THE IMPACT OF BEHAVIORAL BIASES ON INVESTOR DECISIONS IN KENYA: MALE VS FEMALE

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ABSTRACT

This research paper seeks to identify behavioral biases which affect individual investors at the Nairobi Securities Exchange. In addition, the relationship between gender and the behavioral biases was investigated. To conduct the study, questionnaires were issued to investors of Nairobi Securities Exchange, Kenya. A total of 58 investors responded of which 69% were men and 31% were women. Data collected for this study was analyzed using descriptive statistics and Pearson Chi-square test. Pearson Chi-square technique was used to analyze the relationship between gender and the behavioral biases. The results indicated that investors are affected by Availability bias, Representativeness bias, Confirmation bias and Disposition effect. Overconfidence bias has no significant effect because less than 50% of the investors were affected. There was no significant correlation between Availability bias, Representativeness bias, Confirmation bias, Disposition effect and Overconfidence bias and gender. This is because the Pearson P-Values obtained were more than 0.05.

KEYWORDS: Behavioral Finance, Availability Bias, Representativeness Bias, Confirmation Bias, Disposition Effect and Overconfidence Bias

INTRODUCTION

Human beings are known to make decisions based on their intuitions and feeling rather than collecting sufficient information which will facilitate effective decision making. Studies conducted have shown that investors make irrational investment decisions. According to Markowitz (1952), investors are rational and risk averse and will prefer low risk to high risk for a given level of return. However, in the actual market place, investors exhibit irrational behaviors; they trade excessively, purchase stock without considering the fundamental value, base their decisions on past performance, buy stocks which their friends are buying, and retain loss making stocks while selling bullish stocks. The investors often simplify their decision processes and are prone to behavioral heuristics that might cause systematic errors and lead to satisfactory investment choices, but which do not maximize utility (Kahneman and Tverskey, 1979).

Behavioral biases have been attributed to the irrationality in decision making. Shefrin (2007) defines bias as the predisposition towards error. This study will focus on five behavioral biases; Availability bias, Representativeness bias, Confirmation bias, Disposition effect and Overconfidence bias.

BEHAVIORAL BIASES IN FINANCE: LITERATURE REVIEW

Behavioral biases lead to bounded rationality where investors fail to evaluate the alternatives available to them so as to select the optimal alternative. This is because decision making is affected by feelings, emotions and intuition, rather than rational considerations. There are several behavioral biases which human beings exhibit. This paper will focus

on Disposition effect, Representativeness bias, Availability bias, Overconfidence bias and Confirmation bias. These are discussed below:

Disposition Effect

This was derived from the prospect theory by Kahneman and Tversky's (1979). According to the prospect theory, people are risk averse when they are winning and risk seeking when they are losing. The value function in the prospect theory is concave in the area of gains and convex in the area of losses, implying risk aversion in the area of gains and risk seeking in the area of losses.

Odean (1998) defines disposition effect as the tendency of investors to sell winning investments too soon and holding losing stocks for too long. This is evidenced when the trading volume of stocks whose prices have appreciated increase by huge margin due to over trading. A study by Lakonishok and Smidt (1986) show that winning stocks tend to have a higher abnormal volume than losers. This concurs with Kaustia (2004) who analyzed the performance of US initial public offerings and depicted that when stocks trade above the offer price, the trading volume rises. Odean (1998) used purchase prices as the reference point and found that investors had a preference of disposing winning stocks to holding them. As such investors hold losing stocks longer than winning stocks (Locke & Mann, 2005).

An experiment conducted by Weber and Camerer (1998) depicted that the subjects sold fewer stocks when the prices declined than when they increased. They also sold less when the price was below the purchase price than when it was above. Chen et al. (2007) conducted a study on the Chinese market and found that the investors were affected by the disposition bias as they were more likely to sell a winning stock than a losing stock.

Availability Bias

It is when investors assess the frequency of a class or the probability of an event by the ease with which instances or occurrences can be brought to mind (Tversky & Kahneman, 1974). The focus of the investors when choosing a portfolio is on the companies that they easily recall without considering the effect on risk diversification.

This occurs when investors tend to overweigh current information while ignoring the fundamentals. A study by Barber & Odean (2008) show that investors tend to consider those stocks that have recently caught their attention in making purchase decisions. These could be stocks that have reported abnormal trading volume or high returns in the recent past or have been in the news most frequently. This 'recency bias' affects forecasts such that a firm's long-term growth tend to be relatively optimistic when the economy is at boom than when it is depressed (Lee et al.,2007).

Overconfidence Bias

It is when investors place too much weight on information they collect themselves due to excessive optimism (Daniel, Hirshleifer & Subrahmanyam, 1990). They depicted that investors tend to ignore information that lowers their self esteem and embraces that which allows them to maintain their confidence. Overconfidence bias causes investors to trade excessively. A study by Barber and Odean (2000) on the trading patterns and returns of over 66,000 accounts held by private investors with stockbrokers for the period 1991-96 show that the excessive trading affected the returns of the investors as they earned less. A later study by Barber and Odean (2001) on the effect of gender on the investment decisions depicted that men were more confident than women as they traded more and earned lower returns.

Representativeness Bias

Kahneman & Tversky (1974) define representativeness bias that in situations of uncertainty people make judgment on the basis of "the degree to which it is: (i) similar in essential properties to its parent population and; (ii) reflects the salient features of the process by which it is generated." This causes investors to evaluate a company based on its characteristics such as type of management, recent returns, popularity, type of products etc. companies perceived to have competent managers, quality product, high recent returns etc are considered as good choices for investment.

Experiments conducted by Kahneman and Tversky (1974) show that representativeness heuristic is affected by individuals in that when they are asked to formulate judgments under uncertainty, most of them base their decisions on representative information. A study on the Taiwanese stock market by Wu, Wu and Liu (2009) depicted a weak evidence of the representativeness over the period 1988-2006. They found that a short-term predictability (for 3 to 12 months) explained by under reaction to earnings announcement due to the conservatism bias.

Confirmation Bias

Confirmation bias is a cognitive bias, or tendency to interpret information in such a way that it confirms preconceptions, while avoiding interpretations which contradict previously held beliefs (Shefrin, 2007). This occurs when investors have already made their choices and search for information to confirm their preconceptions. For example if an investor is interested in Company A, he will look for positive information about the company so as to affirm their decision.

RESEARCH METHODOLOGY

Data Collection and Sample

Data for this paper was collected using questionnaires. The population of the study was all individual investors of firms listed at the NSE. The target population was individual investors located at Mombasa County, Kenya. Random sampling technique was used in the study and 58 investors responded. The period of study was January and March 2014.

Data Analysis Technique

Data collected for this study was analyzed by using descriptive statistics and Pearson Chi-square test. Pearson Chi-square technique was used to analyze the relationship between gender and the behavioral biases.

DATA ANALYSIS / RESULTS

Availability Bias

To test for availability bias, respondents were asked whether they had prior information of the companies where they had bought shares; 69% responded positively while 31% responded negatively. In terms of gender; 76% of the men had prior information while for females the percentage was lower at 24%. The respondents relied on information from friends and media before investing. Only 40% of the investors relied on information from NSE intermediaries.

A chi square test was performed to check if there was a significant difference between the answers given and gender and a Pearson p-value of 0.157 was obtained. Thus there is no difference in the answers given to this question based upon the gender of the respondent.

Representativeness Bias

The respondents were asked whether they considered recent returns of the companies they invested in, 53% agreed and 47% disagreed. In terms of gender, men were more affected by the representativeness bias at a rate of 65% compared to 27% for women. A p-value of 0.213 for the Pearson Chi-square test for the relationship with the gender, this implies that the answers given are not directly related to gender.

Overconfidence Bias

To test for confidence bias, respondents were asked whether on average they feel they can predict future share prices better than others. 47% of the respondents agreed that they can predict future share prices better than other while 53% disagreed. Men were found to be more confident than women by 21% (54% -men, 33%-women). A chi square test revealed a p-value of 0.199. Therefore there is no statistical difference between gender and overconfidence bias.

Confirmation Bias

Confirmation bias was measured by presenting the following scenario: what the respondents considered before buying a share. They were asked whether they identified the company first and then searched for information or searched for information first, and then selected a company. 65% of the respondents accepted the first alternative that they identified a company and then searched for information, while 35% searched first for information before selecting a company.

Women were affected more by confirmation bias at 67% as compared to men's rate of 65%. However, with a p-value of 0.15 there is no significant correlation between the confirmation bias and gender even though women depicted a higher degree of confirmation bias.

Disposition Effect

In the first question, respondents were asked what they would do if the price of their stock was going down. 52% of the respondents contended that they would retain the stock and 48% agreed that they would sell the stock. 59% of the women responded that they would sell the stock as compared to 44% for men. In the second question the respondents were asked what they would do if the price of the stock was going up. 54% of the respondents would sell the stock and 46% would retain.

Women were more likely to sell their stock when the prices went up (59%) as compared to men at 44%. This implies that women were more affected by the disposition effect as they willing to sell stocks whose prices were increasing and retain stock whose prices were falling. P – Value of 0.16 was obtained indicating that the difference in the answers was not significant in terms of gender.

CONCLUSIONS

The purpose of this paper was to establish whether investors at the NSE are affected by Availability bias, Representativeness bias, Confirmation bias, Disposition effect and overconfidence bias and also to determine the effect of gender on the behavioral biases. To achieve the objectives questionnaires were issued to investors and 58 of them responded. Data was analyzed using descriptive statistics and Pearson Chi-square test. Pearson Chi-square technique was used to analyze the relationship between gender and the behavioral biases.

Investors at the Nairobi Securities Exchange are affected by Availability bias, Representativeness bias, Confirmation bias and Disposition effect. However the effect by Representativeness bias and Disposition effect was moderate at an average of 53%. Overconfidence bias has no significant effect because less than 50% of the investors were affected. There was no significant correlation between Availability bias, Representativeness bias, Confirmation bias, Disposition effect and Overconfidence bias and gender. This is because the Pearson P-Values obtained were more than 0.05.

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