FACTORS INFLUENCING INVESTMENT DECISION IN EQUITY STOCKS AT THE NAIROBI SECURITIES EXCHANGE AMONG TEACHERS IN KISUMU MUNICIPALITY, KENYA

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A Management Research Project Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Business Administration, School of Business, of the University of Nairobi

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DECLARATION

This research project paper is my original work and has not been presented for the award of any degree in any university.

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This work is dedicated to my wife Antonine and children Edel, Catherine, Stephanie and Aaron whose love and patience gave me the drive while pursuing this course.

ABSTRACT

This study focused on the factors influencing investment decision in equity stocks at the Nairobi stock exchange among teachers in Kisumu Municipality. The study employed a descriptive survey design. The target population was two thousand five hundred and thirty teachers. A sample of two hundred and fifty three (representing ten percent)of the target population was selected. Data was collected using questionnaires and subsequently analyzed using descriptive statistics and factor analysis techniques. The study revealed that teachers in Kisumu Municipality have a low financial literacy. Although many of them rate equity stocks as an investment just like others, a majority of them would prefer investing in other asset classes such as real estate. Only a small percentage (28%) of the target population had invested in the stock market.

The results indicated that decisions to invest in equity stocks are influenced by economic and behavioral factors. The key economic factors influencing decisions to invest in equity stocks were found to be expected dividends, capital appreciation and affordability of shares. Among behavioral factors were herd behavior, depicted by decision to invest based on popular opinion or shares in high demand and friends and co-workers recommendation, and overconfidence depicted in the respondents belief that they are better than others; forming the basis of self attribution bias.

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ACRONYMS AND ABBREVIATIONS

APT	Arbitrage pricing theory
CAPM	Capital asset pricing model
CMA	Capital markets authority
DEO	District Education Officer
EMH	Efficient market hypothesis
IPOs	Initial public offerings
KenGen	Kenya electricity generating company
MEO	Municipal education officer
NSE	Nairobi stock exchange
SACCOS	Savings and credit cooperative societies
TSC	Teachers service commission
UAE	United Arab Emirates

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Reilly and Brown (2006) define investment as a commitment of funds for a period of time in order to derive a rate of return that will compensate the investor for the time during which the funds are invested, for the expected rate of inflation during the investment horizon and for the uncertainty involved. A person's investment decision is a tradeoff between immediate consumption and deferred consumption so as to enjoy greater consumption in future.

In traditional finance theory, which derives from neo-classical economic theory, investors are assumed to be rational and competent (Popescu, 2008). The market actor makes decisions according to the axioms of expected utility theory. According to the expected utility theory, a person is risk averse and the utility function is concave. Prices are set by rational investors and consequently rationality based equilibrium is achieved. In this equilibrium securities are priced according to the efficient market hypothesis (EMH). According to the EMH security prices incorporate all available information and prices can be regarded as optimal estimates of true fundamental values at all times (Barberis & Thaler, 2003). EMH is based on the notion that investors behave rationally, maximize expected utility accurately and process all available information (Shiller, 1998). Rational prices reflect only utilitarian characteristics such as risk and not value expressive characteristics such as sentiments (Statman, 1999). Investors evaluate gambles according to the utility framework. Stock prices approximately describe random walk through time.

The price changes are unpredictable. Due to the fact that all information is contained in stock prices, it is impossible to make an above average profit and beat the market over time without taking excess risk. Implicitly, excessive trading is not anticipated in an efficient market.

Market anomalies that cannot be explained with the help of standard finance theory do exist. People often fail to respond rationally to new information as they completely fail to follow the idealistic mathematical framework. Kahneman and Tversky (1979) found that under conditions of uncertainty, human decisions depart from those predicted by standard finance theory. Due to limited cognitive capacity, investors cannot analyze data optimally. Human cognition has many irrational components even when trying to make rational decisions. Owen (2002) contends that people are irrational and make decisions for many reasons, few of which involve a judicious analysis of available data. Popescu (2008) opines that individual bahaviour dwells on the fact that people fall into psychological traps including over confidence, anchoring and adjustment, improper framing, irrational commitment escalation and the confirmation trap. Horvath and Zuckerman (1993) suggests that one's biological , demographic and socio-economic characteristics together with psychological makeup affects one's tolerance level The extent of an investor's ability to tolerate uncertainties of returns is referred to as risk tolerance level.

Investors react differently depending on the news that is released. The magnitude of investor reaction is determined by the disparity between expectations and the news that is

released. DeBondt and Thaler (1988) show that people tend to overreact to unexpected news events. Overreaction in markets is attributed to overconfidence in individual investors which leads to erroneous judgment. Barber and Odean (2000) observe that overconfidence can generate high levels of speculation as overconfident investors believe that their interpretation of available data is superior to everyone else's and they invest accordingly.

Bodie, et al (2000) has argued that investor behaviour is sometimes myopic and short sighted in that it ignores everything that might happen after the end of a single period and therefore plan for one identical holding period. Myopic loss aversion explanation rests on two behavioral principles: loss aversion and mental accounting. In loss aversion, people tend to be more sensitive to decreases in their wealth than increases. This can help explain the tendency of investors to hold on to loss making stocks while selling winning stocks too early (Shefrin & Statman, 1985). Mental accounting describes a tendency of people to place particular events into different mental accounts based on superficial attributes (Shiller, 1998).

Shleifer and Summers (1990) argue that many uninformed traders will simply follow any trend that they believe exists in share price behaviour and this trend chasing increases the volatility displayed by the market as these investors are unaware of the fundamental prices of the stock they are trading and so are unable to stop trading when the value is reached.

1.1.1 Investment Decision

An investment decision involves a choice on how to commit funds now in anticipation of expected flow of benefits in the future. It is an exchange of current funds for future benefits. If an individual chooses to invest (and defer consumption) he will do so according to the utility theory by selecting a portfolio that maximizes his satisfaction. Axioms of utility theory require investors to be completely rational, able to deal with complex choices, risk averse and wealth maximizing (Nagy & Obenberger, 1994).

The great trade off in investing is between risk and return. Return is the income received on an investment plus any change in market price. An investor can receive returns from stocks when prices of stocks go up over time or when dividends are paid (Mishkin & Eakin, 2007). Risk is the variability of returns from those that are expected. Utility is maximized when an investor gets highest expected return for any given variance or minimum variance for a given expected return.

The first step in making an investment decision is determining the required rate of return (Reilly & Brown, 2006). Most investments have expected cash flows and stated market price. One then estimates a value for the investment to determine whether the current market price is consistent with ones estimated intrinsic value. Models available for valuation of investments include the one period valuation model in which the present discounted value of the expected cash flows is determined using the required return (Mishkin & Eakin, 2007). Other models are the Gordon growth model and price earnings valuation model. After estimating a security's intrinsic value, the investor compares this

estimated intrinsic value with the prevailing market price to decide whether do buy the security or not.

1.1.2 The stock exchange market in Kenya

Investment in stocks involves two types of markets; the primary and secondary markets. A primary market is a financial market in which new issues of securities are sold initially by the corporation while a secondary market is a financial market in which securities that have been previously issued can be resold (Mishkin & Eakin, 2007). The stock exchange market is a secondary market in which already issued shares are bought and sold.

Stock exchange market is important as it provides a ready market for those who want to buy and those who want to sell thus making financial instruments liquid. The market publishes useful information in statistical and summary form about various companies for guidance. It keeps an eye on the financial affairs of every company whose shares are bought and sold through it.

In Kenya the only organized stock market is the Nairobi stock exchange (NSE). The Nairobi stock exchange has a long history which can be traced back to the 1920s when it commenced as an informal way of dealing in shares. Now it is quite advanced with the creation of the capital market authority (CMA) and introduction of the central depository system.

The stock market is not an elitist club. Long perceived as a preserve of the elite rich, the Nairobi Stock Exchange (NSE) market has lately witnessed even the ordinary in society

flocking its corridors for business. The oversubscription in initial public offerings (IPOs) in the recent past highlights the fact that the Kenyan people are now aware of equity securities as an investment asset and an alternative to real estate and other ventures. One cannot buy shares or invest anywhere else unless one has some disposable income.

According to Irungu (2011), the Kenya Electricity Generating Company (KenGen) IPO in 2006 opened the door for retail investors at the NSE, raising their number to nearly 500,000 from just about 80,000 before the issue. Between 2006 and 2008, a number of companies have listed at the bourse including Scangroup, Safaricom, Cooperative bank, Kenya Re, Equity Bank and Eveready East Africa. For the first time, the number of individual investors passed the one million mark, with Safaricom alone bringing in 860,000 new accounts in 2008.

Uptake of IPOs has not been very rosy after the Safaricom IPO. Many people took part in the IPO but have yet to see substantial returns (with shares currently selling below the offer price of Kshs. 5). In contrast, inventors in KenGen bought shares at Kshs11.90 per shared during the IPO and some sold them at Kshs. 63. In the past four years, individual investors have sold nearly half of their stocks at the NSE, leaving institutional investors (who dominated trading before the 2006 KenGen share sale) firmly in control of the market. According to the capital markets regulator, individual investors cut their investments in equity from a peak of 27% of the market capitalization in 2008 to 14% in 2010. Two thirds of NSE listed companies have recorded net exits of individual

shareholders, leaving room for institutional investors to increase their stake (Mulwa, 2011).

1.1.3 Teachers in Kisumu Municipality

The Teachers' Service Commission (TSC) (2005) defines 'teacher' as a person who has been registered by the commission in accordance with section 7 of the Teachers' Service Commission Act. In the context of this study, teachers will comprise those currently in the service of the commission. Kisumu Municipality covers a large area comprising slightly over half of the Kisumu East District with 175 primary schools, 26 secondary schools and 1 National Polytechnic with a teaching workforce of 2530 teachers.

Teachers are not necessarily investors in its strict sense but are typical of the retail investing public. The diverse characteristics possessed by teachers in Kisumu Municipality were the single most important motivating factor for this study. They have salaries and access to credit both from savings and credit cooperative societies (SACCOs) and commercial banks. Kisumu Municipality is a cosmopolitan area with a culturally diverse population in terms of race, ethnicity and religion. Male and female teachers here compare very well in numbers, with females accounting for slightly more than half of the total population. Income disparity is very high with the lowest paid teacher (primary teacher 2) taking home Kshs. 13,750 per month while the highest paid teacher (Chief Principal) earns Kshs. 120,270 per month (Teachers' Service Commission, 2011).

1.2 Research Problem

In classical economic theory, it is assumed that investors are rational and competent. The theory assumes that investors have the same preference, perfect knowledge of all alternatives and an understanding of the consequences of their decisions. Markets are assumed to be efficient. Neither technical nor fundamental analysis would enable an investor to achieve returns greater than those that could be obtained by holding a randomly selected portfolio of individuals stock with comparable risk (Malkiel, 2003).

Psychologists from the branches of cognitive and experimental psychology have made the argument that the basic assumptions of classical decision making theory are incorrect since individuals often act in a less than fully rational manner. In particular, the seminal work by Kahneman and Tversky (1979) advocated the prospect theory which assumes departures from rationality. The theory assumes that people are loss averse in which they are more concerned with losses than gains and as a result, a person will assign more significance to avoiding losses than achieving again.

Teachers in Kisumu Municipality are typical of the small-scale or retail investing public in the stock market. They have some disposable income from salaries and loans both from SACCOs and commercial banks. Investing in the stock market is an alternative to other ventures and a good alternative for that matter, since teachers as public servants would not be involved in the running of companies in which they own shares. Direct involvement in business by public servants can sometimes compromise their integrity because of conflict of interest. In recent years, there has been increased enthusiasm in the

stock market by individual investors. That enthusiasm is again fizzling out, with many companies recording net exit of individual shareholders.

Studies carried out in Greece (Merikas, Merikas, Vozikis & Prasad, 2003) focused on economic factors and individual investor behavior and dealt specifically with experienced investors while in Pakistan (Kaleem, Wajid & Hessain, 2009) the focus was the factors affecting financial advisors perception in portfolio management. Al Tamini (2004) in the United Arab Emirates (UAE) and Sultana (2010) India, studied factors influencing individual investor behaviour in UAE and India respectively.

More and more attention has been paid to institutional investors while less attention has been given to small scale or individual investors. Almost all previous studies have occurred in developed countries of Europe and America. Those that have taken place in Kenya such as Waweru, Munyoki and Uliana (1998), Wera (2006) and Mbaluka (2008) have all paid attention to the behavioural factors influencing investor decisions. None of the previous studies address the factors influencing investment decision in equity stocks among teachers in Kisumu municipality. This study endeavored to answer the question, '*what are the factors that influence investment decision in equity stocks at the Nairobi stock exchange among teachers in Kisumu Municipality, Kenya*?'

1.3 Research Objectives

The objective of this study was to determine the factors that influence decisions to invest in equity stocks at the Nairobi Stock Exchange among teachers in Kisumu Municipality Kenya.

1.4 Value of the Study

This study will be of value to the existing body of knowledge and research in financial economics, investment policy and practice. The study will make significant contributions to the area of financial economics through exploring the relationship between the various economic social, cultural, demographic and behavioural factors that influence the overall investment decisions.

The study will also make significant contribution policies followed by companies listed in the stock market for instance prompting them to frequently review the relationship between price and demand of their shares so that if price if too high, stock –split may be considered.

From a corporate perspective the study will help management by providing an insight on the decision making of their financial managers and raise awareness to the issue of subjectivity and performance prompting them to help reduce these biases to improve profitability. The study will also point out a gap in finance research thus providing a platform for further research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the importance of theory in academic writing, pointing out the developments and works of literature in the subject. In the theoretical review, different theories of investment are discussed including the portfolio theory, efficient market hypothesis and behavioural finance theory. Finally, factors influencing investment decisions identified in literature are discussed.

2.2 Investment Theories

The expected utility model of Neumann and Morgenstern (1953) is the foundation of the modern investment theories. Financial decisions to invest are guided by the risk-return tradeoff. The decision-makers' choice will depend upon his risk preference. A rational investor would maximize his utility and is therefore expected to accept an investment that would yield the maximum return. The most widely applied in finance is the expected utility model of choice under risk (DeBondt, 1998). Its rationale is based on the axioms underlying expected utility maximization.

2.2.1 Portfolio Theory

The portfolio theory is based on the expected utility model of Neumann and Morgenstern (1953). According to the theory, the great tradeoff in investing is between risk and return. Markowitz (1952), Roy (1958), and Tobin (1958) advocate the wisdom of holding a diversified portfolio. Their mean variance analysis is concerned with how an investor should allocate his wealth among various assets available in the market given that he is a

one period utility maximizer. An efficient portfolio is one that has maximum expected return for a given variance or minimum variance for a given expected return. By selecting assets with low correlation of returns, it is feasible to reduce overall risk of the portfolio. This occurs because as the returns of one asset go down, they will be offset by the returns of another asset going up. This is more likely to happen with securities from firms in different industries especially if those industries move differently against macroeconomic business cycles. Markowitz (1952) offers a good explanation of the phenomena of portfolio through diversification.

Sharpe (1964), Lintner (1965) and Mossin (1966) making a number of assumptions have extended the Markowitz mean variance framework to develop a relation for expected return. Given that investors are risk averse, it seems intuitively sensible that high risk stocks should have high expected returns. The work of Sharpe, Lintner and Mossin has resulted in the capital asset pricing model (CAPM). The CAPM model provides a simplified device by comparing each security's return with a single yardstick, the return on the market portfolio. This device is the beta (ß) coefficient, thus the CAPM is a single factor model depending only upon the security market. The model is founded on the assumption that the market is efficient and investors measure returns and risk by means and variances. Consequently, it is possible for a range of investments in both individual stocks and portfolios to be plotted in terms of mean-variance characteristics. Given that investors prefer higher expected returns and lower risk, portfolios which are efficient should dominate those that are inefficient. The competing model of CAPM is a three

factor model of Fama and French (1992). Both are linear regression based models used for the calculation of expected returns

Ross (1976) has developed an alternative model, the arbitrage pricing theory (APT) in response to the criticisms of CAPM. Whereas CAPM is a single factor model relating a stock (or portfolio) to the market portfolio alone, APT is a multifactor model which effectively includes CAPM as a special case. In addition to the market portfolio APT makes use of advanced statistical technique known as factor analysis to identify other factors that affects the pricing of a security. Like CAPM, APT is founded on the assumption that capital markets are perfect and investors prefer more wealth to less wealth under uncertainty. APT suggests that returns on any given asset will be determined by a series of factors which are common to all assets and factors unique to the given asset. Market equilibrium will occur when arbitrage will no longer yield better returns or lower risks.

2.2.2 The Efficient Market Hypothesis (EMH)

The last pillar of the modern portfolio theory is the efficient market hypothesis. The efficient market hypothesis is based on the notion that people behave rationally, maximize expected utility accurately and process all available information (Shiller, 1998). Fama (1965) defines an efficient market as a market for securities where given the available information, actual prices at every point in time represent very good estimates of intrinsic values. In this market, there are large numbers of rational profit maximizers actively competing with each other trying to predict future market values of individual securities and where important current information is freely available to all participants

(Fama, 1965). When information arises, the news spreads very quickly and is incorporated into the prices of securities without delay. Neither technical analysis nor even fundamental analysis would enable an investor to achieve returns greater than could be obtained by holding a randomly selected portfolio of individual stocks with comparable risk.

EMH is associated with the idea of random walk which characterizes price series where all subsequent price changes represent random departures from previous prices. If the flow of information is unimpeded and information is immediately reflected in stock prices, then tomorrow's price change will reflect only tomorrow's news and will be independent of the price changes today. But news by definition is unpredictable and the resulting price changes must be unpredictable and random. (Malkiel, 2003) concludes that as a result, prices fully reflect all known information and even uninformed investors buying a diversified portfolio at a tableau of given prices given by the marked will obtain a rate of return as generous as that achieved by experts.

There are reasons to believe that markets do experience inefficiencies or inadequacies that would contradict the principle implied in the efficient market hypothesis (EMH). One such reason is the so called short term momentum and under reaction to news. Lo and Mackinlay (1999) have found that short term serial correlations are not zero and that existence of many moves in the same direction enable them to reject the hypothesis that stock prices behave as a random walk. Whereas in the short run stock returns may show positive serial correlation, evidence from studies show negative serial correlation (return

reversal) over longer holding period. Investors are subject to optimism and pessimism that cause prices to deviate systematically from their fundamental values and later exhibit mean reversion. This is consistent with behavioral decision theory where investors are systematically over confident in their ability to forecast either future stock prices or future corporate earnings.

A number of researchers have found some seasons and days of the week to have unusual returns in the stock markets. Haugen and Lakonishok (1998) document the high January returns in the book entitled "The incredible January effect". There also appears a number of day of the week effects. For example French (1980) documents significantly higher Monday returns.

Another challenge to EMH is the predictability of future returns from initial dividend yields and market returns from initial price-earnings multiples. Formal statistical tests of the ability of dividend yield to forecast future returns have been conducted by Fama and French (1988). Depending on the forecasts horizon involved, as much as 40% of the variance of future returns for the stock market as a whole can be predicted on the basis of initial dividend yield of the market index. Investors have tended to earn larger long-horizon returns when purchasing in the market stocks at relatively low price-earnings multiples.

2.3 Behavioural Finance

The investment decision making process founded on utilitarian theories does not typically address individual investor decision process. The utility based theories assume that individuals maximize their utility based on classic wealth criteria, making a choice

between consumption and investing through time (Merikas, et al., 2003). Competing theories to the utility theory contend that investors maximize geometric mean returns, concentrate on avoiding bad outcome and make investment decisions free from the assumptions about utility functions or probabilities (Nagy & Obenberger, 1994).

Kahneman and Tversky (1979), in a new theory, assume that there are departures from the utility (classical decision) theory motivated by emotional (affective) factors and cognitive factors (mental processes) that influence a person's choice under specific situations. In 1985, DeBondt and Thaler published in the journal of finance "Does the stock market overreact?" That effectively formed the starting point of behavioural finance (Sewell, 2010).

Behavioural finance is the study of the influence of psychology on the behaviour of financial practitioners and subsequent effect on markets. It explains why and how markets might be inefficient (Sewell, 2010). Proponents of behavioral finance believe that the key to understanding why investors deviate from expected utility when they evaluate risk lies in understanding psychology (Popescu, 2008). Psychology of decision making explains how people depart from expected utility when they evaluate risk (prospect Theory, narrow framing and ambiguity aversion). Psychology of judgment explains how people deviate from Baye's rule (heuristic driven biases).

2.3.1 Prospect Theory

A vast majority of models assume that investors evaluate gambles according to the expected utility framework. Unfortunately experimental work shows that people

systematically violate the framework when choosing among risky gambles. Kahneman and Tversky (1979), advocate a new theory known as prospect theory. In this theory, people underweight outcomes that are merely probable in comparison with outcomes that are obtained with certainty – value is assigned to gains and losses rather than to final assets, probabilities are replaced by decision weights. The theory predicts a distinctive fourfold pattern of risk attitudes; risk aversion for gains of moderate to high probability and losses of low probability and risk seeking for gains of low probability and losses of moderate to high probability.

Losses and disadvantages have greater impact on preferences than gains and advantages (Kahneman and Tversky, 1991). Losses are weighted about twice as heavily as gains – losing $1 is about twice as painful as the pleasure of gaining $1. This can also be expressed as the phenomena in which people will tend to gamble in losses i.e. investors will tend to hold on to losing positions in the hope that prices will eventually recover.

Moreover, individuals and households use a set of cognitive operations to organize, evaluate and keep track of financial activities (Thaler, 1985). People tend to place their investments into arbitrarily separate mental compartments and react to the investment based on which compartment they are in. This is known as mental accounting. When people are offered a new gamble they evaluate it in isolation, separately from their other risks. In other words, they act as if they get utility directly from the outcome of the gamble, even if the gamble is just one of many that determine their overall wealth risk.

This contrasts with traditional specifications, in which the agent would only get utility from the outcome of the gamble indirectly via its contribution to his total wealth.

Regret has been found by psychologist to be one of the strongest motivations to make a change in something. Festinger, Rieken and Schachter (1956) say that when two simultaneously held cognitions are inconsistent, this will produce a state of cognitive dissonance. Because the experience of dissonance is unpleasant, the person will strive to reduce it by changing his beliefs. Regret is a human tendency to feel pain for having made errors. To avoid the pain of regret one may alter one's behavior in ways that are sometimes irrational. Regret theory may apparently explain the fact that investors defer selling stocks that have gone down in value and accelerate selling stocks that have gone up in value (Shefrin & Statman, 1985).

2.3.2 Heuristic Driven Biases

Investors use rules of the thumb called heuristics to process data. It includes the process by which people find out for themselves usually by trial and error. Kahneman and Tversky (1974) describe three heuristics that are employed when making judgment under uncertainty: representativeness, availability and anchoring and adjustment. Other heuristics include herd behavior, overconfidence and over and under reaction.

Representativeness is a heuristic wherein commonality between objects of similar appearance is assumed. People have a tendency of inferring a single observation to be representative of the entire population (stereotyping). When people are asked to judge

the probability that an event or object A belongs to class or process B, probabilities are evaluated by degree to which A resembles B (Kahneman & Tversky, 1974).

Furthermore when judging the probability of an event, people often search their memories for relevant information. While this is a perfectly sensible procedure, it can produce biased estimates because not all memories are equally retrievable or available (Kahneman & Tversky, 1974). When people are asked to assess the frequency of a class or probability of an event, they do so by the ease with which instances or occurrences can be brought to the mind. More recent events and salient events will weigh more heavily and distort the estimate.

Investors also get tied to previous views or opinions known as anchoring. Kahneman and Tversky (1974) argue that when forming estimates, people often start with some initial possible arbitrary value and then adjust away from it. In numerical value, when a relevant value (anchor) is available people make estimate from an initial value (anchor) that is adjusted to yield the final answer. People anchor too much on the initial value and adjustments are typically insufficient.

Human beings have an innate hatred for uncertainty. When faced with danger or uncertainty, their instinct seeks comfort in the group (herding). The human herding behavior results from impulsive mental activity in individuals responding to signals from the behavior of others. Individually, however, most people would not necessary behave in the same manner. Shleifer and Summer (1990) argue that many uninformed traders

will simply follow any trend that they believe exists in share price behavior and this trend chasing increases the volatility displayed by the market.

Human beings have a tendency to be more confident in their attributes and physical characteristics than they ought to be. This is known as over confidence. Over confidence may in part stem from two biases: self attribution bias and hindsight bias (Barberis & Thaler, 2003). Self attribution bias (irrational escalation of commitment) is the tendency of investors to ascribe success to innate aspects (talent or foresight) while more often blaming failure on outside influence (bad luck) rather than their ineptitude. Doing this repeatedly will lead people to the pleasing but erroneous conclusion that they are very talented (Barberis & Thaler, 2003). Hindsight bias is the tendency of people to believe after an event has occurred that they predicted it before it happened. If people think they predicted the past better than they actually did, they may also believe that they can predict the future better than they actually can (Barberis & Thaler, 2003)

Over reaction is attributed to over confidence in individual investors which leads to erroneous judgment. DeBondt and Thaler (1985) show that people tend to overreact to unexpected news events. Under reaction has been found to be consistent with conservatism. Conservatism refers to the phenomenon according to which people mistrust new data and gives too much weight to prior probabilities of events in a given situation. People are slow to change their opinions. But earnings reflect bad news more quickly than good news (Basu, 1997)

2.4 Factors Influencing Investment Decisions in Equity Stocks

Investment is the exchange of current funds for future benefits. The objective of any investor is to maximize those benefits and to achieve that; his investment decision must be guided by certain factors that range from economic to some which are not so economic.

Among the economic factors that have been found to influence investor decisions include, expected corporate earnings, condition of financial statement, firms status in industry and the possibility of capital appreciation. Merikas et al (2003) undertook a survey of the factors influencing individual investor behaviour in the Greece stock exchange and the variables rated as most important are classic wealth maximization criteria such as expected corporate earnings, condition of the financial statement or firm status in industry. Sultan (2010) found out that the object of most investors was either capital appreciation or balance of capital appreciation or current income. Al-Tamimi (2004) also found expected corporate earnings, stock marketability, past performance of a firms stock, dividends paid condition of financial statement and expected dividend to be the most influencing factor among individual investor in United Arab Emirates stock market.

Speculative factors such as get rich quick, recent price movement in the firm stock and affordable price significantly influence investors decisions (Merikas et al, 2003 and Al-Tamimi, 2004).

Kaleem (2009) has found that age, income, gender and education to have significant role in determining the investment style of investors. Sultana (2010) shows that increase in age decreases the risk tolerance level and that male investors dominate investment in India.

Sewell (2010) says that research has indicted that decision making patters in males and females are significantly different. Men are more prone to overconfidence than women and overconfident investors trade excessively. According to Prince (1993) men tend to be more confident, trade more frequently, rely less on brokers and believe that returns are more predictable, thus anticipate more returns than women. Hinz , McCathy and Tuner (1997) conducted a study in USA using data from federal Government Thrift savings plan. Their finds showed that women are less likely to hold risky assets and more likely to allocate assets towards fixed income alternatives.

Cultural factors such as religion have an influence on investment decisions. Although Al-Tamimi (2004) surprisingly found religion to have the least influence on UAE investors, Metwally (1997) notes that Muslim countries all over the world are in rage to implement Islamic principles in society so that the economy and their social lives flourish according to the teachings of Islam. According to him, presently most of the Islamic countries are investing in the interest carrying instrument and the zakat (compulsory charity) is not implemented according to the civil laws. The criterion for ethical investment is different for Muslims and non-Muslims. The ethical investor is least concerned about the return from the investment but focus on the quality of the product, business activity and the way they handle the business issues. The Muslim investor has certain criteria for the selection

of the portfolio which are according to Islamic principles. Most of the investments in the Western Market and the Islamic countries are not ethical as most of the companies engage in riba (interest) and most companies are dealing in haram (prohibited) products even if their main business are religiously legitimate.

Subjective factors such as perceived ethics of the firm, feelings of a firms products and services community involvement and employee relation together with neutral information such as coverage in the press and statements from politicians contribute to relative neglect of the consideration of significant traditional variables (Merikas et al, 2003). Epstein (1994) examined demand for social information by individual investors. The results indicate the usefulness of annual reports to corporate shareholders. The results also indicate a strong demand for information about product safety and quality and about the company's environmental activities. Furthermore, a majority of the shareholders surveyed also want the company to report on corporate ethics, employee relations and community involvement.

Advocacy factors such as brokerage house recommendation, family member opinion friends and coworkers recommendation and opinion of firm's majority shareholders do have some influence on investment decisions (Merikas et al, 2003) although in some studies (Sultana, 2010 and Al-Tamimi, 2004) they were found to have the least influence.

Behavioural factors such as herd behavior, regret aversion over confidence, mental accounting, representativeness and anchoring were found to account for investors

disregard of fundamental estimates in Kenya (Waweru, 1998, Wera, 2006, Mbaluka, 2008 and Nyaribo, 2010).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, the study population, sample design, data collection procedure and the techniques of data analysis.

3.2 Research Design

The study used a descriptive survey design to investigate the factors influencing investment decisions in listed equity stocks by teachers in Kisumu Municipality. Descriptive surveys are concerned with identifying the phenomenon whose variance one wishes to describe. Survey is concerned with particular characteristics of specific population of subjects either at a fixed point in time or varying time for comparative purposes (Ghauri & Gronhaug, 2005). Description design gives an accurate profile of persons, events or situations. The design uses questionnaires as the main instrument of data collection and enables the researcher to generalize the findings to a larger population. It allows one to collect quantitative data which can be analyzed quantitatively using descriptive together with inferential statistics (Saunders, Lewis & Thornhill, 2009).

3.3 Population of the Study

The target population of this study was teachers in public learning institutions in the Municipality of Kisumu. Public learning institutions comprise of primary schools, secondary and tertiary institutions. These institutions have a teaching workforce of two thousand five hundred and thirty teachers of whom one thousand nine hundred and fifty are in primary schools, four hundred and twenty teachers in secondary schools and one

,hundred and sixty in tertiary institutions according to records from municipal education office (MEO) Kisumu Municipality and DEO's office Kisumu East District (September 2011).

3.4 Sample Design

Sample size depends on the desired precision from the estimates. Kerlinger (1973), states that the smaller the sample, the larger the sampling error and vice versa. He further indicates that a sample size 10% of the target population is large enough so long as it allows for reliable data analysis by cross tabulation, provides desired level of accuracy in estimates of large population and allows for testing of significance of differences between estimates. Ngechu (2000) also recommends that a sample of 10% of the population is adequate. Other models use a formula for determining sample size from which a table determining sample size has been generated. This study, relying on Kerlinger and Ngechu recommendation, considered a sample of 253 teachers which is 10% of the target populations appropriate. The researcher used stratified sampling method to identify the population as primary teachers, secondary and tertiary teachers and 195 teachers were sampled from among primary school teachers at random, 42 from secondary and 16 from tertiary teachers.

3.5 Data Collection

The study was concerned with collection of primary data using questionnaires. Questionnaires tend to be used for descriptive research and if worded correctly, they normally require less skill and sensitivity to administer (Saunders, Lewis & Thornhill, 2009). For purpose of consistency of responses, the researcher used a forced response

questionnaire. The researcher with the assistance of two research assistants visited the respondents at their places of work, administered the questionnaire and where possible collected them the same day. Where it proved difficult, the questionnaires were collected a day later.

3.6 Data Analysis

When all the questionnaires were received back, they were edited for completeness and consistency before processing. The data was categorized. The variables were ranked according to how frequently they were placed in each category using descriptive statistics. Factor analysis technique was used in analyzing the various factors that influence investment decisions in equity stocks. The researcher used the statistical package for social sciences (SPSS) V.16.0 to analyze the data. Factor analysis addresses the problem of analyzing the structure of interrelationship among a large number of variables by defining a set of common underlying dimensions (Ghauri & Gronhaugh, 2005).

3.7 Validity and Reliability of Data

A research has high validity if the study only contains what one wants to study and nothing else. To assess the validity of the instrument, the researcher sought expert opinion to check its content and format and judge its appropriateness. The researcher then made changes on the first draft by way of eliminating, adding or rewording some of the items included in the draft.

Reliability refers to the degree of consistency or whether an instrument can be relied upon to produce the same results when used by someone else or when used again and

again on the same respondents. The reliability of this instrument was assessed with the use of Cronbach alpha which consists of estimates of how much variation in scores of different is attributable to chance or random error. A coefficient of 0.8 was obtained. As a general rule, a coefficient greater than 0.5 is considered acceptable and a good indication of construct reliability.

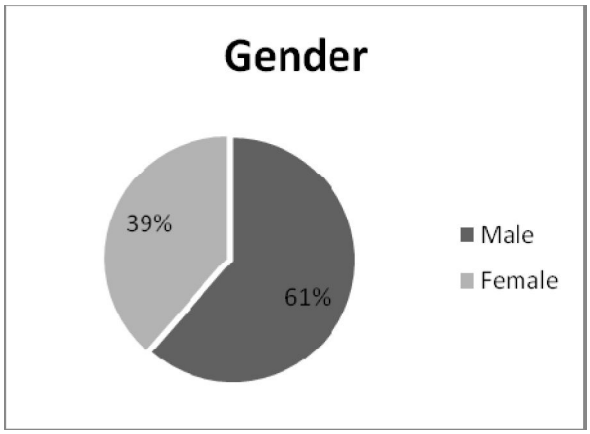
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This study was conducted to establish the factors that influence investment decisions in equity stocks at the Nairobi Stock Exchange among teachers in Kisumu municipality. A sample of 253 teachers was targeted and the same number of questionnaires was issued to teachers in their schools. 208 questionnaires were received back of which 8 were invalid because more than 50% of the questions were unanswered. This reduced the number of valid questionnaires to 200 representing 80% response rate. The study made use of descriptive statistics as well as factor analysis and the results were presented in frequency tables, percentages and charts with appropriate explanations.

4.2 Respondents Background

Figure 4.1 Gender of the respondents



Source: research findings

Figure 4.1 above shows the gender distribution of the respondents

As the findings show, 123 of the respondents representing 61% were male while 77 were female representing 39%. This has nothing to do with their ratios but those who willingly offered to respond to the questionnaires.

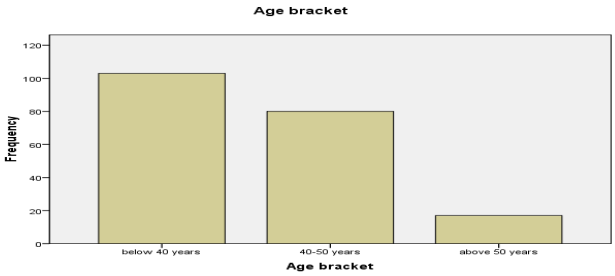
Table 4.1 Highest academic/professional qualifications

Education qualification	Frequency	Percent
Certificate	17	8.5
Diploma	70	35.0
Graduate	84	42.0
Post graduate	29	14.5
Total	200	100.0

Source: research findings

From the findings 8.5% of the respondents were certificate holders, 35% diploma, 42% graduates while 14.5% had post graduate qualifications. The findings illustrate that the respondents were quite well off in terms of education and likely to be well informed about the stock market.

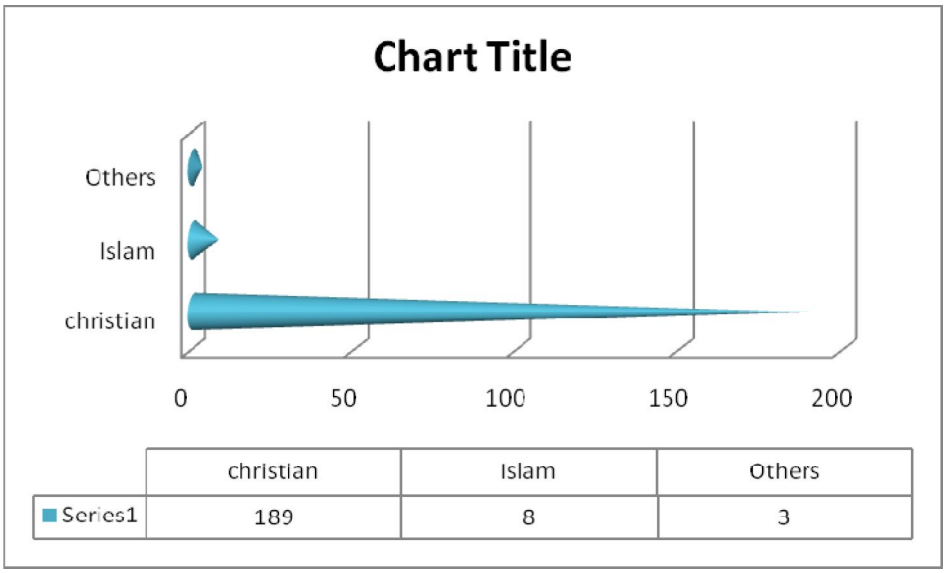
Figure 4.2 Age bracket of respondents



Source: research findings

The findings show that 51.5% of the respondents were below 40 years of age, 40% between 40 and 50 years while only 8.5% were above 50 years of age. This showed that most of the respondents were in their prime ages where investing their savings could be considered.

Figure 4.3 Respondents' religion



Source: research findings

The results show that an overwhelming majority (94.5%) of respondents were Christians while Muslims and others account for only 5.5%. This showed homogeneity in terms of religion. If religion were to influence investment decisions then it would almost be uniform.

Table 4.2 below shows the respondents average monthly income

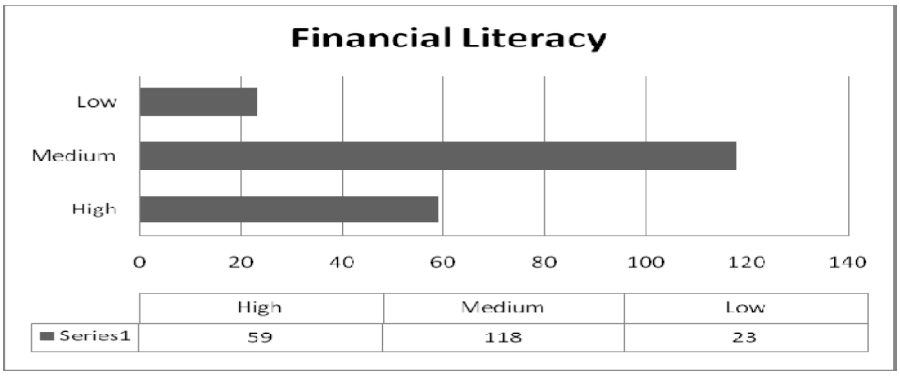
Table 4.2 Respondents' average monthly income

	Frequency	Percent
Below Kshs.30,000	93	46.5
Kshs.30,000-50,000	75	37.5
Kshs.50,000-60,000	24	12.0
Above Kshs. 60,000	8	4.0
Total	200	100.0

Source: research findings

According to the findings, 46.5% of respondents have a monthly income of less than Kshs.30,000, 37.5% earn between Kshs. 30,000 and Kshs50,000 per month . 12% between Kshs 50,000 – 60, earn over Kshs. 60,000. This showed that 53.5% of the respondents earn Kshs.30,000 and 000 while 4% above per month an indication that they have some average income part of which can be invested.

Figure 4.4 Respondents' financial literacy



Source: research findings

Table 4.3 shows that 29.5% of the respondents have a high financial literacy, meaning that their knowledge about financial and investment terms is high. The remaining 60.5% of the respondents have medium to low financial literacy.

4.3 Investment Preferences

Table 4.3 Rating of equity securities/shares as an investment

	Frequency	Percent
No	40	20.0
Yes	160	80.0
Total	200	100.0

Source: research findings

Respondents were asked whether they rate equity securities (shares) as an investment just like real estate and other ventures. 80% of the respondents were positive that equity securities are an investment just like others, 20% could not rate equity shares as an investment. The fact that some people do not rate equity shares as an investment shows that they do not understand what shares are.

Table 4.4 Preferred Investment Avenue

	Frequency	Percent
Shares	62	31.0
Fixed income securities	19	9.5
Real estate and other ventures	119	59.5
Total	200	100.0

Source: research findings

The researcher sought to find out the respondents preferred investment avenue. 31% of the respondents prefer shares, 9.5% fixed income securities while 59.5% preferred real estate and other ventures. This is an indication that 69% of the respondents would not invest their money in shares but elsewhere.

Table 4.5 Status concerning investment in equity shares

	Frequency	Percent
already participating in stock market	56	28.0
Have intensions of participation	100	50.0
have no intensions	20	10.0
don't know about the stock market	24	12.0
Total	200	100.0

Source: research findings

According to the findings 28% of the respondents already participate in the stock market, 50% have intentions, 10% no intention while 12% don't know much about the stock market. It means that majority (72%) of the respond were not participating in stock market.

4.4 Factors to consider when buying shares

Respondents were asked to say whether the factors listed will be considered important when deciding to buy shares.

Table 4.6 Factors considered important when deciding to buy shares

Factor	Yes	Yes, Percentage (%)	No	No, Percentage (%)
Dividend previously paid	178	**89**	22	**11**
Stock marketability	163	**81.5**	37	**18.5**
Expected dividends	161	**80.5**	39	**19.5**
Capital appreciation	150	**75**	50	**25**
Affordability of shares	169	**84.5**	31	**15.5**
Recent price movements in shares	146	**73**	54	**27**
Current economic indicators	146	**73**	54	**27**
Expected losses in other investments	96	**48**	104	**52**
Attractiveness on non-stock investment	106	**53**	94	**47**
Fluctuations in market indices	141	**70.5**	59	**29**

Source: research findings

According to the findings, respondents considered economic factors which include dividends preciously paid, expected dividends, capital appreciation, current economic indicators and attractiveness on non –stock investments as important. Dividends preciously paid were considered important by 89% of the respondents, expected dividends 80.5%, capital appreciation 75%, current economic indicators 73% and attractiveness of non-stock investments 53% of the respondents.

This shows that respondents want to make rational decision by looking for returns from dividends and increased wealth from capital appreciation but at the same time speculative factors such as stock marketability, affordability of shares, recent priced movements, and fluctuations in market indices were also considered important when deciding which shares to buy. Stock marketability was considered important by 81.5%, affordability of shares 84.5%, recent price movements 73%, expected losses in other investment 48%

while fluctuation in market indices is considered important by 70.5% of the respondents. Only expected losses in other investment was considered important by 48% of the respondents. The implication of this is that respondents want to gamble incase an opportunity could arise for them to make a return that is above average.

The fact that only a smaller fraction of respondents could be encouraged to move their money from investments that are expected to make losses shows that majority of them are conservative. This is a phenomenon in which people mistrust new data and give too much trust to prior probabilities. People are slow to change the opinions. It is also a pointer to the phenomenon of regret aversion where in investors avoid disposing investments that have gone down in order not go finalize the error they made and in that way avoid feeling regret.

Table 4.7 determinations of future prospects of share investment

	Frequency	Percent
Forecasting	131	65.5
Popular opinion	69	34.5
Total	200	100.0

Source: research findings

Respondents were required to show how they determine the future prospects of their share investment 65.5% said they determine the future prospects by forecasting while 34.5% said they depend on popular opinion. But, they could not sow whether they had any particular way of forecasting.

Table 4.8 Holding of shares

	Frequency	Percent
Portfolio	70	35.0
Profitable company	130	65.0
Total	200	100.0

Source: research findings

Respondents were asked to indicate whether they would rather hold shares as a portfolio or only shares from the most profitable company. 35% of the respondents said they would rater hold shares as a portfolio while 65% said they would holds shares from the most profitable company. The implication this is that although respondents wanted better returns from their investments, they did not understand the wisdom of diversification. This is a departure from the wisdom advocated by the portfolio theory.

Table 4.9: Satisfaction from returns of shares

	Frequency	Percent
Shares individual return	144	72.0
Shares contribution to total return	56	28.0
Total	200	100.0

Sources: research findings

The researcher sought to find out form respondents whether they would get satisfaction from returns of each share individually or each share's contribution to total returns. 72% of the respondents said they should get satisfaction from the returns of each share

individually while 28% would get satisfaction from each share's contribution to total return. The implication of these results is that the respondent's behavior would be influenced by mental accounting and framing in which they place their investments into arbitrarily separate compartments. When people are offered a new gamble, they evaluate it in isolation, separately from other risks. They act as if they get utility directly from the outcome of the gamble even if the gamble is just one of the many that determine their overall wealth.

Table 4.10 Frequency of buying shares

	Frequency	Percent
High	14	7.0
Moderate	105	52.5
Low	81	40.5
Total	200	100.0

Source: research findings

The research wanted to find out the respondents' frequency of buying and selling shares. 40.5 % indicated a low frequency of buying and selling shares, 52.5% had medium frequency while 14% had high frequency. Overall, the frequency cannot be considered to be high. This phenomenon where trading is low is known as under reaction or short term momentum where investors may have mistrust for new data and thus become slow to change their opinions.

Table 4.11 Statements

Argument	Yes, Frequency	**Yes, percentage (%)**	No, Frequency	**No, percentage (%)**
Are you aware of any models for forecasting returns?	73	**36.5**	127	**63.5**
Do you or your broker apply the models in determining which shares to buy?	63	**31.5**	137	**68.5**
When deciding how much to allocate to the stock market, do you weigh returns against measured risks?	156	**78**	44	**22**
You asses and mitigate against financial risks before investing	160	**80**	40	**20**
You are uncomfortable with market volatility	156	**78**	44	**22**
You are averse to uncertainties	145	**72.5**	55	**27.5**
You prefer lower chances of losses	168	**84**	32	**16**
You choose not to operate in unfamiliar situations	145	**72.5**	55	**27.5**
You require more information about an investments before you venture	165	**82.5**	35	**17.5**

Source: research findings

Respondents were required to respond to a list of statements by saying yes or no depending on whether they took the statements to be correct on their part. The first two statements required the respondents to say whether they were aware of models for forecasting returns and whether they or their brokers use such models in determining

which shares to buy. 36.5% of the respondents said they were aware of models for forecasting returns while 63.5% were not aware. 31.5% of the respondents said they or their brokers use models for determining which shares to buy while 68.5% said they do not. This contrasts with their earlier assertion that they determine the future prospects of the share investments by forecasting.

Economists are often modeling people calculating fully rational individuals who maximize utility based on future price forecasts. From the findings, most people neither understand nor pay attention to the complex econometric models economists use in their forecasts.

Respondents were also required to indicate whether they weigh returns against measured risks when deciding how much to allocate to the stock market. 78% said they do while 22% said they don't. The implication of this is that many people are risk averse and would do anything to guard against risk as they reap the returns only that models for those measures are alien to them. 80% of the respondents indicated that they assess and mitigate against financial risks before investing while 20% said they don't. 78% of the respondents said they were uncomfortable with market volatility while 22% were comfortable. 72.5% of the respondents said they were averse to uncertainties while 27.5% were not.

84% of the respondents prefer lower chances of losses while 16% were the

opposite. 72.5% of the respondents indicated they choose not to operate in unfamiliar

situations while 27.5% would operate under unfamiliar situations. 82.5% of the respondents required more information about an investment before venturing while

17.5% do not. The implication of these results is that majority of the respondents have low risk tolerance level. This is consistent with axioms of rational behaviour.

4.4 Factors analysis

Table 4.12: Factor analysis of the factors considered important when deciding which shares to buy.

Total variance explained for factors considered when deciding which shares to buy

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.789	25.352	25.352	1.922	17.474	17.474
2	1.637	14.882	40.235	1.834	16.673	34.148
3	1.241	11.286	51.521	1.820	16.545	50.693
4	1.009	9.174	60.695	1.100	10.002	60.695
5	.926	8.414	69.109			
6	.814	7.396	76.505			
7	.642	5.836	82.341			
8	.577	5.244	87.585			
9	.541	4.921	92.506			
10	.438	3.983	96.490			
11	.386	3.510	100.000			

Extraction Method: Principal Component Analysis.

Source: research findings

The table above shows the factors that are considered important when deciding which shares to buy. The third column of the rotation sums of squares shows that there are four

factors to be considered important. They all contribute to 60.695% of the total variance. The remaining seven factors contribute 39.305%.

Table 4.13 Rotated component matrix for important factors when deciding which shares to buy.

Rotated Component Matrix for factors to consider when deciding which shares to buy

	Component			
	1	2	3	4
Company compliance with religious principles	.032	**.750**	-.004	-.213
Quality considerations of a firm's products	-.050	.259	.738	-.013
Perceived ethics of the company	-.039	.044	**.821**	.058
Company involvement in community problems	.032	.730	.116	.178
Company contributions to charity	.130	.502	.325	.218
Coverage in the press	**.628**	.046	-.230	.420
Reputation of the firm's shareholders	-.063	.025	.134	**.869**
Broker opinion	.373	-.004	.608	.100
Family member opinion	.552	.511	.118	-.063
Friends& co-workers recommendations	**.727**	.376	.006	-.157
Popular opinion/shares in high demand	**.727**	-.116	.168	-.041

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

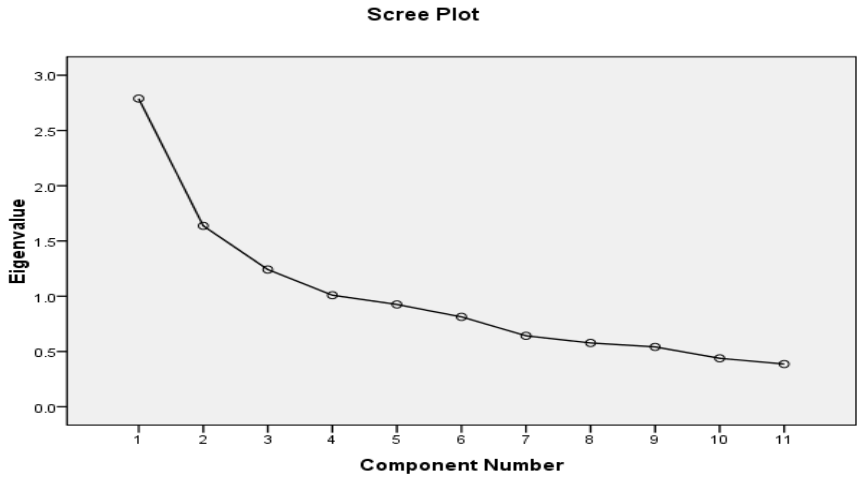
The table shows the distribution of each variable in each component. The first factor is friends and co-workers recommendation together with popular opinion or shares in high demand both of which are represented by 72.7%. Most people rely on friends, co-workers and popular opinion in deciding which shares to buy. This shows herd

behaviour, an impulsive mental activity in which individual's respond to signals from the behavior of others. Traders engage in trend chasing in the market behaviour.

The second factor is company compliance with religious principles at 75% and company involvement in community problems at 73%. These are cultural and subjective factors.

The third and fourth factors are perceived ethics of the company at 82.1 % and reputation of the firm's shareholders at 86.9% respectively. These again are subject factors which respondents considered important in deciding which shares to buy.

Figure 4.5 Scree plot for factors considered important when deciding which shares to buy



The scree plot is used to show the number of factors providing a good evaluation of the variables. One should extract components on the steep slope. Components on the shallow slope contribute little to the solution. In the figure above, after the fourth component, the rest contribute little to the solution.

Table 4:14: Factor analysis on the extent of agreement with statements

Total variance explained for the extent of agreement with statements

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.560	42.671	42.671	2.521	42.023	42.023
2	1.134	18.894	61.566	1.173	19.542	61.566
3	.746	12.437	74.002			
4	.634	10.560	84.562			
5	.526	8.760	93.322			
6	.401	6.678	100.000			

Extraction Method: Principal Component Analysis.

Source: research findings

The table above shows the variances explained on the statements about dealings in the stock market. Two statements were considered to have the greatest agreement. They contribute 61.566% of the total variation while the remaining four accounted for 38.434% of the total variance.

Table 4.15 Rotated component matrix for the extent of agreement with statements.

Rotated Component Matrix for the statements about dealing with stock market

	Component	
	1	2
You held some shares since prices have not risen	.605	-.478
You have sufficient knowledge of the market trend	.707	-.188
You think your portfolio is better than other peoples'	.733	-.176
You derive pleasure in buying and selling shares	.696	.298
You have the ability to handle difficulty situations	**.795**	.105
You believe that successful people always take risks	.032	**.882**

Extraction Method: Principal Component Analysis.

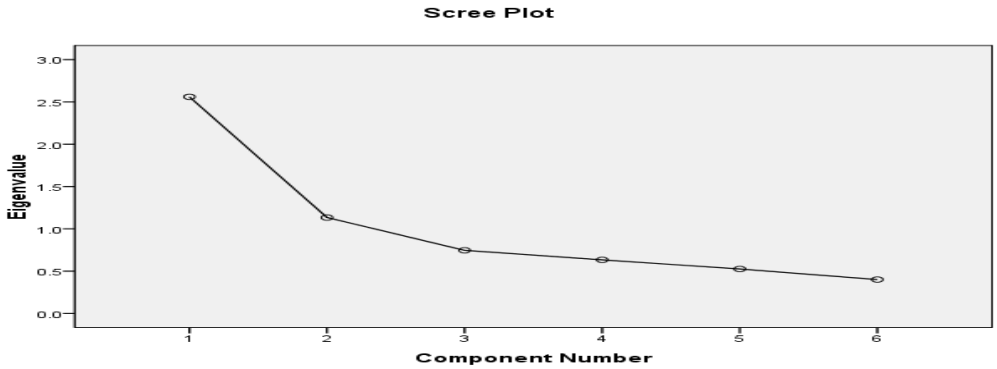
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Source: research findings

The table above shows the distribution of each variable in each factor. The first factor is the ability to handle difficult situations represented by 79.5%. The second factor is the belief that successful people always take risk represented by 88.2%. This implies that respondents had a self attribution bias also know as irrational escalation of commitment. The second factor implies that respondents are risk seeking.

Figure: 4.6 Scree plot on the extent of agreement with statements



Source: research findings

From the scree plot above, a third factor is extracted. The third factor is your portfolio is better than others portfolios, at 73.3%.

After the third variable the plot becomes flatter showing that variables after that contribute very little to the solution. The implication of this is that if people believe to be better than others, they are likely to be over confident, which is the basis of self attribution bias.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study, carried out among teachers in Kisumu municipality to establish the factors that influence their investment decision in equity stocks, revealed that financial and investment literacy is generally low. Although majority of them rate equity stocks as an investment like any other, majority of them would prefer investing their money elsewhere but not in stocks. Only a small fraction equivalent to 28% of the teachers have invested in equity stocks.

A variety of factors were found to influence the teachers' decision to invest in equity stocks. The factors identified ranged from economic factors of wealth maximizing, speculative factors, cultural factors and some that could be regarded as psychological.

Among the economic factors considered were dividend previously paid, expected divided and capital appreciation. This showed that they were interested in maximizing their wealth and therefore rational. Consistency with axioms of rationality was also revealed when most of the respondents proved to be risk averse with low risk tolerance level. Whereas respondents intended to be rational in decision making, deficiencies emerged in certain areas concerning rational behaviour.

Among the speculative factors found to influence investment decisions in equity stocks included stock marketability, affordability of shares, recent price movements and

fluctuations in market indices. This meant that respondents are induced by the fact that they could make a quick gain by buying certain stocks.

The study also found investment decision in equity stocks to be influenced by cultural as well as psychological or behavioural factors. Among the cultural factors, respondents also wanted companies that comply with religious principles, companies that involve themselves in community problems and those whose practices are perceived to be ethical.

The behavioural factors that influence investment decision in equity stocks included mental accounting, under reaction herd behaviour and self attribution bias or escalation of commitment. Many respondents indicated that they would derive satisfaction from each share's individual return and not contribution to total return. The low frequency of buying and selling share is a phenomenon attributable to under reaction. Herd behaviour was noted when respondents indicated that their decisions are influenced by friends, co-workers recommendations and popular opinion. Self attribution bias was also found to be one of the behavioral factors influencing decision to invest in equity stocks among teachers in Kisumu Municipality.

5.2 Conclusion

Investors try to make rational decisions in their dealings with the stock market, but due to their limited cognitive capacity they fail to analyze data optimally. Typical investor's decision about how much to invest in stocks tends not to be based on careful conclusion. They neither assemble forecasts for returns, nor weigh these against measured risks.

Most investors neither understand nor pay attention to the complex models used in forecasting. Amidst these, they have to decide. Their decisions are initially intended to be founded on axioms of rationality but individuals often act in a less than rational manner. In the absence of assembled forecasts and known models to assemble forecasts, investors use rules of the thumb called heuristics to arrive at decisions.

5.3 Recommendations

This study was carried out among teachers in Kisumu Municipality. Teachers are not necessarily investors in equity stocks. Many of them had difficulties in comprehending statements drafted in finance and investment terms. Further research can be done where only those teachers who are actively participating in the stock market are involved trying to determine the factors that influence their investment decisions in equity stocks.

Investor education is believed to improve knowledge in financial markets. It will be important if further research is carried over a longer duration to determine the impact of improved knowledge on investment decisions in equity stocks.

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APPENDICES

Appendix 1: Questionnaire

The purpose of this questionnaire is to gather information from you on the factors that influence investment decisions in equity stocks. Please complete the questions by putting a tick (√) against the preferred responses. Your name and that of your institution are not necessary. The information you provide will be treated in confidence and for research purpose only.

1. Indicate your gender male ☐ female ☐

2. Indicate your highest academic /professional qualification

Certificate ☐

Diploma ☐

Graduate ☐

Post graduate ☐

3. Indicate your age bracket

Below 40 years ☐

40-50 years ☐

Above 50 years ☐

4. Indicate your religion

Christianity ☐

Islam ☐

Other ☐

5. What is your average monthly income?

Below Kshs 30,000 ☐

Kshs 30,000 – 50,000 ☐

Kshs 50,000 – 60,000 ☐

Above Kshs 60,000 ☐

6. How do you rate your financial literacy i.e. your knowledge about financial and investment terms?

High ☐ Medium ☐ Low ☐

7. Do you rate equity securities/shares as an investment just like real estate and other ventures? Yes ☐ No ☐

8. What would be your preferred investment avenue?

(a) Shares ☐

(b) Fixed income securities e.g. government bonds, fixed deposit account ☐

(c) Real estate and other ventures ☐

9. State your status concerning investment in equity stocks/shares

(a) I am already participation in stock market ☐

(b) I have intentions of participation although I have not started ☐

(c) I have no intentions ☐

(d) I don't know much about the stock market ☐

10. Say whether the factors listed in the table will be considered important when deciding to buy shares. Tick (√) against your correct response

Factor	Yes	No
Dividend previously paid		
Stock marketability i.e. the ease with which shares can be resold		
Expected dividends		
Capita appreciation (increase in the price of shares)		
Affordability of shares		
Recent price movements in shares		
Current economic indicators		
Expected losses in other investments		
Attractiveness of non-stock investment		
Fluctuations in market indices		

11. How do you determine the future prospects of your share investment?

(a) Forecasting ☐ (b) Popular opinion ☐

12. Are you aware of any models for forecasting returns? Yes ☐ No ☐

If yes, do you or your broker apply such models in determining which shares to buy?

Yes ☐ No ☐

13. When deciding how much to allocate to the stock market and to other asset classes, do you weigh returns against measured risks?

Yes ☐ No ☐

14. Would you rather hold shares as a portfolio (an assortment of shares from different companies) or shares from the most profitable company?

Yes ☐ No ☐

15. If you had shares from different companies, would you get satisfaction from the returns of each share individually or each share's contribution to your total returns from shares? ☐ ☐

(a) Shares individual return (b) Shares contribution to total return

16. State to what extent you consider the following factors important when deciding which shares to buy. Put (√) against your choice.

1. Very great extent 2. Great extent 3. Moderate extent 4. Small extent 5. very small extent

Factor	1	2	3	4	5
Company compliance with religious principles					
Quality consideration of a firm's products					
Perceived ethics of the company					
Company involvement in community problems					

Company contributions to charity					
Coverage in the press					
Reputation of the firm's shareholders					
Broker recommendations					
Family member opinion					
Friends and co-workers recommendations					
Popular opinion/shares in high demand					

17. What has been your frequency of buying and selling of shares?

High ☐ Moderate ☐ Low ☐

18. State to what extent you agree with the following statements about your dealing in the stock market. Tick (√) your preferred response

1. Very great extent 2. Great extent 3. Moderate extent 4. Small extent 5. Very small extent

Statement	1	2	3	4	5
You have held some shares for some time because their prices have not risen sufficiently and if you sell them you will make losses					
You have sufficient knowledge of the market trend					

You think your portfolio is better than other people's portfolios					
You derive pleasure in buying and selling shares					
You have the ability to handle difficulty situations in stock market					
You believe that successful people always take risks					

19. State whether the following statements are true about your investment decisions in equity stocks. Tick (√) the right response

(a) You asses and mitigate against financial risks before investing

Yes ( ) No ( )

(b) You are uncomfortable with market volatility (fluctuations of share prices in the market)

Yes ( ) No ( )

(c) Your are averse to uncertainties Yes ( ) No ( )

(d) You prefer lower chances of losses. Yes ( ) No ( )

(e) You choose not to operate in unfamiliar situations. Yes( ) No ( )

(f) You require more information about an investment before you venture

Yes ( ) No ( )