EFFECT OF BEHAVIOURAL FACTORS ON INVESTOR DECISIONS IN INVESTMENT BANKS AND STOCK BROKERAGE FIRMS AT THE NAIROBI SECURITIES EXCHANGE

Wanjohi Sally Wanjiru

Master of Business Administration, Jomo Kenyatta University of Agriculture and Technology, Kenya

Dr. Maurice Mwita

Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

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ABSTRACT

The Kenyan market has recently witnessed tremendous rise in the number of companies applying to be included in stock markets listing. Investors on the other hand have responded positively as it is evidenced through repeated oversubscriptions of shares. The general objective of the study is to determine the role of behavioural factors on investor decisions in the investment banks and brokerage firms at the Nairobi Securities Exchange. The study sought to establish the effect of herding effect on investor decisions in the investment banks and brokerage firms at the Nairobi securities exchange, to determine the effect of loss aversion on investor decisions in the investment banks and brokerage firms at the Nairobi securities exchange, to establish the effect of over confidence on investor decisions in the investment banks and brokerage firms at the Nairobi securities exchange and to assess the effect of anchoring on investor decisions in the investment banks and brokerage firms at the Nairobi securities exchange. The study adopted a descriptive research design. The study targeted investors who trade in the investment banks and brokerage firms at the Nairobi Securities Exchange. The sample size was 384 respondents. Descriptive and inferential analysis was used to analyze the data. The study found that herding effect influences investor's decisions. The investors usually react quickly to the changes of other investors' decisions and follow their reactions to the stock market. Over confidence influences investor's decisions. Investors believe their skills and knowledge of stock market can help them to outperform the market. Loss aversion has an influence on investor's decisions. Checking a portfolio's performance more frequently increases the likelihood of seeing a loss, which produces more mental agony than comparable gains satisfy. Anchoring has an influence on investor decisions. The investors forecast the changes in stock prices in the future based on the recent stock prices. The investment banks and stock brokerage firms should give their investors the relevant information to ensure that they are well versed with the prevailing market and economic situations. Investors at the NSE should only be overconfident at an acceptable level to utilize their skills and knowledge to improve the investment results. The relevant investment banks and stock brokerage firms to ensure that their investments in the stock market are well chosen to ensure the interests of the investors are well taken care of.

***Key Words**; herding effect, loss aversion, over confidence, anchoring, investor decisions*

INTRODUCTION

There are emerging evidence that institutional investors behave differently from individual investors. Rational investors will use diversification to optimize their portfolios according to Modern Portfolio Theory (MPT). MPT proposes how a risky asset should be priced. The basic concepts of the theory are Markowitz diversification, the efficient frontier, capital asset pricing

model, the alpha and beta coefficients, the capital market line and the securities market line (Sharpe, 2014). Most economic and financial models explicitly or implicitly assume that investors are efficient and rational. Investors are always assumed to make the best choices for themselves nevertheless; the choice does not provide an adequate foundation for a descriptive theory of decision making.

Investors have difficulties settling on long haul money related choices for reasons, for example, folly, an absence of monetary complexity and failure to self-manage as observed by Winchester et al., (2017). The individual financial specialists can utilize a group of speculation experts under the course of a portfolio or a reserve administrator. These people work all day on considering the business sectors, advertise patterns, and individual stocks (Lewellen and Schlarbaum, 2017). Speculation choices ought be guided by predefined asset task decisions that join a commendable level of peril for the general portfolio and are unsurprising with the destinations and time skyline of the speculator. The readiness to act judiciously and keep up a suitably adjusted speculation portfolio notwithstanding falling security costs requires the capacity to dodge social driving forces when settling on long haul resource distribution choices (Winchester, Huston & Finke, 2017).

Eckel and Grossman (2018) identify the increasing interest in studies on investment behavior. They however point out that these studies have mainly concentrated on data from developing countries especially the U.S. where triennial survey of consumer finances data is collected. It is broadly recognized that people in developed countries differ significantly in various aspects, such as beliefs, life styles, behaviors, habits, personal characteristics, from those in emerging and developing countries. Although studies on gender differences in investment decisions have largely been conducted in developed contries and predominantly the U.S., there are researchers who have attempted to carry out such studies in Asia, Eastern Europe and Africa.

In India, Kesavan, Chidambaram and Ramachandran (2016) executed an eploration aiming at getting more insight on the investment behavior of individuals based on their demographic factors such as age, gender, income, educational qualification, place and occupational pattern. Their findings indicated that these demographic factors did not influence the type of investment selected. Another research in India by Chitra and Sreedevi (2017) studied the influence of seven personality traits namely; emotional stability, extraversion, risk, return, agreeability, conscientiousness and reasoning on the choice of the investment pattern. Their findings indicated that personality traits of investors influence the choice of investment method.

Bayyurt, Karışık and Coşkun (2015) carried out an empirical study aimed establishing the investment behaviors of women and men by focusing on Turkey which is an emerging country. The study found that in Turkey, while men investors prefer common stocks and real estate to invest in women investors are more risk averse and invest in funds, time deposit and gold.

Willows (2015) conduted a study in a South African Investment House that offers unit trusts or mutual funds as its primary investment vehicle. She contrasted the returns of male versus female investors net of trading costs and concluded that; trading frequency lowers investors' return,

males trade more than females and lastly that on a risk adjusted basis, females earn higher returns than males. As a result therefore, it would be expected that findings on investment behavior for developed countries may differ from those of emerging and developing countries, such as Kenya.

In Tunisia, an assessment by Rekik, and Boujelbene (2013) on individual investors' behavior showed that the Tunisian speculators' practices are dependent upon five social predispositions: representativeness, grouping frame of mind, misfortune repugnance, mental bookkeeping, and securing. Sexual orientation, age and experience have a communication with social money related factors in speculation choices among the Tunisian speculators.

In Rwanda, the number of investors is still small, stock prices have been decreasing since 2013. Although RSE along with the Rwanda Capital Market Authority (CMA) undertook a public education and awareness program to sensitize the public on the opportunities and risks involved in capital market investments, investments and trading in shares are still seen more as speculative ventures or the preserve of sophisticated investors, rather than as long-term investments and savings in financial assets (CMA, 2016).

In Kenya, investigations into the IPO showcase in Kenya by Fredrick (2014) demonstrated that, by and large, IPOs gave strange return in the prompt secondary selling to financial specialists who acquired at the underlying advertising. This for example prompted an oversubscription of IPOs, a portion of whose secondary selling execution has since been inauspicious. The Capital Investment Group gave a depiction of the irregularity in IPO short run comes back to financial specialists. The examination demonstrated that that investors anticipated abnormal returns as evidenced in previous IPOs like Ken Gen and rushed for IPOs like Safaricom which led to an oversubscription.

STATEMENT OF THE PROBLEM

The nature of the investors' behavior in the investment decision making process pertaining to investments in securities listed in the Securities Exchanges is varied the world over. There is huge psychology literature documenting that people make mistakes in the way they think in that they are overconfident and put too much weight on recent experience. This preference may create distortion. The field of behavioral finance attempts to investigate the psychological and sociological issues that influence investment decision making process of individuals and institutions (Subrahmanyam, 2017). The Kenyan market has recently witnessed tremendous rise in the number of companies applying to be listed on the Nairobi Securities Exchange. Investors on the other hand have responded positively as it is evidenced through repeated oversubscriptions of shares. However many investors have had to endure the pain of losses due to following the masses and being overconfident as it was exemplified in the Safaricom and Eveready Initial Public Offers. Investors need to make rational decisions for maximizing their returns based on the information available by taking judgments that are free from emotions (Brabazon, 2017). Investor behavior is characterized by overexcitement and overreaction in both

rising and falling security markets and various factors influences their decision making processes. There has been an upward and downward trend in NSE 20 share index for example in 2012 the average annual index was Ksh 173.6 billion which was an increment of 11% from the annual average index in 2011. In 2013 the NSE share index declined by 8% to Kshs 159.7 billion. In the year 2014 there was an improvement from the previous year since the volume traded increased by 17% to Kshs 186.7 billion (Nairobi Securities Exchange, 2014). The figures show inconsistency in the volumes traded in NSE over the years hence the role of behavioural factors on individual investor decisions remains the subject of debate. Kwenga (2018) carried out a survey on investors' attitudes towards investment in financial securities. Kalunda and Mbaluka (2015) in their study appraised the decision making process of individual investors at the NSE. However, whereas these and similar related behavioral studies are of essence, they have failed to specifically narrow into and address the key role of behavioural factors on the individual investors' investment decision in the NSE. This means that most of the studies on investor behavior that have been reported were carried out in mature markets. There is a gap in relevant literature on developing countries markets particularly Kenya which is an emerging security market. The study sought to fill this gap by determining the role of behavioural factors on investor decisions in investment banks and brokerage firms at the Nairobi Securities Exchange.

GENERAL OBJECTIVE

The general objective of the study was to determine the effect of behavioural factors on investor decisions in investment banks and brokerage firms at the Nairobi Securities Exchange.

SPECIFIC OBJECTIVES

1. To establish the influence of herding effect on investor decisions in investment banks and brokerage firms at the Nairobi Securities Exchange.
2. To determine the effect of loss aversion on investor decisions in investment banks and brokerage firms at the Nairobi Securities Exchange.
3. To establish the effect of over confidence on investor decisions in investment banks and brokerage firms at the Nairobi Securities Exchange.
4. To assess the effect of anchoring on investor decisions in investment banks and brokerage firms at the Nairobi Securities Exchange.

LITERATURE REVIEW

Behavioral Finance Theory

Behavioral finance theory developed by Kahneman & Tversky (1974) has attained popularity to investors recently. Behavioral finance implies that heuristic-driven biases and errors, social and emotional influence, and frame dependence can cause discrepancy between market price and

fundamental value. Judgement may be impaired by cognitive errors and heuristic-driven biases such as representativeness, anchoring, overconfidence, a version to ambiguity and innumeracy. Grotzer and Shane (2014) expounds representativeness as a heuristic-driven bias where people assume commonality between objects that seem to possess similar appearance. A judgement is made on the basis of how a decision corresponds to other decisions by the population in general. Judgements are made based on stereotypes. Shiller (2015) revealed that people end up following decisions of others simply because they waste time in exercising judgement. According to Shefrin and Meir Statman (2003) investors have a psychological tendency to build their portfolios as a pyramid of assets having a proportion in stocks, bonds, options among others. This is due to investors goals such as safety, income and growth. The theory is appropriate for the study so as to explain the influence of herding effect on investor decision in Nairobi securities exchange.

Prospect Theory

This theory was developed by Kahneman and Tversky in 1979. It focuses on changes in wealth, whereas expected utility theory focuses on level of wealth (Ritter, 2003). The theory describes how people frame and value decisions involving uncertainty by looking at choices in terms of potential gains or losses in relation to a specific reference point which is often the purchase price. Kahneman and Tversky (1979) argue that investors value gains/losses according to an S-shaped utility function. Johnson, Lindblom and Platan (2002) asserted that people are risk lovers for losses. The utility function is concave for gains meaning that people feel good when they gain, but twice the gain does not make them feel twice as good is convex for loss meaning that people experience pain when they lose, but twice the loss does not mean twice the pain.

Modern Portfolio Theory

The Modern Portfolio theory was developed by Harry Markowitz in 1952 which clarifies how portfolio returns can be boosted with regards to the hazard engaged with the picked portfolio. Modem Portfolio Theory (MPT) similarly called portfolio speculation or portfolio the board speculation is a mind boggling adventure approach/strategy and is the philosophical backwards of standard stock picking (Shefrin, 2000). It is the creation of financial experts who attempt to comprehend the market in general, as opposed to business examiners who search for what makes every speculation opportunity one of a kind. Ventures are portrayed factually as far as their normal long haul return rate and their normal transient unpredictability. The instability is likened with hazard, estimating how much more terrible than normal a venture's awful years are probably. The aim o recognize the sufficient level of danger versatility and after that to find a portfolio with the most extraordinary foreseen return for that level of risk. The key precept of Modem portfolio hypothesis hence is that in the event that one wishes to expand the presentation and diminish the hazard in a general venture portfolio, the individual in question should join speculations that are non-related with each other (Thaler and Shefrin. 1981).

Essentially put an enhanced arrangement of non-associated ventures can give the best yields minimal measure of insecurity given that the peril of disaster in prospects trading can be critical and a monetary master could lose more than the fundamental hypothesis. The hypothesis of Behavioral money is from a more extensive sociology viewpoint including brain research and human science (Tony, 2000). It in this way, applies logical research on human and social, subjective and enthusiastic elements to all the more likely comprehend financial choices by buyers, borrowers, speculators and how they influence market costs, returns and the allotment of assets. In particular, social fund has two structure squares: subjective brain research and the breaking points to exchange. Subjective alludes to how individuals think. There is an immense brain research writing archiving that individuals make deliberate blunders in the manner that they, think, they are careless they put a lot of weight on late experience.

Efficient Market Hypothesis (EMH) Theory

The efficient-market hypothesis emerged as a prominent theory in the mid-1960s. Paul Samuelson had begun to circulate Bachelier's work among economists. In 1965 Eugene Fama published his dissertation arguing for the random walk hypothesis, and Samuelson published a proof for a version of the efficient-market hypothesis. In 1970 Fama published a review of both the theory and the evidence for the hypothesis.

Bodie (2009) contends that since security costs change in accordance with all new data the security costs ought to mirror all data that is openly accessible anytime. Accordingly, the security costs that win whenever ought to be a fair impression of all as of now accessible data, incorporating the hazard engaged with owning the security. In this manner, in an effective market, the normal returns understood in the present cost of the security ought to mirror its hazard, which implies that speculators who purchase at these instructively proficient costs ought to get a pace of return that is reliable with the apparent danger of the stock. The alternative hypothesis is that security market is inefficient and that result of stock price is not accurately reflecting the new information. This might result from the following: the investor is unable to interpret the new information correctly; the investors have no access to the new information; the transaction cost in trading security is an obstruction for free trading; the restriction on short sale; and finally, the investors might be misled by the change in accounting principles (Dyckman & Morse, 1986).

EMPIRICAL LITERATURE

Ayuko (2015) investigated the effects of herding on stock returns at the Nairobi securities exchange. The research design adopted for the study was descriptive research design. Secondary daily price data was obtained from the Nairobi Securities Exchange historical database. Using daily price data, descriptive and regression analysis of returns were computed to test for the presence of herding as suggested by Chang, Cheng, and Khorana (2000). In the presence of herding the $\gamma 2$ coefficient was expected to be significantly negative. The regression coefficient

γ2 was found to be positive for the sub periods: 2001 to 2007, 2008 to 2010, 2011to 2014 and the market as a whole these results indicate there is no evidence of herding and its effects on stock returns at the in the Nairobi Securities Exchange.

Nyamute, Lishenga and Oloko (2015) conducted a study on the relationship between investor behavior and portfolio performance at the Nairobi Securities Exchange. This study attempted to determine the contribution of investor behavior in influencing investor portfolio performance at the Nairobi Securities Exchange using a sample of 385 individual stock investors. The relationship between investor behavior and portfolio performance was tested using multiple regression. The overall model was statistically significant indicating that investor behavior influences portfolio performance with herding and disposition effect having a positive effect on portfolio performance while overconfidence has a negative effect on performance. The findings provide an eye-opener and basis of appreciation of the effect of behavioral biases on the results of trading activities.

Mwimali (2017) conducted a study on the existence of herd behaviour: evidence from the Nairobi Securities Exchange. his examination concentrated on the value ramifications of grouping by exploring whether value returns uncover the nearness of crowd conduct. Data asymmetry in capital markets could clarify the presence of grouping, it can happen either when financial specialists are having a similar data or confronting comparable conditions judiciously settle on comparative choices, or when speculators deliberately imitate the conduct of one another. Thus, speculators may not improve their choices independently yet consider other financial specialists' decisions. The principle target of this examination was to explore the presence of grouping conduct among the speculators at the NSE. The investigation involved an observational research plan. Information utilized was optional information acquired from the Nairobi protections trade. The NSE offer record was utilized as the example. Information was investigated utilizing. The regression produced statistically significant positive beta coefficients which reveal no presence of herding among investors at the NSE.

Nyamute (2016) conducted a study led an investigation on financial specialist conduct, speculator statistic attributes, venture style and individual financial specialist portfolio performance at the Nairobi Securities Exchange. opulace comprised of individual speculators evaluated at 2.4 million dependent on the CDSC financial specialist information base as on December 31, 2015. A blend of arbitrary and comfort inspecting techniques were utilized and information was gathered from 348 respondents out of the objective example size of 385. The information was broke down utilizing illustrative measurements, relationship investigation and inferential insights. Progressive numerous relapse investigation was utilized to test the speculations. The discoveries demonstrate that speculator conduct impacts singular portfolio execution and the venture style embraced by the financial specialist. Further, the outcomes show that statistic attributes moderate the connection between speculator conduct and portfolio execution while venture style has no intervening job in the connection between financial specialist conduct and portfolio execution. Mutually, financial specialist conduct, statistic

qualities, and venture style clarify 8% of the varieties in individual speculator portfolio execution and the relationship is measurably critical.

Athur (2014) assessed the impact of social inclinations on speculation choices of individual financial specialists in Kenya. Significant discoveries demonstrated that aftereffects of individual financial specialist choices were altogether related to: representativeness inclination (r=-.253, p<.01). These statistically significant correlations suggest that these dimensions of behavioural factors influence individual investor decisions. However, individual investor outcomes were not significantly related to loss aversion bias (r=.003, p<.01).

Shikuku (2016) led an examination on the impacts of social factors on speculation choices making by unit trust organizations in Kenya. Spellbinding structure concentrate was utilized through enumeration overview of eleven unit trust organizations. Semi organized survey was utilized for information accumulation with 100% reaction rate being enlisted. Drop and pick later strategy was utilized to disseminate the polls. Examination was finished utilizing Statistical Packages for Social Scientists. Unmistakable measurements and connection investigation were utilized to outline the exploration discoveries. The examination built up that unit trusts' venture choices are influenced by presumptuousness, group, and tying down practices. Unit trust supervisors will in general be careless while settling on venture choices. Their choices are likewise influenced by understanding of their past exhibition proposing the impact of securing. As indicated by the discoveries, administrators who are careless are likewise prone to pursue the majority in basic leadership. Conduct money models are not observationally upheld and subsequently ought not be utilized in disengagement for venture investigation by unit trusts.

Lingesiya (2014) conducted a study on the influence of behavioral factors in making investment decisions and Performance: Study on Investors of Colombo Stock Exchange, Sri Lanka. The hypotheses were tested through the questionnaires distributed to individual investors at the Colombo Stock Exchange. The collected data were analyzed by using SPSS. The result shows that there are four behavioral factors affecting the investment decisions of individual investors at the Colombo Stock Exchange which are Herding, Heuristics, Prospect and Market. Most of the variables from all factors had moderate impacts whereas anchoring variable from heuristic factor had high influence and choice of stock variable from herding factor has low influence on investment decision.

Awuor (2017) assessed the behavioural factors that influence individual investment decisions at the Nairobi securities exchange. A case study was used in this examination. The population for this study were the individuals who trade in the NSE. Primary data was obtained through closed and open-ended questionnaires that were self-administered. Some questionnaires were also emailed to the respondents, depending on the agreed media with the respondent. The findings of the study reveal that disparities in individual investment decisions are influenced mutually by prospect theory factors, heuristic driven biases and anchoring behaviour, while the remaining percentage is influenced by factors outside the model employed in this study.

RESEARCH METHODOLOGY

The study adopted a descriptive research design. This design involves describing the characteristic, attitudes, possible behaviours and values of a particular phenomenon and therefore the researcher considers it most appropriate. The study targeted the active investors in the investment banks and brokerage firms of the Nairobi Securities Exchange. The sample size was 384 respondents determined using Krejcie and Morgan Table (1970). Stratified simple random sampling was used to select 17 respondents from each of the registered investment banks and stock brokerage firms. Prior to the actual study the researcher conducted a pilot study to test the validity and reliability of the research instrument. Descriptive and inferential statistics was used to analyse the study findings.

RESEARCH FINDINGS AND DISCUSSION

Influence of Herding Effect on Investor Decisions

The outcomes show that majority of the respondents agreed that peer pressure has an impact in their investment decisions as illustrated by a mean of 4.15 and standard deviation of 0.99, I more often than not respond rapidly to the progressions of other speculators' choices and pursue their responses to the securities exchange as demonstrated by a mean of 4.10 and a standard deviation of 0.63 and that Other speculators' choices of purchasing and selling stocks have sway on their venture choices as confirmed by a mean of 4.05 and a standard deviation of 0.82. The findings concur with that of Mwimali (2017) who established that investors do not optimize their decisions individually but take into account other investors' choices. The respondents further agreed that they prefer investing in stocks that are preferred by others (Mean=3.84, Standard deviation =0.98), other investors' decisions of the stock volume have impact on their investment decisions (Mean=3.80, Standard deviation=1.03), other investors' decisions of choosing stock types have impact on their investment decisions as shown by a mean of 3.75, and standard deviation of 0.92. Inconsistent to the findings, Musava (2017) observed that there was no saw that there was no crowd impact during a first sale of stock.

Influence of Loss Aversion on Investor Decisions

The outcomes show that majority of the respondents agreed that checking a portfolio's performance more frequently increases the likelihood of seeing a loss, which produces more mental agony than comparable gains satisfy (Mean=4.37, Standard deviation= 0.77), the pain the investors feel from a loss is about as twice as strong as the pleasure felt from an equivalent experience of gain (Mean=4.25, Standard deviation=1.08), the investors are willing to give up more potential gains in order to protect themself from making a loss (Mean= 4.04, Standard deviation=1.23), they have a stronger preference for avoiding possible losses than for making gains(Mean= 4.00, Standard deviation=1.18), they rather not make a gain than risk making a

loss (Mean=3.92, Standard deviation= 3.02) and that loss after a loss is more painful to them than loss after a gain(Mean=3.76, standard deviation=1.15). In tandem with findings, Lehenkari and Perttunen (2014) found that investors fear much on losing and focus on avoiding the loss as opposed to focusing on potential gains.

Influence of Over Confidence on Investor Decisions

The findings reveal that majority of the respondents agreed that overconfidence leads to greater trading volume in financial markets as illustrated by a mean of 4.07 and a standard deviation of 1.18, their skills and knowledge of the securities market can help them determine the trading volume as demonstrated by a mean of 4.00 and a standard deviation of 0.73, they become overconfident when they experience high returns/gains in past trades as illustrated by a mean of 3.87 and a standard deviation of 0.71, they believe their skills and knowledge of stock market can help them to outperform the market as shown by a mean of 3.82 and a standard deviation of 0.85, they are normally able to anticipate the end of good or poor as illustrated by a mean of 3.79 and a standard deviation of 1.09, and finally the respondents agreed that success in past trades induces them to overestimate their private knowledge which leads to an increase in trading activity as depicted by a mean of 3.66 and a standard deviation of 0.93. Similarly, Makokha (2015) found that there was a strong positive relationship between overconfidence and trading volumes. Consistently Gichamba (2017) revealed that individual investment decisions are affected by overconfidence.

Influence of Anchoring on Investor Decisions

The findings show that majority of the participants agreed that they forecast the changes in stock prices in the future based on the recent stock prices as shown by a mean of 4.14 and a standard deviation of 1.09, past history influence their present investment decision as illustrated by a mean of 4.02 and a standard deviation of 1.17, they prefer to buy local stocks than international stocks because of the availability of local stocks information as shown by a mean of 3.97 and a standard deviation of 1.02, past performance of various investments guide their investment decisions as shown by a mean of 3.92 and a standard deviation of 0.85, prices of today are often determined merely by those of the past as illustrated by a mean of 3.85 and a standard deviation of 0.38, current performance of stock is of much importance in their investment decision as demonstrated by a mean of 3.83 and a standard deviation of 1.07. Consistently Murithi (2014) established decisions of the investors are at times responsive to the behavior of anchoring and impacted such conducts as experiences of prior outcomes.

Investor Decisions

Majority of the participants agreed that they invest in shares with high expected return rates shown by a mean of 4.16 and a standard deviation of 1.05, they consider the past performance of

a share before investing in it as shown by a mean of 4.11 and a standard deviation of 1.02, they sometimes apply subjective judgment over objective judgment in buying shares as demonstrated by a mean of 3.93 and a standard deviation of 1.14, they sometimes regret investing in stock market due to mistake they make as demonstrated by a mean of 3.81 and standard deviation of 1.10, their gut feeling about the company's shares influenced their decision to buy shares as demonstrated by a mean of 3.92 and a standard deviation of 1.19. The respondents disagreed that they feel comfortable investing in risky shares as shown by a mean of 2.30 and a standard deviation of 1.07. These findings are in tandem with Lehenkari and Perttunen (2014) who find that both positive and negative returns in the past can determine the investor's decisions in the market. Consistently Evans, (2016) notes that studies have shown that excessive trading is among the side effect of overconfidence.

INFERENTIAL STATISTICS

The study carried out correlation analysis between the variables of the study using Pearson product moment correlation coefficient. Correlation coefficient was used to test whether there existed interdependency between independent variables and whether the independent variables were related to the dependent variable. From the outcomes of this research, it portrayed that a strong and positive relationship existed between investor decision and herding effect as indicated by the value of 0.742, which is significant as its significance level was 0.00<0.05. The findings concur with Bikhchandani and Sharma (2014) whose observations were that people relating together regular form a similar basis for judgement. There was also a strong and positive relationship between investor decision and loss aversion as indicated by the value of 0.765, the significant level value was 0.000 and hence significant as it is below 0.05. There as well existed a strong positive relationship between investor decision and overconfidence as indicated by the correlation value of 0.608 and was termed significant at the value of 0.00 which was below 0.05. There was also a strong positive relationship between investor decision and anchoring as indicated by the correlation value of 0.774 and was termed significant at the value of 0.00 which was below 0.05. The high correlations imply that significantly large number of the investors use their previous experiences in the market and collective opinion of majority in deciding their next investment. The high correlation between loss aversion and decision making is because investors prefer avoiding the risk of losses in acquiring equal gains.

Table 1: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	. 814[a]	.663	.621	. 4317

a. Predictors: (Constant), herding effect, loss aversion, over confidence, anchoring

The coefficient of assurance was completed to gauge how well the measurable model was probably going to anticipate future results. The coefficient of assurance, R2 is the square of the

sample correlation coefficient between outcomes and forecast values. As such it expounds the degree to which changes in the reliant variable can be clarified by the adjustment in the free factors or the level of variety in the needy variable that is clarified by all the four autonomous factors. Herding effect, loss aversion, over confidence and anchoring explain only 66.3% of the investment decision as represented by the R2. This therefore means the four independent variables only contribute about 66.3% to the investment decision while other factors not studied in this research contribute 33.7% of investment decision in stocks market.

Table 2: ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.108	4	16.527	10.866	.000b
	Residual	454.779	299	1.521		
	Total	520.887	303			

From the table over, the prepared information, which is the populace parameters, had a criticalness level of level of 000% which demonstrates that the information is perfect for making an end on the populace's parameter as the estimation of significance (p-value) is less than 5%. The F critical at 5% level of significance, 4 d.f, 299 d.f was 2.4018 while F calculated was 10.866, since F calculated is greater than the F critical (value = 2.4018), this shows that the overall model was significant. Pandya, (2010) contends that when F calculated is greater than the F critical the ANOVA model is significance.

Table 3: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.143	0.272		4.202	.000
	Herding Effect	0.718	0.165	0.632	4.352	.000
	Loss Aversion	0.677	0.164	0.591	4.128	.011
	Over Confidence	0.702	0.174	0.611	4.034	.001
	Anchoring	0.703	0.172	0.615	4.087	.000

$$Y_i = 1.143 + 0.718\,X_1 + 0.677\,X_2 + 0.702\,X_3 + 0.703X_4$$

From the regression equation above it was found that holding herding effect, loss aversion, over confidence, and anchoring to a constant zero, investor decision would be 1.143. A unit increase in herding effect would lead to increase in investor decision by 0.718 units. In tandem with the findings, Mwimali (2017) observed that herding have an impact on investors decisions. A unit increase in loss aversion would lead to increase in investor decision by 0.667. A unit increase in overconfidence would lead to increase in investor decision by 0.702 units. Similarly, Shikuku (2016) established that unit trusts' investment decisions are affected by overconfidence. Investors tend to be overconfident while making investment decisions. A unit increase in

anchoring would lead to increase in investor decision by 0.703 units. A study by Murithi (2014) established that individual investment decisions are affected by anchoring behavior. Overall herding effect had the greatest effect on investor decision. At 5% level of significance and 95% level of confidence, all the variables were significant ($p<0.05$).

CONCLUSIONS

Herding effect influences investor's decisions. The financial specialists for the most part respond rapidly to the progressions of other speculators' choices and pursue their responses to the securities exchange. Other financial specialists' choices of purchasing and selling stocks, the stock volume and the kinds of stock have sway on their venture choices.

Over confidence influences investor's decisions. The investors become overconfident when they experience high returns or gains in past trades. Investors believe their skills and knowledge of stock market can help them to outperform the market. Success in past trades induces them to overestimate their private knowledge which leads to an increase in trading activity. Overconfidence leads to greater trading volume in financial markets.

Loss aversion has an influence on investor's decisions. Checking a portfolio's performance more frequently increases the likelihood of seeing a loss, which produces more mental agony than comparable gains satisfy. In case of a loss the pain felt is about as twice as strong as the pleasure felt from an equivalent experience of gain. The investors are willing to give up more potential gains in order to protect themself from making a loss.

Anchoring has an influence on investor decisions. The investors forecast the changes in stock prices in the future based on the recent stock prices. Past history influence investors' present investment decision. The investors prefer to buy local stocks than international stocks because of the availability of local stocks information.

RECOMMENDATIONS

The study recommends that since herding effect or behaviour is relevant to the individuals, the investment banks and stock brokerage firms should give their speculators the pertinent data to guarantee that they are knowledgeable with the predominant market and financial circumstances. Such a methodology would guarantee, that the speculation choices that the financial specialists make are attainable to understand the full advantages of putting resources into the securities exchange.

Since overconfidence had positive impacts on the investment decision, individual investors at the NSE should only be overconfident at an acceptable level to utilize their skills and knowledge to improve the investment results. In the uncertainty, the overconfidence is useful for the investors to do difficult tasks and help them to forecast the future trends and should be used in clever and suitable ways.

There is requirement for the important venture banks and stock financier firms to guarantee that their interest in the securities exchange are all around picked to guarantee the premiums of the speculators are all around dealt with. his is essentially in light of the fact that a few financial specialists hold up in expectation that the stock cost would come back to their price tag before they choose to sell it without reasonably assessing the circumstance or delaying their securities exchange venture till they are guaranteed of the arrival.

The investigation at long last suggests that owing to the observation that anchoring has implications on the decisions of the investors regarding investments, and more so that speculators make assumption of current prices are close to being right then then the speculators ought to be offered with the correct data in the perfect time since it assumes a job when financial specialists structure assumptions regarding future returns. Thusly the applicable firms ought to develop the impact of this data by consolidating financial specialists who are progressed as far as experience, instruction level and gross yearly pay of an individual.

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