Implications Of Loss Aversion And Investment Decisions

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ABSTRACT

As a behavioral bias known as "Loss Aversion," it states that people are more negatively affected by the prospect of losing money than they are by the prospect of gaining it. Concerning its effect on investors, the findings of the many research conducted on loss aversion have been contradictory. Individuals who engage in the Indian stock markets via brokerage companies are the target of this research, which seeks to answer the question, "Is loss aversion real?" and how does it influence investing decisions. This research also looks at the potential effects of gender, income, investing history, and risk perception on loss aversion. The research relied on primary data gathered via a structured questionnaire and analyzed using statistical procedures such as linear regression, independent t-test, and analysis of variance. According to the study's findings, loss aversion bias influences investors' investing choices and is significantly impacted by the respondents' gender.

Keywords - Loss aversion, Behavioral bias, Risk perception.

I. INTRODUCTION

The field of behavioral finance investigates the role that investors' mental processes have in the decision-making process. According to Shefrin (2002), the conventional wisdom about market psychology being mostly based on hope and fear fails to adequately explain financial actions. He claims that optimism and pessimism are the two main emotions that influence an investor's willingness to take risks. When an investor feels hopeful, it sets in motion a cascade of irrational circumstances that are impossible to quantify. No amount of avarice could account for these circumstances.

Making good use of time and money to gather and analyze data is essential for any decision-making process. For the sake of convenience, people often stray from reason, or the steps necessary for a typical decision-making process when a rational person is involved. We call these kinds of judgments biases. Therefore, biases are either the result of or a systematic inaccuracy in the way that people use resources, such as time, money, or their ability to interpret the information that is readily accessible to them about their environment. Another way of looking at it is that they are quick cuts that make decision making easier and faster.

People exhibit loss aversion when they are more likely to take risks in order to prevent losses rather than in pursuit of benefits. Put another way, when investment losses are a possibility, investors are discovered to be risk takers. However, people become risk-averse when the possibility of experiencing rewards is presented to them. Basically, it's when people are more affected by losses than benefits. Loss aversion, say psychologists, is a byproduct of evolution and the need to avoid extinction. It's in every human being. According to Khaneman and Tversky (1979), people are more risk averse when they stand to lose than when they stand to win an equal amount, since the pain of loss outweighs the pleasure of gain. People cling to the way things are because of the suffering they're in. The tendency towards loss aversion arises from this conservative mindset, which leads to maintaining the status quo and avoiding losses. Decisions that may cause changes are likewise avoided by those who suffer from loss aversion. This is because the prospect of loss is more salient to people than the prospect of gain.

Financial decisions are not immune to the effects of loss aversion. A psychological phenomenon known as investor paralysis might result. People are much more afraid of losing money again after suffering a loss recently, according to Thaler and Johson (1990). This mindset causes investors to get paralyzed. The financial crisis of 2008 was a moment of utter paralysis. Restricting the usage of alternatives that may be irrelevant, offering alternative anchors or reference points that might give better options, etc., are all therapies that could aid with loss aversion.
II. LITERATURE REVIEW

Muskaan Arora and Santha Kumari (2015) studied how investors' risk tolerance changed with age and gender, as well as how regret and loss aversion affected their investing choices. According to the research, investors' age, gender, and risk tolerance are all influenced by regret and loss aversion, which act as a mediator between these three factors.

Soosunghwang and Steve E. Satchel (2010) analyzed the asset allocation problem in the US and UK financial markets to determine the presence of loss aversion as a behavioral bias. The findings revealed that loss aversion significantly impacts market participants, with heightened sensitivity to it during bull markets compared to bear markets.

Peter Mbaluka et al. (2012) Investors on the Nairobi Securities Exchange were shown to be significantly impacted by the framing effect and loss aversion when we examined these characteristics. Additionally, they discovered that investors' judgments were skewed depending on how issues were presented, and that market losses were more influential than profits.

Kiran Aziz Malik et al. (2017) investigated whether or not investors on the Islamabad stock market exhibit and are affected by biases like overconfidence and loss aversion. Additionally, they looked at how risk perception mediated the relationship between behavioral biases; they discovered that overconfidence and loss aversion had a significant impact on individual investors on the Islamabad stock exchange, but that risk perception itself did not mediate the relationship.

Boram Lee and Yulia Veld-Merkoulova (2016) investigated the link between short-term loss aversion and people's investment decisions. They discovered that people's loss aversion correlates positively with rebalancing their portfolios, and they also found that people's decision-making is influenced by myopic loss aversion.

III. STUDY DESIGN

3.1 Problem statement

Behavioral finance has proven that investors are susceptible to behavioral bias, which challenges the rationality of traditional finance's assumption that investors make investment decisions based on a thorough understanding of market information. If we want to know how investors make decisions and what they do when the market is acting strangely, we need to study the psychological components of investing decision making. An investor may improve their odds of making the kind of logical investment decisions described by conventional finance by learning what causes irrational decision making. This research aims to investigate the issues connected to loss aversion and its influence on the Indian context. It builds upon other worldwide studies that have shown loss aversion bias among investors.

3.2 Research Objective

- The purpose of this research is to examine gender differences in loss aversion bias.
- In order to learn how investors' income and level of investing experience affect their loss aversion bias.
- With the goal of learning how investors' views of risk affect their loss aversion bias—
- For the purpose of researching how loss aversion bias influences financial investment choices

3.3 Hypotheses:

- NH01: There is no statistically significant difference in loss aversion bias between male and female investors.
- NH02: There is no statistically significant variation in loss aversion bias across investor income groups.
- NH03: When it comes to loss aversion bias, investors' levels of experience make little impact.
- NH04: Loss aversion bias is unaffected by how investors perceive risk.
- NH05: Investing decisions are unaffected by loss aversion bias.
3.4 Methodology

Primary data, gathered using a structured questionnaire, formed the basis of the research. A convenience sampling strategy was used in the study. Brokers from the Trichy and Thanjavur corporations were the subjects of the investigation. A total of 116 out of 150 questionnaires were returned after administration. The survey was broken down into three sections: one for collecting basic demographic information and investment profiles, another for learning about respondents' risk tolerance and decision-making processes, and a third for gauging the impact of loss aversion bias. The research used the following statistical methods: regression analysis, independent t-test, analysis of variance, and SPSS for data processing. The Cronbach alpha method was used to examine the reliability of the questionnaire's construction. A Cronbach alpha of .855 indicates an accuracy level of 85.5% for the 25 variables included in the research.

This research made use of a linear regression model. It was used to answer the variable's qualitative qualities. What this means is:

\[ Y = \beta_0 + \beta_1 X_1 + \epsilon \]

\[ Y = \text{investment decision} \]
\[ \beta_0 = \text{Constant} \]
\[ \beta_1 = \text{Represents the regression coefficients for loss aversion} \]
\[ X_1 = \text{Loss aversion bias.} \]

IV. RESULTS AND DISCUSSION

Table-1 Distinct Gender Variations in Loss Aversion Bias and Their Effects

<table>
<thead>
<tr>
<th>A Levene Test for Variance Equality</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>4.291</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>2.604</td>
</tr>
</tbody>
</table>

Source: primary data and computed by using SPSS

Table-1 displays the outcomes of the Independent Sample 'T' Test and Levene's Test for Homogeneity of Variance. Assumption of variance homogeneity across data is fundamental to the t test. With a Levene's statistic value of 4.292, the 'p' value was determined to be insignificant at the 5% level (0.05) when looking at the findings of Levene's Statistics. Therefore, the null hypothesis (H0) was accepted, indicating that the two groups did not have similar variances. This was shown by using the independent sample t-test.

The findings were statistically significant (P = 0.006, p < 0.05) in Table 1, confirming that there was a considerable gender gap in respondents' attitudes regarding loss aversion bias. Consequently, we can rule out the null hypothesis that "Gender of the investors does not have substantial impact on loss aversion bias".

Table – 2 Results of Analysis of Variance (ANOVA) between Income of Respondents and Loss Aversion Bias
Table 2 defines the findings from the analysis of variance, which were used to determine the difference between the respondents' income and overconfidence. Between groups, the total of squares was 7.199, while within groups, it was 59.567. The calculated F-statistic was 4.512. The Table’s significant value of 0.005 was lower than the 0.05 threshold of significance, suggesting a significant difference between the respondents' income and loss aversion bias. As a result, we can say that the income group of investors is not significantly different when it comes to loss aversion bias.

Table 3 Results of Analysis of Variance (ANOVA) for Investment Experience and Loss Aversion Bias

| Source: primary data and computed by using SPSS |

Table 3 displays the outcomes of the analysis of variance used to determine the dissimilarity between the respondents' investment experience and their loss aversion. Within each group, the total of squares was 63.907, whereas the sum across groups was 2.859. We discovered an F-statistic of 1.670. The table's significant value of 0.149 was higher than the 0.05 threshold of significance, suggesting that investors' loss aversion bias and their investing experience are not significantly different. Acceptance of the null hypothesis "There is no significant difference in loss aversion bias based on investors' investment experience" follows.

Table 4 Results of Regression Model Fitness for Loss aversion bias and Investors’ Risk Perception

| Source: primary data and computed by using SPSS |

Table 4 illustrates the model’s fitness by summarizing its outcomes, with investment choice serving as the dependent variable and loss aversion bias as the independent variable. A higher value of "R" implies a more significant correlation between the two variables. The correlation between investors' risk perception and loss aversion bias was 41%. Another metric that shows how much investors' risk perception explains their loss aversion bias is the R square value. According to the model, investors' perceptions of risk account for 16.8% of the variance in loss aversion. Investors' risk perception has an undeniable effect on their loss aversion, even if the proportion explained is tiny.
Table 5 provides context for the suggested model's ANOVA findings. At the 5% significance level, the 'F' statistic came out to be 23.037. Hypothesis 0: "Investors' risk perception does not influence loss aversion bias" was therefore rejected.

Table 6 Results of Co-efficients for Investors’ Risk Perception and loss aversion bias

Table 6 Shown below are the results of the coefficient analysis that provide light on how much of an influence overconfidence bias has on the way investors see risk. In the model bias, investors' risk perception served as the independent variable and loss aversion as the dependent variable. Investors' risk perception significantly affects their loss aversion, as seen by the substantial 'p' value at the 5% level. Among investors, 41% have a loss aversion bias due to their perception of investment risk, as shown by a standardized beta value of 0.410.

Table 7 Results of Regression Model Fitness for Loss aversion bias and Investors’ Risk Perception

Table 7 shows the model's fitness based on the findings of the summary, with investors' decisions serving as the dependent variable and loss aversion bias as independent variable. A higher value of "R" implies a more significant correlation amongst two variables. One interesting finding is that loss aversion bias was shown to be associated with investing decisions by 58.1%. Additionally, the R-squared number shows how much the
loss aversion bias accounts for the investment choice. There was a 33.8% explanatory power for loss aversion bias in the model for investing decisions. The influence of loss aversion bias on investing decisions could not be disregarded, even if the proportion explained was tiny.

### Table-8 Results of ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>15.324</td>
<td>1</td>
<td>15.325</td>
<td>58.124</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>30.045</td>
<td>112</td>
<td>0.249</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45.487</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: ID
b. Predictors: (Constant), LA

Source: primary data and computed by using SPSS

Table-8 provides context for the suggested model's ANOVA findings. At the 5% significance level, the 'F' statistic came out to be 58.107. "There is no impact of loss aversion bias on investment decision making" was therefore rejected as the null hypothesis.

### Table -9 Results of Co-efficients for Loss aversion bias and Investment decision

<table>
<thead>
<tr>
<th>Source</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.586</td>
<td>0.218</td>
<td>7.658</td>
<td>.000</td>
</tr>
<tr>
<td>LA</td>
<td>0.488</td>
<td>0.079</td>
<td>0.5952</td>
<td>7.646</td>
</tr>
</tbody>
</table>

Source: primary data and computed by using SPSS

Table -9 results of the coefficient analysis, which shed light on how much of an effect loss aversion bias has on investing decisions. Investment choice was the dependent variable in the model, with loss aversion bias as the independent variable. Investment decisions were significantly influenced by loss aversion bias, since the 'p' value was significant at the 5% level. Overconfidence in investing impacted the decisions of 58.1% of investors, according to the standardized Beta value of 0.581.

### V. FINDINGS OF STUDY

The results of the first goal's analysis corroborated the hypothesis that male and female investors do, in fact, experience loss aversion bias differently. This research's findings are in line with those of a prior study by Muskaan Arora and SanthaKumari (2015). While investors' income did vary significantly from loss aversion bias, investors' investing experience did not. This finding was derived via analysis of variance (ANOVA). The regression study showed that investors' risk perception affected their loss aversion bias, and that loss aversion bias significantly affected stock market participants.

### VI. CONCLUSION

The primary premise of the research was that investors in the Indian stock markets were susceptible to biases such as loss aversion. Potential demographic influences on loss aversion, including gender and wealth, were also explored in the research. The research found that loss aversion is influenced by gender and wealth, but
unaffected by investing experience. There was a strong relationship between risk perception, loss aversion bias, and investment decisions. The study's main takeaway is that investors are too diverse in terms of their behavior, investment goals, and risk perception to be lumped into one category. Because of this diversity in investment behavior, financial advisors need to tailor their products to each client's unique profile. It is important for individual investors to recognize the irrationality that comes with making investing decisions and strive to be as reasonable as they can be.

REFERENCES


