A SURVEY OF THE FACTORS INFLUENCING INVESTMENT DECISIONS: THE CASE OF INDIVIDUAL INVESTORS AT THE NSE.

BY: MUTSWENJE VINCENT SHIUNDU

REG. NUMBER: D61/7790/06

A research project submitted in the fulfillment of the Master of Business Administration (MBA) degree of the University of Nairobi.

2009

DECLARATION

I, undersigned, declare that this project is my original work and has not been submitted for a degree in any other university other than the University of Nairobi for academic purposes.

Signed --Date----------------------

MUTSWENJE, VINCENT SHIUNDU

This research project has been submitted for examination with my approval as the supervisor:

Signed--Date----------------------

Dr. JOSIAH ADUDA

Lecturer

Department of Finance and Accounting,

School of Business,

University of Nairobi.

DEDICATION

I dedicate this project to my parents, Dismus and Anjella, brothers, and sisters. Graciously, I recognize their support and encouragement. Above all, I would like to specifically say, for a mum and dad who knew that I needed to be educated to be a better person in life; this is a special dedication to them.

ACKNOWLEDGEMENT

TABLE OF CONTENTS

List of abbreviations

ASE--Athens Stock Exchange

EPS--Earning Per Share

NSE--Nairobi Stock Exchange

NYSE--New York Stock Exchange

P/E---Pricing Earning Ratio

SEO--Seasoned Equity Offering

UAE--United Arabs Emirates

List of Tables

ABSTRACT

Individual investments behaviour is concerned with choices about purchases of small amounts of securities for his or her own account. Investment decisions are often supported by decision tools. It is assumed that information structure and the factors in the market systematically influence individuals' investment decisions as well as market outcomes. The objective of the study was to establish the factors influencing investment decisions at the Nairobi Stock Exchange.

The study was conducted on the 42 investors out of 50 investors that constituted the sample size. To collect data the researcher used a structured questionnaire that was personally administered to the respondents. The questionnaire constituted 28 items. The respondents were the individual investors. In this study, data was analyzed using frequencies, mean scores, standard deviations, percentages, Friedman's test and Factor analysis techniques.

The researcher confirmed that there seems to be a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the for the average equity investor

The researcher found out that the most important factors that influence individual investment decisions were: reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance firms stock, price per share, feeling on the economy and expected divided by investors.

The findings from this research would provide an understanding of the various decisions to be made by investors based on the prevailing factors and the eventual outcomes for each decision and would identify the most influencing factors on the company's investors' behavior on how their future policies and strategies will be affected since investment decisions by the investors will determine the companies strategy to be applied

CHAPTER ONE

INTRODUCTION

1.1   Background to the Study.

Investment decisions are made by investors and investment managers. Investors commonly perform investment analysis by making use of fundamental analysis, technical analysis and judgement. Investment decisions are often supported by decision tools. It is assumed that information structure and the factors in the market systematically influence individuals' investment decisions as well as market outcomes. Investor market behaviour derives from psychological principles of decision making to explain why people buy or sell stocks. These factors will focus upon how investors interpret and act on information to make investment decisions. Behavioural finance is defined by Shefrin, (2000) as "a rapidly growing area that deals with the influence of psychology on the behavior of financial practitioners". Individual investments behaviour is concerned with choices about purchases of small amounts of securities for his or her own account (Nofsinger and Richard, 2002). No matter how much an investor is well informed, has done research, studied deeply about the stock before investing, he also behaves irrationally with the fear of loss in the future. This different behaviour in the individual investors is caused by various factors which compromise the investor rationality. An individual investor is one who purchases generally small amounts of securities for his or her own account.

In conventional financial theory, investors are assumed to be rational wealth-maximisers, following basic financial rules and basing their investment strategies purely on the risk-return consideration. However, in practice, the level of risk investors are willing to undertake is not the same, and depends mainly on their personal attitudes to risk. Research in behavioural finance has developed rapidly in recent years and provides evidence that investors' financial decisions are also affected by internal and external behavioural factors (Shefrin, 2000; Shleifer, 2000; Warneryd, 2001).

It is generally believed that investment decisions are a function of several factors such as market characteristics and individual risk profiles, in addition to accounting information.

CHAPTER ONE

INTRODUCTION

1.1   Background to the Study.

Investment decisions are made by investors and investment managers. Investors commonly perform investment analysis by making use of fundamental analysis, technical analysis and judgement. Investment decisions are often supported by decision tools. It is assumed that information structure and the factors in the market systematically influence individuals' investment decisions as well as market outcomes. Investor market behaviour derives from psychological principles of decision making to explain why people buy or sell stocks. These factors will   focus upon how investors interpret and act on information to make investment decisions. Behavioural finance is defined by Shefrin, (2000) as "a rapidly growing area that deals with the influence of psychology on the behavior of financial practitioners". Individual investments behaviour is concerned with choices about purchases of small amounts of securities for his or her own account (Nofsinger and Richard, 2002). No matter how much an investor is well informed, has done research, studied deeply about the stock before investing, he also behaves irrationally with the fear of loss in the future. This different behaviour in the individual investors is caused by various factors which compromise the investor rationality. An individual investor is one who purchases generally small amounts of securities for his or her own account.

In conventional financial theory, investors are assumed to be rational wealth-maximisers, following basic financial rules and basing their investment strategies purely on the risk-return consideration. However, in practice, the level of risk investors are willing to undertake is not the same, and depends mainly on their personal attitudes to risk. Research in behavioural finance has developed rapidly in recent years and provides evidence that investors' financial decisions are also affected by internal and external behavioural factors (Shefrin, 2000; Shleifer, 2000; Warneryd, 2001).

It is generally believed that investment decisions are a function of several factors such as market characteristics and individual risk profiles, in addition to accounting information.

The disposition error shows that regardless of accounting information, investors are influenced by sunk cost considerations and asymmetrical risk preferences for gain/loss situations. The research findings by Nagy and Obenberger, (1994) which examined factors influencing investor behavior, suggested that classical wealth — maximization criteria are important to investors, even though investors employ diverse criteria when choosing stocks. Contemporary concerns such as local or international operations, environmental track record and the firm's ethical posture appear to be given only cursory consideration. The recommendations of brokerage houses, individual stock brokers, family members and co-workers go largely unheeded. Many individual investors discount the benefits of valuation models when evaluating stocks.

Hussein A. H. (2007) found that expected corporate earnings, get rich quickly, stock marketability, past performance of the firm's stock, government holdings, and the creation of the organized financial markets are the investors considerations. Dimitrios I. M. (2007) conducted a study on Investors behavior in the (ASE) and found that individual investors rely more on newspapers/media and noise in the market when making their investment decisions, while professional investors rely more on fundamental and technical analysis and less on portfolio analysis. Market participants are exposed to a constant flow of information, ranging from quantitative financial data to financial news in the media, and socially exchanged opinions and recommendations. Processing all this information is a difficult task. Variables that are loaded heavily on this factor include coverage in the financial and general press, recent stock index returns, information obtained from internet, current economic indicators and recommendations by investment advisory services (Francis and Soffer, 1997). Each of these variables represents an outside source of information that is perceived to be unbiased.

Cohn et al. (1975) provided tentative evidence that risk aversion decreases as the investor's wealth increases, while Riley and Chow showed that risk aversion decreases not only as wealth increases, but also as age, income and education increase. LeBaron, Farrelly and Gula (1992) added to the debate, by advocating that individuals' risk aversion is largely a function of visceral rather than rational considerations. On the other hand, Baker and Haslem (1974) contended that dividends, expected returns and the firm's

2

financial stability are critical investment considerations for individual investors, and Baker, Haargrove and Haslem (1977) went a step further by proposing that investors behave rationally, taking into account the investment's risk/return tradeoff.

This study examined the factors that appear to exercise the greatest influence on the individual stock investor, and included not only the factors investigated by previous studies and derived from prevailing behavioral finance theories, but also introduced additional factors generated through personal interviews that have been found to influence the stockholders' investment decisions in Kenya.

1.2   Statement of the problem

In conventional financial theory, investors are assumed to be rational wealth-maximisers, following basic financial rules and basing their investment strategies purely on the risk-return consideration as the factors expected to influence investment decisions (Baker *et al*, 1977).

Traditional economic theory assumes that people are rational agents who make decisions objectively to take advantage of the opportunities available to them. Investors think of themselves as rational and logical. But when it comes to investing, their emotional inclinations, ingrained thought patterns and psychological biases, color how they perceive the world and how they make decisions. The controversy of this area of study was the different findings that researchers came up with. For instance, Baker and Haslem, (1973) contended that dividends, expected returns and the firm's financial stability are critical Investment considerations for individual investors. Potter, (1971) identifies six factors: dividends, rapid growth, investment for saving purposes, quick profits through trading, professional investment management and long-term growth, that affect individual investors' attitudes towards their investment decisions. Merikas et al, (2003) found that Individuals base their stock purchase decisions on; fluctuation in the price index, recent price movement in a firms stock, current economic indicators.

Investment decisions need to undergo a thorough analysis of the situations prevailing based on a number of factors, however regardless of the varied information available that

3

justifies rationality and irrationality, investors are keen to avoid uncertainties associated with the ultimate decisions they engage in. It is against this background that this study sought to fill the gap by determining the factors that appear to influence the individual investment decisions, and included not only the factors investigated by previous studies and derived from prevailing behavioral finance theories, but also introduced additional factors that have been found to influence the stockholders' investment decisions in emerging local market, NSE.

1.3   Objective of the study

The objective of the study is to establish the factors influencing investment decisions at the Nairobi Stock Exchange.

1.4   Importance of the study]

The study will be important to the following groups of people:

Investors

The study would provide an understanding of the various decisions to be made by investors based on the prevailing factors and the eventual outcomes for each decision.

Companies

The study would identify the most influencing factors on their investors' behavior would affect their future policies and strategies since investment decisions by the investors will determine the companies strategy to be applied.

Investment advisors

The study would help in a better understanding of behavioral processes and outcomes which are important for investment advisors because an understanding of how investors generally respond to market movements should help them devise appropriate asset allocation strategies for their clients.

The study would identify the most influencing factors on investors' decisions that affect the required legislations, that is, tax compliance and the additional procedures needed in order to satisfy investors' desires and also to give more support to market efficiency.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter explains the findings by various researchers on investment decisions. Behavioral finance, has achieved impressive strides in explaining the behavioral aspects of investment decisions. Behavioral finance investigates choice under uncertainty. Three major elements frame behavioral finance in Prospect Theory, regret aversion and self control. Each element captures behavioral attributes of individual investors. Empirical studies of the behavior of individual investors first appeared in the 1970s. Despite the importance of individuals' investment decisions, however, we know little about the factors that influence them. This review of the literature, therefore, concentrates on work involving both individual and professional investors. Individuals' investment behaviour has been explored through a large body of empirical studies over the past three or four decades. For example, Potter, (1971) identifies six factors: dividends, rapid growth, investment for saving purposes, quick profits through trading, professional investment management and long-term growth, that affect individual investors' attitudes towards their investment decisions.

2.2 Theories of investors' behaviour

2.2.1. Regret-theory

It deals with the emotional reaction people experience after realizing they've made an error in judgment. Faced with the prospect of selling a stock, investors become emotionally affected by the price at which they purchased the stock.

So, they avoid selling it as a way to avoid the regret of having made a bad investment, as well as the embarrassment of reporting a loss. Regret theory can also hold true for investors who find a stock they had considered buying but did not went up in value. Some investors avoid the possibility of feeling this regret by following the conventional wisdom and buying only stocks that everyone else is buying, rationalizing their decision with "everyone else is doing it" (Pareto, 1997).

2.2.2 Theory of Mental Accounting

It states that humans have a tendency to place particular events into mental compartments, and the difference between these compartments sometimes impacts our behavior more than the events themselves. An investing example of mental accounting is best illustrated by the hesitation to sell an investment that once had monstrous gains and now has a modest gain. During an economic boom and bull market, people get accustomed to healthy, albeit paper, gains. When the market correction deflates investor's net worth, they're more hesitant to sell at the smaller profit margin. They create mental compartments for the gains they once had, causing them to wait for the return of that gainful period (Thaler, 2001).

2.2.3 Prospect/Loss-Aversion   Theory

It suggests that people express a different degree of emotion towards gains than towards losses. Individuals are more stressed by prospective losses than they are happy from equal gains. An investment advisor won't necessarily get flooded with calls from her client when she's reported, say, a $500,000 gain in the client's portfolio. But, you can bet that phone will ring when it posts a $500,000 loss! A loss always appears larger than a gain of equal size - when it goes deep into our pockets, the value of money changes. Prospect theory also explains why investors hold onto losing stocks: people often take more risks to avoid losses than to realize gains. For this reason, investors willingly remain in a risky stock position, hoping the price will bounce back. Gamblers on a losing streak will behave in a similar fashion, doubling up bets in a bid to recoup what's already been lost. So, despite our rational desire to get a return for the risks we take, we tend to value something we own higher than the price we'd normally be prepared to pay for it. The loss-aversion theory points to another reason why investors might choose to hold their losers and sell their winners: they may believe that today's losers may soon outperform today's winners. Investors often make the mistake of chasing market action by investing in stocks or funds which garner the most attention. Research shows that money flows into high-performance mutual funds more rapidly than money flows out from funds that are underperforming (Kahneman and Tversky, 1979)

2.2.4. Over/Under Reacting Theory

It says that investors get optimistic when the market goes up, assuming it will continue to do so. Conversely, investors become extremely pessimistic amid downturns. A consequence of anchoring, placing too much importance on recent events while ignoring historical data, is an over- or under-reaction to market events which results in prices falling too much on bad news and rise too much on good news. At the peak of optimism, investor greed moves stocks beyond their intrinsic value (Hong and Stein, 1999).

2.2.5 Theory of Overconfidence

It says that people generally rate themselves as being above average in their abilities. They also overestimate the precision of their knowledge and their knowledge relative to others. Many investors believe they can consistently time the market. But in reality there's an overwhelming amount of evidence that proves otherwise. Overconfidence results in excess trades, with trading costs denting profits, (Tapia and Yermo, 2007).

2.3 Factors influencing investment decision

2.3.1. The neutral-information

Market participants are exposed to a constant flow of information, ranging from quantitative financial data to financial news in the media, and socially exchanged opinions and recommendations. Processing all this information is a daunting task. Variables that loaded heavily on this factor include coverage in the financial and general press, recent stock index returns, information obtained from internet, current economic indicators and recommendations by investment advisory services. Each of these variables represents an outside source of information that is perceived to be unbiased. Although factor analysis does not permit a rank ordering of the importance of aggregate factors, it is noteworthy that none of the variables that comprise this neutral-information factor is ranked important by investors in the aggregate. Given the market's rapid response to new data, investors may view this information as dated and of limited usefulness (Francis and Soffer, 1997).

8

2.3.2.   The accounting-information

Investors are considered to be an important group using accounting information. It is generally believed that investment decisions are a function of several factors such as market characteristics and individual risk profiles, in addition to accounting information. The disposition error shows that regardless of accounting information, investors are influenced by sunk cost considerations and asymmetrical risk preferences for gain/loss situations. Variables that loaded heavily on the accounting-information factor include the condition of the firm's financial statements, condition of financial statements, the results of valuation techniques (e.g., P/E and market-to-book), expected corporate earnings, dividends paid, affordable share price, past performance of the firms stock etc. Expected earnings and the condition of financial statements– are highly important to investors though other variables do affect them. Apparently most investors in the sample value these traditional stock valuation considerations (Lipe, 1998)

2.3.3. The self-image/firm-image coincidence

People generally rate themselves as being above average in their abilities. They also overestimate the precision of their knowledge and their knowledge relative to others. Many investors believe they can consistently time the market. But in reality there's an overwhelming amount of evidence that proves otherwise. Overconfidence results in excess trades, with trading costs denting profits.

Variables that loaded heavily on this construct include firm reputation, firm status, feelings about the firm's products and services, and perceived ethics of the firm. Each of these variables is a value statement about the firm, generated by the individual. In that all but firm ethics rank highly as investment considerations, it might be concluded that many investors choose stocks based on qualitative criteria. This presents a formidable challenge to an investment community accustomed to quantitative analysis and communication of the relative values of securities (Epstein, 1994)

2.3.4. The advocate recommendation

This factor includes purchase recommendations from brokerage houses and individual stock brokers. Recommendations from friends or coworkers marginally loaded on this factor as well. Each of these information sources could be construed as a recommendation from sources with vested interests in the investor's ultimate actions. Although many investors obviously rely on professional expertise, most investors in the sample are apparently wary of these information channels. The investor receives the summary report of analysts' recommendations, which contains an average recommendation to buy (if the future prospects seem favorable), hold (if the future prospects seem marginally favorable), or sell (if the future prospects seem unfavorable), and some supporting arguments. The investor evaluates the report and decides to buy, hold, or sell the stock (Malmendier and Shanthikumar, 2003)

2.3.5. The personal-financial-needs

This factor is dominated by considerations for competing financial needs, period of time before invested funds will be needed for other purposes, ease of obtaining borrowed funds, expected loss in other local investments, diversification requirements etc. Perhaps sophisticated investors view investment capital and consumption expenditures as independent entities (Amihud and Mendelson, 1986).

2.4. Empirical studies

2.4.1. The neutral-information

Kadiyala and Rau. (2004) investigated investor reaction to corporate event announcements. They concluded that investors appear to under-react to prior information as well as to information conveyed by the event, leading to different patterns: return continuations and return reveals, both documented in long-horizon return. The behavioral finance literature has proposed two contradictory models of irrational investor behavior. In the first model, investors have a tendency to overreact to information, leading to a pattern of long-term return reversals when firms announce corporate events such as new issues of stock. In the second model, investors underreact to information, leading to

longterm return continuations when firms announce corporate events such as open-market share repurchases or cash-financed tender offers. Behavioral models have been viewed with skepticism partly because they do not reconcile why investors seemingly overreact to a corporate event such as a seasoned equity offering, while seeming to underreact to an event such as a share repurchase. For instance, Fama, (1998) argues that behavioral models cannot explain the longrun abnormal return evidence since the overreaction of investors to some events and underreaction to others implies that, on average, investors are unbiased in their reaction to information. Loughran and Ritter, (1995) argue that investor overreaction explains the negative long-run abnormal returns following a seasoned equity offering (SEO), a conclusion based on the good past performance of firms announcing an SEO. Investor reaction to the negative news conveyed by the SEO is ignored in reaching this conclusion (Myers and Majluf, 1984).

Ikenberry et al. (1995) argue that investor underreaction explains the positive long-run abnormal returns following a share repurchase, a conclusion based on the information conveyed by the share repurchase itself. Investor reaction to the prior poor performance of firms announcing share repurchases is ignored in concluding that investor underreaction explains the long-run positive trend in returns. Lack of evidence for a common behavioral explanation bolsters (Fama's, 1998) argument that, on average, investors are unbiased in their response to information. Merikas et al., (2003) adopted a modified questionnaire to analyze factors influencing Greek investor behavior on the Athens Stock Exchange.

The results indicated that individuals base their stock purchase decisions on economic criteria combined with other diverse variables. The results also revealed that there is a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the influencing factors for the average equity investor, and the individual behavior of active investors in the Athens Stock Exchange (ASE) influencing by the overall trends prevailing at the time of the survey in the ASE.

De Bondt et al. (1985) published a paper about behavioral finance in which they asked the following question: "Does the stock market overreact?" the article gave evidence to

11

support the hypothesis that cognitive bias (investor over-reaction to a long series of bad news) could produce predictable mispricing of stocks traded on the NYSE. It has become common for famous investors, such as George Soros and Warren Buffet, to announce their investment decisions on TV or in other media. This announcement may trigger other investors to follow in suit, vindicating the original investment strategy.

Barber and Odean, (2007) show that individual investors are net buyers of stocks with high absolute returns. There are mixed results concerning the direction of the influence of returns on the propensity of individual investors to buy stocks. Two competing theories emerged: positive vs. negative feedback trading. While momentum investors buy stocks after their value increased, contrarians tend to buy stocks that have lost value prior to the purchase. For short horizons, most authors tend find a negative relation between past days returns and net buying of individual investors. This short-term contrarian buying behavior is reported for several markets, including the US (Griffin *et al*, (2003), Finland, Grinblatt and Keloharju, (2000) and Grinblatt and Keloharju, (2001), Korea Choe *et al*, (1999), and Australia Jackson, (2003).

Only for Germany, Dorn, Huberman, and Sengmueller, (2007) find a positive relation for retail investor buying and returns the day before, while the return two days before is significantly negatively related to net purchases. A positive correlation of purchases and past returns was found in the US by Odean, (1999) and Barber, Odean, and Zhu, (2003), in China by Chen, Kim, Nofsinger, and Rui, (2005), and in Japan by Kim and Nofsinger, (2002). Barber, Odean, and Strahilevitz, (2004) show that stocks that were sold for a gain or have decreased in value since they were previously sold are more likely to be repurchased by an individual investor. In sequential round-trip trades, investors tend to buy additional shares if the price of the stock is lower than the initial price when they first bought the stock. Individual investors are reluctant to sell stocks short. Whether this is due to regulatory restrictions, higher transaction costs or other reasons is not yet obvious. Grinblatt and Keloharju, (2001) find that several demographics (e.g. age and gender) influence the propensity to buy stocks. In addition, volatility and monthly highs and lows of the stocks also influence the buying behavior. Kumar and Dhar, (2002) find that 3-month lows can influence the buying decision, especially for contrarian investors.

Grinblatt and Keloharju, (2001a) show that Finnish investors are most likely to buy stocks from firms which have their headquarter nearby.

Odean, (1998) points out, it is hard to disentangle investors' selling behavior based on beliefs of mean reversion in future stock prices (no matter whether their beliefs are right or wrong) from the behavior according to their reluctance to realize losses. Both hypotheses would predict that investors more readily sell stocks that have risen in the past. In an experimental setting with and without an automatic selling condition Weber and Camerer, (1998) show that the disposition effect is much weaker if stocks are sold automatically after every period, and that investors falsely believe in mean reversion of stock prices although they should know about the trending behavior of the stocks. Badrinath and Lewellen, (1991), Odean, (1998), and Grinblatt and Keloharju, (2004) show that the disposition effect is reversed in December, which is due to tax-motivated selling, according to the authors.

Oberlechner and Hocking, (2004) study information sources, news, and rumors in the foreign Exchange market. In this study foreign exchange traders and financial journalists rated the importance of different information sources, such as wire services, personal contacts, analysts, daily newspapers, financial television etc. An interesting finding of this study is that the information speed, expected market impact, and anticipated market surprise are rated as more important than the reliability of the source, and the accuracy of information The Internet can most probably be viewed as an additional sales channel and information search medium (and information source) that consumers can consider when purchasing products and services.

Bickerton, Bickerton and Pardesi et al., (2000) note that not all products and services are equally suited to be sold via the Internet. Greenbury, in Maruca, (1999) supports this view by stating that people will increasingly want to shop on the Internet for at least a certain range of products because of convenience. Therefore, marketers are interested in understanding the relationship between a consumer's choice of channel and the information search via the Internet.

E-retailing will continue to establish itself as an alternative channel, alongside traditional shopping (Rowley, 2000); buying certain items online represents a new form of consumer behaviour (Hoffman and Novak, 1996). Investors can benefit from a much wider selection of products to choose from since they are not bound to a certain selection of merchandise options, as is the case with traditional channels. McQuitty and Peterson, (2000) argue that online shoppers can seek virtually any product at any time and from any location. Investors who desire extraordinary value can find the best deals by knowing which websites offer a given product and at what price. This is very similar to traditional shopping, but the Internet provides investors with an extraordinary search power, where a large number of websites can be visited with ease which is virtually impossible in the traditional shopping environment.

Therefore, from an investors purchasing point of view, investors have a choice between different outlets from which to purchase a product or service. Phau and Poon, (2000) explain that a number of factors influence the choice between a retail store and in-home shopping methods, such as mail order, telephone order and the Internet. These influences include socio-economic and demographic factors, product type and distribution methods, perceived purchase risk, personal characteristics and traits as well as shopping or delivery time. Other possible factors influencing the channel selection include confrontation and contact control, manufacturer or brand reputation, type and source of the offer and price and refund or exchange policies.

Phau and Poon, (2000) suggest that when in-house shopping is extended to Internet shopping malls; the listed factors will become more apparent. As indicated above, the Internet may highlight factors influencing and affecting consumer decision-making. Research regarding Internet users emphasizes these influences and supports the view that such influences need to be considered to understand investors' differences before attempting to draft strategies to sell products and services to consumers through the Internet. Research findings regarding the age, gender and education of Internet users show the possible influence of these demographic variables on the purchasing behaviour of Internet users. Although Trocchia and Janda, (2000) mention a valid limiting factor associated with age, namely that older individuals often suffer from physical disabilities,

14

older individuals could possibly represent an opportunity to Internet marketers due to their higher levels of free time and discretionary income when compared to younger individuals. Another factor to bear in mind is that Internet users are predominantly male and are more likely to engage in downloading from and purchasing on the Internet than females (Teo, 2001). In addition to age and gender Hanson, (2000) provides a valuable perspective on education by stating that, after income, it forms the most important demographic variable determining Internet usage, since education enables users to operate and appreciate computers and the Internet.

Nunes, Wilson and Kambil, (2000) explain that it is easy to see why traditional sellers are moving to the Internet to offer more ways to buy from them. They recognise that the same buyer may prefer different transaction mechanisms under different circumstances. For example, a consumer may not care about flight ticket prices when travelling for business, but may seriously consider lower prices when planning a family vacation. Nunes et al., (2000) explain that by offering multiple transaction approaches, sellers could possibly win a larger share of existing consumers' business and also gain new types of purchasers. Gulati and Garino, (2000) state that an established traditional retailer benefits from offering the web as an additional sales channel, since it offers the seller instant credibility on the web (provided that the brand is recognised and respected). Traditional sellers using the Internet as an alternative sales channel will most probably be forced to offer the same prices as in the physical store so as not to confuse their current customers or leave them distrustful. The extent of offering online purchases by traditional sellers would, most probably depend on the strengths of existing distribution and information systems and their transferability to the Internet (Gulati and Garino, 2000). From the above discussion it can be concluded that more traditional sellers are offering online purchasing to its current and potential new customers. Ghosh, (1998) explains that the decision to offer consumers an Internet sales channel could possibly be based on a driving force exerted by competitors or through consumer demand. It is therefore also important for traditional sellers to understand the needs of their customers to ensure that they offer alternative sales channels, for example the Internet, when customers demand an alternative channel. Few studies in South Africa have been done to determine whether

the experience of the Internet user (the period of Internet usage) significantly influences the Internet user's buying behaviour.

2.4.2.   The accounting-information

Baker and Haslem, (1973) argue that investors are primarily concerned with expectations about the future, considering earnings projection and historical data to be of high interest to investors. On the other hand, research by Lee and tweedie, (1975, 1976, and 1977) reveals that the general public faces problems in understanding financial reporting in the corporate sector. Blume and Friend, (1978) provide evidence that both price and earnings volatility are the primary measures of risk employed by individuals, while Schlarbaum et al., (1978) compare individuals' performance with that of professional fund managers and find that the former exhibit considerable skill in their investment decision making. Lease et al., (1974) describe individuals as "investors" rather than "traders" since they are long-term minded and give little interest to short-term yields. Moreover, lewellen et al., (1977) reveal that investors' main source of information is through fundamental or technical analysis. Antonides and Van Der Sar, (1990) argue that the perceived risk of an investment is lower if an asset has recently increased in value, consistent with (blume and friend's, 1978) findings.

Nagy and Obenberger, (1994) investigated the extent to which a listing of 34 variables influence shareholders' perception, and provide evidence of a role for a mix of financial and non-financial variables. Additionally, they found that each shareholder considers the seven different factors employed in a factor analysis in a unique way. Fisher and Statman, (1997), relying on general agreement that the investment decision is a complex one, suggest that investors are not only concerned about risk and return when buying shares, but also several other parameters taken into consideration.

Clark-Murphy and Soutar, (2003) report that the vast majority of individuals in Australia have little interest in speculation and are by nature long-term investors. There are, however, few studies that examine the way in which various investor groups (both professional and individuals) make their investment decisions in less developed countries and/or those with only moderately sophisticated capital markets.

Notable among the exceptions are studies by Nassar and Rutherford, (1996) and Naser and Nuseibeh, (2003) who show that investors treat annual reports in broadly the same way as do those in developed countries, although they rely more on information obtained directly from the companies and do not tend to consult intermediary sources of corporate information in order to make informed decisions. Overall, investors seem mainly to use fundamental analysis and, to a lesser degree, portfolio analysis (i.e. conventional mean-variance analysis).

Typically, investors deciding whether to sell a security are emotionally affected by whether the security was bought for more or less than the current price Investors sell winners more frequently than losers. Odean, (2000) studies 163,000 individual accounts at a brokerage firm. For each trading day during a period of one year, Odean counts the fraction of winning stocks that were sold, and compares it to the fraction of losing stocks that were sold. He finds that from January through November, investors sold their winning stock 1.7 times more frequently than their losing loosing stocks. In other words, winners had a 70 percent higher chance of being sold. This is an anomaly, especially as for tax reasons it is for most investors more attractive to sell losers.

2.4.3. The self-image/firm-image coincidence

Epstein, (1994) examined the 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. Behavioral models proposed by Daniel, Hirshleifer, and Subrahmanyam, (1998) and Hong and Stein, (1999) also predict short-run return continuations and long-run return reversals. Daniel et al. argue that informed investors are overconfident about the private signal they receive about a stock's value. Biased self-attribution reinforces their overconfidence when public information is in agreement with their private information. When public information is not in agreement with their private signal, biased self-attribution leads to dismissal of the information as noise.

The Daniel et al. model predicts that investors overreact to private information and underreact to public information signals. Hong and Stein, (1999) hypothesize that the market contains two groups of investors who trade based on different sets of information. Informed investors base their trades on signals about future cash flows, while trades by technical traders are based on a limited history of prices. Information obtained by informed investors is transmitted slowly into the market, leading to an underreaction pattern in stock returns.

2.4.4. The advocate-recommendation

The investor who already holds a stock may respond to an analyst recommendation in one of four ways: the investor may hold stock on a sell recommendation, the investor may sell stock on a hold recommendation, the investor may hold stock on a hold recommendation, or the investor may sell stock on a sell recommendation. Prior accounting research has examined how the type of analyst and the nature of the analyst report affect investor behavior, (Francis and Soffer, 1997). They found that because of the existence of incentives for analysts to issue favorable recommendations, investors weight other information in the analyst report more heavily when they observe a buy rather than a sell recommendation; that is, investors pay attention to the report content. This factor includes purchase recommendations from brokerage houses and individual stock brokers. Recommendations from friends or coworkers marginally loaded on this factor as well. Each of these information sources could be construed as a recommendation from sources with vested interests in the investor's ultimate actions. Although many investors obviously rely on professional expertise, most investors in the sample are apparently wary of these information channels.

Malmendier and Shanthikumar, (2003) tried to answer the question: Are small investors naïve? They found that large investors generate abnormal volumes of buyer-initiated trades after a positive recommendation only if the analyst is unaffiliated. Small traders exert abnormal buy pressure after all positive recommendations, including those of affiliated analysts. Hodge, (2003) analyzed investors' perceptions of earnings quality, auditor independence, and the usefulness of audited financial information. He concluded

that lower perceptions of earnings quality are associated with greater reliance on a firm's audited financial statements and fundamental analysis of those statements when making investment decisions.

Krishnan and Booker, (2002) analyzed the factors influencing the decisions of investor who use analysts' recommendations to arrive at a short-term decision to hold or sell a stock. The results indicate that a strong form of the analyst summary recommendation report, i.e., one with additional information supporting the analysts' position further, reduces the disposition error for gains and also reduces the disposition error for losses.

Research indicates that analyst recommendations influence investor behavior (Beneish, 1991). He finds that buy (sell) recommendations published in the "Heard on the Street" column of the *Wall Street Journal* are associated with positive (negative) abnormal stock price performance on the day of the publication. Hence, it is important to examine whether summary analysts' recommendations reports can mitigate errors such as the disposition error. Further, if certain characteristics of analysts' summary reports are more effective in reducing dispositional errors, then it has implications for the preparation and dissemination of analyst reports. Stronger supporting arguments or analysts' summary recommendation reports with supplementary information may have a greater degree of influence on the investor to follow the analysts' recommendations than weak supporting arguments. This is because a stronger report contains more facts, allows the investor to verify the analyst's conclusions, and helps the investor overcome errors of judgment. A stronger report would also provide investors with an opportunity to avert regret.

Regret aversion Shefrin and Statman, (1985) predicts that investors want to avert regret and prefer inaction (going with the analysts' recommendations) to action (going against the analysts' recommendations). They predict that the strength of the supporting arguments will mitigate the disposition effect by motivating investors to act in a manner consistent with the analysts' recommendations (i.e., to sell losing stocks and hold winning stocks). There are various channels through which an investor can observe other investors' trading decisions. Among the possible observation channels are direct observation, word-of-mouth communication, media, limit-order-book, prices, and

insiders' reported trades. The questionnaire evidence of Shiller and Pound, (1989) shows that word-of-mouth communication is reported to be important for the trading of both individual and institutional investors. More recently, Hong, Kubik and Stein, (2004) provide further evidence showing that social interaction between people affects decisions about equity market participation. Hong, Kubik and Stein, (2005) find that a mutual fund manager is more likely to hold a particular stock if other managers who are located in the same city are also holding that same stock. Fama, (1998) argues that behavioral models cannot explain the longrun abnormal return evidence since the overreaction of investors to some events and underreaction to others implies that, on average, investors are unbiased in their reaction to information.

2.4.5. The personal-financial-needs

Prospect theory proposes that certain outcomes are overweighted relative to uncertain outcomes and that the value functions are different for gains and losses, (Shefrin and Statman, 1985); (Weber and Camerer, 1998). With losses, an investor's value function is convex and leads to risk-seeking behavior and preference for an uncertain loss rather than a sure loss. With gains however, the investor's value function is concave and leads to risk-averse behavior and preference for a sure gain rather than an uncertain gain. Therefore, investors continue to hold the stock (risk-seeking) when faced with a paper loss and unfavorable future prospects but sell prematurely to obtain the sure gain (risk-averse) even when the future conditions for the stock are favorable. The tendency for investors to hold losing stocks can also be explained using sunk cost and escalation of commitment theory. Rational logic suggests that when faced with a stock with unfavorable future expectations, individuals should sell the stock regardless of their current gain or loss condition. However, prior research on sunk costs and escalation of commitment shows that people can become stuck in losing courses of action even to the point of throwing good money after bad (Arkes and Blumer 1985; Brockner 1992; Staw and Hoang 1995). Thus, individuals may prefer to hold a losing stock and gamble on the future rather than selling and taking a sure loss and may even become more committed to holding the stock. Note that sunk cost, escalation of commitment, and prospect theory have similar predictions for losing stocks.

20

Liquidity and associated transaction costs are important determinants of which stocks investors with varying expected holding periods should invest in. Amihud and Mendelson, (1986) derive a theoretical proposition which states that: "Assets with higher spreads are allocated in equilibrium to portfolios with longer expected holding periods". The previous empirical evidence of Atkins and Dyl, (1997) is consistent with this hypothesis: The authors find a positive relation between the bid-ask spread and volume-based proxy for realized holding period. Investors' trading activity is often associated with price impacts in general and volatility of stock prices in particular.

The excess volatility issue has been investigated by (Shille, 1981). He interprets the Miller-Modigliani view of stock prices as a constraint on the likelihood function of a price-dividend sample. Shiller concludes that, atleast over the last century; dividends simply do not vary enough to rationally justify observed aggregate price movements. Combining the results with Kleidon's, (1981) findings that stock price movements are strongly correlated with the following year's earnings changes suggests a clear pattern of overreaction. In spite of the observed trendiness of dividends, investors seem to attach disproportionate importance to short-run economic developments.

2.5. Conclusions from the literature review

Considering the literature as a whole, it was evident that professional investors make extensive use of methods and techniques that differ from those proposed by academics. However, it appears that the traditional approaches, including both fundamental and technical analysis, may still be dominant in many emerging financial markets. Thus there exist a controversy in their findings concerning this area of study. For instance, Cohn et al., (1975) provided tentative evidence that risk aversion decreases as the investor's wealth increases, while Riley and Chow showed that risk aversion decreases not only as wealth increases, but also as age, income and education increase. LeBaron, Farrelly and Gula, (1992) advocated that individuals' risk aversion is largely a function of visceral rather than rational considerations. It is this issue that this study attempted to investigate. Whereas reviewed studies focused on developed markets, this study differed by researching the factors influencing individual investment decision on the emerging

market, NSE and included not only the factors investigated by previous studies and derived from prevailing behavioral finance theories, but also introduced additional factors that were found to influence the stockholders' investment decisions in emerging local market, NSE which was the researchers focus.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with how the research was designed and the methodology used to determine the factors influencing the individual investment decisions on the Nairobi Stock Exchange. The survey research design was adopted with a population of approximately 1.8 million investors from whom a sample of 50 investors was randomly selected for study. Primary data was collected using questionnaires (appendix i) which were examined by the researcher personally and collected data was coded and tabulated for analysis.

3.2 Research design

The survey research design was used for this study. Mugenda and Mugenda (1999) notes that a survey research attempts to collect data from members of a population and describes existing phenomena by asking individuals about their opinion, attitudes, behavior or values.

This design was suitable for this kind of study because the researcher intended to collect data meant to ascertain facts investment decisions in Kenya. This kind of research methodology makes use of surveys to solicit investors informed opinion. It is often used to study the general condition of people and organizations as it investigates the behavior and opinion of people usually through questioning them (Cooper and Schindler, 2003).

3.3 The population

The target population of this study was all the investors drawn from NSE which are approximately 1.8 million. (Source: Nairobi Stock Exchange market report publication in December 2008).

3.4 Sampling

The names and addresses of investors from Nairobi were given by the brokerage firms. A simple random sample of one brokerage firm was selected from which 50 individual investors from it were randomly selected targeting one questionare each. Random numbers can be obtained using a calculator, a spreadsheet, printed tables of random numbers, or by the more traditional methods of drawing slips of paper from a hat, tossing coins or rolling dice (Neville and Sidney, 2004). The researchers study adopted the random number tables. Simple random sampling helps ensure that the sample represents the entire population, and is not biased or prejudiced toward any particular groups within the population. It also helps eliminate the tendancy to select based on a basing factor (Cooper and Emory, 1995).

3.5 Data collection

Primary data was collected using questionnaires (appendix i) which were examined by the researcher personally. The questionnaire items represented five categories: self-image/firm-image coincidence, accounting information, neutral information, advocate recommendation and personal financial needs. The questionnaires were administered to the individual investors personally. This method was appropriate since it encouraged prompt responses from the respondents. The questionnaire was structured into two sections. Section I sought to capture the general data (Bio-Data) about the investor. Section II was concerned with the data on factors that affect individual investment decisions. The developed questionnaire included items which corresponded to self-image/firm-image, accounting information, neutral information, advocate recommendation and personal financial needs. Respondents were asked to indicate their degree of how they are influenced by each of the items on five-point Likert scale.

3.6 Data Analysis

The collected data was coded and tabulated. The data were analyzed using descriptive statistics, Friedman's test and Factor analysis techniques with the help of SPSS package which enabled data interpretation and making of statistical inferences. In particular, for

data relating to Section I, the researcher used means, standard deviations and percentages in respect of different attributes of the respondents. Data relating to Section II required both the factor analysis and Friedman's test techniques. These techniques were used to determine the factors influencing individual investment decisions and the relative importance of those factors.

Factor analysis is a systemic, statistical procedure used to uncover relationships amongst several variables and also reduces the responses to manageable factors. The goal of the factor analysis is to try to identify factors which underlie the variables to discover simple patterns in the pattern of relationships among the variables (Richard B., 1973). Factor analysis enables the data to be summarized and organized in an effectively meaningful way as it provides tools for reducing information into understandable form.

3.7 Test validity and Reliability

Reliability of the measures was assessed with the use of Cronbach's alpha. Cronbach's alpha allows us to measure the reliability of the different categories. It consists of estimates of how much variation in scores of different variables is attributable to chance or random errors (Selltzm, *et al*, 1976). As a general rule, a coefficient greater than or equal to 0.5 is considered acceptable and a good indication of construct reliability (Nunnally, 1978).

Table 3.1 shows the overall Cronbach's alpha for the five categories which is 0.745.

Table 3.1 Overall Reliability analysis

Cronbach's Alpha	Number of Items
.745	28

Table 3.1a, b, c and d shows the Cronbach's Alpha for the five categories, namely, self-image/firm-image, accounting information, neutral information, advocate recommendation and personal financial needs is 0.503, 0.805, 0.648, 0.775 and 0.722 respectively as shown in tables 3.1a, b, c and d. The Cronbach's alpha shows that these categories are reliable.

Table 3.1a Self image Reliability analysis

Cronbach's Alpha	Number of Items
.503	8

Table 3.1b Accounting information Reliability analysis

Cronbach's Alpha	Number of Items
.805	6

Table 3.1c Neutral information Reliability analysis

Cronbach's Alpha	Number of Items
.648	6

Table 3.1d Advocate recommendation Reliability analysis

Cronbach's Alpha	Number of Items
.775	4

Table 3.1e Personal financial needs Reliability analysis

Cronbach's Alpha	N of Items
.722	4

To assess the scales' content validity, the researcher asked six experts, three academicians and three practitioners, to examine it (Devellis, 1991). Accordingly, the researcher made changes on the first draft in terms of eliminating, adding or rewording some of the items included in that draft.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1   Introduction:

This chapter deals with data analysis and interpretation of the research findings. The data in this study was summarized and presented in the form of tables, frequencies, percentages, means score, standard deviation and rank ordering. The chapter documents the factors that influence individual investment decision in NSE. Out of the fifty investors targeted, only eight investors were not reached to provide response. All the investors reached provided responses and therefore giving a response rate of 84%. The questionnaires were personally administered by the researcher.

The chapter is divided into two sections. Section I concerns the respondents' gender data, Section II concerns the factors influencing individual investment decision in NSE.

4.2 Gender of Respondents

Gender of respondents covered in the study included the number of male and female who participated in the research. Table 4.1a represents frequency of males and females who responded to questionnaire and there percentage. It shows that 30 male responded to the questionnaire with a respond rate of 71.4%, and 12 female responded with a respond rate of 28.6%.

Table 4.1a Gender of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	30	71.4	71.4	71.4
Female	12	28.6	28.6	100.0
Total	42	100.0	100.0	

Table 4.1b show the graphical representation of the responses with there percentages. It reflects male with response rate of 71.4% and a female rate with a response rate of 28.6%.

Table4.1bGender   respondents

Gender of Respondents
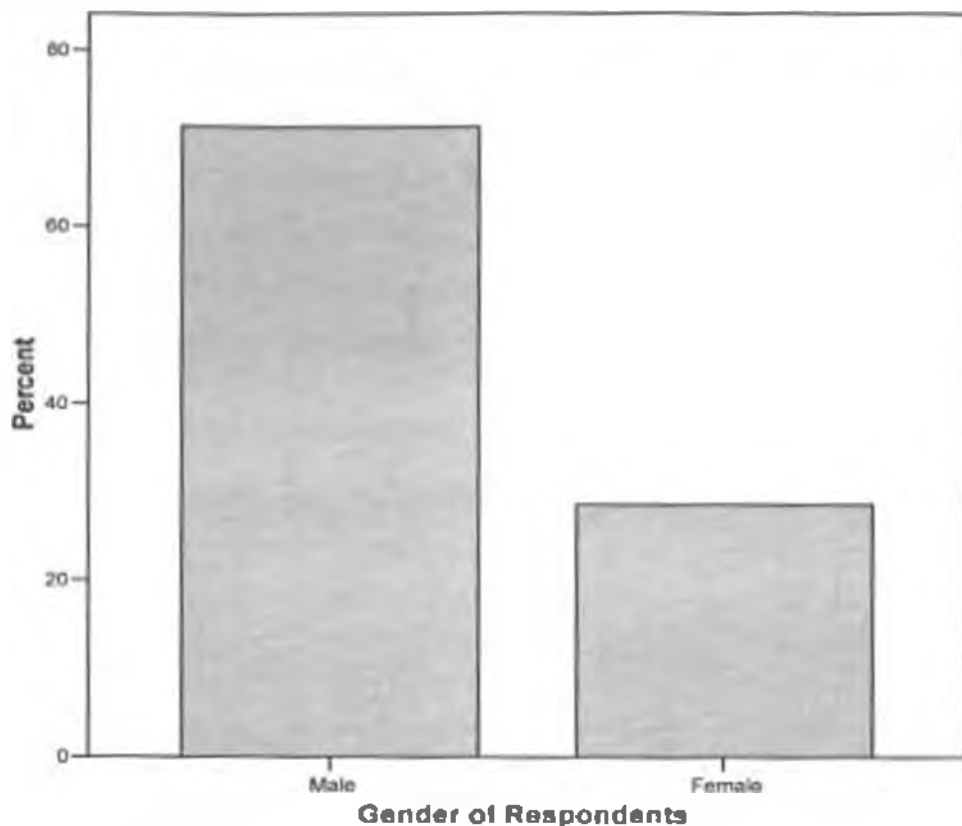
4.3   The factors influencing individual investment decisions.

4.3.1   Factor Analysis: Factors Summaries and Component Grouping

Factor analysis was performed on the results of the importance attached to each of the factors influencing individual investment decision in NSE. Initially, correlation analysis was run to check for interdependence among the factors after which Principal Component Analysis (PCA) was run. From the correlation matrix in Appendix iii, the correlation coefficients are more close to one meaning that there is a relationship between the variables. The purpose of performing PCA was to transform a set of interrelated variables into a set of unrelated linear combinations of these variables in to a set of uncorrelated linear combinations. Varimax rotation together with Kaiser Criterion was used to classify and reduce the factors to interpretable components.

28

Table 4.3 represents the communalities for factors influencing individual investment decision in NSE. The communality is the squared multiple correlation coefficient for variables using the factors as predictors. The communality measures the percentage of variance in a given variable explained by all the factors jointly and can be interpreted as the reliability of the indicator. It is the proportion of variance that each item or variable has in common with other items. For instance, 86.6% communality is the highest variability in the factor "Development in stock index", while as the lowest variability was captured for the factor "Information from internet" with a communality of 59.4%.

Table 4.3 Rescaled Communalities

Factors	Initial	Extraction
Feelings for a firm	1.000	.791
To get rich quickly	1.000	.833
Firms status in industry	1.000	.812
Well organized Financial Markets	1.000	.700
Perceived ethics of firm	1.000	.621
Feeling on the economy	1.000	.684
Reputation of the firm	1.000	.820
Firms involvement in Community	1.000	.758
Expected Corporate Earnings	1.000	.846
Profit and condition of statements	1.000	.802
Dividends paid	1.000	.801
Price per share	1.000	.830
Expected dividends by Investors	1.000	.822
Past performance of firm's stock	1.000	.768
Information from Internet	1.000	.594
Development in Stock Index	1.000	.866
Coverage in the Press	1.000	.663
Statement of Government	1.000	.792
Current Economic Indicators	1.000	.675
Recent Price Fluctuation	1.000	.665

Broker recommendation	1.000	.610
Family member opinion	1.000	.798
Friend recommendations	1.000	.862
People Opinion on the stock	1.000	.649
Attractiveness of nonstock	1.000	.704
Need for diversification	1.000	.705
Ease of Obtaining funds	1.000	.699
Minimizing risk of loss	1.000	.701

Table 4.4 indicates the total variance explained by each component (factor). A total of 9 components were extracted from the factors. The components are orthogonal to one another, meaning they are uncorrelated. For a component to account for at least one variable, it should have an Eigen value (the sum of squares of its factor loadings) of at least one. This is the cut off point for determining the number of components to be extracted with maximum or near maximum loadings. Component 1 explains the highest observed variance followed by component 2 and so on. From the table, component 1 accounts for 15.202% of the total observed variability while component 2 explains 14.785%, component three 12.155%, component four 8.316%, component five 6.349%, component six 4.983%, component seven 4.435%, component eight 4.289%, and component nine 4.021%. The nine extracted components explain 74.535% of the total variability for all the 28 variables.

Table 4.4 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.257	15.202	15.202	4.257	15.202	15.202
2	4.140	14.785	29.987	4.140	14.785	29.987
3	3.403	12.155	42.141	3.403	12.155	42.141
4	2.328	8.316	50.457	2.328	8.316	50.457
5	1.778	6.349	56.807	1.778	6.349	56.807
6	1.395	4.983	61.790	1.395	4.983	61.790
7	1.242	4.435	66.225	1.242	4.435	66.225
8	1.201	4.289	70.514	1.201	4.289	70.514
9	1.126	4.021	74.535	1.126	4.021	74.535
10	.922	3.293	77.828			
11	.900	3.215	81.043			
12	.777	2.775	83.818			
13	.713	2.547	86.365			
14	.587	2.098	88.464			
15	.574	2.051	90.514			
16	.500	1.787	92.301			
17	.394	1.407	93.708			
18	.346	1.235	94.943			
19	.261	.931	95.874			
20	.228	.813	96.687			
21	.214	.766	97.453			
22	.205	.732	98.184			
23	.172	.613	98.797			
24	.128	.457	99.255			
25	.078	.277	99.532			
26	.058	.207	99.739			
27	.046	.164	99.903			
28	.027	.097	100.000			

Table 4.5 presents the rotated component matrix that was used to extract independent variables highly related to particular components. Orthogonal Varimax rotation together with the Kaiser Normalization was used to force the entries in the initial factor to be near 0 or 1. Such loadings show more clearly which variables go together and thus easily interpretable. The final matrix represents both a pattern and a structure matrix. The coefficients in the rotated matrix indicate both the correlation coefficient and the regression weights.

Table 4.5: Rotated Component Matrix

Factors	Component 1	2	3	4	5	6	7	8	9
Feelings for a firm	-.037	.101	.046	-.144	.148	.087	-.142	.825	-.162
To get rich quickly	.034	.086	-.082	.320	.060	-.198	-.002	.258	-.778
Firms status in industry	.596	-.026	.018	-.243	.420	.431	-.035	-.185	.003
Well organized Financial Markets	-.110	.260	.445	-.335	.050	.483	.206	-.117	.134
Perceived ethics of firm	-.078	-.057	.283	-.026	.158	.692	-.010	.102	.130
Feeling on the economy	.427	.326	.435	.148	.065	.310	.134	.258	.019
Reputation of the firm	.033	-.169	.108	.073	.736	.078	-.384	-.009	.280
Firms involvement in Community	-.243	.013	.015	.025	.084	.815	-.147	.064	.004
Expected Corporate Earnings	.332	.246	-.035	-.072	.720	.108	.181	.227	-.232
Profit and condition of statements	.102	.227	.013	-.105	.837	.131	.098	.039	.021
Dividends paid	.343	.607	-.082	.020	.385	-.280	-.152	-.193	-.147
Price per share	.630	.243	.056	-.070	.383	-.361	.044	.188	-.227
Expected dividends by Investors	.062	.617	-.185	.027	296	-.301	-.170	.247	.367
Past performance of firm's stock	.786	-.002	-.074	.108	.057	-.197	.081	.032	.289
Information from Internet	-.660	.025	.023	.061	-.124	.203	.286	.067	.101
Development in Stock Index	-.349	.576	.312	-.059	.071	-.185	.040	-.514	-.080
Coverage in the Press	-.026	.003	.037	.211	-.038	-.072	.768	-.078	-.118
Statement of Government officials	-.456	.251	.021	.003	.164	-.143	.632	-.200	.184
Current Economic Indicators	-.030	.760	-.063	.193	-.009	.044	.088	.209	.047
Recent Price Fluctuation	.039	.683	.018	.232	.080	.216	.160	-.104	-.231
Broker recommendation	.190	-.041	.234	.319	-.054	.412	.455	.082	.171
Family member opinion	-.087	.150	.221	.779	-.168	.014	.288	-.013	.037
Friend recommendations	.105	.157	-.027	.869	.108	.076	.132	-.153	-.106
People Opinion on the stock	-.074	.101	.225	.749	-.087	-.087	-.025	.007	-.072

Attractiveness of nonstock	-.005	.054	.768	.093	-.127	.237	-.021	.157	.076
Need for diversification	-.035	-.086	.740	.071	.086	.207	-.042	-.303	.010
Ease of Obtaining funds	-.090	-.173	.689	.309	.034	-.215	.204	.037	-.028
Minimizing risk of loss	.188	-.009	.519	.187	.251	.145	-.024	.069	.522

Factor selection

Table 4.5 shows the rotated component matrix of all the factors influencing individual investment decisions in NSE. The rotated matrix indicates both the correlation coefficient and the regression weights. Components 1 to 9 in Table 4.5 respectively represent the factors influencing individual investment decisions in NSE. The variables extracted under the nine factors are as follows:

Component 1(Firms position and performance) consists of Firms status in industry, Price per share and Past performance of firm's stock. Component 2 (Investment returns and economic conditions) consists of Dividends paid, Expected dividends by Investors, Development in Stock Index, Current Economic Indicators, Recent Price Fluctuation and Attractiveness of nonstick. Component 3 (Diversification and loss minimization) consists of Price per share, Attractiveness of nonstock, Need for diversification, Ease of Obtaining funds and Minimizing risk of loss.

Components 4 (Third party opinion) consists of Family member opinion, Friend recommendations and People Opinion on the stock. Component 5 (The goodwill of the firm and accounting information) consists of Reputation of the firm, Expected Corporate Earnings and Profit and condition of statements. Component 6 (Perception towards the firm) consists of Perceived ethics of firm and Firms involvement in Community. Component 7 (Environmental factors) consists Coverage in the Press and Statement of Government officials. Component 8 (Firms feeling) involves of feelings for a firm. Component 9 (Risk minimization) involves Minimizing risk of loss.

Table 4.6 shows a summary of the factor loading heavily to a particular. The factor loading heavily on a particular component should have the greatest corresponding value entry across all the nine components in the rotated component matrix. The first two

components clearly indicate that the most important factors influencing individual investment decisions in NSE relate to firms position and performance, and investment returns and economic conditions.

Table 4.6: Summary of heavy loading components

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.257	15.202	15.202
2	4.140	14.785	29.987
3	3.403	12.155	42.141
4	2.328	8.316	50.457
5	1.778	6.349	56.807
6	1.395	4.983	61.790
7	1.242	4.435	66.225
8	1.201	4.289	70.514
9	1.126	4.021	74.535

components clearly indicate that the most important factors influencing individual investment decisions in NSE relate to firms position and performance, and investment returns and economic conditions.

Table 4.6: Summary of heavy loading components

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.257	15.202	15.202
2	4.140	14.785	29.987
3	3.403	12.155	42.141
4	2.328	8.316	50.457
5	1.778	6.349	56.807
6	1.395	4.983	61.790
7	1.242	4.435	66.225
8	1.201	4.289	70.514
9	1.126	4.021	74.535

4.4.2 The factors influencing individual investment decisions in NSE.

Table 4.7: The Friedman's Factor Ranking.

Factors	Rank	Mean	Std. dev
1.Reputation of the firm	1	4.45	.772
2.Firms status in industry	2	4.19	.890
3.Expected Corporate Earnings	3	4.12	1.152
4.Profit and condition of statements	4	4.07	1.091
5.Past performance of firm's stock	5	4.05	1.011
6.Price per share	6	4.05	1.103
7.Feeling on the economy	7	4.05	.936
8.Expected dividends by Investors	8	4.02	1.024
9.Dividends paid	9	3.88	1.253
10.Need for diversification	10	3.76	1.078
11.Recent Price Fluctuation	11	3.71	1.175
12.Well organized Financial Markets	12	3.64	1.078
13.Perceived ethics of firm	13	3.55	1.041
14.Development in Stock Index	14	3.52	1.131
15.Feelings for a firm	15	3.38	1.268
16.Minimizing risk of loss	16	3.31	1.239
17.Current Economic Indicators	17	3.29	1.111
18.Attractiveness of nonstock	18	3.26	1.270
19.To get rich quickly	19	3.17	1.305
20.Broker recommendation	20	3.10	1.078
21.Friend recommendations	21	3.05	1.103
22.People Opinion on the stock	22	3.02	1.179
23.Coverage in the Press	23	2.88	1.234
24.Ease of Obtaining funds	24	2.86	1.317
25.Family member opinion	25	2.62	1.081
26.Information from Internet	26	2.60	.939
27.Firms involvement in Community	27	2.50	1.132
28.Statement of Government officials	28	2.45	1.064

Table 4.7 is based on Friedman rank test which assigns weights based on the degree of importance of factors (i.e. most important to least important). Table 4.7 indicates the factors that influence and thus affect investment decisions in NSE. In NSE, the several factors were given the greatest consideration when making investment decision on the market. The factors that were identified and ranked were classical wealth maximization criteria, such as the "reputation", "firms status in industry", "expected corporate earnings", "profit and condition of statements" "past performance of firm's stock" and "expected divided by investors". This is consistent with the findings of Merikas *et al*, (2003). These factors were ranked 1 to 8 as the most important factors that influence individual investor, factors 9 to 19 as averagely important, while factors 20 to 28 as of no consequence to investors. Factors 20 to 28 reflected very low averages showing that they had no influence on the investors' decisions. This was because of the fact that the investors neither do they see any contribution of the third party information nor the company's social responsibility.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS.

5.1   Introduction

The objective of this study was to identify the factors influencing individual investment decisions in NSE. This chapter presents the summary, discussions and conclusions from the research findings as per the objective of the study. Based on the findings of this study, recommendations have been given on the factors influencing individual investment decisions in NSE. The limitations of the study as well as suggestions for further research have also been discussed.

5.2   Summary, Discussions and Conclusions

The study was conducted on the 42 investors out of 50 investors that constituted the sample size. To collect data the researcher used a structured questionnaire that was personally administered to the respondents. The questionnaire constituted 28 items. The respondents were the individual investors. In this study, data was analyzed using frequencies, mean scores, standard deviations, percentages, Friedman's test and Factor analysis techniques.

The objective of the study was to identify the factors influencing investment decisions in NSE. Results of factor analysis revealed that the most important factors were: Firms position and performance; Investment returns and economic conditions; Diversification and loss minimization; Third party opinion; The goodwill of the firm and accounting information; Perception towards the firm; Environmental factors; Firms feeling and Risk minimization.

Friedman's ranking was used to identify the most important individual factors that influence investment decision in NSE. The factors were reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past

performance firm's stock, price per share, feeling on the economy and expected divided by investors.

In conclusion this study tested the tenets of the behavioral finance theory on the factors that influence investment decisions under conditions of uncertainty. The analysis performed on the data collected appears to give a fairly accurate view of the average equity investor in the NSE. Experienced and knowledgeable investors would readily admit that the structure and relative weights of the chosen categories reflect on the average, a still unsophisticated and immature investor profile. The results revealed by our sample of 50 respondents confirm that there seems to be a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the influencing factors for the average equity investor, and the individual behavior of active investors in the NSE influenced by the overall trends prevailing at the time of the survey in the NSE.

5.3   Policy Recommendations

The researcher recommends that the investors need to analysis the investment factors carefully using the reasonable business knowledge before making an investment decision. The investors should also be able to interpret the market and economic indicators since they influence the performance of the share on the market. They should evaluate all the variables in the environment instead of considering only one variable. Investors do also need to diversify their investment in different companies by developing a portfolio of investments to minimize risks and maximize returns.

5.4   Limitations of the Study

The study suffered from a few limitations, among these, first, the researcher spent a lot of time administering the questionnaires, because the concept being tested had to be explained fully to most of the respondents, secondly, some responded were unwilling to participate in the research. Majority of the investors were ignorant and naïve about the concepts being tested and thus insisted on remaining with the questionnaire forcing the researcher to make several fall-ups. This made the study very costly in terms of time,

effort and money, and thirdly, the methodology and analysis used was too involving in terms of arriving at the sample size by use of random number tables and setting the variables in the analysis.

5.5 Suggestions for Future Research

This study examined the factors that appear to exercise the greatest influence on the individual stock investor, and included not only the factors investigated by previous studies and derived from prevailing behavioral finance theories, but also introduced additional factors generated through personal interviews that have been found to influence the stockholders' investment decisions in Kenya. First, future research should attempt to explain the relative importance of decision variables have for individual investors making stock purchase decisions. Secondly, the study was conducted to investors in Nairobi. The findings can be verified by conducting the same study in the rest of the country, and thirdly, whether there are homogeneous clusters or groups of variables that form identifiable decision determinants that investors rely upon when making stock investment decisions.

REFFERENCES

Arnold, J. and Moizer, P. (1984), "A survey of the methods used by UK investment analysts to appraise investment in ordinary shares". Accounting & Business Research, Vol. 14, pp.195-207.

Arnold, J, Moizer, P.and Noreen. E. (1984), "Investment appraisal methods of financial analysts: a comparative study of US and UK practices". International Journal of Accounting, Spring, pp.1-18.

Baker, H.K and Haslem, J.A. (1973), "Information needs of individual investors", Journal of Accountancy, Vol. 136, pp.64-9.

Baker, H.K., M.B. Hargrove, and J.A. Haslem. (1977) "An Empirical Analysis of the Risk Return Preferences of individual investos," Journal of Financial and Quantitative Analysis, Vol. 12, No. 3, pp. 377-389.

Blume, M.F. and Friend, I. (1978), The Changing Role of the Individual Investor: A Twentieth Century Fund Report, Wiley, New York, NY, .

Carter, R.B and Van Auken, H E. (1990), "Security analysis and portfolio management: a survey and analysis", Journal of Portfolio Management. Vol. 16 No.1, pp.81-5.

Chenhall, R.H and Juchau, R. (1977), "Investors information needs: an Australian

study" Accounting and Business Research, Spring, Vol. 7 pp.111-9.

Clark-Murphy, M and Soutar, G.N. (2003), "What individual investors value: some

Australian evidence", Journal of Economic Psychology, Vol. 25 No.4, pp.539-55.

Cooper, D. et al, (1995), Business Research Methods, McGraw Hill NY.

De Bondt,W.F. and Richard,T., (1985) "Does the stock market overreact?". Accounting & Business Research. Autumn.

Dimitrios,I. M., (2007) Investors' behaviour in the Athens Stock Exchange (ASE) Journal of Accountancy, Vol. 120, pp.67-72.

Epstein,M.J. (1996) "Social disclosure and the individual investor", Accounting, Auditing& Accountability Journal, Vol.4.

Hodge,F.D, (2000) "Investors' perceptions of earnings quality, auditor independence, and the usefulness of audited financial information" Accounting Horizons, Vol.17.

Hussein, A.II. (2007) Factors influencing individual investor behaviour in the UAE financial markets. Journal of Business, Vol.92

Iyer,S.B. and Bhaskar,R.K. (2002) "Investor's psychology: a study of investor behavior in the Indian Capital Market", Finance India, Vol. XVI.

Kadiyala,P. and Rau,R. (2004) "Investor reaction to corporate event announcement: Underreaction or overreaction?", Journal of Business, Vol.77.

Krishnan,R.and Booker,D.M. (2002) "Investors' use of Analysts' recommendations".Behavioral Research in Accounting, Vol. 14.

Lee, T.A and Tweedie, D.P. (1975a), "Accounting information: an investigation of private shareholder usage", Accounting & Business Research, Autumn.

Lee, T.A and Tweedie, D.P. (1975b), "Accounting information: an investigation of private shareholder understanding", Accounting & Business Research, Winter.

Lee, T.A and Tweedie, D.P. (1976), "The private shareholder – his sources of information and his understanding of reporting practices", Accounting & Business Research, Autumn.

Lee, T.A and Tweedie, D.P. (1977), The Private Shareholder and the Corporate Report, Institute of Chartered Accountants in England and Wales, London. .

Lee, T.A and Tweedie, D.P. (1981), The Institutional Investor and Financial

Information, Institute of Chartered Accountants in England and Wales, London. .

Lewellen, W.G., Lease, R.C and Schlarbaum, G.G. (1977), "Patterns of investment strategy and behavior among individual investors", Journal of Business, Vol 50 No 3 pp296-333.

Lui, Y.H and Mole, D. (1998), "The use of fundamental and technical analyses by foreign exchange dealers: Hong Kong evidence", Journal of International Money and Finance Vol 17 No 3 pp535-45.

Mugenda O.M. & Mugenda A. G. (1999). Research Methods: Quantitative and Qualitative Approaches, Acts Press, Nairobi.

Merilkas,A.,and Prasad,D. (2003), Factors influencing Greek investor behavior on the Athens stock exchange. Journal of Business, Vol.66

Nagy and Obenberger, (1994) "Factors influencing investor behavior", Financial Analysts Journal, Vol.50.

Nassar, and Rutherford, (1996), External users of financial reports in less developed countries: the case of Jordan, The British Accounting Review Vol 28.

Naser, K and Nuseibeh, R. (2003), "User's perception of corporate reporting: evidence from Saudi Arabia", The British Accounting Review, Vol. 35.

Neville and Sidney, 2004, Simple random sampling techniques, New York: Academic Press.

Nunally, C.J, (1978) Psychometric Theory, New York, McGraw-Hill.

Nofsinger and Richard, (2002), Individual investments behaviour, New york, McGraw-Hill

Potter, R.E. (1971), "An empirical study of motivations of common stock investors", *Southern Journal of Business*, Vol. 6 No.1, pp.41-4.

Richard B., (1973), Factor analysis, McGraw Hill NY

Selltiz,C.,Wrightsman,I.,S.and Cook,W. (1976) Research Methods in Social Relations.

Shanthikumar,D. and Malmendier, (2003) Are small investors naive?, Stanford University Working Paper.

Shefrin, H. (1999), Beyond Greed and Fear, Harvard Business School Press, Boston, MA.

Sudman, Seymour. (1976). Applied Sampling. New York: Academic Press.

Taffler,R.J. (2002) "What can we learn from behavioral finance?", Credit Control,

Vol.23.

Tapia, W and Yermo J. (2007). Implications of behavioural economics for mandatory individual account pension systems (OCED). Working papers on insurance and private pensions No 11.

Thaler. (2001). Theory of mental accounting. New York: Academic Press.

Devellis, (1991), Assessing the scales' content validity, New York: Academic   Press

APPENDICES

Appendix i: Questionnaire

SECTION I

General Information of the investors

(Please provide appropriate responses in the spaces provided, either by stating or ticking)

1.   Name of the brokerage firm:

....

2.   Name (optional):

....

    3. Gender: Male......... [ ]   Female.......... [ ]

Section Ii: Variables/Factors influencing individual investment decision

Below are some variables/factors influencing individual investment decisions. In relation to individual investors' behaviour, indicate to what extent each of the following factors affects your investment decision to a scale of 1-5.

kindly tick as many as applicable to you

Where: 5 = to a very large extent, 4 = to a large extent, 3 = to some extent, 2 = to a small extent and 1 = to no extent.

	5	4	3	2	1
1) Self-Image/Firm-Image Coincidence					
a. Feelings for a firms products e.g. shares					
b. To get rich quickly					
c. Firm status in industry					
d. The creation of well organized financial markets					
e. Perceived ethics of firm					
f. Feeling on the economy					
g. Reputation of the firm					
h. The firm's involvement in solving community problems					
2) Accounting Information					
a. Expected corporate earnings from financial statements e.g. EPS					
b. Profit and position condition of income statements and balance sheet of a firm					
c. Dividends paid					
d. The price of a share					
e. Expected dividends by investors					
f. Past performance of the firm's stock					
3) Neutral Information					
a. Information obtained from the internet					
b. Fluctuation/developments in the stock index					
c. Coverage in the press					
d. Statements of government officials					

e. Current economic indicators like interest rates					
f. Recent price fluctuation in a firm's stock					
4) Advocate Recommendation					
a. Broker recommendation					
b. Family member opinions					
c. Friend or coworker recommendations					
d. Peoples opinions on the firm's stock					
5) Personal Financial Needs					
a. Attractiveness of non-stock investment					
b. Needs for diversification					
c. Ease of obtaining borrowed funds					
d. Minimizing risk of loss on the market					

Other factors (if any) —————

Appendix iI: List of brokerage firms.

1.   Drummond Investment Bank Limited
2.   Kestrel Capital (EA) Limited
3.   Ngenye Kariuki & Co Ltd.
4.   Reliable Securities Ltd
5.   CFC Financial Service Stock broking division.
6.   ApexAfrica Investment Bank Ltd.
7.   Dyer & Blair Investment Bank Ltd.
8.   Suntra Investment Bank.
9.   Solid Investment Securities Ltd
10.   Faida Securities Ltd
11.   Standard Investment Bank.
12.   African Alliance Kenya Securities.
13.   Sterling Securities Ltd.
14.   Bob Mathews Stockbrokers Ltd.
15.   ABC capital ltd
16.   Africa investment bank

Source: Nairobi Stock Exchange-(August 2009).

Appendix iii: Correlation matrix

1.Feelings for a firm	VAR01
2.To get rich quickly	VAR02
3.Firms status in industry	VAR03
4.Well organized Financial Markets	VAR04
5.Perceived ethics of firm	VAR05
6.Feeling on the economy	VAR06
7.Reputation of the firm	VAR07
8.Firms involvement in Community	VAR08
9.Expected Corporate Earnings	VAR09
10..Profit and condition of statements	VAR10
11.Dividends paid	VAR11
12.Price per share	VAR12
13.Expected dividends by Investors	VAR13
14.Past performance of firm's stock	VAR14
15.Information from Internet	VAR15
16.Development in Stock Index	VAR16
17.Coverage in the Press	VAR17
18.Statement of Government	VAR18
19.Current Economic Indicators	VAR19
20.Recent Price Fluctuation	VAR20
21.Broker recommendation	VAR21
22.Family member opinion	VAR22
23.Friend recommendations	VAR23
24.People Opinion on the stock	VAR24
25.Attractiveness of nonstick	VAR25
26.Need for diversification	VAR26
27.Ease of Obtaining funds	VAR27
28. Minimizing risk of loss	VAR28

Correlation matrix

	VAR01	VAR02	VAR03	VAR04	VAR05	VAR06	VAR07	VAR08	VAR09
VAR01	1.000	.241	-.001	.013	.152	.169	094	.136	.252
VAR02	.241	1.000	-.133	-.355	-.266	-.027	-.149	-.157	246
VAR03	-.001	-.133	1.000	.301	280	.282	404	.170	453
VAR04	.013	-.355	301	1.000	418	.259	.052	.370	.114
VAR05	.152	-.266	.280	418	1.000	348	.200	.528	.087
VAR06	.169	-.027	.282	.259	.348	1.000	.003	.161	.402
VAR07	094	-.149	.404	.052	.200	.003	1.000	.182	.322
VAR08	.136	-.157	.170	.370	.528	.161	.182	1.000	065
VAR09	.252	246	453	.114	087	.402	.322	065	1.000
VAR10	.191	-.009	438	.147	223	.259	.453	089	.711
VAR11	-.063	206	218	-.086	-.211	192	.158	-.198	.466
VAR12	.179	299	.338	-.088	-.236	305	.117	-.391	.629
VAR13	.200	.015	-.059	-.014	-.127	.101	.264	-.158	266
VAR14	-.091	-.099	315	-.208	-.164	.281	.128	-.256	246
VAR15	-.154	-.103	-.402	239	.108	-.033	-.213	287	-.135
VAR16	-.262	-.028	-.150	.297	-.042	-.001	-.110	-.133	-.049
VAR17	-.204	179	-.112	.041	014	.005	-.224	-.096	045
VAR18	-.167	-.161	-.248	.208	-.053	-.071	-.137	-.071	.015
VAR19	.181	.151	018	.047	009	.245	-.069	.000	.202
VAR20	.058	.223	.053	.187	-.029	.279	-.096	.202	260
VAR21	.044	-.029	.159	282	.279	.334	-.112	.120	.030
VAR22	-.158	.236	-.303	-.057	-.005	.211	-.169	000	-.159
VAR23	-.188	.265	-.084	-.129	-.002	.258	.060	039	.130
VAR24	-.071	.235	-.237	-.051	029	.198	-.119	-.119	-.074
VAR25	.043	-.027	-.045	409	.332	.400	.125	.263	-.022
VAR26	-.146	-.127	.125	.303	115	229	.191	.160	-.075
VAR27	-.025	.000	-.163	.135	.094	.283	065	-.049	-.117
VAR28	.016	-.319	277	.213	244	.323	.360	.113	.144

	VAR10	VAR11	VAR12	VAR13	VAR14	VAR15	VAR16	VAR17	VAR18	VAR19
VAR01	.191	-.063	.179	.200	-.091	-.154	-.262	-.204	-.167	.181
VAR02	-.009	.206	.299	.015	-.099	-.103	-.028	.179	-.161	.151
VAR03	.438	.218	.338	-.059	.315	-.402	-.150	-.112	-.248	.018
VAR04	.147	-.086	-.088	-.014	-.208	.239	.297	.041	.208	.047
VAR05	.223	-.211	-.236	-.127	-.164	.108	-.042	.014	-.053	.009
VAR06	.259	.192	.305	.101	.281	-.033	-.001	.005	-.071	.245
VAR07	.453	.158	.117	.264	.128	-.213	-.110	-.224	-.137	-.069
VAR08	.089	-.198	-.391	-.158	-.256	.287	-.133	-.096	-.071	.000
VAR09	.711	.466	.629	.266	.246	-.135	-.049	.045	.015	.202
VAR10	1.000	.381	.362	.304	.130	-.138	.147	-.084	.182	.124
VAR11	.381	1.000	.639	.534	.255	-.311	.372	-.072	-.014	.358
VAR12	.362	.639	1.000	.388	.457	-.405	-.060	-.014	-.206	.128
VAR13	.304	.534	.388	1.000	.258	-.117	.178	-.114	.102	.423
VAR14	.130	.255	.457	.258	1.000	-.493	-.321	.063	-.157	-.034
VAR15	-.138	-.311	-.405	-.117	-.493	1.000	.136	.147	.334	.090
VAR16	.147	.372	-.060	.178	-.321	.136	1.000	.098	.427	.266
VAR17	-.084	-.072	-.014	-.114	.063	.147	.098	1.000	.377	.221
VAR18	.182	-.014	-.206	.102	-.157	.334	.427	.377	1.000	.177
VAR19	.124	.358	.128	.423	-.034	.090	.266	.221	.177	1.000
VAR20	.283	.324	.086	.209	.032	-.085	.354	.178	.282	.494
VAR21	.056	-.154	-.024	-.157	.018	.135	-.082	.229	.132	.017
VAR22	-.100	-.070	-.148	-.014	-.005	.157	.167	.386	.217	.255
VAR23	-.003	.216	.118	.064	.151	.043	.077	.255	.127	.208
VAR24	-.115	-.015	-.020	-.021	.001	.119	.137	.103	.050	.200
VAR25	-.067	-.194	-.096	-.117	.047	.152	.055	.036	-.018	.067
VAR26	.077	-.112	-.113	-.238	-.101	.047	.285	.052	.054	-.105
VAR27	-.095	-.099	.022	-.233	-.013	.051	.117	.289	.186	-.088
VAR28	.254	-.007	.060	.090	.144	-.057	.038	-.039	-.072	.094

	VAR20	VAR21	VAR22	VAR23	VAR24	VAR25	VAR26	VAR27	VAR28
VAR01	.058	.044	-.158	-.188	-.071	.043	-.146	-.025	.016
VAR02	.223	-.029	.236	.265	.235	-.027	-.127	.000	-.319
VAR03	.053	.159	-.303	-.084	-.237	-.045	.125	-.163	.277
VAR04	.187	.282	-.057	-.129	-.051	.409	.303	.135	.213
VAR05	-.029	.279	-.005	-.002	029	.332	.315	.094	.244
VAR06	.279	.334	.211	.258	.198	.400	.229	.283	.323
VAR07	-.096	-.112	-.169	.060	-.119	.125	.191	.065	.360
VAR08	.202	.120	.000	.039	-.119	.263	.160	-.049	.113
VAR09	.260	.030	-.159	.130	-.074	-.022	-.075	-.117	.144
VAR10	.283	.056	-.100	-.003	-.115	-.067	.077	-.095	.254
VAR11	.324	-.154	-.070	216	-.015	-.194	-.112	-.099	-.007
VAR12	.086	-.024	-.148	.118	-.020	-.096	-.113	.022	.060
VAR13	.209	-.157	-.014	.064	-.021	-.117	-.238	-.233	.090
VAR14	032	.018	-.005	.151	-.001	.047	-.101	-.013	.144
VAR15	-.085	135	.157	.043	.119	.152	.047	.051	-.057
VAR16	.354	-.082	.167	.077	.137	.055	.285	.117	.038
VAR17	.178	.229	.386	.255	.103	.036	.052	.289	-.039
VAR18	.282	.132	.217	.127	.050	-.018	.054	.186	-.072
VAR19	494	.017	.255	.208	.200	.067	-.105	-.088	.094
VAR20	1.000	.118	.316	.350	.164	.100	.041	.036	.012
VAR21	.118	1.000	.451	.345	.171	.249	.314	.096	.452
VAR22	.316	.451	1.000	.650	.524	.305	.171	.389	.236
VAR23	.350	.345	.650	1.000	.637	.043	.092	.240	.025
VAR24	.164	.171	.524	.637	1.000	.126	.120	.395	.162
VAR25	.100	.249	.305	.043	.126	1.000	.564	.402	.381
VAR26	.041	.314	.171	.092	.120	.564	1.000	.319	.422
VAR27	036	.096	.389	.240	.395	.402	319	1.000	.312
VAR28	.012	.452	.236	.025	.162	381	.422	.312	1.000