stream of future payoffs. Each investment decision often involves complexity and uncertainty. 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 fulfill 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 and Neale, 1996).

Since risk is essentially a mathematical construct, not an emotional one, the ability to properly understand and assess risk is critical (Pablo, 1997). The role of risk and uncertainty in decision-making is a topic that has increasingly attracted the attention of both practitioners and scholars. However, as indicated in the preceding quotes, managers hold widely divergent views on the handling of risk and uncertainty in business situations, with some taking a more analytical approach, whereas others appear to operate on a more intuitive basis. Similarly, researchers have historically developed explanations of how decisions are made under risk and uncertainty from a variety of theoretical perspectives, resulting in a fragmented and often contradictory body of literature on the subject (Pablo, 1997). Lipshitz and Strauss (1997) observed that decision-makers conceptualize risk and uncertainty differently and that this affects method of coping that

decision-makers use to cope with risk and uncertainty. It is accepted almost universally in the investment decision-making literature that risk and uncertainty are inherent in all investment decision-making (Bailey et al., 1999; Morgan and Henrion, 1990) and hence receive considerable attention in the academic investment decision-making literature (Atrill, 2000). This prominence is well deserved. Ubiquitous in realistic settings, risk and uncertainty constitute a major obstacle to effective capital investment decision-making (Simpson et al., 2000). However, despite this prominence, there is much confusion in the academic investment decision-making literature over the definitions of risk and uncertainty (Lipshitz and Strauss, 1997).

Risk considerations are at the very heart of most investment decisions. For both individuals and companies the incorporation of risk variables in the decision process is of utmost importance, (Gitari, 1990). Different perspectives on risk give rise to different schools of thought. The variability school, March and Shapira (1987) perceive risk as the variation in the distribution of possible outcomes, their likelihoods and their subjective values. This perception of risk also compares well with Robichek (1969) perception of risk being the possibility that the actual returns from an investment may differ from the expected returns. That is, the risk of a security is the variability in its expected future returns. High risk securities have high dispersion around the mean while low risk securities will have a low dispersion around the mean. Risk as measured as the variability of returns has received widespread acknowledgement in decision theory. Thus, risk viewed as the variability of returns is quantified in terms of variability measures which include range, mean absolute deviation, variance, standard deviation, and coefficients of

variation (Spiegel, 1988).

The volatility school of thought perceives risk in terms of the volatility of returns in relation to the market returns. Thus a stock whose returns are highly correlated with the market returns is said to have low volatility, whereas a stock whose returns have little correlation with the market returns is said to be highly volatile. A measure of risk based on the volatility concept quantifies only that portion of the total variation which is associated with the market variation (systematic risk) and ignores any unsystematic variation (Bower and Wipperfurth, 1969). Several recent studies empirically test the persistence in Investment Company's performance Grinblatt and Titman (1992), but do not thoroughly investigate other systematic factors that may affect future investment company's performance.

This concern goes back at least to Cyert (1963:21), who used the following questions in motivating their theoretical enterprise: "What happens to information as it is processed through the organization? What predictable screening biases are there in an organization? How do hierarchical groups make decisions?" But with a few exceptions, questions of this sort remain mostly unexplored in the strategy literature (Rumelt., 1994:42). This lack of knowledge regarding how decision making structure affects organizational performance continually resurfaces in different areas of management—for example, in the context of ambidextrous organizations, Raisch and Birkinshaw (2008:380) note that "far less research has traditionally been devoted to how organizations achieve organizational ambidexterity," and in the context of R&D organization, Argyres and

Silverman (2004:929) show surprise “that so little research has addressed the issue of how internal R&D organization affects the directions and impact of technological innovation by multidivisional firms.” These observations are congruent with the view that organization design—the field specifically devoted to studying the linkages between environment, organizational structure, and organizational outcomes despite its long history, is in many respects an emerging field (Foss, 2003).

2.4 Financial Performance

A strong debate continues over the methodology of measuring and comparing returns. As early as 1970, Friend, Blume, and Crockett warned about using a benchmark that effectively tricks the alpha calculation by over (under) weighting small-firm returns. During the same time period, Carlson (1977) further warned about drawing conclusions that were specific to the time period, type of fund, or choice of benchmark and stressed the importance of factors such as benchmark selection, survivability, portfolio composition, and non-CAPM return-generating factors when measuring fund performance.

2.4.1 Treynor Performance Index

Treynor (1965) developed a technique for performance evaluation, the Treynor Index (TI) that indicates the risk premium return earned per unit of systematic risk, which is measured by the portfolio beta. He indicates that risk components include risk produced by the general Market fluctuation and risk resulting from unique fluctuations in the portfolio securities. To identify risk due to market fluctuations he introduced the characteristic line which defines the relationship between the rates of return for a portfolio over time and the rates of return for an appropriate market portfolio. The slope

of the characteristic line is the beta. The characteristic line measures the relative volatility of the portfolio returns in relation to returns for the aggregate market. Deviations from the characteristic line indicate unique returns for the portfolio relative to the market. The larger the Treynor index, the better the portfolio to all the investors regardless of their risk preference as it denotes a superior risk adjusted performance.

2.4.2 Sharpe Performance Index

Sharpe (1966) introduced an alternative technique for performance evaluation and illustrated the technique in evaluating the performance of a large number of mutual funds. The Sharpe Index (SI) indicates the risk premium return earned per unit of total risk, which is measured by the portfolio standard deviation. The Sharpe Index summarizes the risk and return characteristics of a portfolio through a single index on a risk-adjusted basis. The larger the Sharpe Index the better the portfolio has performed.

2.4.3 Jensen Model

Jensen (1968) developed the Jensen model that is the intercept in a regression of the time series of excess returns (the difference between the portfolio returns and the Treasury bill rate) of the evaluated portfolio against the time series of excess returns of the benchmark portfolio. This gives us the return earned on the portfolio in excess of the risk free rate. Jensen argued that an indication of a portfolio's performance is the alpha coefficient α which represents the risk adjusted excess return. If $\alpha > 0$ and is significantly different from 0 in a statistical test, then the portfolio has superior performance. If $\alpha < 0$ and is statistically significant, then the portfolio has demonstrated poor performance. Finally, if

a is not statistically different from 0, indicates that the portfolio did not provide a risk-adjusted excess return. Jensen's alpha is the additional return (or loss) earned by the portfolio after adjusting for systematic risk.

2.5 Conclusion

Elton, Gruber and Blake (1995) found that bond funds underperformed the returns predicted by a relative pricing model that they developed by the amount of expenses, on average. They note that there is no evidence that managers, on average, can provide superior returns on the portfolios they manage, even if they provide their services free of cost and Milonas (1995) examined the performance of 36 mutual funds operating in the Greek financial market over the period 1990-1993. He concluded that the equity mutual funds achieved returns higher than those of the General Index of the Athens Stock Exchange (GIASE), while they undertook lower risk.

Artikis (2002) examined the performance of 17 equity mutual funds operating in the Greek financial market over the period 1995-1998. He concluded that all 17 mutual funds undertook total risk lower than the General Index of the Athens Stock Exchange (GIASE) and only 4 mutual funds achieved returns higher than the GIASE. Cesari and Panetta (2002) analysed 354 equity mutual funds in Italy over the period 1984 to 1995 and observed that with net returns the risk adjusted performance of the funds were not significantly different from zero, though with gross returns the performance was always positive.

In Kenya; Ochieng (2005) observed that Old Mutual Asset Management Kenya was established in 1997 and started operations in April 1998. As at April 2005, the total assets under management were over Kshs 49 billion and of this, the Equity fund that started operations on 1st April 2003 had an approximate net asset value of Kshs 2.0 billion. Wagacha (2001) outlined that with the passage of the Capital Markets Authority Amendment Act (2000), which recognizes specific investment vehicles and especially mutual funds and unit trusts, then more opportunities for diversification by both institutional and retail investors would emerge in Kenya. Kamanda (2001), evaluated the equity portfolios held by Kenyan insurance companies over the period January 1998 to December 1999 and observed that majority of the insurance companies' maintained poorly diversified portfolios and the market portfolio outperformed the insurance industry portfolio. Kamanda also observed that the market rate of return for the Nairobi Stock Exchange was less than the risk free rate during the study period.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methods, tools and sources of research data, targeted groups and sample from which data was collected in order to attain the objective of the study which was to find out the impact of investment portfolio choice on profitability of investment companies. It further discusses how the data was processed and tools to use in data analysis and presentation.

3.2 Research Design

This study took a causal research design approach. Causal Research explores the effect of one thing on another and more specifically, the effect of one variable on another, that is, concerned with cause-and-effect relationships between two or more variables, (Cooper & Schindler, 2006). Being that the study sought to find out the impact of investment portfolio choice on financial performance of investment companies, a causal research design was deemed appropriate. This study took into consideration all investment companies listed in Nairobi stock exchange, in order to determine the impact of investment portfolio choice on profitability of investment companies.

3.3 Target Population

The study entailed a census of all the investment companies operating in Kenya and listed in the Nairobi Securities Exchange. There are four investment companies listed in Nairobi Securities exchange. The study covered a period of five years starting in the years 2007 to years 2011.

3.4 Data Collection Procedure

The study used secondary data sources available at the companies' books of account and the NSE or Capital Market Authority offices. The Secondary data a source was chosen owing to the fact that they are cheaper and more quickly available than primary data and help clarify and answer research question (Kombo and Tromps, 2011). Secondary data was collected from the companies' annual reports as every company is required to report the extent to which they complied with the performance principles in their annual reports.

3.5 Data Analysis and presentation

The study used the multiple linear regression equation and the method of estimation was Ordinary Least Squares (OLS) so as to establish the impact of investment portfolio choice on profitability of investment companies.

3.5.1 Model Specification

The study used a regression to estimate the model with ROI as the dependent variable and investment portfolio choice as the independent variables as used by Nishat and Mir (2004).

The economic model used in the study is given as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon_{it}$$

(1)

Where, Y is the dependent variable, β_0 is constant $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are the coefficient of the explanatory variable (the determinant attributes), and ϵ_{it} is the error term assumed to have zero mean and independent across time period. From the economic model in the equation above, equation below will evolve:

$$\text{PERF} = \beta_0 + \beta_1 \text{ Bond} + \beta_2 \text{ Equity} + \beta_3 \text{ Real Estates} + \beta_4 \text{ Mutual fund} + \beta_5 \text{ Size} + \epsilon_{it} \dots$$

(2)

Where:

PERF	Financial Performance of investment companies,
Bond	is the amount invested in bond by investment companies,
Equity	is the amount invested in equity by investment companies
Real estate's	is the amount invested in real estate by investment companies
Mutual funds	is the amount invested in mutual funds by investment companies
Size	size of invermsnet of companies which will be used as controlling variable
ϵ_{it}	Stochastic Error term .

Table 3.1: Operation definition of variable

Variables	Measures
Financial performance	Was measured by use profitability ratio, which is Return on Investment. Return on assets is equal to net income divided by total assets of the company.
Bond	Measured by the ratio of the amount invested in bond in a particular year divided by the total investment in that year.
Equity	Measured by the ratio of the amount invested in equity in a particular year divided by the total investment in that year.
Real Estate	Measured by the ratio of the amount invested in real estate in a particular year divided by the total investment in that year.

Mutual Funds	Measured by the ratio of the amount invested in mutual funds in a particular year divided by the total investment in that year.
Size	This was used as controlling variable as it affects the firm financial performance. Size was measured by log of total assets.
ϵ_{it}	Stochastic Error term with value 0.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data findings to determine the impact of investment portfolio choice on financial performance of investment companies. These data were collected from the Nairobi Security Exchange and Capital Market Authority offices. Multiple linear regressions was established through Ordinary Least Squares (OLS) so as to determine the impact of investment portfolio choice on financial performance of investment companies. The study covered a period of 5 years from years 2007 to 2011.

4.2 Regression Analysis

Table 4.2: Summary of data

Company	Size	ROA	Bond	Equity	Mutual Funds	Real Estate
City trust	11.0442	0.22348	0.29566	0.06078	0.0596	0.30974
Olympia	11.0401	0.16604	0.29104	0.10988	0.20622	0.31292
Centum	10.87392	0.31304	0.2922	0.03836	0.12898	0.36474
Trans Century	10.93964	0.12792	0.27816	0.04544	0.1572	0.2275

Source, Author (2013)

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used Statistical Package for Social Sciences (SPSS V 20) to code, enter and compute the measurements of the multiple regressions.

Regression Analysis For 2007

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.951(a)	.904	.897	0.58238

Source, Author (2013)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.897, an indication that there was variation of 89.7% on the financial performance (ROA) of investment companies due to changes in investment in bond, equity, mutual funds, size of investment and real estate at 95% confidence interval . This shows that 89.7% changes in financial performance of investment companies could be accounted for investment in bond, equity, mutual funds, size of investment and real estate. R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.951.

Table 4.4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.708	2	0.854	3.316	.002(a)
	Residual	3.644	2	1.822		
	Total	5.352	4			

Source, Author (2013)

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.002 which shows that the data is ideal for

making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value ($2.262 < 3.316$) an indication that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 4.5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.790	.465		2.098	.024
	Bond	.812	.491	.251	.820	.032
	Equity	.108	.190	.010	.034	.014
	Mutual funds	.252	.151	.207	.668	.019
	Real estate's	.270	.415	.194	.601	.001
	Size	.115	.986	.049	.152	.002

Source, Author (2013)

From the data in the above table the established regression equation was

$$Y = 0.790 + 0.812 X_1 + 0.108 X_2 + 0.252 X_3 + 0.270 X_4 + 0.115 X_5$$

From the above regression equation it was revealed that holding investment in bond, equity, mutual funds, real estate and size of investment to a constant zero, financial performance of investment companies would stand at 0.790, a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies by a factor of 0.812, unit increase in investment in equity would lead to

increase in financial performance of investment companies by a factor of 0.108 , a unit increase in investments in mutual funds would lead to increase in financial performance of investment companies by a factor of 0.252, a unit increase in investment in real estate would lead to increase in financial performance of investment companies by a factor of 0.270 and unit increase in size of the investment companies would lead to increase in financial performance of investment companies by a factor of 0.115.

Regression Analysis For 2008

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924(a)	.854	.829	0.89628

Source, Author (2013)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.829, an indication that there was variation of 82.9% on the financial performance (ROA) of investment companies due to changes in investment in bond, equity, mutual funds, size of investment and real estate at 95% confidence interval . This shows that 82.9% changes in financial performance of investment companies could be accounted for investment in bond, equity, mutual funds, size of investment and real estate. R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.924.

Table 4.7: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.566	2	.283	.003	.007(a)
	Residual	1.872	2	.936		
	Total	2.438	4			

Source, Author (2013)

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.007 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value ($2.262 < 3.337$) an indication that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 4.8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.621	29.609		.055	.007
	Bond	.145	13.941	.024	.075	.002
	Equity	.035	3.290	.003	.011	.012
	Mutual funds	.143	6.690	.007	.021	.013
	Real estate's	.517	.362	.355	1.429	.018
	Size	.521	2.328	.483	1.942	.011

Source, Author (2013)

From the data in the above table the established regression equation was

$$Y = 0.621 + 0.145 X_1 + 0.035 X_2 + 0.143X_3 + 0.517 X_4 + 0.521 X_5$$

From the above regression equation it was revealed that holding investment in bond, equity, mutual funds, real estate and size of investment to a constant zero, financial performance of investment companies would stand at 0.621, a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies by a factor of 0.145, unit increase in investment in equity would lead to increase in financial performance of investment companies by a factor of 0.035, a unit increase in investments in mutual funds would lead to increase in financial performance of investment companies by a factor of 0.143, a unit increase in investment in real estate would lead to increase in financial performance of investment companies by a factor of 0.517 and unit increase in size of the investment companies would lead to increase in financial performance of investment companies by a factor of 0.521.

Regression Analysis For 2009

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.981(a)	.962	.947	0.73608

Source, Author (2013)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.947, an indication that there was variation of 94.7% on the financial performance (ROA) of investment companies due to changes in investment in bond, equity, mutual funds, size of investment and real estate at 95% confidence interval. This shows that 94.7% changes in financial performance of investment companies could be accounted for investment in bond, equity, mutual funds,

size of investment and real estate. R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.981.

Table 4.10: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.016	2	.008	.169	.047(a)
	Residual	1.582	2	.791		
	Total	1.598	4			

Source, Author (2013)

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.047 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value ($2.262 < 3.337$) an indication that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya .The significance value was less than 0.05 an indication that the model was statistically significant.

Table 4.11: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.884	.354		.166	.011
	Bond	.598	.635	.181	.581	.024
	Equity	.196	.246	.019	.060	.023
	Mutual funds	.115	.986	.049	.152	.012
	Real estate's	.120	.410	.497	2.346	.041
	Size	.163	.986	.444	2.096	.021

Source, Author (2013)

From the data in the above table the established regression equation was

$$Y = 0.884 + 0.598 X_1 + 0.196 X_2 + 0.115X_3 + 0.120 X_4 + 0.163 X_5$$

From the above regression equation it was revealed that holding investment in bond, equity, mutual funds, real estate and size of investment to a constant zero , financial performance of investemnet companies would stand at 0.884, a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies by a factor of 0.598, unit increase in investment in equity would lead to increase in financial performance of investemnet companies by a factor of 0.196 , a unit increase in investments in mutual funds would lead to increase in financial performance of investment companies by a factor of 0.115, a unit increase in investment in real estate would lead to increase in financial performance of investment companies by a factor of 0.120 and unit increase in size of the investment companies would lead to increase in financial performance of investment companies by a factor of 0.163.

Regression Analysis For 2010

Table 4.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.926(a)	.857	.842	0.92918

Source, Author (2013)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.842, an indication that there was variation of 84.2% on the financial performance (ROA) of investment companies due to changes in investment in bond, equity, mutual funds, size of investment and real estate at 95% confidence interval . This shows that 84.2% changes in financial performance of investment companies could be accounted for investment in bond, equity, mutual funds, size of investment and real estate. R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.926.

Table 4.13: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.858	2	.429	3.595	.037(a)
	Residual	1.744	2	.872		
	Total	2.602	4			

Source, Author (2013)

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.037 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value)

is less than 5%. The calculated value was greater than the critical value ($2.262 < 3.595$) an indication that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya .The significance value was less than 0.05 an indication that the model was statistically significant.

Table 4.14: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.743	.469		1.052	.018
	Bond	.341	.647	.005	.016	.088
	Equity	.689	.580	.328	1.042	.022
	Mutual funds	.737	.537	.334	1.079	.006
	Real estate's	.169	.052	.498	2.356	.040
	Size	.167	.981	.445	2.103	.012

Source, Author (2013)

From the data in the above table the established regression equation was

$$Y = 0.743 + 0.341 X_1 + 0.689 X_2 + 0.737X_3 + 0.169 X_4 + 0.167 X_5$$

From the above regression equation it was revealed that holding investment in bond, equity, mutual funds, real estate and size of investment to a constant zero , financial performance of invetsment companies would stand at 0.743, a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies by a factor of 0.341, unit increase in investment in equity would lead to increase in financial performance of investemnet companies by a factor of 0.689 , a unit increase in investments in mutual funds would lead to increase in financial performance of investment companies by a factor of 0.737, a unit increase in investment in real estate

would lead to increase in financial performance of investment companies by a factor of 0.169 and unit increase in size of the investment companies would lead to increase in financial performance of investment companies by a factor of 0.167.

Regression Analysis For 2011

Table 4.15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.928(a)	.861	0.847	0.92342

Source, Author (2013)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.847, an indication that there was variation of 84.7% on the financial performance (ROA) of investment companies due to changes in investment in bond, equity, mutual funds, size of investment and real estate at 95% confidence interval . This shows that 84.7% changes in financial performance of investment companies could be accounted for investment in bond, equity, mutual funds, size of investment and real estate. R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.928.

Table 4.16: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.77	2	.885	3.603	.016(a)
	Residual	1.562	2	.781		
	Total	3.332	4			

Source, Author (2013)

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.016 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value ($2.262 < 3.603$) an indication that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 4.17: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.493	.474		1.129	.025
	Bond	.262	.375	.037	.122	.006
	Equity	.740	.506	.334	1.093	.000
	Mutual funds	.695	.441	.029	.093	.027
	Real estate's	.196	.695	.065	.458	.048
	Size	.625	.666	.138	.976	.033

Source, Author (2013)

From the data in the above table the established regression equation was

$$Y = 0.493 + 0.262 X_1 + 0.740 X_2 + 0.695 X_3 + 0.196 X_4 + 0.625 X_5$$

From the above regression equation it was revealed that holding investment in bond, equity, mutual funds, real estate and size of investment to a constant zero, financial performance of investment companies would stand at 0.493, a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies by a factor of 0.262, unit increase in investment in equity would lead to increase in financial performance of investment companies by a factor of 0.740, a unit

increase in investments in mutual funds would lead to increase in financial performance of investment companies by a factor of 0.695, a unit increase in investment in real estate would lead to increase in financial performance of investment companies by a factor of 0.196 and unit increase in size of the investment companies would lead to increase in financial performance of investment companies by a factor of 0.625.

Summary

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.691(a)	.653	.645	.19440

Source, Author (2013)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.645, an indication that there was variation of 64.5% on the financial performance (ROA) of investment companies due to changes in investment in bond, equity, mutual funds, size of investment and real estate at 95% confidence interval . This shows that 64.5% changes in financial performance of investment companies could be accounted for investment in bond, equity, mutual funds, size of investment and real estate. R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.691.

Table 4.19: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.144	2	0.072	2.483	.018(a)
	Residual	0.058	2	0.029		
	Total	0.202	4			

Source, Author (2013)

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.018 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value ($2.262 < 2.483$) an indication that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 4.20: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Constant	.298	.453		2.165	.006
	Bond	.237	.160	.198	1.479	.012
	Equity	.231	.126	.245	1.834	.001
	Mutual funds	.239	.145	.008	.065	.023
	Real estate's	.281	.114	.031	.246	.016
	Size	.208	.093	.268	2.231	.028

Source, Author (2013)

From the data in the above table the established regression equation was

$$Y = 0.298 + 0.237 X_1 + 0.231 X_2 + 0.239 X_3 + 0.281 X_4 + 0.208 X_5$$

From the above regression equation it was revealed that holding investment in bond, equity, mutual funds, real estate and size of investment to a constant zero, financial performance of investment companies would stand at 0.298, a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies by a factor of 0.237, unit increase in investment in equity would lead to increase in financial performance of investment companies by a factor of 0.231, a unit increase in investments in mutual funds would lead to increase in financial performance of investment companies by a factor of 0.239, a unit increase in investment in real estate would lead to increase in financial performance of investment companies by a factor of 0.281 and unit increase in size of the investment companies would lead to increase in financial performance of investment companies by a factor of 0.203.

4.3 Summary and Interpretation of major Findings

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings on the adjusted R square the study revealed that major variation on the financial performance (ROA) of investment companies could be accounted to changes in investment in bond, equity, mutual funds, size of investment and real estate. The study revealed that there was strong positive relationship between financial performance of investment companies and investment in bond, equity, mutual funds, size of investment and real estate, as there was high value of correlation coefficient.

From the findings on the ANOVA, the study revealed that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial

performance (ROA) of investment firm in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant.

From the data in the above table the established regression equation for 2007 was

$$Y = 0.790 + 0.812 X_1 + 0.108 X_2 + 0.252 X_3 + 0.270 X_4 + 0.115 X_5$$

From the data in the above table the established regression equation for 2008 was

$$Y = 0.621 + 0.145 X_1 + 0.035 X_2 + 0.143X_3 + 0.517 X_4 + 0.521 X_5$$

From the data in the above table the established regression equation for 2009 was

$$Y = 0.884 + 0.598 X_1 + 0.196 X_2 + 0.115X_3 + 0.120 X_4 + 0.163 X_5$$

From the data in the above table the established regression equation for 2010 was

$$Y = 0.743 + 0.341 X_1 + 0.689 X_2 + 0.737X_3 + 0.169 X_4 + 0.167 X_5$$

From the data in the above table the established regression equation for 2011 was

$$Y = 0.493+ 0.262 X_1 + 0.740 X_2 + 0.695X_3 + 0.196 X_4 + 0.625 X_5$$

From the regression equation it was revealed investment in bond, equity, mutual funds, real estate and size of investment were positively related to financial performance of investment companies.

Elton, Gruber and Blake (1995) found that bond funds underperformed the returns predicted by a relative pricing model that they developed by the amount of expenses, on average. They note that there is no evidence that managers, on average, can provide superior returns on the portfolios they manage, even if they provide their services free of

cost and Milonas (1995) examined the performance of 36 mutual funds operating in the Greek financial market over the period 1990-1993. He concluded that the equity mutual funds achieved returns higher than those of the General Index of the Athens Stock Exchange (GIASE), while they undertook lower risk.

Artikis (2002) examined the performance of 17 equity mutual funds operating in the Greek financial market over the period 1995-1998. He concluded that all 17 mutual funds undertook total risk lower than the General Index of the Athens Stock Exchange (GIASE) and only 4 mutual funds achieved returns higher than the GIASE. Cesari and Panetta (2002) analysed 354 equity mutual funds in Italy over the period 1984 to 1995 and observed that with net returns the risk adjusted performance of the funds were not significantly different from zero, though with gross returns the performance was always positive.

Tornell (2010) argued that given the uncertain environment in developing countries, real sector firms may prefer to invest in more liquid *reversible* assets in the financial sectors that also offer comparable or higher rates of return on their investments rather than on *irreversible* fixed assets. Effective organizational decision-making is the primary responsibility and the raison of management (Dearlove, 1998). A small fund can easily put all of its money in its best ideas, a lack of liquidity forces a large fund to have to invest in its not-so-good ideas and take larger positions per stock than is optimal, thereby eroding performance. Grinblatt and Sheridan Titman (1989) find mixed evidence that fund returns decline with fund size. Needless to say, there is no consensus on this issue.

According to Drucker (1979), executives do many things in addition to making decisions. But only executives make decisions. The first managerial skill is, therefore, the making of effective decisions (Drucker, 1979). Furthermore, of all the decisions that business executives must make, none is more challenging than choosing among alternative capital investment opportunities (Hertz, 1964). 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 and Neale, 1996). Since risk is essentially a mathematical construct, not an emotional one, the ability to properly understand and assess risk is critical (Pablo, 1997). The role of risk and uncertainty in decision-making is a topic that has increasingly attracted the attention of both practitioners and scholars.

Researchers have historically developed explanations of how decisions are made under risk and uncertainty from a variety of theoretical perspectives, resulting in a fragmented and often contradictory body of literature on the subject (Pablo, 1997). Lipshitz and Strauss (1997) observed that decision-makers conceptualize risk and uncertainty differently and that this affects method of coping that decision-makers use to cope with risk and uncertainty. It is accepted almost universally in the investment decision-making literature that risk and uncertainty are inherent in all investment decision-making (Bailey et al., 1999; Morgan and Henrion, 1990) and hence receive considerable attention in the academic investment decision-making literature (Atrill, 2000).

March and Shapira (1987) perceive risk as the variation in the distribution of possible

outcomes, their likelihoods and their subjective values. This perception of risk also compares well with Robichek (1969) perception of risk being the possibility that the actual returns from an investment may differ from the expected returns. That is, the risk of a security is the variability in its expected future returns. A measure of risk based on the volatility concept quantifies only that portion of the total variation which is associated with the market variation (systematic risk) and ignores any unsystematic variation (Bower and Wipperfurth, 1969). Several recent studies empirically test the persistence in Investment Company's performance Grinblatt and Titman (1992), but do not thoroughly investigate other systematic factors that may affect future investment company's performance.

Argyres and Silverman (2004) show surprise "that so little research has addressed the issue of how internal R&D organization affects the directions and impact of technological innovation by multidivisional firms." These observations are congruent with the view that organization design—the field specifically devoted to studying the linkages between environment, organizational structure, and organizational outcomes despite its long history, is in many respects an emerging field (Foss, 2003).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusion and recommendations were made. The responses were based on the objectives of the study. The researcher had intended to determine the impact of investment portfolio choice on financial performance of investment companies.

5.2 Summary of findings

From the findings on the adjusted R square the study revealed that major variation on the financial performance (ROA) of investment companies could be accounted to changes in investment in bond, equity, mutual funds, size of investment and real estate. The study revealed that there was strong positive relationship between financial performance of investment companies and investment in bond, equity, mutual funds, size of investment and real estate, as there was high value of correlation coefficient.

From the findings on the ANOVA, the study revealed that investment in bond, equity, mutual funds, size of investment and real estate were significantly influencing financial performance (ROA) of investment firm in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant. The study revealed that a unit increase in investment in bond would lead to increase in financial performance (ROA) of investment companies, unit increase in investment in equity would lead to

increase in financial performance of investment companies, a unit increase in investments in mutual funds would lead to increase in financial performance of investment companies, a unit increase in investment in real estate would lead to increase in financial performance of investment companies and unit increase in size of the investment companies would lead to increase in financial performance of investment companies. From the regression equation it was revealed investment in bond, equity, mutual funds, real estate and size of investment were positively related to financial performance of investment companies.

5.3 Conclusion

From the findings the study revealed that investment portfolio choice affect the financial performance of investment companies listed in the Nairobi Securities Exchange.

The study revealed that investment in bond and real estate positively influences the financial performance of investment companies listed in the NSE.

The study also found that investment in real estate and equity by investment companies positively impacted in the financial performance.

It was found that size of the company positively impacted in the financial performance of investment companies.

5.4 Policy Recommendations

There is need for the management of investment companies to have solid organization structure. Organization structure will influence their investment portfolio choice which impact on their financial performance. Good organization structure will allow for better

investment decision in the companies that manage their investment and thus increasing the performance of their companies in Kenya.

There is need to increase the size of the companies in the country. Increase in fund size in the country will have positive impact on the performance investment companies, as it was found that performance and size have a positive significant relationship.

5.5 Suggestions for Further Research

A study can be designed to find out the impact of country economic growth on performance of investment companies in Kenya. This will give an indication on the effects of country economic growth on performance of investment companies in Kenya.

The study recommends a study should be conducted on the effects of trading on margins on financial performance of investment companies listed in the NSE

The study sought to determine impact of investment portfolio choice on financial performance of investment companies, there is need for a similar study to be replicated on investment companies not listed in the NSE.

5.6 Limitations of the Study

In attaining its objective the study was limited to 4 firms listed companies in the NSE.

The study used investment companies listed in the NSE.

Secondary data was collected from the firm financial reports. The study was also limited to the degree of precision of the data obtained from the secondary source. While the data was verifiable since it came from the Nairobi Securities Exchange publications, it nonetheless could still be prone to these shortcomings.

The study was limited to determine the impact of investment portfolio choice on financial performance of investment companies. For this reason the non-listed firms could not be incorporated in the study.

The study was based on a five year study period from the year 2007 to 2011. A longer duration of the study will have captured periods of various economic significances such as booms and recessions. This may have probably given a longer time focus hence given a broader dimension to the problem.

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APPENDICES

Appendix 1: Data

Table of Year 2007

Company	Size	ROA	Bond	Equity	Mutual Funds	Real Estate
City trust	10.8721	0.2711	0.1003	0.0957	0.0912	0.3729
Olympia	10.6370	0.1138	0.1587	0.0565	0.1235	0.3845
Centum	11.0569	0.1438	0.1704	0.0056	0.0715	0.5894
Trans Century	10.3464	0.0184	0.2403	0.0129	0.1008	0.0255

Year 2008

Company	Size	ROA	Bond	Equity	Mutual Funds	Real Estate
City trust	10.9040	0.1260	0.1457	0.0394	0.0499	0.3168
Olympia	10.9626	0.1942	0.1762	0.0063	0.2146	0.5236
Centum	10.7606	0.7730	0.1707	0.0712	0.2303	0.3915
Trans Century	11.0284	0.3369	0.0425	0.1416	0.0825	0.2796

Year 2009

Company	Size	ROA	Bond	Equity	Mutual Funds	Real Estate
City trust	11.3029	0.2715	0.9395	0.0333	0.0913	0.1069
Olympia	11.1833	0.1874	0.8320	0.3487	0.2021	0.3254
Centum	10.5408	0.0910	0.6218	0.0348	0.2246	0.0517
Trans Century	10.8617	0.1377	0.8230	0.0275	0.1956	0.1093

Year 2010

Company	Size	ROA	Bond	Equity	Mutual Funds	Real Estate
City trust	11.0671	0.2623	0.1243	0.0356	0.0523	0.1993
Olympia	11.7012	0.2103	0.2121	0.1150	0.2216	0.1223
Centum	10.8094	0.2156	0.4612	0.0176	0.1021	0.5846
Trans Century	11.3696	0.0941	0.2253	0.0350	0.3430	0.5945

Year 2011

Company	Size	ROA	Bond	Equity	Mutual Funds	Real Estate
City trust	11.0749	0.1865	0.1685	0.0999	0.0133	0.5528
Olympia	10.7164	0.1245	0.0762	0.0229	0.2693	0.2088
Centum	11.2019	0.3418	0.0369	0.0626	0.0164	0.2065
Trans Century	11.0921	0.0525	0.0597	0.0102	0.0641	0.1286