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Behavioral Biases and Investment Performance: Does Gender Matter? Evidence from Indian Stock Exchange

Aman Kumar Meher1, *Ananya Jha[2], Dr. Suresh Kumar Pattanayak[3], *Akshita Joshi[4], Ajay Kumar Sahu[5], *Anushka Rathi[6]

Student, Amity University, Raipur, Chhattisgarh

E-mail: [1]amankumarmeher0216@gmail.com, [2]ananyajha203@gmail.com akshitajoshi26@gmail.com[4], anushkarathi24@gmail.com[5], ajay170603@gmail.com[6]

[3]Associate Professor, Amity University, Raipur, Chhattisgarh Email: skpattanayak@rpr.amity.edu

ABSTRACT :

This research examines how Behavioral biases affect investment performance, with a focus on gender differences among retail investors in India. While conventional finance theories operate under the premise of rational decision-making, Behavioral finance reveals that cognitive biases—like overconfidence, anchoring, representativeness, and confirmation bias—can profoundly influence investment results. A detailed survey was conducted with 200 retail investors throughout India. The results indicate that both male and female investors are influenced by Behavioral biases; however, there are significant gender-related differences. Male investors display higher degrees of overconfidence and anchoring biases, while female investors show increased risk aversion and a more pronounced inclination toward confirmation bias. These differences indicate that gender influences how Behavioral biases relate to investment outcomes. The research highlights the necessity of integrating gender-focused approaches in financial advisory services and investor education initiatives to reduce the negative impact of cognitive biases and improve decision-making in investments.

Key Words - Behavioral finance, Gender differences, Risk tolerance, Overconfidence bias, Indian stock market, Investor psychology, Male vs female investors, Investment strategy.

INTRODUCTION

In recent years, financial markets have undergone significant changes, driven by globalization, rapid technological progress, and greater access to investment platforms. These changes have brought in a diverse range of investors, each with different motivations, strategies, and levels of financial knowledge. While traditional financial theories such as the Efficient Market Hypothesis (EMH) and Modern Portfolio Theory (MPT) assume that investors behave logically and make decisions based on objective data, real-world evidence tells a different story. Markets are often influenced by human emotions and cognitive shortcuts, leading to outcomes that defy purely rational expectations. This has led to the rise of Behavioral finance, a field that blends psychology and economics to explain how real people make financial decisions.

Central to Behavioral finance is the concept of Behavioral biases—patterns of deviation from logical thinking that affect how individuals interpret information and make choices. Some common biases include overconfidence, where investors place too much faith in their knowledge or forecasts; loss aversion, where the pain of losing money outweighs the satisfaction of gains; herding, where individuals follow the crowd despite their own judgment; and mental accounting, where people treat money differently depending on its source or purpose. These biases not only shape personal investment decisions but can also influence broader market trends and efficiency.

An area gaining increasing attention in Behavioral finance is the impact of gender on investment Behavior. Studies from various countries have found that men and women often approach investing differently. Generally, men tend to be more confident in their financial abilities, which can lead to more frequent trading and greater risk exposure. On the other hand, women are usually more cautious, focusing on long-term goals and often displaying greater financial discipline. While these tendencies do not apply to every individual, they highlight important trends that can have real implications for investment outcomes. Most of this research, however, comes from developed economies, leaving a significant gap in our understanding of how these patterns play out in emerging markets.

India presents a particularly interesting case. The Indian stock market is one of the fastest-growing in the world, marked by high volatility, growing retail participation, and increasing financial literacy. Traditionally, Indian investing has been male-dominated, due to a combination of cultural norms, financial literacy gaps, and limited access to financial resources for women. However, this landscape is changing. With more women becoming financially independent and gaining access to digital platforms and investment education, there is a growing need to understand how gender influences Behavior in this evolving market.

This research aims to explore whether Behavioral biases vary between male and female investors in India, and if so, how these differences affect investment performance. It seeks to identify common Behavioral patterns—such as overconfidence, anchoring, risk aversion, herding, and the disposition effect—and compare how they manifest across genders. Additionally, it examines whether these Behavioral traits have a significant impact on outcomes such as portfolio returns, diversification, trading frequency, and risk-adjusted performance.

By combining quantitative data analysis with investor surveys, this study contributes to the growing field of Behavioral finance in the Indian context. The findings are expected to help financial advisors, educators, and policymakers create more inclusive strategies tailored to different investor profiles. Ultimately, the goal is to promote informed decision-making, reduce the impact of irrational Behaviors, and encourage broader and more equitable participation in the Indian financial markets.

OBJECTIVE –

- To compare the investment Behavior of male and female investors.
- To analyse the relationship between Behavioral biases and investment performance.
- To examine if gender moderates the impact of Behavioral biases on investment performance.

REVIEW OF LITERATURE

- **Sowmya T S & Dr. Muralidhar S (2024)**

This research identifies that male investors are more susceptible to overconfidence and representativeness biases, while female investors exhibit higher levels of confirmation and anchoring biases. These gender-specific biases significantly influence investment decisions, underscoring the need for tailored financial education programs.

- **Vandana Singh et al. (2024)**

The study explores how risk propensity and subjective norms affect informal investment intentions among management students in India. It finds that gender moderates the relationship between risk propensity and investment intentions, with male students showing a stronger link, highlighting the importance of considering gender in investment Behavior models.

- **Surabhi Sugathan & Dr. Amit Kumar (2024)**

Surabhi and Dr. Amit stated that analyzing secondary data, reveals that women have higher participation in health and life insurance, while men prefer fixed deposits. This indicates gender-based differences in investment preferences, influenced by BEHAVIORal biases and financial literacy levels.

- **Maneesha Singh & Tanuj Nandan (2024)**

The research examines how impulsivity and mental accounting affect investment decisions, finding that men are more prone to impulsive investment BEHAVIORs, whereas women exhibit more disciplined financial planning, reflecting gender differences in BEHAVIORal biases.

- **Harsh Pratap Singh et al. (2023)**

This study investigates the presence of BEHAVIORal biases such as overconfidence and herd BEHAVIOR among investors, noting that gender plays a significant role in the manifestation of these biases, with men more likely to exhibit overconfidence.

- **Shilpa Bahl et al. (2020)**

The research highlights that women are less overconfident and more risk-averse compared to men, affecting their investment choices. It emphasizes the need for gender-sensitive approaches in financial advising.

- **Rajan Gunabalan et al. (2023)**

The literature review of this study is focusing on the COVID-19 pandemic period, the study finds that psychological factors significantly influenced investment decisions among women, leading to more conservative investment BEHAVIORs during times of uncertainty.

- **Ruban Christopher A. & Dr. A.R. Nithya (2024)**

This literature review discusses global gender differences in investment BEHAVIOR, noting that Indian women face additional challenges due to socio-cultural factors and lower financial literacy, suggesting the need for targeted financial education programs.

- **Jimnee Deka et al. (2023)**

The study explores how environmental, social, and governance (ESG) consciousness interacts with Behavioural biases and risk perception among Indian investors, finding that higher ESG awareness can mitigate certain biases, with implications for gender-based investment strategies.

- **Rahul Dhaigude (2021)**

The study is investigating the impact of financial literacy on women's investment decisions, the study concludes that increased financial knowledge leads to better investment choices and highlights the importance of financial education in empowering women investors.

RESEARCH METHODOLOGY

Research Design

This study uses a quantitative and descriptive research design to explore how investment Behavior varies between men and women. The focus is on gathering measurable data to identify trends, preferences, and psychological biases that may influence financial decisions across genders.

Sampling Technique and Sample Size

To ensure balanced representation, a purposive sampling method was used. A total of 200 participants were selected, with an equal split of 100 male and 100 female investors. This equal distribution helped in drawing meaningful comparisons between the two groups.

Data Collection Instrument

The primary data was gathered through a well-structured survey named *"Gender Differences in Investment Behavior."* The questionnaire was divided into three parts:

- **Section A – Demographics**: Included questions on gender, age, education level, and income.
- **Section B – Investment Profile**: Focused on the types of investments made, investment goals, and factors influencing financial decisions.
- **Section C – Behavioral Biases**: Investigated aspects like confidence levels, emotional decision-making, regret avoidance, and risk perception. The survey included multiple-choice questions and Likert scale ratings, making it easy to complete and analyze.

Data Collection Procedure

The survey was distributed online using digital forms, which made it possible to reach a wide range of individuals across different age groups, professions, and income categories. Participation was completely voluntary, and respondents were assured that their identities would remain confidential.

Data Analysis

After collecting responses, the data was cleaned and analyzed using Microsoft Excel. The analysis focused on descriptive statistics to summarize the data, and visual tools like bar graphs were used to highlight gender-based differences in risk tolerance, investment confidence, and financial Behavior.

Ethical Considerations

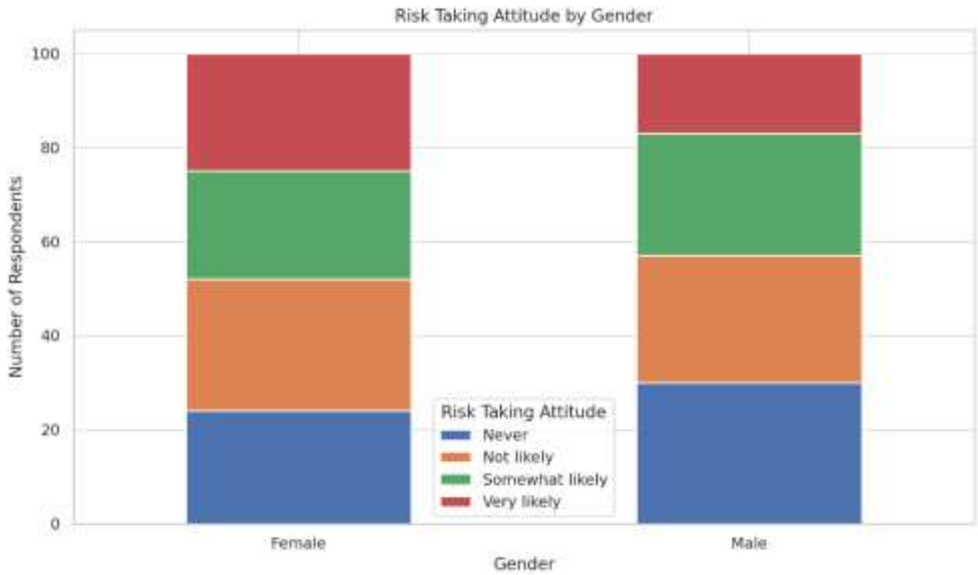
Before participating, all individuals were informed about the study’s objectives and gave their consent willingly. The survey did not ask for any personal or sensitive information, and the data collected was used solely for academic research purposes, maintaining privacy and ethical standards throughout.

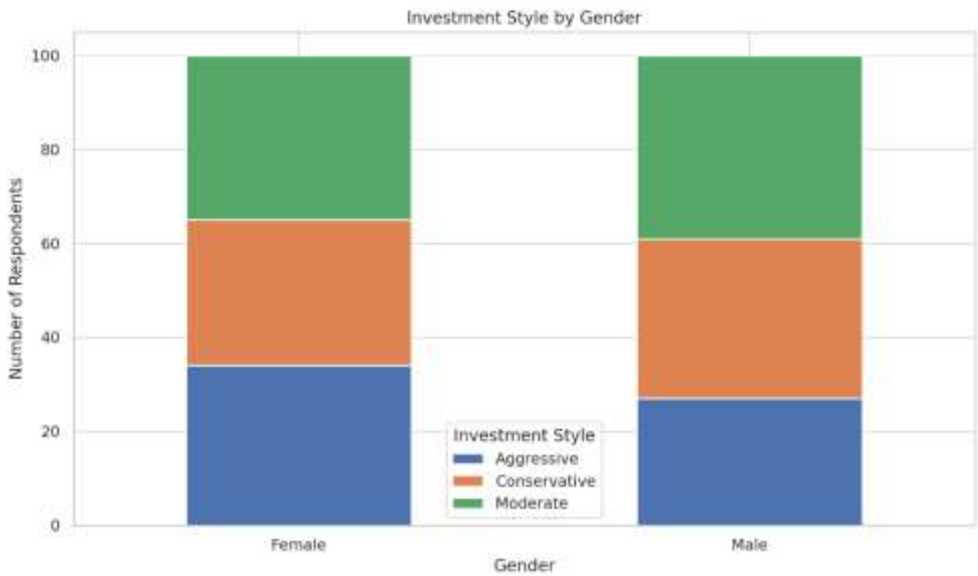
DATA ANALYSIS

This document presents a gender-wise analysis of investment Behavior based on three parameters: risk-taking attitude, investment style, and investment confidence. The analysis highlights both the observations derived from survey data and their interpretations.

Category	Observation/Statement	Interpretation
Risk Taking Attitude	A higher percentage of males report being 'Very likely' to take risks compared to females.	Males show a slightly greater risk appetite, suggesting they may be more open to high-return investments.
Risk Taking Attitude	Females are more likely to select 'Never' or 'Not likely' for risk-taking.	Female investors tend to be more risk-averse, possibly preferring safer or more stable investment options.
Investment Style	Both genders show a similar distribution across investment styles.	Investment preferences are relatively balanced, showing that gender is not a strong determinant in style.

Investment Style	Females show a slight preference for conservative styles, while males lean towards aggressive styles.	This suggests a cautious approach among women, while men may pursue higher-risk strategies for higher returns.
Investment Confidence	More males report being 'Very confident' than females.	Men tend to be more self-assured in their investment decisions, which may lead to more assertive strategies.
Investment Confidence	Female responses are more concentrated around 'Neutral' and 'Somewhat confident.'	Women may experience slightly lower investment confidence, potentially due to less exposure or experience.
Overall Pattern	Gender differences are present but not extreme across all categories.	While gender influences investment Behavior, individual preferences still vary significantly within each group.





SOURCE: MS EXCEL

FINDINGS

Investment Styles by Gender

Both male and female investors showed a fairly diverse range of investment styles.

Interestingly, a slightly larger portion of women (34%) described themselves as "aggressive" investors compared to men (27%).

- Moderate investing was more popular among men, with 39% choosing this option versus 35% of women.
- When it came to conservative styles, the difference was minimal—31% of women and 34% of men leaned toward caution in their investment approach.

Confidence in Investment Decisions Confidence levels were generally well distributed among both genders.

- Notably, 28% of female investors said they felt "very confident" in their investment choices, slightly higher than 21% of men.
- Men were more likely to report being neutral (26%) or somewhat confident (31%), showing a more middle-ground attitude.

Attitude Toward Risk
emale investors showed a greater openness to high-risk opportunities.

- 25% of women were "very likely" to take high-risk investment decisions, compared to 17% of men.
- On the flip side, 30% of male investors said they would "never" take high-risk options, while only 24% of women felt the same, highlighting a slightly more risk-averse tendency among men.

Emotional Influence on Investment

Women displayed a more balanced range of emotions influencing their decisions.

- Their responses were spread almost evenly across categories like "agree," "disagree," and "strongly agree" (each at around 28%).
- In contrast, male responses were more divided, with 25% strongly disagreeing and 23% strongly agreeing, indicating more polarized views on emotional impact.

Feelings of Investment Regret

Regret over investment decisions varied between the genders.

- 31% of men said they "sometimes" regretted their choices, while only 17% admitted to "often" feeling regret.
- Among women, 27% reported "often" regretting investments, and 31% said "rarely," slightly higher than the 26% of men who reported rarely regretting their decisions.

CONCLUSION

This study set out to explore how investment Behavior varies between men and women, focusing on differences in decision-making styles, risk preferences, confidence levels, and Behavioral tendencies. Using a structured survey of 200 participants—equally divided between male and female investors—the research uncovered clear patterns that highlight the importance of factoring gender into financial Behavior analysis.

The results show that while both genders are actively engaged in investing, their strategies and motivations are not always the same. Women were more open to taking risks and expressed higher levels of confidence in their investment decisions. Men, on the other hand, preferred a more moderate approach and appeared less emotionally driven, though they showed a greater reliance on external advice sources, like social media and online forums.

Behavioral patterns such as regret, emotional influence, and peer-driven decision-making were found among both groups, but they emerged in distinct ways. These differences point to the need for personalized financial guidance, inclusive investment products, and gender-sensitive financial education to better support diverse investor needs.

RECOMMENDATIONS

Based on the insights drawn from gender-based investment Behavior, the following recommendations aim to enhance financial literacy, support better investment outcomes, and promote more inclusive and gender-aware financial services:

- **Create Gender-Tailored Financial Education Programs**

  Financial literacy initiatives should be customized to reflect the unique Behaviors and confidence levels of different genders. For example, since women in this study displayed higher confidence and a greater willingness to take risks, educational efforts should focus on refining decision-making skills, understanding risk management, and aligning investments with long-term goals. For men, the focus can be on increasing emotional awareness and encouraging a critical assessment of information sources used in financial decisions.

- **Promote Regular Portfolio Check-Ins**

  Encouraging both men and women to consistently review their investment portfolios can lead to better financial discipline. Features like automated alerts, user-friendly dashboards, and regular performance summaries can help investors stay engaged with their portfolios and avoid making hasty decisions based on short-term market fluctuations.

- **Use Risk Assessment Tools More Effectively**

  Since more women in this study were open to high-risk investments, there's a need for widely accessible risk-profiling tools. These tools can help all investors understand how much risk they're truly comfortable with and whether their current strategies align with their financial goals and time horizons, promoting more balanced and informed investing.

- **Apply Behavioral Finance in Advisory Services**

  Financial advisors should be trained to recognize common Behavioral tendencies such as overconfidence, regret aversion, and emotional decision-making. Incorporating Behavioral finance principles into client interactions—through tools like decision checklists or structured goal-setting sessions—can help guide investors toward more rational and effective choices.

- **Foster Peer Learning and Community Engagement**
- Given that male investors tend to rely more on social networks and online forums for financial advice, there's an opportunity to build expert-led learning communities. Financial institutions can support investment clubs, interactive webinars, and discussion groups where investors learn from both professionals and peers in a more structured and credible environment.
- **Incorporate Emotional Awareness Tools**

  With emotional influence playing a clear role in investment decisions for both genders, platforms could include features that help investors pause and reflect. For example, tools like AI-based sentiment analysis, investment journaling, or short "cooling-off" periods before finalizing big decisions can help investors recognize emotional triggers and act more thoughtfully.

- **Design Inclusive Financial Products**
- Financial service providers should focus on developing products that reflect the diverse needs of today's investors. This could mean offering flexible plans for women entrepreneurs, low-risk investment options for younger or cautious male investors, or customizable portfolios based on lifestyle and financial goals, ultimately encouraging broader and more balanced participation in financial markets.
- **Encourage Deeper Research into Investor Behavior**

To better understand the psychological, cultural, and social influences behind investment choices, further research is essential. Qualitative methods such as interviews or focus groups can offer deeper insights that will help refine both financial education programs and the design of investor-focused products.

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