

**A COMPARISON OF PERFORMANCE BETWEEN UNIT TRUSTS
AND A MARKET PORTFOLIO OF SHARES AT NAIROBI STOCK
EXCHANGE.**

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**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN
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DECLARATION

This research paper is my original work and to the best of my knowledge, has not been presented for the award of any degree in any University.

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Date ----- 16th Nov. 2010

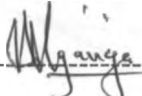
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ABSTRACT

There has been a dramatic increase in the number of individuals who want to invest in the securities offered in the Nairobi stock exchange. The amount of funds however, required tend to be prohibitively high to many. This is because investing in such securities requires diversification in order to minimize the risk involved. This has seen the emergence of unit investment trusts and mutual funds as one of the important vehicles of investment.

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. If unit trusts have superior performance, then investment managers have superior share price forecasting abilities and thus that active management (i.e., switching in and out of shares) does influence performance.

The population of study consisted of all the Unit Trusts in Kenya. The Nairobi 20 share index was used in estimating the performance of a market portfolio. Data on net asset value and dividend paid by unit trusts was collected from offices of respective unit trusts 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 lending rates and free rates was collected from the Central Bank of Kenya. In this study, the researcher used Jensen's standard performance measure.

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. 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.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

There has been a dramatic increase in the number of individuals who want to invest in the securities offered in the Nairobi stock exchange. The amount of funds however, required tend to be prohibitively high to many. This is because investing in such securities requires diversification in order to minimize the risk involved. This has seen the emergence of unit investment trusts and mutual funds as one of the important vehicles of investment. Unit trusts and 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. These kind of claims need to be investigated. While many of the earlier studies have comprehensively looked at the performance of mutual funds in the developed countries, more is yet to be understood from the emerging markets.

A review of the previous literature mostly originating from the developed countries seems to indicate there is a changing trend in the mutual fund performance before and after the 1980s. Most of the earlier studies show the absence of persistency in funds performance and the general conclusion is that fund managers have no superior forecasting abilities. Indirectly, the evidence indicates that the market is remarkably efficient (Sharpe, 1966; Jensen, 1968; Firth, 1977). However, evidence after the 1980s suggest otherwise. Managers appear to hold 'hot hand' and there is persistency in the

mutual funds performance (Hendricks et al, 1993; Brown and Goetzman, 1995; Wermers, 1996).

Evaluating fund performance is important because investors pay for active management. Furthermore, splitting performance into stock selection and market timing components is interesting because it shows where the manager's skill does or does not lie. There has been many studies examining the stock selection and market timing performance of managed funds. The early studies of market timing performance in most cases used the unconditional timing measures of Merten and Hendrickson (1981) and Treynor and Mazuy (1960). Studies by Lehmann and Modest (1987) Grinblatt and Titman (1988), Ferson and Schadt (1996) for US mutual funds and Fletcher (1995) for unit trusts funds are some evidences of negative unconditional timing ability.

Do fund managers who actively trade in stocks add value? Although some controversy still exists, the majority of studies now conclude that actively managed funds on average, underperform their passively managed counterparts. For example, Gruber (1996) finds that the average mutual fund underperforms passive market indexes by about 65 basis points per year. Also Carhart (1997) finds that net returns are negatively correlated with expense levels, which are generally much higher for actively managed funds. Worse, Carhart finds that the more actively a mutual fund manager trades the lower the fund's benchmark – adjusted net return to investors. Using a different approach, some recent studies look at the performance of the stocks held in mutual fund portfolios. The results of these papers are somewhat at odds with the studies mentioned above. Indeed, these

studies conclude that fund managers who actively trade in stocks possess significant stock picking talents. For example Grinbatt and Titman (1989, 1993) and Werners (1997) conclude that mutual funds managers have the ability to choose stocks that outperform their benchmarks, before expenses are deducted. Daniel et al (1997) attribute much of this performance to the characteristics of the stocks held by funds.

Traditional mutual funds performance methodology examines the actual bottom-line returns that investors realize from holding mutual funds. Since Jensen (1968), the general consensus from these studies is that the net return of the active fund manager industry does not outperform a passive benchmark. However, in contrast to traditional performance studies, recent studies by Daniel, Grinblatt, Titman, and Wermers (2000) take a different approach and examine the performance of the individual stocks held in fund manager portfolios. They report results consistent with fund managers having the ability to choose stocks that outperform their benchmarks before any expenses are deducted. These results in direct contrast to the long standing evidence from traditional performance studies, which suggest fund managers, do not possess superior information. Pinlick (2003) finds the results that are consistent with the stock held by fund managers on average realizing abnormal returns. Overall both the existence and magnitude of abnormal returns give support to conclusion from Daniel et al (1997) that fund managers do possess superior information. However, while fund managers may realize abnormal returns on their holdings or trades, but this as Wermers (2000) discusses does not imply that they deliver superior net returns to investors. There are number of reasons for this such as transactions costs, management fees and poor marketing decisions.

Mutual funds tend to systematically follow certain “styles” such as holding small stocks or high past returns stocks (Chan et al (2000)). Indeed, Grinblatt, Titman and Wermers (1995) find that the majority of mutual funds tend to actively invest in high past returns stocks (these investment strategies are called “momentum-investing” or trend following strategies. Past research (e.g. Fama and French (1992, 1996), Jegadeesh and Titman (1993), Daniel and Titman (1997) provides evidence that stocks with certain characteristics (e.g. high book-to-market or momentum stocks) out perform other stocks, at least before trading costs are deducted. Given this evidence, we might expect that mutual funds employing such styles would achieve high average portfolio returns – however, in practice, they might not deliver superior net returns to investors due to the possibility of high costs of analyzing and implementing these styles. Kosowski et al (2003) found that many of the US funds with apparent stock picking ability are those with growth oriented investment strategies.

According to Warther (1995) flow in to equity funds is positively correlated with concurrent and subsequent market returns, while market returns are negatively related to subsequent flow in the monthly data. Daily returns are not associated with lagged flow (Edelen and Warner (2001)). Such exogenous cash flow might be related to past performance. Fund managers who follow such strategies rely on past performance to predict returns. They buy securities in up market and sell in down markets, pushing security prices away from their fundamental values. Other fund managers may follow negative feedback (contrarian) strategies and their trades drive security prices toward their fundamental values. Since positive (negative) feedback strategies increase

(decrease) short term volatility, the extent to which funds flow indicates that trade depend on past returns.

Studies by Black (1986) and Lee, Shleifer and Thaler (1991) conclude that noise traders cause wide swings away from fundamentals, and those investors sentiment and noise traders are an important factor in the overall market movement. It is a common belief that mutual funds/unit trusts investors are the less informed investors. Thus fund flow is a good indicator of retail investor's sentiments and these sentiments are often irrational. To the extent that investor sentiment is important in the market place and aggregate flow is a good proxy of the sentiment, flow into (or out of) mutual /collective investments will be related to market wide returns and volatility. Bussee (1999) shed light on the question of whether mutual funds time market volatility. Bussee shows that mutual fund do time market volatility and funds change market exposure when volatility changes.

The Kenyan capital markets offer an array of investment products in the form of shares, bonds and unit trusts. The type of products chosen by the investor to commit his capital depends largely on his financial goals, time frame, and amount of capital available. Unit trust has grown in acceptance and popularity in recent years. This is evidenced by the growth in the number of approved unit trust funds from virtually zero in 2001 to 12 in 2008. Unit trust is the overall investor's answer to achieving wide investment diversification without the need of prohibitive sums of money (Harman, 1987). As the market becomes sophisticated and more volatile, unit trusts become safe havens for less, sophisticated and less capitalized, conservative individuals in the market place.

A unit trust fund is an investment scheme that pools money together from many investors who share the same financial objectives to be managed by a group of professional managers who invest the pooled money in a portfolio of securities such as shares, bonds and money market instruments or other authorized securities to achieve the objective of the fund. (Harman, 1987). In exchange of money received from the investors, the fund issues units to investors who are known as unit holders. The fund earns income from the investment in the form of dividends, interest income and capital gains. The underlying value of the assets of a unit trust is always directly represented by the total number of units issued multiplied by the unit price less the transaction or management fees charged and any other associated costs.

A mutual fund is an investment company with a diversified portfolio of investments consisting of stocks, bonds, real estate, and other securities that is managed by a professional fund manager for outside investors. An alternative to mutual funds is found with unit investment trusts (Harman, 1987). A unit investment trust or UIT is an “investment company that buys and holds a generally fixed portfolio of stocks, bonds or other securities. Investors can purchase a share of the company, and are then entitled to their proportion of returns received by the company. Unit trusts and mutual funds share many characteristics. The term mutual fund is mainly used in US while unit trust is commonly used in UK. In this study the two terms are going to be used synonymously.

To invest in a unit trust fund, investors buy units through the fund managers at the prevailing selling price which is calculated daily. These units can be bought any time as

long as the fund has not reached its maximum approved size. Unit holders can also sell their units back to the fund managers at the prevailing buying price. It is because of this repurchase feature that units are called open-ended funds (Harman, 1987). The value of the fund or the price to be paid by unit holders or the amount to be received when the units are sold is based on the net asset value of the fund plus charges (if any). It is important to note that in case of funds where a substantial portion is invested in stocks and shares, the performance of the fund would be affected by the performance of the stock.

1.2 Statement of the Problem

Early studies of unit trust funds/mutual funds in developed markets show that unit trusts do not outperform the market and managers do not have superior ability to consistently beat the market(sharp, 1966, Jensen , 1968, Firth 1977) Indirectly, the evidence indicate that the market is remarkably efficient.

Studies in the 80's however, have discovered that fund managers are able to outperform the market. This is in contrast to the general findings of earlier studies. The study by Ippolito (1989) on 143 mutual funds in the US over the period 1965-1984 showed that mutual funds with high turnover, fees and expenses are able to earn higher returns to offset the high charges. Recent studies by Grinblatt and Titman (1992), Hendericks et al (1993), Goetzmann and Ibbotson (1994), Malkiel (1995), Gruber (1996) show that fund managers are able to outperform the market and the 'hot-hand' phenomenon does exist in the US market. Contrary to the studies in the US, mutual funds studies in Australia

generally find no evidence of persistency in performance. These studies include Robison (1986) and Hallahan (1997). The inconsistency in the findings between U.S.A. and Australia certainly begs further investigation.

Evidence from Malaysia with regard to unit trust performance is very limited. The earliest study with only 12 unit trusts as a sample reports that the performance is well above market return and quite consistent over the period 1974-1984 (Chua, 1985). Later studies suggest otherwise, that is unit trusts produce lower returns than the market portfolio (Ewe, 1994, Shamsheer and Annuar, 1995). According to research conducted in the United Kingdom in the period 1965-1975 the results indicated that on average, managers of unit trusts had not been able to forecast share prices accurately enough to outperform a simple buy and hold policy. Additionally there was no statistically significant evidence of any individual unit trust having superior performance (Firth, 1977).

Mwangi (2003) investigated unit trust investments by SACCOs in Nairobi and in his recommendation he suggested that further study should be done to those firms that are strictly dealing with the Unit trust in Kenya. There is no known study on performance of unit trusts in Kenya despite of claims of their superior performance. Most studies that have been done about fund managers performance confine themselves to manager's efforts to outperform the US equity markets. Among the more recent are those by Davis (1999), Carhart (1997), Malkiel (1995) and Elton et al (1993). There are few studies of non US markets. This paper closes that gap slightly by examining the performance of all

Kenyan unit trusts that concentrate their investments in the Kenyan market and compare that with the performance of a market portfolio.

Are there benefits from research activities by fund managers to the investors? Is the Kenyan capital market efficient? These are some of the questions that the study attempts to answer and by doing so try to fill the knowledge gap. Most major newspapers and particularly in Kenya, carry advertisements for unit trusts which make a great play on their success in beating the market index and of being a 'best performer' in a particular year. This kind of claim can only be ascertained after the study.

1.3 Objective of the study

To investigate whether unit trusts in Kenya have better performance compared to that of market portfolio, given their systematic risk. If unit trusts have superior performance, then investment managers have superior share price forecasting abilities and thus that active management (i.e., switching in and out of shares) does influence performance. Specifically the researcher investigated the following hypotheses;

H₀ There is no difference between performance of unit trusts and a market portfolio.

H₁ There is a difference between the performance of Unit Trusts and a market portfolio.

1.4 Importance of the study

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 unit trusts are riskier than the

market index. Do unit trusts 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 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 study will particularly interest the Capital Market Authority and the Nairobi Stock Exchange. They will be in a position to offer informed advices to the relevant authorities and investors.

The study will form a basis for further research to the academicians and other interested bodies.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Unit trusts, according to Harman (1987), are investments schemes which combine investors' money and invest in bulk in a selection of shares, bonds, and, cash. Unit holders hope to benefit from professional management companies' investment of their wealth. In return all unit trusts pay for investment services. This chapter defines unit trust as a form of investment, compares unit trusts with mutual funds, discusses the mechanics under which unit trusts operate and reviews the theories guiding this study. The chapter also reviews some of the empirical studies that have been carried out both locally and in other countries.

2.2 Unit investment trusts

Basically a unit trust is an arrangement whereby property (shares, bonds, real estate) is held on trust for a large number of investors. It is constituted by a deed or indenture regulating the rights, powers, and duties of the parties to the arrangement (Harman, 1987). While the unit trusts, like mutual funds, issues redeemable securities, it is none-the less different from a mutual fund in that the entity sponsoring the unit trust nearly always creates a secondary market in the Units sold by the trust, both the sponsor and the trust benefit from the creation of secondary market. The sponsor receives a sales charge on each unit resold in the secondary market, often at a higher rate than that received on units

sold in the primary market. Unit holders enjoy a trust that does not have to deplete itself of its assets to meet redemptions.

Unit trusts are attractive investments because they offer liquidity and diversity at affordable prices. They allow investors of even moderate means to own an interest in a pool of diversified securities and, because they issue redeemable securities, they allow investors to liquidate their investments quickly and avoid many of the market's vagaries. (Harman, 1987). Unit trusts provide diversity and liquidity at an affordable cost compared to mutual funds since it has no investment advisor to whom it must pay an annual management fee. Moreover, because the unit trusts fund has a relatively fixed portfolio, the brokerage commissions it incurs are small in comparison to those of mutual funds, the portfolio that often changes. Finally because of its relatively fixed portfolio the unit trusts fund offers a "Known" return. Conversely, a mutual fund's investments return may rise or fall as it trades its portfolio or invests additional proceeds from new shareholders (Harman, 1987).

Unit trusts are open-ended; the fund is equitably divided in to units which vary in price in direct proportion to the variation in value of the fund's net asset value. Each time money is invested, new units are created to match the prevailing unit buying price, each time units are redeemed the assets sold match the prevailing unit selling price. This ensures there is no supply or demand is created for units and prices of units remain a direct reflection of the underlying assets. The trust manager makes profit through the bid-offer spread. This is the difference between the purchase price of the units or the offer price and the sale value of the units or the bid price. The trust deed often gives the manager the

right to vary the bid-offer spread to reflect market conditions. This enables the manager to control liquidity (Harman, 1987).

With the passage of Capital Markets Authority Amendments Act (2000), which recognizes Specific Investment Vehicles, and especially mutual funds, and unit trusts, more opportunities for diversification by both institutional and retail investors should emerge (Wagacha, 2001). Ondigo (2001) observes that the main problem facing the securities markets in Kenya is that there are insufficient products to satisfy the demand for securities and the main concern should be in developing products that satisfy the demand that exist. The establishment of collective investment vehicles will be essential in order to enable as many individual Kenyan investors as possible to participate in this evolution (Zimele Asset Management, 2000). Factors that must exist in a market for it to be conducive for the operation and growth of collective investment schemes include investor education and confidence, mature securities markets, stable macro-economic environments, qualified licensed and professional operators, integrated technology supervision and regulation of the industry among others (Melly, 1996; Moore, 1997; Rottersman, 1997).

2.3 The mechanics of and participants associated with unit investment trusts

Generally there are three key parties in any Collective Investment Schemes(CIS), the investors whose assets have been pooled in to a fund, the fiduciaries who oversee the management and investment of this fund and management company which does the day-to-day operations of managing and administering the funds as an agent of the

fiduciary(Zimele Asset Management,2000). Fund managers are in a position of trust and must therefore discharge their fiduciary duty with sobriety and due diligence. The fund manager must act in the best interest of the shareholders or the fund owners. As such, a fund manager must act with discretion often recognizing that they are held and charged with a higher standard of care and a higher degree of knowledge than the average person (Omony, 2003).

The trust indenture, under which the Unit Investment Trust (UIT) must be organized, governs the administration of the trust and the activities of those associated with it; the trustee, the depositor and the evaluator. The trust indenture also provides for the termination of the trust and the distribution of its assets. The trust indenture typically does not govern the underwriting of the trust. Instead a separate agreement governs the distribution of the trust. Each underwriter of a UIT becomes the owner of a specific number of trust units on a certain date. For so risking their capital and performing other activities, the underwriters receive a concession out of the public offering prices of the units. The public offering prices includes the sales charges, which range between 4% to 6% of the public offering price. The underwriters may earn more than just a concession, and if profit is made of securities into the UIT, all underwriters typically share in this profit. However any aggregate loss on the acquisition of securities deposited in the UIT is usually borne by the sponsor.

In addition to the underwriters, the sponsor, the trustee and the evaluator perform integral functions with respect to the UIT. The sponsor is one of the underwriters of the trust and

organizes the trust and generally bears all of the accompanying expenses. The sponsor earns money from sales charge, that constitutes a portion of the sale price of the unit, and from the spread between the price at which it sells portfolio securities to the trust (offering side) and the price it pays for the portfolio securities (bid side).

The trustee typically plays a ministerial role which is more of custodian and administrator. The trustee for instance, collects and disburses the interest and dividends due on trust's portfolio securities. The trustee also provides unit holders with an annual report disclosing such things as interest received, amount actually distributed, and a list of the securities remaining in the trust as of a certain date. Trustee profits from the use of monies it holds on behalf of the UIT, in non interest-bearing accounts for future distributions of interests or principal. This is usually in form of fees. The evaluator values the trusts portfolio for purposes of redemption and the secondary market. The evaluator may also perform portfolio supervisory services for the UIT.

2.4 The Capital Asset Pricing Model

Asset pricing models have been the cornerstone in finance. In particular, the Capital Asset Pricing Model (CAPM) of Sharpe (1964) and Lintner (1965) and its multifactor extensions are the most widely used tools in empirical studies. The CAPM has been carefully examined by numerous authors. Recently a number of anomalies against the unconditional version of CAPM have been identified. For example the CAPM model with constant beta has been declared dead by Fama and French (1992, 1996a). However Dybvig and Ross (1985) and Hansen and Richard (1987) show theoretically, the

conditional version of CAPM can hold perfectly even when the unconditional CAPM exhibits serious pricing errors. The conditional CAPM allow for time varying betas and risk premia. A challenging issue arises when studying conditional beta-pricing models. The models imply that the conditional expected returns on an asset is a linear function of one or more conditional betas that measure the asset's sensitivity to the sources of undiversifiable risk. This makes the model intuitively appealing but empirically challenging since there is no theoretical guidance on how betas and risk premia vary with the variables that represent conditioning information.

The extension of CAPM by Jagannathan and Wang (1996) has attracted considerable attention. They argued that labor income risk should be included when pricing the cross-section of stock returns. Kevin and Wang (2003) find that labor income risk factor is not significant in capturing dynamics of the deviations from the conditional CAPM.

The Fama and French (1993) three factor model has now become focal point in empirical asset pricing. Fama and French (1996a), and Mackinly (1995) have shown empirical success of the model. However recent studies by He et al (1996), Ferson and Siegel (1998) cast doubt on empirical test. They argue that the model must fail miserably at dynamics of asset returns. The continuation of short-term returns or the momentum effect documented by Jegadeesh and Titman (1993) has been one of the most serious challenges of CAPM. The momentum effect has received special attention since Fama and French (1996a) find that their three factor model in the unconditional form does not explain the anomaly. Several authors have argued about the source of the momentum profit. Conrad,

Kaul (1998), and Chordia and Shivakumar (2002) argue that momentum profits are due to cross-sectional dispersion in expected returns or persistence in expected returns. In contrast, Jegadeesh and Titman (1999) and Grundy and Martin (2001) conclude that the momentum profits are due to specific returns.

2.5 Efficient markets hypothesis

There are three levels of market efficiency. The first level is the weak form which asserts that prices fully reflect all information contained in the historical sequences of prices. The second level is the semi-strong form which asserts that the current stock prices reflect not only the historical price information but also all the publicly available information relevant to the market as a whole or to any individual company's securities. The strong form asserts that all the information that is known by any market participant is fully reflected in market prices and hence not even those with privileged information make use of it to secure superior investment results.

It is generally believed that securities markets are extremely efficient in reflecting information about individual stocks and about stock market as a whole. The accepted view was that when information arises, the news spread very quickly and is incorporated into the prices of securities without delay, Thus neither technical analysis, which is the study of past stock prices in an attempt to predict future prices (weak-form efficiency) nor even fundamental analysis, which is the analysis of financial institutions such as comparing earnings and asset values(semi-strong efficiency) to help investors select "undervalued" stocks would enable an investor to achieve returns greater than those that

could be obtained by holding a randomly selected portfolio of individual stocks at least not with comparative risk. The efficient market hypothesis is associated with the ideas of a “random walk” which is a term loosely used in the finance literature to characterize a price series where all subsequent price changes represent random departures from previous prices. News by definition is unpredictable and thus, resulting price changes must be unpredictable and random.

By the start of the twenty first century, the intellectual dominance of the efficient market hypothesis had become far less universal. Many financial economists and statisticians began to believe that stock prices are at least partially predictable. A new breed of financial economists emphasized psychological and behavioral elements of stock price determination and they came to believe that future stock prices are somewhat predictable. Some of the strategies employed by fund managers and professional investors suggest predictability of stock prices based on; short- term momentum, long- run return reversals, seasonal and day of the week patterns, dividend yields, size effect among others.

The most direct and most convincing tests of market efficiency are direct tests of the ability of professional fund managers to outperform the market as a whole. Surely, if markets prices were determined by irrational investors and systematically deviated from rational estimates of the present value of corporations and if it were easy to spot predictable patterns in security of returns or anomalous security prices, then professional fund managers should be able to beat the market. Direct tests of the actual performance of

professionals, who often are compensated with strong incentives to outperform the market, should represent the most competing evidence of market efficiency.

A remarkably large body of evidence suggests that professional investment managers are not able to outperform index funds that buy and hold the broad stock market portfolio. The first study of mutual fund performance was undertaken by Jensen (1963). He found that active mutual fund managers were unable to add value, and in fact, tended to underperform the market by approximately the amount of their expenses.

2.6 Institutional herding – theory

There are several models in the literature that provide motives for the herding behavior of institutional managers. In all of these models the herding results in an efficient equilibrium, where the private information that the managers have is not fully impounded in the observable market prices. First, the managers may rationally choose to focus only on information that pays off in the short term and to ignore valuable information that may take a long time to be impounded into the price Froot et al (1992). Second managers are concerned about their reputations in the labor market. A manager's reputation is hurt less if everyone makes the same bad decision than if only the manager makes the bad decision. A risk-averse manager will run with the herd instead of going out on a limb and following a contrarian strategy, even if the manager has information that the contrarian strategy has the higher probability of being correct (Scharfstein and Stein 1990). Third if the information that managers have is revealed, sequentially, herding could occur Banerjee (1992). Finally, if there is positive feedback, then national speculation can cause

asset prices to deviate from their fundamental value De Lang et al (1990). A rational agent will purchase more stock than he would if the positive feedback trades were not present knowing that the positive feedback traders will buy when the price starts to rise. As the positive feedback traders purchase more of the firms stock, the price rises even further, enabling the rational speculator to capture additional profits.

Prior empirical research on institutional herding does not consistently find evidence of the existence of herding. This could be due to the fact that most prior empirical studies of institutional herding behavior have focused on the institutional changes in quarterly holdings of equity. Klemkosky (1977) found that large buying imbalances were preceded by at least two months of abnormally positive stock returns, indicating that institutions engaged in positive feedback trading when the market was rising. Kraus and Stall (1972) in their study observed that herding by institutional investors can simply be attributed to chance. Lakonishok, Shleifer and Vishny (1992) Wermers (1999) also conclude that institutional herding is, in general, not present in most stocks.

Two other recent studies also reach somewhat different conclusions regarding the causes of institutional trading. Cai, Kaul and Zheng (2000) find that market returns causes institutional trading, but that institutional trading does not cause returns. This evidence is consistent with positive feedback trading and herding, but inconsistent with the hypothesis that trading by institutions puts pressure on prices. In contrast, Sias, Starks and Titman (2001) distinguish between the hypothesis that institutions buy stocks and their prices increase (price and pressure/informed institutions) and the hypothesis that a

stock's price increases and then institutions buy it (positive feedback trading). They reject the positive feedback trading hypothesis in favor of the hypothesis that institutions trade because they possess superior information.

2.7 Agency Problem-Theory

The existing literature on mutual fund focuses primarily on whether fund manager's stock selection efforts generate excess returns that justify the associated fees and transaction costs (Daniel, Grinblatt, Titman and Wermers, 1997; Malkiel, 1995). In these studies a mutual fund can be considered a black box that uses some strategy to convert investor's cash into returns. But what happens inside the box has become front page news. In July 2003, New York's Attorney General, Eliot Spitzer, notified a hedge fund, Canary Capital Partners, LLC, that it was the target of an investigation into mutual fund trading practices. In early September, Spitzer alleged various trading improprieties in a civil suit against Canary. Suits and criminal prosecutions against other mutual fund traders, brokers, mutual funds management companies and their respective executives followed at breakneck pace over the following months.

Although the details of alleged wrong doing vary, the issues are all rooted in basic conflicts of interest between mutual fund investors and the companies and individuals that organize, sell and provide services to mutual funds. Mutual funds/units investment trusts provide services in addition to diversification they offer liquidity by standing ready to redeem their shares at net asset value or the ratable value of the fund's investment portfolio less any debts. Most of these collective investments scheme are created and managed by fund Management Company that is registered by the relevant authority.

They may be subsidiary of a bank, a broker, dealer, an insurance company or a financial service's firm that specializes in fund management. Mutual funds and other collective investment vehicles are subject to a separate regulatory statute. In Kenya they are supposed to register with Capital Markets Authority and to comply with various disclosures, conflict of interest, capital structure and corporate governance rules.

All costs represent income to the manager or the third parties the manager selects to provide services to the fund. The manager's income increases with the assets in the fund. The investor's objective is to maximize realized returns, not the size of the fund. These different matters, particularly with regard to marketing expenses, which increase fund size but may reduce realized returns may lead to a reduction in returns to the investors. Other costs include management and administrative expense, trading costs etc.

The price which a mutual fund's shares trade does not arise through a minute-by-minute interaction of buy and sell orders, but through the fund's calculation of its net asset value. They calculate their net asset value only once daily, generally at 3.00pm local time. The mutual fund then executes buy and sell orders placed that day at a price equal to net asset value. There are allegations in it that some brokers and fund managers permitted favored investors to trade at "stale" prices that did not reflect available information, thereby allowing a nearly risk free profit. The "stale" price arbitrage can take two forms of descriptions, late trading and market timing. Late trading occurs when a broker permits a customer to place orders after the close of trading, while still receiving a price based on that same day's net asset value. The regulation requires "forward pricing", that is, a fund

must fill any orders it receives at the next calculated net asset value, which prevents risk free arbitrage.

The “market timing” issue arises because in some cases, the prices of securities used to calculate net asset value are not current. This occurs mainly when a mutual fund invests in international stocks. The tell-tale sign of deliberate market timing is a high frequency of trades in and out of the fund. Frequent trades, whatever their motivation, creates transaction costs from the mutual funds that are ultimately borne by long term fund investors.

2.8 Investment strategies used by fund managers

The institutional investment community has responded to the proliferation of investment approaches by more closely scrutinizing a manager’s investment style. The heightened attention to style is driven by several motives. Accounting for style aids performance evaluation by giving a clearer picture of a manager’s stock selection skills .The manager of a portfolio of small stocks may appear to disappoint relative to abroad market index, for example, but performance may be outstanding relative to a small stock benchmark.

Fund’s preference for one investment style over another (due to behavioral or agency reasons) may affect the structure of asset prices. Barberis and Shleifer (2000) show how fund’s pursuit of styles can account for observed patterns in stock returns. For example, if funds favor a style and allocate more resources to that style than is warranted by underlying fundamentals the price of stocks belonging to that style category may temporarily deviate from fair values.

2.8.1 Contrarian strategy

De Bondt and Thaler (1985, 1987) Richards (1997) and Balvers, Wu and Gilliland (2000) finds that over the longer term, losers outperform winners. Specifically, De Bondt and Thaler argue that a long term contrarian strategy, which consists buying losers and selling winners based on a performance. Observed two to five years earlier generates positive returns of nearly 8% per year in the following years. De Bondt and Thaler (1985) note that past performance can serve as a proxy for investor's sentiment and since prices are initially biased either by excessive optimism or pessimism; prior losers would make more attractive investments than prior winners over the long term. De Bondt and Thaler's argument is consistent with the hypothesis of long term over reaction by investors to information – a hypothesis documented in several other markets (e.g. Gunaratne and Yonesawa (1997) in Japan, Schiereck, De Bondt, and Weber (1999) in German.

If investor overreaction/underreaction is real then the price correction process should primarily occur over a very short period since it is difficult to justify that any arbitrage opportunity arising from these deviations persist over a long period (Daniel, Hirshleifer and Subrahmanyam (1988). Jegadeesh (1990) reports that a contrarian strategy, based on information from the previous month, yields statistically significant abnormal returns of 1.995 per month (23.88% per year). Over the 1934-1987 period in US markets, and 1.75% outside January. This result is quite striking as the abnormal returns are nearly double those resulting from Jegadeesh and Titman's momentum and De Bondt and Thaler's long term contrarian strategies and there is no out of sample evidence to support Jegadeesh's (1999). Assessing the contrarian effect in Canadian markets is particularly

interesting, as kryzanowski and Zhang's (1992) long term over reaction findings in Canadian markets seem to contradict those of De Bondt and Thaler (1985) in US markets. They find that short term contrarian strategy provide an average excess unrestricted return of 26.25% per year.

A contrarian stock selection strategy consists of buying stock that has been losers and selling short stocks that have been winners. The strategy is formulated on the premise that the stock market overreacts to news so winners tend to be overvalued and losers undervalued; an investor who exploits this inefficiency gains when stock prices revert to fundamental values.

2.8.2 Momentum strategies

An extensive body of recent finance literature documents that the cross-section of stock returns is predictable based on past returns. For example, De Bondt and Thaler (1985, 1987) report that long term past losers outperform long term past winners over the subsequent three to five years. Jegadeesh (1990) and Lehmann (1990) find short term return reversals. Jegadeesh and Titman (1993) add a new twist to this literature by documenting that over an intermediate horizon of three to twelve months, past winners on average continue to outperform past losers, so that there is "momentum" in stock prices. Investment strategies that exploit such "momentum" by buying past winners and selling past losers predate the scientific evidence and have been implemented by many professional investors.

Momentum investing is based on trend following strategies. Such strategies include price momentum or in the case of equities earning linked momentum such as the pattern of sell side analysts earning revisions, the surprise around earnings announcement.

Carhart (1997) shows that momentum is a significant common factor in explaining stock returns. Furthermore, he shows that persistence in mutual fund performance is explained by stocks return momentum. In light of Carhart's findings, a question that arises naturally is whether the smart money effect is really due to fund specific information as suggested by Gruber (1996) and Zheng (1999) or whether it can be explained by exposure to momentum. Specifically, suppose that fund investors merely chase past fund performance, then funds that happen to have a high concentration of recent winner stocks would on average, receive more investors cash while also benefiting more than other funds from the effects of return momentum. This in turn could lead to the finding of a smart money effect, despite the absence of any ability on the part of investor to select superior fund managers.

The evidence on return predictability is as Fama (1991) notes, among the most controversial aspects of the debate on market efficiency. A large number of explanations have been put forward to account for reversals in stock prices. For example, Kaul and, Nima, lendran (1990) and Jegadeesh and Titman (1995) examine where bid ask spreads can explain short term reversals. Short term contrarian profits may also be due to lead lag effects between stocks (Lo and Mackinlay (1990). De Bondt and Thaler (1985, 1987) and Chopra, Lakonishok and Ritler (1992) points to investor's tendencies to overreact. A

recent article by Fama and French (1996) tries to rationalize a number of the Jegadeesh and Titman (1993) strategies. In the absence of an explanation, the evidence on momentum stands out as a major unresolved puzzle.

Profitability of momentum strategies could be due to component of medium horizon returns that is related to the earnings related news (Latane and Junes 1979, Bernard, Thomas, and Wahlen (1995). De Long et al (1990) show that momentum trades (also referred to as trend chasers or positive feedback traders) can, in fact destabilize stock prices and thereby threaten the efficiency of financial markets. De Long et al's proof has inspired numerous empirical investigations that focus almost exclusively on the behavior of institutional investors. There are at least two reasons for this focus. First, large fraction of corporate equity is held by institutional investors, second, institutions are frequently alleged to herd and to follow potentially destabilizing investment strategies (Lakonshok Shleifer and Vishny 1992); De Long et al note that trend chasing can cause momentum (or positive correlation) in stock prices. This causal link between trend chasing and price momentum also underlies Hong and Stein's (1999) behavioral model, in which trading by one class of agent's produces momentum in stock prices.

A growing number of empirical studies address momentum trading by institutions, with somewhat conflicting results. Lakonishok et al (1992a) analyze the quarterly holdings of sample of pension funds and find little momentum trading. Grinblatt, Titman, and Wermers (1995) examine the quarterly holdings of 274 mutual funds and find that 77 percent of the funds in their sample engage in momentum trading. Nofsinger and Sias

(1999) examine total institutional holdings of individual stocks and find evidence of intra period momentum trading. Using a different sample, Gompers and Metrick (2001) investigate the relationship between institutional holdings and lagged returns and conclude that once they control for firm size, there is no evidence of momentum trading. Several papers have studied momentum strategy. Fama and French (1996) used in their studies the method of buying short term winners and selling short term losers. Jegadeesh and Titman (2001) re-examine the momentum strategy, initially cited in their 1993 paper. In this paper momentum strategy appears to generate statistically significant abnormal returns. Hong and Stein (1999) in their model to explain short term momentum and long horizon return reversal, have two groups of investors. Noise traders base their decisions on past returns, while rational traders use 'fundamental news' about cash flows. Grinblatt, Titman, and Werners (1995) showed in their study that 77% of mutual funds are momentum investors and that an average momentum funds realized significantly better performance than other funds.

An extensive body of recent finance literature documents that stock returns are predictable based on past price history. Numerous studies examine the profitability of trading strategies that exploit interdependence of time series returns and show that these strategies could lead to abnormal returns, for example, Jegadeesh and Titman (1993) document that over a horizon of three to twelve months, past winners on average continue to outperform past losers by about one percent per month, showing that there is "momentum" in stock prices. There are two possible explanations for the momentum effect. First, stock prices underreact to information. Chan, Jegadeesh and Lakonishok

(1996) show that stock prices respond gradually to earning news and that a substantial portion of the momentum effect is concentrated around subsequent earnings. Hong, Lim and Stein (1999) find that under reaction of stock prices depends on analyst coverage, which is pronounced by several studies. For example, Grinbaltt, Titmann and Wermers (1995) find that majority of mutual funds purchased stocks based on their past returns, namely buying past “winners” and that funds showing greatest tendency to buy past winners also tend to invest more intensely “with the crowd” than other funds do.

2.9 Empirical Studies on performance of managed funds.

Studies that have been carried out are mainly in US, Great Britain, Australia and Japan. There are very few studies outside these countries due the fact that mutual funds and unit trust are relatively new investment in many parts of the world. In Kenya for example the first unit trust was in operation as from 2001.

Firth (1977) carried out an empirical investigation in to the performance of unit trust in United Kingdom. The result indicated that on average managers of unit trusts 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 unit trusts examined provided volatility greater than that of the market. This is most likely because unit trusts 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.

A study by Daniel (1997) looked at a 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 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 costs. This evidence is consistent with the study of Grossman and Stiglitz (1980), where informed investor is able to outperform the market just enough to earn back their fees. The study however attributes higher performance to those portfolio managers who change their investment styles overtime, implementing the styles when they have the highest expected returns. The funds returns are analyzed in the context of the capital asset pricing model. The study concludes that there is no reason to abandon the belief that securities markets are remarkably efficient.

Another study by Wermers (2000), on mutual funds over the 1975 to 1994 period indicate that they held stocks that outperformed a broad market index by 1.3 percent per year. About 60 basis points is due to the higher average returns associated with the characteristics of stocks held by the funds, whereas the remaining 70 basis points is due to talent in picking stocks that beat their characteristics benchmark portfolios. Thus considering only their stock holding, mutual funds managers hold stocks that beat the market portfolios by almost enough to cover their expenses and transaction costs. Mutual fund holding of cash and bonds, is presumably to maintain liquidity in the face of uncertain investor inflows and redemptions.

A study conducted in Australia by Pinnuck (2003) in the period 1990 to 1997, found that stocks held realize economically significant abnormal returns in the month following the holding date thus suggesting that fund managers possess some stock selection ability. The study also finds that the fund managers realize abnormal returns and the precision of the information is greater for large buy relative to small buy trades. For sell trades, the study find no evidence of abnormal returns, which suggest that fund managers do not possess superior information in regard to bad news.

The results of the study by Saunders et al (1980) on stochastic dominance on the performance of U.K unit trusts stand in marked contrast to previous empirical studies of unit trusts performance. Specifically, these results suggest that trusts as a group have generally outperformed the market. This result may be partly attributable to the short date period considered. When mean – variance is used, however for the same time period; no superior portfolio performance resulted for trusts as a group. The argument is that the mean-variance model ignores the higher moments of the distribution of trusts which may have biased forwards to the performance of unit trusts relative to the market. The use of the more sensitive and discriminating stochastic dominance methods indicates their superior performance as a group over the data period considered.

A study by Malkiel, (1995) shows that the empirical results on selectivity performance provide evidence both for and against the Efficient Market Hypothesis (EMH). The case against EMH, is that many more individual funds were able to generate significant superior selectivity performance: The case against EMH is based on the bias in favor of

low-risk securities. That is, the average superior overall selectivity performance that characterized the mutual fund sample can be attributed to 78% of all risk – level decisions being less than 1.0, and that fund managers individually and on average are unable to consistently forecast the future prices on individual securities well enough to recover their research expenses, management fees and commission expenses.

CHAPTER THREE

3.0 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 collected is for the period 2005 to 2009.

3.2 Research Design

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). A descriptive survey will be employed in this study. Travers (1969) states that surveys are 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 unit trusts in Kenya compared to a market portfolio.

3.3 Population and Sampling

The population of study consisted of all the Unit Trusts in Kenya. There are twelve approved collective investment schemes. All approved Collective Investment Schemes in Kenya that deal with Unit Trusts and invest in equities. There are seven in number that deal with equity fund. The Nairobi 20 share index was used in estimating the performance of a market portfolio. The index is calculated using equities of 20 companies; this clearly indicates the need to restrict the study to unit trust 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). Data on net asset value and dividend paid by unit trusts was collected from offices of respective unit trusts 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 lending rates and free rates was collected from the Central Bank of Kenya.

3.5 Data Analysis

In this study, the researcher used Jensen's standard performance measure. The formula to compute the performance of unit trust, market index and risk free returns is as follows:

$$R_{j,t} = \log_e \frac{\text{NAV}_{j,t} + D_{j,t}}{\text{NAV}_{j,t-1}} \quad (1)$$

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

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

Where:

1. $R_{j,t}$ = monthly continuously compounded rate of return of the j th unit trust during month t ;
2. $\text{NAV}_{j,t}$ = net asset value for unit trust j at the end of month t ;
3. $D_{j,t}$ = dividend per unit paid by unit trust j during month t ;
4. $R_{m,t}$ = estimated monthly continuously compounded rate of return on market portfolio m for month t ;
5. I_t = level of the Market interest rate index at the end of month t ;
6. $R_{f,t}$ = inter bank offer rate for one month (quoted in yearly rate); and
7. $R_{fm,t}$ = Inter Bank offer Rate for one month (quoted in monthly rate).

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. 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 was 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

4.0 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 2005 to 2009. 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

	Minimum	Maximum	Mean	S.D
2005	3.12	138.45	57.097	198.5314
2006	6.88	183.84	78.049	257.1934
2007	3.75	141.91	81.688	200.1628
2008	2.58	122.83	64.342	180.234
2009	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

year 2005 to 78.049% in the year 2006. The returns increased further to 81.688% in 2007 before the returns reduced to 64.342% in the year 2008. However, the growth rate resumed in the year 2009, 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
2005	3.12	138.45	57.097	198.5314		3094.38	3982	3648.204	8066.016	
2006	6.88	183.84	78.049	257.1934	37%	4025.21	5645.65	4597.571	11043.69	26%
2007	3.75	141.91	81.688	200.1628	5%	4971.04	5774.27	5259.629	12021.53	14%
2008	2.58	122.83	64.342	180.234	-21%	3341.47	5336.03	4522.705	10381.16	-14%
2009	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 2005 to a high of 81.688% in the year 2009. 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 2009 to a high of 5259.629 at the

end year 2007. The minimum and maximum return for the stock market was highest in the year 2007 illustrated by the standard deviation.

The returns of unit trusts was 37% in the year 2006 then slowed down to a growth rate of 5% before slumping to a negative growth rate of 21%. However, in 2009 unit trust return to a growth pattern of 18%. For the stock market, the returns were on an upward growth rate in the year 2006 and 2007. However, the stock market return slumped in the year 2007 and even further in the year 2009 by upto 33%. These can be attributed to the reduced confidence in the bourse by investors following post election violence in 2007/2008.

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

	Unit trusts	Stock market
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	0.554234	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	0.557013	0.616376	-8534.86
Unit trust return	33.63655726	45.18195	0.744469	0.510605	-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
2005	0.48	0.00339	0.00145
2006	0.63	0.00087	0.00065
2007	0.67	0.0067	0.00082
2008	0.53	-0.0236	0.00981
2009	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 2005 to a high of 0.69 during the year 2009. 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 2008 and 2009.

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.

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected the foregoing discussions, conclusions and recommendations were made. The response was based on the objectives of the study.

5.2 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 2009, 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 2006 and 2007 both returns from the stock market and the unit trust recorded an upward trend while in 2008, 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%.

5.3 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 2005 to year 2009. 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 (2005-2007). Then the country experiences a severe financial crisis in the year 2008 following the post election violence. This is then followed by recovery years of 2009 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.

5.4 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 Recommendation 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 1: LIST OF APPROVED COLLECTIVE INVESTMENT SCHEMES;

1. African Alliance Kenya Unit Trust Scheme
2. Old Mutual Unit Trust Scheme
3. British American Unit Trust Scheme
4. Stanbic Unit Trust Scheme
5. Commercial Bank of Africa Unit Trust Scheme
6. Zimele Unit Trust Scheme
7. Suntra Unit Trust
8. ICEA Unit Trust
9. Standard Investment Trust Funds
10. Dyer and Blair Unit Trust Scheme
11. CFC Unit Trust Fund