

**RELATIONSHIP BETWEEN ASSET ALLOCATION AND FINANCIAL  
PERFORMANCE OF MUTUAL FUNDS IN KENYA**

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## DECLARATION

I declare that this research project is my original work and has not been submitted for a degree in any other university.

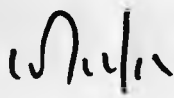
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This project has been submitted for examination with my approval as the University Supervisor.

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## DEDICATION

This research is dedicated to my dear wife Mrs. Rachel Bryant who encouraged, inspired and prayed for me in making sure that this project is a reality, my daughters, Patience and Emmaline Bryant, my son, Buster D. Bryant, Jr. to my late mother Emmaline Bryant, my brother, William L. Bryant and to my nephew Arthur O. Bryant.

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Special thanks and appreciation go to my beloved wife Mrs. Rachel Bryant who through our twenty four years of relationship had been faithful and committed to me. I love you sweetheart.

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## ABSTRACT

The mutual funds industry in Kenya has been in a process of significant transformation. The force behind this transformation of the mutual fund industry is how these funds allocate assets which impact their overall financial performance. Mutual Funds including Pension funds are the principal sources of retirement income for millions of people in the world. They are also important contributors to the GDPs of countries and a significant source of capital in financial markets.

The objective of this study is to investigate whether unit trusts in Kenya have better performance compared to that of market portfolio, given their systematic risk. The study found out that there was a difference between the performance of unit trusts and the market. This is illustrated especially in the year 2011, where the stock market slumped in its performance while that of the unit trusts improved in its returns by 18% as compared to the previous years. However, in the year 2010 and 2011 both returns from the stock market and the unit trust recorded an upward trend while in 2010, both were affected by external factors namely the post-election violence to record a downward trend in performance. Given the desire of investors to seek out diversification in their asset portfolios and considering the performance of the stock markets, many investors have sought to diversify their holdings further by investing in unit trusts. Unit trusts are attractive mainly because of the minimum risk involved as well as mutual funds are professionally managed. These funds are invested in shares, bonds and real estates.

The findings show that unit trusts have performed well over the period of study. In most of the instances, the market trail behind the performance of unit trusts. The fact that unit trust outperformed the market can be attributed to the fact that fund managers could be in a position to predict stock prices based on several fundamental variables such as initial dividend yields, market capitalization, price earnings ratios, and price to book value ratios. This implies that fund managers may have access to enough private information to offset their expenses. These results are consistent with the notion that mutual funds are efficient.

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## ABBREVIATIONS

- CAPM** : Capital Asset Pricing Model
- CIS** : Collective Investment Schemes
- CMA** : Capital market authority
- GNP** : Gross National Product
- MCC** : Maxwell Communication Corporation.
- NSE** : Nairobi stock exchange
- UK** : United Kingdom
- USA** : United States of America

# **CHAPTER ONE**

## **INTRODUCTION**

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

The role of financial system in any country is to aggregate capital from surplus source and allocates the resources to deficit units through formal and informal channels. Financial markets provide the mechanism that links surplus to finance deficits units with additional options. The financial system comprises of numerous commercial banks, non- bank financial institutions, a range of insurance companies, and a stock exchange (Faure, 1987).

According to Wagacha (2001), capital markets are essential part of the financial sector of modern economies and more so for growing economies. They provide an avenue for alternative savings tools to savers and non- bank sources of financing for enterprises. Thus, capital markets promote economic growth through enhanced savings mobilization. He concluded that a well developed capital market promotes economic growth through increased savings mobilization, access to foreign savings, spreading of financial risks, help the government finance their deficits while reducing the fiscal pressures of debt redemption by the maturities of the securities, and a facilitating role in translating savings to investments.

A report from NSE (2002) indicates that in a bid to deepen the capital markets access to investors, the Capital Markets Authority (CMA) issued guidelines for the development of Collective Investment Schemes (CIS) in 2001. CIS are an intermediation that pools the savings of individual investors to enable them to benefit from professional fund management, economies of scale, and to achieve a greater level of diversification than would not otherwise be possible. CIS includes Mutual funds, Mutual Funds (open and closed), and Special Interest Collective Investment Schemes. According to African Alliance Kenya Investment Bank, mutual funds are a means of participation in the equity, bond and the money market for investors (or unit holders) that in their individual capacity may not have the time, the money or expertise to successfully effect investments in these markets. They are an ideal investment vehicle for investors seeking exposure to the financial markets across the

spectrum, from the individual to pension funds, companies and government institutions. Mutual funds are a medium to long-term investment (ideally a minimum of three to five years) allowing market fluctuations time to smoothen out. The portfolios of Collective Investment Schemes include equities, bonds (corporate and government) and money market securities e.g. Treasury Bills.

Loft house (2001) looks at mutual funds as part of Collective Investment Schemes where investors with similar investment objectives pool their money together. The assets are placed under the control of trustees for the benefit of beneficiaries. The managers are responsible for the day-to-day investment management. Mutual funds are open ended in the sense that anyone can buy units from the managers who will create new units for them, or sell back their units for cancellation or liquidity by the managers.

### **1.1.1 Asset Allocation and mutual funds in Kenya**

Reilly and Brown (1997), defines asset allocation as the process of deciding how to distribute an investor's wealth among different countries and asset classes for purposes of investment. This asset allocation is based on investor's policy statement and it contributes to the performance of an investment. A policy statement includes investor's goal/ objectives, constraints, and investment guidelines. They are developed to determine the overall investment strategy. It does not indicate specific securities to purchase and when they should be sold; they should provide guidelines as to the asset classes that should be included in the portfolio and the relative proportions of the investor's fund that should be invested in each class.

There are two types of asset allocation strategies namely: strategic and tactical asset allocation. Strategic asset allocation refers to how portfolio funds will be divided given the portfolio manager's long-term forecasts of expected returns, variance and covariance (Sharpe 1996). According to Loft house (2001), strategic weights should be set based on: capitalization where all investors should hold the same risky portfolio the market portfolio and should vary their holding of a risk- free asset to obtain the risk-return trade-off that they desire; or following the median manager that is doing what others are doing; or use of mean-variance optimization where an efficient

frontier is calculated and then an efficient portfolio is chosen; or even asset-liability modeling in this the basic idea is to project the assets and liabilities of an institution to see how they might develop in relation to each other under a number of different conditions. Many fund managers are therefore in the position that they manage assets that are intended to meet specific liabilities.

Tactical asset allocation on the other hand refers to how the funds are to be divided at any particular moment given the investors short-term forecasts. The decision determines what deviations based on current market valuations should be made from the strategic asset allocation. It will take place within ranges around the strategic weights (Loft house, 2001). Van Home (1997) observes that the process of asset allocation allows for the formation of an efficient set and this allows the investment manager to invest in those securities that form the optimal portfolio. Reilly and Brown, (1997) also observe that asset allocation decisions determine to a great extent both the returns and the volatility of the portfolio. Diversifying by combining different asset classes in a portfolio reduces overall portfolio volatility.

The fund management industry in Kenya is at formative stages and is thus undeveloped. The number of units that back the portfolio of securities held in the fund is fixed. The number of shares outstanding can be altered only through a new formal issue of the funds securities just like shares of a company listed on the stock exchange. Prices of closed end funds shares reflect the relative supply of and demand for shares. There can be a substantial difference between the net asset value and the per share value at which the closed end funds should actually trade (Jacob and Pettit, 1998). According to Jacob and Pettit, 1998 the funds continually issue and redeem shares at a price that reflect the net asset value of the portfolio held by the fund.

### **1.1.2 Investment Factors**

Since asset allocation is part of portfolio management process, it should be done after careful evaluation of investment factors. These factors range from economic, company, industry to general factors. Economic forecasts are important for both company and industry studies, and therefore share selection, and also for decisions about which type of asset to favour. The stock market is intimately linked to the

economic changes in GNP, the nation's income impact firm's sales and prices, which in turn affect revenues, costs and profits. This feeds through to dividends and retained earnings. Changes in GNP affect the general price level and interest rates. One has to forecast both the course of the economy and how much has been discounted by investors (Loft house, 2001).

According to Gitman and Joehnk (2002), industry analysis involves a study of groups that looks at the competitive position of a particular industry in relation to others and identifies companies that show particular promise within an industry. The investor will want to keep an eye out of specific companies that appear well situated to take advantage of industry conditions. Specific market and economic environment impacts positively and negatively on a company's performance for a short period of time, however, a firm's own managerial capabilities will determine its performance over a long period of time.

### **1.1.3 Portfolio Performance**

One important issue which remains is the 'bottom line' of the investing process: evaluating the performance of a portfolio. Evaluating portfolio performance is important regardless of whether an individual manages his or her own funds or invests indirectly through investment companies. Investing is a two dimensional process based on returns and risk. These two factors are opposite sides of the same coin, and both must be evaluated if intelligent decisions are to be made. To evaluate portfolio performance properly, we must determine whether the returns are large enough given the risk involved.

Performance evaluation is concerned with two issues: (1) determining whether the money manager, added value by outperforming the established benchmark and (2) determining how the fund manager achieved the calculated return. Did the fund manager achieve the return by market timing, by buying undervalued stocks, by buying low capitalization stocks by overweighing specific industries e.t.c. Performance evaluation requires the determination of whether a fund manager achieved superior performance by skill or luck (Bruno, S. 1999).

## 1.2 Statement of the Problem

Gitman and Joehnk (2002), defines investment management as the process of managing investment funds to achieve specific objectives. They observe that investment process emphasizes alternative investments and valuation assumptions. Conceptually, fund managers of mutual funds can invest in real assets or in financial assets. For the fund managers to achieve their investment objectives, selection of the investment is by undertaking fundamental analysis on macro-economic and micro-economic factors. This will help determine the real worth of a firm at both present and in the future. Every investor on the other hand is concerned with the issue of how well various portfolios have performed after all, the objective of investing is to increase or at least protect financial wealth.

Several researches have been carried out on institutional investors where Mwobobia (2004) carried out a survey of factors that investment management companies consider when making investment decisions, Mugo (1999) studied factors that institutional investors consider when making investment in shares quoted at NSE, Gitu (2003) studied factors affecting the equity allocation decisions made by trustees and fund managers of pension scheme portfolios in Kenya and Kamanda (2001) carried an empirical evaluation of equity portfolios held by insurance companies in Kenya. One of the common conclusions identified from all these researches is that before any investment decision factors identified in finance literature are considered. These factors range from economic, company, social to general factors. Mugo in her research observed that the relevance of the factors is however different as insurance company and fund management companies consider company factors more important while retirement benefit schemes consider industry factors more relevant.

However, according to Loft house (2001), institutional investors should not be thought as homogeneous groups. Different types of institutional investors face different tax regimes, different regulatory constraints (such as solvency ratios for insurance companies and minimum funding requirements for pension funds) and different horizons. Van Horne (1997) observes that different financial instruments have different levels of risk and in order for them to compete for funds these instruments must provide different yields. Securities have different characteristics in

default risk, marketability, taxability and embedded options, which account for the different levels of risk and hence different expected return for the investors.

Jerop, 2007 in her study focused only on performance of mutual funds in Kenya and observed that equity fund being the most aggressive of the funds have a high risk commensurate with high returns. They are popular among mutual funds investors as they comprise over 50% of the total unit funds held. The money market fund represents the less aggressive investment as they had low returns as well as low risk. In value terms individual investors in Kenya are not significant in the demand for securities due to generally low per capita income and the corresponding low savings rate, (*World Bank 2002*). The study therefore intends to assess asset allocation by fund managers and whether their decision influences the performance of these funds. This researcher thus is feeling that no study has been carried out on the relationship between asset allocation and the financial performance of mutual funds in Kenya. Therefore a research gap exists that need to be filled by doing a thorough survey on the asset allocation by fund managers and e performance of mutual funds in Kenya. Traditionally stock holding, mutual funds managers hold stocks that beat the market portfolios by almost enough to cover their expenses and transaction costs. It's clear then that mutual fund holding of cash and bonds, is presumably to maintain liquidity in the face of uncertain investor inflows and redemptions. It is in this light that the study seek to answer the research question; what is the relationship between asset allocation and the portfolio performance of mutual funds in Kenya?

### **1.3 Objective of the Study**

To establish the relationship between asset allocation and the financial performance of mutual funds in Kenya

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

#### **The mutual funds Investors**

The study will be useful to the investors as they will know whether fund managers add value to their invested capital. They will establish whether mutual funds are riskier than the market index. Do mutual funds exhibit superior performance compared to market index as contended by fund managers or are returns on securities unpredictable and that shares are priced in a competitive market.

## **The management**

The study will be of importance to fund managers since they can tell the relationship between risk-adjusted returns and other risk factors. This would probably help them know whether they should possibly spend more time on defining objectives as regards risk and return, explicitly stating these objectives to the public and formulating portfolios to match these objectives.

## **The capital market authorities**

The study will particularly interest the Capital Market Authority and the Nairobi Stock Exchange. They will be in a position to allocation informed advices to the relevant authorities and investors.

## **Scholars and Researchers**

The study will form a basis for further research to the academicians and other interested bodies .The scholars and researchers who would like to debate or carry out more studies on mutual funds will find this study useful as a basis of carrying out more studies in Kenya



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

Literature review is any research study which provides the scholarly background needed for the subject under study. The main purpose of literature review is to determine what has been done already related to the research problem being studied. A detailed knowledge of what has been done helps the researcher to: avoid unnecessary and unintentional duplication; form the framework within which the research findings are to be interpreted; and demonstrate his or her familiarity with the existing body of knowledge (Emory, 1985). This chapter begins by addressing the theories guiding this study. It then goes ahead to discuss asset allocation and performance of mutual funds.

#### 2.1 Theoretical evidence

Elton, et al, 1997, Modern Portfolio Theory, 1950 to date. *Journal of Finance*, 21, 1743-1759. The Black-Litterman model starts with a benchmark portfolio. These come from the equilibrium expected returns that would clear the market, assuming a given risk model. The equilibrium expected returns (market-implied views) are the set of expected returns that would produce the market portfolio if fed into an optimiser with the specified risk model. In other words, these are the returns from reverse optimisation assuming the market portfolio is efficient (Drobetz, 2001; Jones, Lim, and Zangari, 2007).

Next, these “market-implied” views are combined with the investor’s private views using Bayesian mixed-estimation techniques. The Black-Litterman model allows the incorporation of both absolute views (e.g. a fixed expected rate of return) and relative views (e.g. one stock or sector will outperform another). The relative weights placed on an investor’s view will reflect the confidence that he has in that view. The posterior distribution of expected asset returns given the recommendation changes are then used as the input for portfolio optimization.

The blended views will produce balanced portfolios that are tilted toward the investor's private views, with the degree of tilt (for a given level of risk) depending on the investor's relative confidence in his or her expectations. For details on the

derivation of Black-Litterman, excellent references include Satchell and Scowcroft (2000), He and Litterman (2002), and Meucci (2005). Practical guides to the implementation of the model in general contexts are presented by Drobetz (2001) and Idzorek (2004). Extensions of the model to more general asset dynamics can be found in Martellini and Ziemann (2007), Giacometti et al (2007).

## **2.2 Performance of mutual funds**

Garret and Rex (2000) examined the performance of U.K equity mutual funds that existed in the period 1978 and 1997. Two types of mutual funds were considered, one that distributed dividends on a regular basis, an income unit and one that accumulates dividends inside the unit, an accumulation unit. The result shows that the U.K money managers are unable to outperform the market when exposure to market, value and size risk is taken into account. They also found out that only poor performance persists.

Maiyo, (2007) observed that equity funds being the most aggressive of the funds have a high risk commensurate with the high returns. These funds are also popular among the mutual funds investors as they comprise over 50% of all the total mutual funds held. The unit holders in Kenya are risk averse implying that as the return increases so does the risk. The money market fund representing the less aggressive investments had low return as well as low risk. In comparison against the benchmarks the study showed that equity funds under performed in the NSE-20 share index, while the money market fund on the other hand outperformed the 91-day Treasury bill rates. On a risk-adjusted basis the equity funds did not outperform the market (NSE-20 Share Index) demonstrating the diversification effects of a large portfolio.

## **2.3 Investment Management**

According to Sharpe (1996), investment management is the process by which money is managed. It may be active or passive management, use implicit or explicit procedures and, is relatively controlled or uncontrolled. Elton and Gruber (1997), observes that passive management involves holding securities for relatively long periods of time with small or infrequent changes. This implies a well-diversified portfolio with infrequent trading and market level risk and return expectations. The concentration therefore will be on less risky assets. Passive portfolio managers act as

if the market is relatively efficient and for this reason the price of securities shows their intrinsic value, therefore there are no mis-priced securities. However, their decisions are consistent with the acceptance of consensus estimates of risk and return. The portfolio they hold may be a surrogate for the market portfolio known as index fund, or they may be portfolio tailored to suit clients with different preferences. The paper will try to understand the type of investment management practiced in Kenya and how this affects the performance of different funds.

According to Elton and Gruber (1995), the simplest case of passive management is the index fund that is designed to replicate exactly a well-defined index of common stock, such as the 20-share index or S& P 500. The managers of the fund buy each share in the index in exactly the proportion it represents in the index. Although exact replication is the simplest technique for constructing an index fund, many index funds are not constructed this way. Managers of the fund must face a series of decisions in designing a fund. These decisions involve a trade-off between accuracy in duplicating the index (called tracking error) and transaction costs. The passive approach is usually identified with buy and hold strategy. A buy and hold strategy means purchasing and holding a security to maturity or redemption and then reinvesting cash proceeds in similar securities.

Active management on the other hand, according to Elton et al (1995), involves taking a position different from that which would be held in a passive portfolio, based on a forecast about the future and that the security markets are inefficient. There are two main approaches to active management: technical analysis and fundamental analysis. Lofthouse (2001), technical analysts look at past prices, believing that future trends can be deduced from the past, they also look at the behaviour of various types of market participants, company directors and other insiders, sentiments and contrary opinion, and liquidity levels. Technical analysts are contrasted with fundamental analysts, who try to calculate the true underlying value of a stock by analyzing dividends, growth, interest rates and other factors. Managers of the fund have to decide on the tools to use, to calculate the true underlying value of stock.

Some of the tools that the managers can use include charts where these can be done in a number of ways: Dow theory where the stock's price is thought to reflect everything that will be known by investors; moving average for markets, stocks, sectors, etc. for a variety of periods; support and resistance where managers argue that shares, markets etc. have psychological support and resistance levels. The idea is that the market will find it hard to, for example, rise through a resistance level but if it does, it can move ahead until a new resistance level is established; relative strength which is calculated for a stock to show how it has been performing relative to its sector or to the market as a whole, or for a sector relative to the market (Loft house 2001).

Another tool is the smart money. If the fund managers cannot decide how to invest, then copying somebody who knows what they are doing seems a reasonable tactic. They can achieve this through insider trading where certain types of non-public information is used by company directors in connection with a share transaction. It's widely believed that insider trading is a useful guide to forecasting the market's level. The justification for this is a belief that insiders act partly in response to general economic factors that impact their firms. If they react to such general information before it's widely known, they might provide a good guide to the market's likely direction. Another tool is the contrarian investment strategy. This involves going against the crowd (Loft house 2001). If the fund managers on believe that the market is inefficient and they can exploit, this then they should make active bets.

Elton et al (1995) say that active managers can be classified into three groups: market timers, sector selectors, and security selectors. Market timers change the beta on the portfolio according to forecasts of how the market will do. They change the beta on the overall portfolio either by changing the beta on the equity portfolio or by the amount invested in short-term bonds. Security selection involves search for undervalued securities and the methods of forming these securities into optimum portfolios. Sector/ industry selection is like security selection, except that the unit of interest is an industry. Managers practicing in this type of analysis will rotate their portfolios overweighing/ under weighting sectors over time as they change forecasts of what sector is undervalued or overvalued. According to Karanja, 2007 investment objective is one of the most important factors influencing portfolio choice amongst

investment companies. The fund managers of mutual funds should therefore understand the objectives of their investors as this will help in determining how to invest to ensure efficient diversification.

## **2.4 Factors Considered by Investors**

Key issues revolve around risk and return of the investment. However, there are other issues and factors that have a direct or indirect impact on the risk and return of an investment. Fund managers must undertake analysis of macro and micro factors to select assets that are valuable currently and in the future.

### **2.4.1 Economic Factors**

According to Gitman and Joehnk (2002), investment vehicles are heavily influenced by the state of the economy and economic events. The overall performance of the economy has a significant bearing on the performance and profitability of the company. A study of the economy should not only give an investor a grasp of the underlying nature of the economic environment but also enable them to assess the current state of the economy and formulate expectations about its future course. Taxation and government expenditure as well as monetary policies of the government provide the present and future investors with information of the investment environment. When the economy is growing, corporate earnings and in turn returns and capital gains increase (Bhalla 1997). Elton et al (1995) say government fiscal policy for example taxes tend to be expansive when it encourages spending, when the government reduces tax and or increases the size of the budget. Similarly, monetary policy (money supply and interest rates) is said to be expansive when money is readily available and interest rates are relatively low. The fund managers have to understand the government monetary and fiscal policies as the impact of these major forces filters through the system and affect several key dimensions of the economy. This will help them know which investment vehicle to buy and at what time.

Loft house (2001), observes that inflation expectations are formed on the basis of economic conditions and monetary policy. For example, a change of government may change the policy trade-off between growth and inflation. The anticipation or actual changes in the exchange rate also lead to inflation. Investment vehicles are influenced

differently by inflation. Investment vehicles whose values move with general price levels (stocks) have low purchasing power risk and are most profitable during periods of rising prices. Those that provide fixed returns have high purchasing power risk and they are most profitable during periods of low inflation. Purchasing power risk is the chance that changing price levels (inflation or deflation) will adversely affect investment return. The managers of different funds need to understand inflationary periods for them to know when to shift their kind of investment. Mwobobia 2004 observed that investment in stock is influenced by economic factors such as inflation and tax rates, corporate bonds are influenced by the interest rates and inflation while tax rate is unimportant. Government bonds are influenced by interest and inflation rates. While the economic factors influencing investment in real assets were interest rates and inflation this is because investments in real assets are mostly financed through debt capital.

#### **2.4.2 Industry Factors**

Investors will want to keep an eye out for specific companies that appear well situated to take advantage of industry conditions. Growing industries provide an avenue for ideal investments because demand of the firm's output is anticipated to grow and profitability will be maintained in the event of increased competition with other industries. The stage of industry growth, the stability of the growth, the stability of the sales in the industry and the rate at which the industry is growing are important (Elton et al 1995). Wakaguyu 1999 observed that retirement benefit schemes and fund management companies consider factors at play in the industry than in the company or in economic environment. They consider quality of management, change in investment trends, and safety of the principal capital, net profit margin and company growth in sales. Specific industry factors enhance a company performance. In understanding the industry the managers will actually know whether to change sectors or securities in order to increase the real worth of their companies.

#### **2.4.3 Company Factors**

Specific market and economic environment impacts positively and negatively on a company's performance for a short period of time, however, a firms own managerial capabilities will determine its performance over a long period of time. Ratio analysis

highlights the direction the company is taking and its financial position. The nature of the company involves factors such as marketing influences, future company earning in terms of quantity and quality, market share, growth in sales and stability of sales, (Gitman and Joehnk 2002). This therefore calls for careful scrutiny of the company's reports of account in order to get any information about the nature of any company that might help in making a viable decision. Gitman and Joehnk (2002), argue that the firms operating characteristics influence operating efficiency and earnings of the company. Quality Management is important to investment success, in maintaining a competitive position of the company and to successfully run its affairs to produce profits. There is a need for fund managers to analyze the companies that they wish to invest in and in particular the quality of management, this will ensure that customers' funds are not committed to projects or even companies that will not do well. Wakaguyu 1999 observed that, insurance companies consider company factors more important than any other factors. They consider changes in share prices, safety of the principal capital, amount of capital, return in equity, amount of debt, changes in investment trends and operating efficiency

#### **2.4. 4. General Factors**

Investment should be evaluated from a risk- return perspective. Markowitz (1959) observed that creation of an optimum investment portfolio is not simply a matter of combining a lot of unique individual securities that have desirable risk-return characteristics. The goal is to diversify or to invest in various assets to avoid failure. Diversification helps to spread the portfolio and reduce risk. Markowitz set out a way of diversifying so that for any degree of risk, the investor got the best return possible or alternatively, for any return bore the lowest risk. Reducing total risk will increase expected cash flow thereby increasing the value of the firm. There is a need therefore to understand how securities are combined in order to minimize the risk of the unit holders and increase their value.

Total risk can be divided into systematic and unsystematic components. Systematic risk is the variability of return on stocks or portfolios associated with changes in return on the market as a whole. It's due to risk factors that affect the overall market, such as changes in the nation's economy or, tax reforms. They affect securities overall

and consequently, cannot be diversified away. On the other hand, unsystematic risk is the variability of return on stocks or portfolios not explained by general market movements. It is unique to a particular company or industry. It is independent of economic, political and other factors that affect all securities in a systematic manner. By diversification this kind of risk can be reduced or even eliminated if diversification is efficient (Van Horne 1997). In understanding factors that influence the different securities the fund managers will know how to diversify their portfolios.

Return on the other hand is a key variable in the investment. It allows us to compare the actual or expected gains of various investments with the levels of return we need. The level of return achieved or expected from an investment depends on a variety of factors. The key factors are internal characteristics and external forces. Internal characteristics include characteristics such as the type of investment vehicle, the quality of management, and how the investment is financed and the customer base of the issuer. External factors include wars, political and international events. Components of return come from periodic payments, such as dividends or interest and appreciation in value, the gain from selling an investment vehicle for more than its original purchase price. These two sources are called current income and capital gains or losses (Gitman and Joehnk, 2002). Omony, 2003 observed that risk and return are the key considerations in investment practices of pension fund managers in Kenya. According to Gitman and Joehnk, 2002 the level of return achieved depends on investment factors, the managers therefore need to understand these factors for them to make forecasts on expected returns of different companies and investment vehicles.

According to Loft house (2001), this is the ability of assets to be converted into cash immediately at full market value in any quantities without making any price concessions. Some assets are more liquid than others. This can be assessed by the size of the issue. For example, the smaller the issue in the case of bonds the greater the redemption yields. Fund managers must put the issue of liquidity into consideration, as their investors might want to redeem their issues. According to the analysts, what you would expect from the performance of a mutual funds relative to the market is that they should outperform the market through diversification, if they have competent fund managers. This means that in times of high performance, the mutual



funds funds will slightly lag behind in comparison to the market (all the relevant benchmarks). Equally, in times of market downturn as being experienced today, they will not come down as significantly as the market does (Daily Nation Pg 8 dd 26, 2009 Investment).

This normally tends to cushion an investor from drastic market downturns relative to the markets and possible high performance in times of good returns. When you average out over a relatively long-term perspective, you can post some decent gains in their investments. Therefore, since the market declined between January and December 2008 by about 32 percent, investments in the mutual funds declined by between 18 percent and 30 percent. If anything, during times of indiscriminate and systematic market falls like now, it is difficult, if not impossible, for any manager to deliver positive returns on an equity fund as all shares across all counters fall at the same time. It is quite difficult to completely insulate them from the overall performance of the markets, since they are also subject to their cyclical movements (Daily Nation Pg 8 dd 26,2009 Investment). This paper therefore seeks to establish how the economic factors have influenced performance of the various funds over a period of seven years between 2001 and 2007.

## **2.5 Empirical Literature**

Financial times (2000) present comparative data for 60 large pool schemes in Kenya, Europe and USA. The data revealed that in Kenya, 50.2% of the fund is invested in real estate compared to 7.0% in Europe. Equity only formed 11.8% of the fund in Kenya compared to 34.2% and 53.1% in Europe and USA respectively. Bonds and bills took up 16.3% of the Kenyan fund while they took up 12.6% and 22.7% of the European and American funds respectively. Offshore investments only formed 5.5% of the Kenyan fund compared to 26.5% and 11.1% of the European and USA funds respectively. The fund managers have a good reason for making such investment decision. The different proportions in the different countries could be due to the different factors in these countries. This study will therefore try to look at these factors that lead to such different asset allocation decisions by fund managers.

This paper contributes to the existing literature in the following ways. It is the first to empirically assess the investment value of analyst recommendations using the calendar-time approach for the Kenya stock market. A second novel contribution is the application of the Black-Litterman asset allocation model to analyst recommendation data, and the evaluation of its performance in calendar-time. Thirdly, we extend prior calendar-time studies such as Barber, et al (2001) by accounting for transaction costs in a more precise way and through the examination of the effect of infrequent portfolio rebalancing and filtration of dated recommendations.

This study should be of interest to academics and practitioners alike. From an academic perspective, we assess the economic impact of analysts' recommendations using a realistic active-management model. This study tests conjointly the ability of analysts as a cohort to provide forecasts for clients, as well as the efficiency of the market. Assessing the investment value of analyst recommendations is an ideal way to test whether it is possible to profit abnormally using publicly available information (as opposed to studies on corporate events), because security analyses are carried out with the explicit purpose of improving investment performance (Barber, Lehavy, McNichols, and Trueman, 2001). From the practitioner's perspective, we assess the performance of a realistic trading strategy developed on the basis of analysts' recommendations. We also discuss potential issues in operationalising the Black-Litterman model when incorporating the information contained in these recommendations. Finally, brokers issuing the recommendations have a vested interest because they spend large amounts of resources to produce them with the intention of generating commissions.

An important issue for empirical research the time period for which a recommendation remains intact. Many analysts issue reiterations of existing recommendations if they believe that their information regarding the stock has not been incorporated into the prevailing price. Unlike with earnings forecasts, which are generally revised on a monthly basis, there is no set frequency with which recommendations are typically reiterated or changed. According to Green (2006), a plausible explanation for why trading strategies consisting of consensus recommendations perform poorly in some prior studies is because some recommendations from which the consensus is formed

can be fairly stale. We apply an arbitrary 103-day cutoff on stale recommendations which is the median interval between the updating of analyst recommendations. Barber, Lehavy, McNichols, a (2001) and Boni and Womack (2006) show that the majority of the value in recommendations is attained from the post-recommendation price drift, which lasts for only a few months. Therefore, we examine the impact of using, as part of a consensus, stock recommendations that have been initiated, reiterated, or revised less than 103 days earlier. It is arguable that we should not use stocks with longer-term recommendations in the portfolio, as stale and dated recommendations may dilute the quality of the consensus. Consistent with Barber, Lehavy, McNichols, and Trueman (2001), we take the simple average of outstanding recommendations in calculating the consensus recommendation used in the portfolio constructions. Elton, Gruber and Grossman (1986) finds consensus analyst recommendations outperform individual analyst recommendations in their predictive ability. Clemen's (1989) review of forecasting literature shows that simple averages of forecasts are the most robust.

Moon and Bates (June 1992) found that Maxwell Communication Corporation (MCC) will be reasonably profitable though heavily indebted after undertaking straightforward financial analysis. This will be after media speculation about fraudulent transactions and accounting deficiencies. The implication being that, unsuspecting shareholders were loosing through no fault of their own, as it would not have been possible for them to predict any potential business failure from the given published accounting information. They concluded that all the information about the financial stability of MCC will be in the audited accounts, if the investors had bothered to analyze the accounts. Most times, financial statements do not disguise the true financial position of a company. Fundamental analysis involves in depth analysis of the firm's financial statements, which form the basis of investment decisions and there is a need therefore to know whether financial position of a firm can be clearly deduced from the financial statements. Fowler, Ross et al, (Oct 2007) found that for mutual funds available to New Zealand investors, asset allocation can explain a significant amount of the differences in return across time and between trusts. Across time, asset allocation accounts for about 80% of the variation in actual return. Between trusts, asset allocation explains about 60% of the variation in returns. From

either perspective the choice of asset allocation is an important factor in explaining returns. Investors expect active managers to provide returns that exceed passive returns, after fees and expenses. Their results suggest that New Zealand investors might be better off with passive trusts as active managers contribute little after deducting their fees and transaction costs. This paper will determine whether the type of management chosen by the fund managers in Kenya determine the performance of these funds.

Mugo (1999) observed that factors identified in finance literature are considered in investment decision by institutional investors at the NSE. However, the relevance of the factors is different as insurance companies and fund management companies consider company factors more important while Retirement Benefits Schemes consider industry factors more relevant. However institutional investors should not be looked at as homogeneous and therefore these findings cannot be generalized for Collective Investment Schemes.

Mwobobia (2004) concluded that factors that investment management companies consider across the board of investment instruments from the most important to the least are risk, return, and growth of capital, diversification, income stability and liquidity. The factors range from economic, company, social and geographical. Similarly, the factors influence investment instruments differently, for example, factors like inflation influence investment in government bonds more than it does in corporate bonds and stocks. However, investment management companies differ from mutual funds in the sense that they are closed-ended where the money invested is not changed for long periods.

Mutual funds on the other hand are open-ended as anyone can buy units for cancellation or liquidation by the managers. The study therefore seeks to identify these factors that fund managers consider in asset allocation decisions particularly the mutual funds, as the two cannot be generalized. Omony, (2003) observed that risk and return are the key considerations in investment practices of Pension Fund Managers in Kenya. Current income is not their fund objective; however, the most predominant objective will be capital preservation. Pension schemes also differ from

collective investment schemes as they have a minimum funding requirement and they are established to invest funds to meet pension liabilities. That is they are invested with the expectation that they will be sufficient to pay pension entitlements when these are due.

## **2.6 Conclusion**

Most surveyed results indicates that on average managers of mutual funds have not been able to forecast share prices accurately enough to outperform a simple buy and hold policy. Additionally, there was, however, evidence of statistically significant inferior performance. These results hold even when management expenses are added back. The major finding as regards to the beta values was that none of the mutual funds examined provided volatility greater than that of the market. This is most likely because mutual funds invariably tend to invest in a wide spread of shares, and because they keep much of their funds in cash especially when the stock market is depressed.

For instance a study by Daniel (1997) which looked at characteristics based benchmark that is designed to measure whether mutual funds pick stocks that outperform simple mechanical strategy. The evidence presented in this paper suggests that the average mutual fund does, in fact, succeed, along this allocation dimension. However the amount by which it beats the mechanical strategy is fairly small and is approximately equal to the average management fee. Aggressive growth strategy funds which exhibit the highest performance, probably also generate the largest cost

The researcher is feeling that no study has been carried out on the asset allocation by fund managers and the performance of mutual funds in Kenya. Therefore a research gap exists that need to be filled by doing a thorough survey on the asset allocation by fund managers and the performance of mutual funds in Kenya. Traditionally stock holding, mutual funds managers hold stocks that beat the market portfolios by almost enough to cover their expenses and transaction costs. It's clear then that mutual fund holding of cash and bonds, is presumably to maintain liquidity in the face of uncertain investor inflows and redemptions.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter begins by addressing the research design of the study. It then goes ahead and discusses the population, sample size and design. Methods of data collection and data analysis to be used are also discussed. Data to be collected is for the period 2007 to 2011.

#### **3.2 Research Design**

The study used a survey research design owing to its capability to address the objective of the study. Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. The plan is the overall scheme or program of the research (Robson, 2002). Travers (1969) states that surveys were conducted to establish the nature of the existing situation or condition. In addition, if a researcher wishes to clarify understanding of a problem, then the exploratory research design is the right design (Saunders, 2003). Saunders further states that causal or explanatory researches seek to establish a causal relationship between variables. It emphasizes on studying a situation or a problem in order to explain the relationship between variables. The survey design was chosen because it provided a means to contextually interpret and understand performance of mutual funds in Kenya compared to a asset allocation and mutual funds performance

#### **3.3 Population and Sampling**

The population of study consisted of all the Mutual funds in Kenya. There are twenty six approved collective investment schemes. All approved Collective Investment Schemes in Kenya that deal with Mutual funds and invest in equities. There are seven in number that deal with equity fund. The NSE 20 share index will be used in estimating the performance of a mutual funds performance. The index is calculated using equities of 20 companies; this clearly indicates the need to restrict the study to mutual funds that invests only in shares.

### 3.4 Data Collection

Data collection procedures are the steps taken to ensure that the data collection captures the desired objective(s) of the study using the data collection instrument (Robson, 2002). The study utilized secondary data. Data on net asset value and dividend paid by mutual funds was collected from offices of respective mutual funds schemes. Data on estimate of dividend received on the market portfolio, and the 20 share index was collected from the Nairobi Stock Exchange. Data on market interest rates, interbank allocation rates and free rates were collected from the Central Bank of Kenya.

### 3.5 Data Analysis

In this study, the researcher used Jensen's (1968) standard performance measure. Jensen (1968) shows that the capital asset pricing model (CAPM) holds for any arbitrary length of time as long as the returns are expressed in terms of the proper compounding length of interval. Jensen asserts that the natural logarithm form of return provides a very good approximate for calculating returns.

Jensen's (1968) alpha is defined as the portfolio excess return earned in addition to the required average return, while the Treynor (1965) ratio and the information ratio (IR) are defined as the alpha divided by the portfolio beta and by the standard deviation of the portfolio residual returns.

The formula to show relationship between asset allocation and portfolio performance of mutual funds in Kenya, market index and risk free returns is as follows:

$$R_{jt} = \log_e \frac{NAV_{jt} + D_{jt}}{NAV_{j,t-1}} \quad (1)$$

$$R_{mt} = \log_e \frac{I_t}{I_{t-1}} \quad (2)$$

$$R_{f,t} = \log_e \left( \frac{1 + R_{f,t}}{12} \right) \quad (3)$$

Where:

- $R_{f,t}$  = monthly continuously compounded rate of return of the  $j$ th mutual funds during month  $t$ ;
- $NAV_{j,t}$  = net asset value for mutual funds  $j$  at the end of month  $t$ ;
- $D_{j,t}$  = dividend per unit paid by mutual funds  $j$  during month  $t$ ;
- $R_{m,t}$  = estimated monthly continuously compounded rate of return on market portfolio  $m$  for month  $t$ ;
- $I_t$  = level of the Market interest rate index at the end of month  $t$ ;
- $R_{f,t}$  = inter bank allocation rate for one month (quoted in yearly rate); and
- $R_{f,m,t}$  = Inter Bank allocation Rate for one month (quoted in monthly rate).

Consequently, in an effort to avoid huge fluctuations in prices that might distort our data, we employ the compounded rate of return. Equations (1) to (3) are used to calculate the rates of return based on a continuous compounding method that will be adopted by Jensen (1968). Jensen further suggests that loading charges could be excluded from the calculation of the funds' rates of return when conducting an evaluation of the forecasting ability of fund managers. In addition, we omit the dividend yield of the market portfolio from our analysis, since, as mentioned earlier, Sharpe and Cooper (1972) suggest that the value of betas would not change significantly. The compounded rate of return on the market portfolio,  $R_{m,t}$  will then be compared with the NSE 20 share index for that month.



## CHAPTER FOUR

### DATA ANALYSIS AND FINDINGS

#### 4.1 Introduction

This chapter presents analysis and findings of the research. The findings are represented in tables. The financial information analysed comprised of 5 years from the year 2007 to 2011. This information was collected from ten unit trusts as well as the Nairobi 20 share index.

#### 4.2 Unit trust returns.

This section provides an analysis of returns given by unit trusts under study. The data reflects data gathered over a five year period for seven unit trusts. The findings are summarized in table 4.2.

**Table 4.2 Unit trust return**

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>S.D</b>
2007	3.12	138.45	57.097	198.5314
2008	6.88	183.84	78.049	257.1934
2009	3.75	141.91	81.688	200.1628
2010	2.58	122.83	64.342	180.234
2011	3.12	153.23	75.627	200.091

Table 4.2 provides the return of unit trusts over the five year period. Looking at the average values, we can be able to see that unit trust increased in returns from 57.097% in 2007 to 78.049% in the year 2008. The returns increased further to 81.688% in 2009 before the returns reduced to 64.342% in the year 2010. However, the growth rate resumed in the year 2011, where the returns increased to 75.627%.

### 4.3 Comparison with market Returns

This part compares the returns of unit trusts under study with that of the Nairobi stock exchange 20 share index. The results are tabulated in table 4.3

**Table 4.3 Comparison with the market**

Unit trust return						Market Return				
	Min	Max	Mean	S.D	Growth rate	Min	Max	Mean	S.D	Growth rate
2007	3.12	138.45	57.097	198.5314		3094.38	3982	3648.204	8066.016	
2008	6.88	183.84	78.049	257.1934	37%	4025.21	5645.65	4597.571	11043.69	26%
2009	3.75	141.91	81.688	200.1628	5%	4971.04	5774.27	5259.629	12021.53	14%
2010	2.58	122.83	64.342	180.234	-21%	3341.47	5336.03	4522.705	10381.16	-14%
2011	3.12	153.23	75.627	200.091	18%	2474.75	3294.56	3027.31	6416.828	-33%

The table above shows unit trust performance against the market portfolio. The mean value for unit trust ranges from a low of 57.097% in the year 2011 to a high of 81.688% in the year 2011. There is a huge variance between the minimum and maximum return of unit trusts given their rate of return and this is confirmed by the large values of standard deviation.

For the market return measured by the Nairobi stock exchange 20 share index can be seen to oscillate between a low of 3027.31 points in the year 2011 to a high of 5259.629 at the end year 2011. The minimum and maximum return for the stock market was highest in the year 2011 illustrated by the standard deviation.

The returns of unit trusts was 37% in the year 2010 then slowed down to a growth rate of 5% before slumping to a negative growth rate of 21%. However, in 2011 unit trust return to a growth pattern of 18%. For the stock market, the returns were on an

upward growth rate in the year 2010 and 2011. However, the stock market return slumped in the year 2011 and even further in the year 2011 by upto 33%. These can be attributed to the reduced confidence in the bourse by investors following post election violence in 2011/2010.

#### **4.4 T test statistics**

This section provides a statistical view of the findings, where the t-test statistic is used to give significance to the results. This is illustrated in table 4.4.

**Table 4.4 T test statistics**

	<b>Unit trusts</b>	<b>Stock market</b>
Mean	4211.084	71.3606
Variance	766020.3	105.5758
Observations	5	5
Pearson Correlation	0.394888	
Hypothesized Mean Difference	0	
Df	4	
t Stat	10.62499	
P(T<=t) one-tail	0.000222	
P(T<=t) two-tail	0.000444	

The Two-Sample t-Test analysis test for equality of the population means underlying each sample. The three tools employ different assumptions: that the population variances are equal, that the population variances are not equal, and that the two samples represent before treatment and after treatment observations on the same subjects. In addition the Pearson correlation provides a basis to show that there is a significant relation between stock market returns and that of unit trusts. The t statistic was used to determine whether the returns of the market differed statistically with that of unit trusts. We can see that for either one tail test, the significance is 0.000222 and for two tail test, the significance is 0.000444, which is low than our threshold of 0.05 hence we agree with our null hypothesis that the returns of the market do not differ statistically with that of unit trusts.

#### 4.5 Regression Statistic

Regression tests carried out are illustrated in the table 4.5.

**Table 4.5 Regression Statistic**

Multiple R	0.394887628				
R Square	0.155936239				
Adjusted R Square	-0.125418348				
Standard Error	928.4898021				
Observations	5				
ANOVA					
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	477801.3	477801.3	0.55423	0.510605
Residual	3	2586280	862093.3		
Total	4	3064081			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>
Intercept	1810.758892	3250.84	0.55701	0.61637	-8534.86
Unit trust return	33.63655726	45.18195	0.74446	0.51060	-110.153

From the regression statistic, the coefficient of determination (R square) measures the proportion of variability in a data set that is accounted for by a statistical model. In this case it can be seen that there is strong relationship between the returns of unit trusts and that of the market. In this case we can see that 15.6% of the market returns is determined by that of unit trusts.

From the sum of squares, we can see that regression model (477801.3) is lower than the residual value of (2586280) which implies that there are other factors that determine the returns of the market other than regressing the return of unit trusts and that of the market. The coefficients provide numerical figures that could be used to estimate the returns of the market.

#### 4.6 Jensen Index

The main index used in this study to carry out tests on unit trusts returns is illustrated in table 4.6 below.

**Table 4.6 Jensen index on unit trust return**

Year	Beta	Jensen Alpha	Adjusted Jensen alpha
2007	0.48	0.00339	0.00145
2008	0.63	0.00087	0.00065
2009	0.67	0.0067	0.00082
2010	0.53	-0.0236	0.00981
2011	0.69	-0.0053	0.0101
Overall	0.662	0.00432	0.00327
Market returns	1	0	0
% of funds >market		34.35%	36.54%

Beta represents the level of portfolio risk, while adjusted Jensen alpha is simply a ratio of Jensen alpha over systematic risk. Jensen alpha was defined in the methodology chapter.

The beta value for unit trust ranges from a low of 0.48 during the year 2011 to a high of 0.69 during the year 2011. The complete data sample shows a beta value of 0.662. We can see that the Jensen generally indicates positive returns to investors in unit trusts with the exception of two years that is 2010 and 2011.

For the overall data, it can be seen that 34.35% of the funds perform better than the market in terms of Jensen's alpha and 36.54% in terms of the adjusted Jensen alpha. This confirms that more than one third of unit trusts performed better than the market.

#### **4.7 Summary and Interpretation of Findings**

The study on mutual funds in Kenya covered the period 2007-2011, specifically looking at the how these unit trusts allocate asset and the impact of their asset allocation decision on the financial performance. Several analytical tools were used in studying the relationship between asset allocation and financial performance of mutual funds in Kenya and their results are indicated in the previous section of this study. The financial information analysed comprised of 5 years from the year 2007 to 2011. This information was collected from ten unit trusts as well as the Nairobi 20 share index.

A comparison was made between the returns of unit trusts under study with that of the Nairobi stock exchange 20 share index. The findings show that unit trust increased in returns in year 2011 as compared to the previous year, 2010. The returns increased further in 2011 before the returns reduced in the previous year 2010. However, the growth rate resumed in the year 2011, where the returns again increased.

A t-statistics test was also performed to determine the performance of unit trusts during the years under study and the Two-Sample t-Test analysis test for equality of the population means underlying each sample. The three tools employ different assumptions: that the population variances are equal, that the population variances are not equal, and that the two samples represent before treatment and after treatment observations on the same subjects. In addition the Pearson correlation provides a basis to show that there is a significant relation between stock market returns and that of unit trusts. The t statistic was used to determine whether the returns of the market differed statistically with that of unit trusts.

A regression statistics was also performed and from the regression statistic, the coefficient of determination (R square) measures the proportion of variability in a data set that is accounted for by a statistical model. In this case it was seen that there is strong relationship between the returns of unit trusts and that of the market. From the sum of squares, it was noted that the regression model is lower than the residual value of which implies that there are other factors that determine the returns of the market other than regressing the return of unit trusts and that of the market. The coefficients provide numerical figures that could be used to estimate the returns of the market.

Another analysis was carried out using the Jensen Index which results proved that Beta represents the level of portfolio risk, while adjusted Jensen alpha is simply a ratio of Jensen alpha over systematic risk. Jensen alpha was defined in the methodology chapter.

The beta value for unit trust ranges from a low of 0.48 during the year 2011 to a high of 0.69 during the year 2011. The complete data sample shows a beta value of 0.662. It can be seen that the Jensen generally indicates positive returns to investors in unit trusts with the exception of two years that is 2010 and 2011.

For the overall data, it can be seen that 34.35% of the funds perform better than the market in terms of Jensen's alpha and 36.54% in terms of the adjusted Jensen alpha. This confirms that more than one third of unit trusts performed better than the market.

This study is related to some other previous studies done by other researchers but the variables and methodology used are unrelated, even though similar statistically tools were used. Mugo (1999) observed that factors identified in finance literature are considered in investment decision by institutional investors at the NSE. However, the relevance of the factors is different as insurance companies and fund management companies consider company factors more important while Retirement Benefits Schemes consider industry factors more relevant. Mugo study was particularly concerned about institutional investors which also include those of mutual funds and other areas of investments but this study focused solely on mutual funds, therefore the two studies have a slight difference since Mugo focused was broader and this study is narrowed to mutual funds.



Study by Daniel (1997) looked at characteristics based benchmark that is designed to measure whether mutual funds pick stocks that outperform simple mechanical strategy. The evidence presented in this paper suggests that the average mutual fund does, in fact, succeed, along this allocation dimension. However the amount by which it beats the mechanical strategy is fairly small and is approximately equal to the average management fee. The study by Daniel (1997) is closely related to this study as the two studies focused mainly on mutual funds and their asset allocation. Daniel (1997) found that asset allocation by mutual funds leads to better performance and similar findings was established by this study.

Another study, Mwobobia (2004) concluded that factors that investment management companies consider across the board of investment instruments from the most important to the least are risk, return, and growth of capital, diversification, income stability and liquidity. The factors range from economic, company, social and geographical. Similarly, the factors influence investment instruments differently, for example, factors like inflation influence investment in government bonds more than it does in corporate bonds and stocks. Mwobobia (2004) looked at more factors other than asset allocation which this study had variables limited to asset allocation versus financial performance.

Finally, this study looking at the relationship between asset allocation and financial performance of mutual funds established that there exist a possible relationship between asset allocation and financial performance as the study established that mutual funds that efficiently allocated their assets obtain favourable financial performance which led to more returns and better performance overall.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary of Findings

The objective of the study was to investigate whether unit trusts in Kenya have better performance compared to that of market portfolio, given their systematic risk.

The study found out that there was a difference between the performance of unit trusts and the market. This is illustrated especially in the year 2011, where the stock market slumped in its performance while that of the unit trusts improved in its returns by 18% as compared to the previous years. However, in the year 2010 and 2011 both returns from the stock market and the unit trust recorded an upward trend while in 2010, both were affected by external factors namely the post-election violence to record a downward trend in performance.

Carrying out t-test statistic our null hypothesis was accepted since even though, unit trust recorded a better performance than the stock market we could be able to see that the results were not statistically significant given the low levels of significance for both one tailed and two tailed tests. By carrying out regression tests, it was possible to confirm the relationship between unit trust return and that of the market where it was found out that the two have a strong relationship. However, the regression analysis could not be used exclusively since it was found out to be much lower than the residual figures hence confirming that stock market returns were affected to a large extent by other factors other than unit trusts.

Jensen index was carried out to confirm the returns of the stock market by removing fluctuations that might distort the data used. Both the Jensen alpha and adjusted alpha confirmed the positive returns from unit trust in the four out of five years under study. It was also possible to get the percentage by which unit trust returns were higher than that of the market namely by 34.35%.

## 5.2 Conclusion

Given the desire of investors to seek out diversification in their asset portfolios and considering the performance of the stock markets, many investors have sought to diversify their holdings further by investing in unit trusts. Unit trusts are attractive mainly because of the minimum risk involved as well mutual funds are professionally managed. These funds are invested in shares, bonds and real estates. Fund managers are paid for active management and they have claimed to offer better returns than that offered by a market portfolio.

This study employed several ways of comparing unit trusts return with that of the stock market. The measures included: raw return, market adjusted return, Jensen's alpha, adjusted Jensen's alpha, regression tests and t-test statistic. This was analysed from the year 2011 to year 2011. It should also be noted that this period consists of various sub periods with different economic conditions. In the beginning it was a period of high growth and very bullish stock market (2011-2011). Then the country experiences a severe financial crisis in the year 2010 following the post election violence. This is then followed by recovery years of 2011 and onwards. Because of the different short-term characteristics of the economic situation, our results may have been strongly influenced by the severe financial crisis. Hence extreme caution needs to be exercised in interpreting the results.

The findings show that unit trusts have performed well over the period of study. In most of the instances, the market trail behind the performance of unit trusts. The fact that unit trust outperform the market can be attributed to the fact that fund managers could be in a position to predict stock prices based on several fundamental variables such as initial dividend yields, market capitalization, price earning ratios, and price to book value ratios.

This implies that fund managers may have access to enough private information to offset their expenses. These results are consistent with the notion that mutual funds are efficient in their trading and information gathering activities.

### **5.3 Policy Recommendations**

After the study on the relationship between asset allocation and the financial performance of mutual funds in Kenya, this study henceforth put forth the following recommendations.

It is recommended that a proper regulatory frame work be put in place to protect mutual funds in Kenya against stocks and provide the means for unit trusts managers to maximize returns from investment in mutual funds. A good regulatory framework will also enable unit trusts managers to freely perform their business once they are protected by law.

Furthermore, the regulatory body should put in place a measure of protecting mutual funds against stocks and other crisis that may arise such as the post-election violence that made mutual funds to record a downward trend in performance. When such regulatory framework is in place mutual funds will be protected during crisis and will survive after crisis period.

Additionally, the problem of information asymmetry facing mutual funds in Kenya should be addressed by the regulatory body. The findings show that unit trusts have performed well over the period of study which implies that fund managers may have access to enough private information to offset their expenses and these results are consistent with the notion that mutual funds are efficient in their trading and information gathering activities, therefore an efficient information gathering mechanism will help mutual funds to perform better.

### **5.4 Limitations of the Study**

Care must be taken to generalize the results of this study as there were some limitations. The use of regression analysis also means that there is an assumption of linearity with the various models which may not be the case.

It is also within this period that elections were held and this may have an impact on the performance particularly that of shares. The post election violence that locked many parts of the country caused a decline in the performance of the market. The findings may therefore be compromised.

Most of the unit trusts firms have not been in operations for long and this limit the period of the study. Some have just been in operation for two years while the oldest unit trust is tens years.

### **5.5 Suggestion for further study**

The current research focused on the unit trust in Kenya. This excludes other industries, and future studies should consider returns in other industries such as returns in the insurance sector.

The research also investigated the performance of the unit trusts that invest in shares, excluding those that invest in bonds and real estates. A research should be done for those that invest in bonds and real estate.

One may also be interested to know the kind of strategies used by fund managers to select the shares that will make them experience superior performance though not very significant. It is worthy to note that the expenses incurred by fund managers reduce the dividends paid to unit trusts holders.

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### APPENDIX I:

#### TIME PLAN

Activity		JUNE	JULY	AUGUST	SEPTEMBER
Proposal development					
Approval					
Data collection					
Data analysis/ Project write up					
Project submission					

## APPENDIX II

### BUDGET

Proposal development	3,500.00
Stationery	12,700.00
Typing and printing proposal	4,000.00
Photocopy (proposal questions )	1,800.00
Transport	19,000.00
Miscellaneous expenses (15%)	3,300.00
<b>Total</b>	<b>44,300.00</b>