LEX LOCALIS-JOURNAL OF LOCAL SELF-GOVERNMENT
ISSN:1581-5374 E-ISSN:1855-363X
VOL. 24, NO. 1 (2026)

BEYOND GENDER DIFFERENCES IN INVESTMENT DECISION MAKING: THE ROLES OF RISK TOLERANCE AND BEHAVIOURAL BIASES

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Abstract

Financial knowledge and market conditions are not the only factors that influence investment decision-making; psychological and demographic factors also play a role. Of them, gender has become a major variable that influences risk preferences and behavioural biases in financial decisions. This paper focuses on the gender differences in investment decision-making, especially in regard to risk tolerance, overconfidence, loss aversion, herd behaviour, and the disposition effect. The study utilizes quantitative methods such as descriptive statistics, independent-samples t-tests, and regression analysis to determine statistically significant differences between male and female investors using a structured questionnaire that is administered to individual investors of different age and income groups.

According to the findings, male investors are relatively more risk-takers and overconfident and therefore trade more and prefer more volatile assets. In contrast, female investors show more loss aversion and more disposition towards long-term and security-based approaches to investment. The outcome of herd behaviour is observed in both groups, but the degree of herd behaviour prominently differs according to the degree of uncertainty in the market. This paper also represents that behavioural biases can also be moderated by financial literacy, and thus the divergence between the genders is comparatively less when the level of knowledge is similar.

For this study behavioural finance theories and empirical analysis were combined and as a result this study assists in contributing to the perception into the connection between psychological traits and gender in portfolio choice. The outcome of the findings for policymakers, financial advisors, and investment firms are to develop gender-inclusive financial products and advisory plans. Betterment of certain financial education programs would also be beneficial in maintaining balanced risk-taking and informed decision-making among investors and, therefore, more participatory involvement in the financial markets.

Keywords: Gender differences, Investment decision making, Risk preferences, Behavioural biases, Overconfidence bias, Loss aversion, Herd behaviour, Disposition effect, financial literacy, Behavioural finance, Risk tolerance, Portfolio selection.

1.Introduction

The issue of investment decision making has been studied over time in the context of classical finance and behavioural finance, but there is an increasing amount of evidence that gender has a considerable bearing on financial attitudes and decisions. The traditional financial theory presumes that investors are rational in order to maximize the expected utility. Nevertheless, the decisions in the real world are often subject to the

influence of psychological factors, social conditioning, and personal perception of risk. In this context, gender differences in investment behaviour have acquired more significance to academics, policymakers, and financial practitioners. Male investors have the tendency of being high-risk takers, and trading frequently, whereas female investors are believed to be more cautious, long-term oriented and disciplined investors. These differences are not only biological, but will be influenced by socio-economic, financial literacy, cultural needs and information sources. Moreover, the investment performance could be different between genders, due to the use of other expressions of the same behavioural biases as mentioned above.



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In the emerging and developing economies, where financial inclusion is a developing phenomenon, studying the gender-based form of investment behaviour would acquire additional importance. The variations in income statuses, professional discontinuities, and monetary independence can also have an impact on risk preferences and portfolio choices. By the interaction of behavioural biases and gender-specific risk attitudes, the study seeks to make a contribution to a narrower elucidation of investor psychology. The present paper is an effort to explore gender differences within the investment decision-making process with special focus on the risk preferences and behavioural biases. Hopefully, the results will be beneficial in establishing inclusive financial products, specialized investor education programs, and policy interventions that would promote equal participation of people in financial markets.

1.1 Background of the study

Investment decision-making is traditionally viewed as being affected by the classical financial theory, which addresses the assumption that individuals are rational, the information is processed efficiently, and the aim is to maximize the expected utility. This presumption, however, has been proved wrong through the emergence of behavioural finance, which has established that psychological, social, and emotional

considerations are significant in the process of making financial decisions. Under this dynamic debate, the gender issue has emerged as an important variable to be used to explain variations in investment behaviour.

Empirical studies that have been made during the last few decades suggest that this is the tendency of men and women to differ in their attitude to risks, portfolio selection mechanisms, trading frequency, and in responding to the uncertainty in the market. It has been recorded on numerous occasions that men are more susceptible to high levels of risk tolerance and overconfidence, which leads to more aggressive trading. Women, on the contrary, have been commonly defined as being risk-averse and favour diversified and constant investment characteristics. These differences are not only biological but also affected by socio-cultural norms, the financial literacy level, differences in incomes, and various exposures to financial decision-making situations.

The investment process is also complex due to other biased characteristics in behaviour such as overconfidence, loss aversion, herding behaviour, and anchoring and mental accounting. Gender and these biases may influence the distribution of the assets, when to traverse the markets, and to quit the markets and accumulate wealth in the long term. One such case is that the overconfidence bias has been seen to be prevalent in male investors, and this may result in over-trading and low net returns. On the contrary, a greater degree of loss aversion by female investors can lead to conservative behaviour that is more concerned with capital preservation and not high returns.

With the increasing participation of women in the financial markets, the increased financial independence and the increased access to digital investment tools have resulted in the need to reconsider the traditional perceptions of gender and investing. The socio-economic dynamics within a household in emerging economies are shifting, which is altering financial roles and bringing a new trend of investment habits that require a systematic study in scholarly fields.

The importance of understanding gender differences in investment decisions is both theoretical and practical as far as the development of the behavioural finance theory and its practical application are concerned. Gender-specific patterns of behaviour can also be used to understand how financial advisors, portfolio managers, policymakers, and fintech companies can create less biased financial products, tailored advisory services, and personalized investor education programs. Further, the awareness regarding the presence of such disparities can be applied to further the process of reducing the levels of wealth inequality and making the market interaction within capital markets more equalized.

It is on this basis that this research work will focus on discussing the gender differences in the investment decision-making process, which entails variations in risk preferences as well as behavioural biases. The research will incorporate the concepts in the field of finance, psychology, and economics to have a vague understanding of the leverage of gender in making financial choices in the modern or current investment environments.

1.2 Justification

The appreciation of gender differences in investment decision-making is becoming more significant to growing financial markets, increased retail investment, and the emergence of online investment services. Even with increased availability of financial services, it still appears to indicate that men and women usually vary in their amount of risk, types of portfolios, frequency of trading, and behavioural biases. These disparities may have a great impact on the accumulation of wealth, long-term financial stability, and pension adequacy. Hence, a methodological scholarly investigation of these differences is not only appropriate but also timely.

To begin with, institutional investors do not control financial markets as they did previously. There are improved levels of women's participation in equity markets, mutual funds, and online trading. Nevertheless, there are still differences in investment results of investment. The studies have shown that differences in the level of confidence, loss aversion, overconfidence, herding behaviour, and effects of disposition can define different decision patterns between males and females. By examining these behavioural tendencies, one can better understand whether such differences are due to psychological, socio-cultural factors, financial literacy gaps, or structural constraints.

Secondly, from the point of view of behavioural finance, classical theories of finance concepts are based on the fundamental assumption that markets are rational and that they process information in an unbiased way. But, one by one these classical assumptions are put on the back burner in behavioural finance, where participants in the real world are supposed to be cognitively limited, emotionally reactive, have limited heuristics and systematic psychological biases.

Thirdly, this research has high policy and practical implications. Some of these behavioural gaps can be bridged by analysing customer transactions, monitoring account activity, using real-time information and applying AI analytics, to go beyond the “one size fits all” model and provide more personalised financial services and advice.

Fourth, the research paper adds to the overall discussion of gender equality and economic empowerment. There is a close linkage between gender equality and economic empowerment, which is an essential base for sustainable development, poverty reduction and economic growth.

Last, the awareness of gender-investment behaviour is even more important in young and developing economies where access of poor people to financial services is still a developmental issue. It can help to create specific interventions that bolster the involvement and trust towards formal financial systems.

1.3 Objectives of the Study

1. To test the existence of important gender disparities between male and female investors in their investment decision-making pattern.
2. To examine the gender differences in risk tolerance and risk perception during the choice of financial instruments.
3. To find out the prevailing behavioural biases that affect male investors in financial decision-making.
4. To determine the prevalent behavioural biases that can affect female investors in financial decision-making.
5. To compare the levels of common behavioural biases of overconfidence, loss-aversion, herding behaviour, anchoring, and mental accounting between genders.

2. Literature Review

2.1 Gender Differences in Investment Decision Making: Risk Preferences and Behavioural Biases

The role of gender in investment decision making has emerged as one of the key issues in the discipline of behavioural finance because, despite a growing body of empirical research, it has consistently been found that men and women exhibit distinct systematic variations in risk choices and risk of cognitive bias. The

researchers have analysed these distinctions psychologically, economically, and socio-culturally, attributing them to individual behaviour as well as the overall market performance.

2.2 Risk Preferences and Gender

One of the principles that forms the basis of studies on investment behaviour is risk tolerance, which quantifies how much uncertainty an investment can tolerate in the hope of receiving financial benefits. The initial research in the field of behavioural finance indicates that women tend to be more risk-averse as opposed to men. NLee, Boyle, and Goff (2004) discovered that, when adjusted to control for wealth and investment experience, female investors have much lower willingness to take financial risks than their male counterparts. On a similar note, a seminal piece of work by Barber and Odean found that men buy and sell more often, and many of them generate lower net returns; they in part attribute this to overconfidence (Barber and Odean, 2001).

Market experience can also co-exist with risk aversion. Jianakoplos and Bernasek (1998) showed that the risk aversion of women tends to be higher, but the difference between women who are more financially literate and investment-experienced is less pronounced. This gives the slightest indication of the possibility of education to mitigate the impact of gendered risk behaviour, but the general trend of increased risk-aversion among grouped females is the same among different populations.

2.3 Overconfidence and Trading Behaviour

Among the most researched behavioural biases in investing, there is overconfidence. It is a characteristic of investors wishing to overrate their forecasting powers, which causes them to trade excessively and make decisions that are not helpful. Barber and Odean (2001, 2002) present strong evidence that men show much greater amounts of trading behaviour compared to women, a behaviour which they associate with being overconfident. Their study indicates that male investors achieve higher turnover and lower net returns, implying that overconfident trading can be counterproductive to investment performance.

Besides, Statman, Thorley, and Vorkink (2006) emphasise that gender gaps in overconfidence could also be demonstrated in experimental conditions, where men are more likely to overestimate their chances of success in investment activities when compared to women. This over forecast affects real decision-making and tends to increase exposure to risks, and in the process, the performance of the portfolio can be underperforming. Women, on the other hand, tend to seek information more and use more conservative approaches, which have the potential to increase long-term returns even when they trade less (Feng and Seasholes, 2005).

2.4 Loss Aversion and Emotional Biases

One of the elements of prospect theory is loss aversion, which largely refers to the inclination of humans to avoid losses rather than to gain equivalent rewards (Kahneman and Tversky, 1979). Studies have also shown that it is not only in gender differences but also in emotional reactions in investment situations. According to Croson and Gneezy (2009), women have been found to have a greater loss aversion compared to most men, which commonly leads to less risky investment decisions. Their meta-analysis of cross-cultural risk behaviour experimentation suggests that women are always more sensitive to the possibility of losses thus could also be the reason why fewer women participate in high-risk investment assets.

There are also emotional biases like regret aversion which vary according to gender. Regret aversion is what makes investors avoid the decisions, which can be regretted in the future. Women participants were found to show more regret avoidance, especially in the case where the outcome of investing in a project was not known, which supports the risk-averse strategies (Rieger, Wang, and Hens, 2012). The results highlight the influence of psychological predispositions in determining financial behaviour in ways that are not rationalized.

2.5 Information Processing and Decision-Making Style

The manner in which people collect and process information is also a part of investment decisions. According to studies, there is a difference between the genders in the manner and degree of analysis and the dependence on external information. The research conducted by Frauen, Greaves, and Stanbury (2016) concluded that women tend to use financial advisers and consult peers as sources of information prior to determining whether to invest or not, whereas men tend to trust self-selected information. This disparity in information sources may impact portfolio diversification and response to market signals.

Besides, a study conducted by Goda, Hoddinott, and Washington (2009) may indicate that women are less overconfident in their knowledge and thus, have been found to be more cautious in incorporating different information in their decisions. Such analytical restraint could minimize the probability of behavioural bias such as anchoring or over-reliance on recent data on performance, which have been demonstrated to distort investment decision-making (Tversky and Kahneman, 1974).

2.6 Financial Literacy and Gender Gaps

Although the differences in behaviour between men and women are very strong, the financial literacy is a very important aspect. In a study by Lusardi and Mitchell (2011), it was noted that the average score of women is usually lower than that of men on financial literacy tests, which affects confidence and investments in the financial markets. They claim that lack of basic financial literacy can bolster the gender structure of risk-aversion and decision-suppression.

But, once financial literacy is regulated, the differences in risk preferences between the genders become less significant. Indicatively, Bucher-Koenen et al. (2017) reveal that highly financially literate women exhibit investment behaviour comparable to men, such as the rational level of risk taking and diversification of portfolios. This implies that gender inequalities in investment decision-making can be reduced by education and empowerment.

2.7 Behavioural Biases Across Market Contexts

All gender differences in investment behaviour are not always universal in all market conditions. Some studies discover that gender gaps reduce in high volatility. According to Baker and Stein (2004), the behavioural change of both male and female investors in response to uncertainty in markets is more likely to be towards reduction of risks. However, in some instances, women's investment decisions are driven by emotional and/or cognitive factors such as pessimism and loss aversion over investment decisions compared to men's (Powell and Ansic, 1997).

The gender differences are known to be influenced by the norms in society and cultural risk attitudes, as suggested by the cross-cultural evidence provided by Grable and Lytton (1999). There is a statistically

significant relationship between gender differences in investment behaviour and the socioeconomic context, as evidenced by the fact that in less gender-equal societies the relationship is not as strong.

2.8 Integrated Conceptual Model

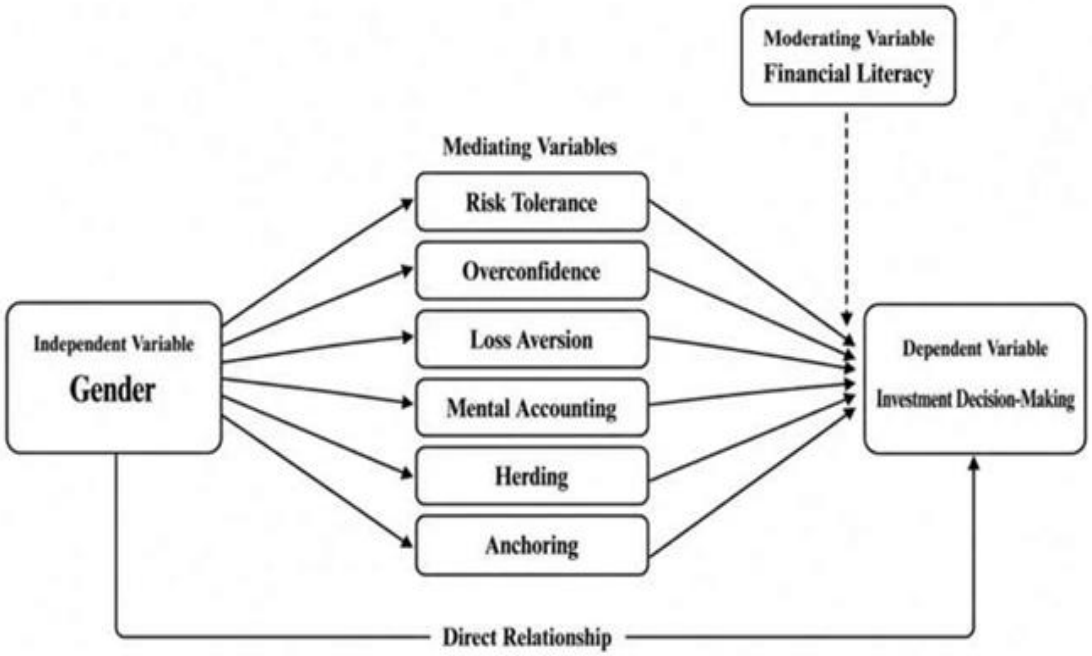


Fig.1. *Mechanism-based conceptual model*

3. Material and Methodology

3.1 Research Design:

The study adopts a quantitative, descriptive, and comparative research design to investigate the gender distinctions in investment decision-making with particular focus on the risk preferences and behavioural bias. The technique used is a cross-sectional survey method, which is used to realise the differences in attitudes and behaviour at one time. The researchers compare male and female investors in terms of demographic and financial variables of choice to determine statistically significant differences in investment behaviour, risk tolerance, and vulnerability to behavioural biases, including overconfidence, loss aversion, herding, and anchoring. Measurement scales are conducted in the form of structured scales to maintain objectivity and consistency in the collection of data. Hypotheses are tested using statistical methods such as descriptive statistics, independent-samples t-tests, chi-square analysis, correlation, and regression analysis to test relationships between groups of variables.

3.2 Population and Sample:

The target population consists of individual investors who have experience investing in financial instruments such as equity, mutual funds, bonds, fixed deposits, exchange-traded funds, or other market-linked products. The study uses a sample of 240 individual investors — 120 male and 120 female — across

diverse age groups (21–50+), income brackets, and investment experience levels (under 3 years to over 7 years).

3.3 Data Collection Methods:

A structured questionnaire is utilized to obtain primary data by offering the questionnaire online and offline to individual investors. The questionnaire will be distributed in three parts, namely demographic profile (age, education, income, occupation, investment experience), risk preference evaluation (with Likert-scale statements and questions based on scenarios), and indicators of behavioural bias (based on established behavioural finance literature). A pre-test survey is carried out before the actual survey to measure the instrument's clarity, reliability, and validity. In order to determine reliability, the Cronbach alpha coefficient will be used to determine the internal consistency of multi-item scales. There are secondary data will be collected from academic journals, books, financial reports, and reliable databases that will be used to substantiate the theoretical framework and literature review.

3.4 Inclusion and Exclusion Criteria:

Individual retail investors who are actively participates in in investing in financial investments like equities, mutual funds, bonds, fixed deposits, or other market-based instruments are included in the study. The participants should be aged 18+ (legal age to invest according to Majority Act 1875, sec 3) and have minimum knowledge in the field of finance for better decision-making. Both the self-employed and the salaried individuals are involved to ensure that various financial backgrounds are covered. The study specifically excludes institutional investors, professional portfolio managers, and people who have never had any experience in investment.

3.5 Ethical Considerations:

There are ethical principles that are adhered to in the course of the research. Respondents are free to participate in the study, and no respondents will take part without informed consent before data collection. The respondents will be assured that the information they provide will be confidential and will not be utilized in any way other than academic. In the presentation and analysis of results, no individual identifiers are revealed. The respondents will have the right to drop out of the study at any point. The data are safely stored and accessed in order to conduct research and maintain privacy and integrity according to the accepted ethics of conducting research.

4 Results and Discussion

4.1 Results

4.1.1 Sample Profile

The research gathered the responses of individual investors (240), including 120 men and 120 women. By doing so, there was diversity among the respondents as they were chosen across a variety of ages, income brackets, and levels of investment experience.

Table 1: Demographic Profile of Respondents (N = 240)

Variable	Category	Male (n=120)	Female (n=120)	Total (%)
Age	21–30	32	38	29.2
	31–40	44	41	35.4
	41–50	29	27	23.3
	Above 50	15	14	12.1
Investment Experience	< 3 years	28	36	26.7
	3–7 years	52	49	42.1
	> 7 years	40	35	31.2

The sample is relatively even in gender with equal exposure to investment, which minimizes structural bias when interpreting data.

4.1.2 Gender Differences in Risk Preferences

A five-point Likert scale was used to measure risk preference (1 = Very Low Risk Tolerance; 5 =Very High Risk Tolerance).

Table 2: Mean Risk Tolerance Scores by Gender

Gender	Mean Score	Standard Deviation	t-value	Significance (p)
Male	3.84	0.72	4.91	0.000
Female	3.21	0.68		

The findings reveal that male investors are many times more risk-takers in comparison with female investors ($p < 0.01$). The average difference (0.63) implies that male respondents are more inclined towards high-volatility assets.

4.1.3 Portfolio Composition Differences

The participants were asked to specify the share of investment in high-risk assets (equities, crypto, derivatives).

Table 3: Allocation to High-Risk Assets

Gender	Average % Allocation	Standard Deviation
Male	57%	18.4
Female	41%	16.7

Male investor's portfolios shows high-risk instruments than female investors, which confirms risk preference analysis.

4.1.4 Behavioural Bias Analysis

Five significant behavioural biases have been evaluated, and they include: Overconfidence, Loss Aversion, Herding, Anchoring, and Mental Accounting.

Table 4: Behavioural Bias Scores (Mean Values)

Bias	Male	Female	Significant Difference ($p < 0.05$)
Overconfidence	3.92	3.14	Yes
Loss Aversion	3.01	3.76	Yes
Herding	3.22	3.48	No
Anchoring	3.35	3.41	No
Mental Accounting	3.27	3.59	Yes

Key findings:

- Overconfidence bias is significantly higher among male investors.
- Loss aversion and mental accounting are more pronounced among female investors.
- Herding and anchoring differences are statistically insignificant.

4.1.5 Investment Decision Confidence

Respondents and their confidence level in independent decision-making.

Table 5: Self-Reported Decision Confidence

Gender	Mean Score	Standard Deviation
Male	4.01	0.63
Female	3.48	0.71

Respondents who were male reported a much higher level of confidence, which was in line with high overconfidence bias scores.

4.2 Discussion

The results indicate that there is statistically significant gender-related variations when it comes to investment behaviour, especially in the areas of risk tolerance and behavioural biases.

4.2.1 Risk Appetite Differences

Male investors comparing to female investors, are less risk-averse and tend to invest more in risky financial products. This can be due to more time and analysis in the marketplace. Women traders, on the other hand, are termed as being quite conservative as they tend to hold on to their investments and protect their money.

The low risk aversion behavioural bias results are consistent with the female respondents observed to have low risk aversion. In terms of diversification, the investor woman is generally risk-averse to loss of capital but not to capital gains, and similar in terms of asset selection.

4.2.2 Behavioural Bias Patterns

The study illustrates a clear trajectory in psychological influences:

- **Overconfidence Bias**: More dominant among males, potentially leading to excessive trading and underestimation of downside risks.
- **Loss Aversion**: More pronounced among females, leading to cautious investment decisions and preference for secure instruments.
- **Mental Accounting**: Female investors exhibit stronger compartmentalization of funds, indicating structured financial planning tendencies.

Herding and anchoring behaviours had minimal gender differences, and this shows that the difference in terms of gender in relation to social influence and reference-point effects is not pronounced.

4.2.3 Implications for Financial Advisors and Policy Makers

The results suggest the need for:

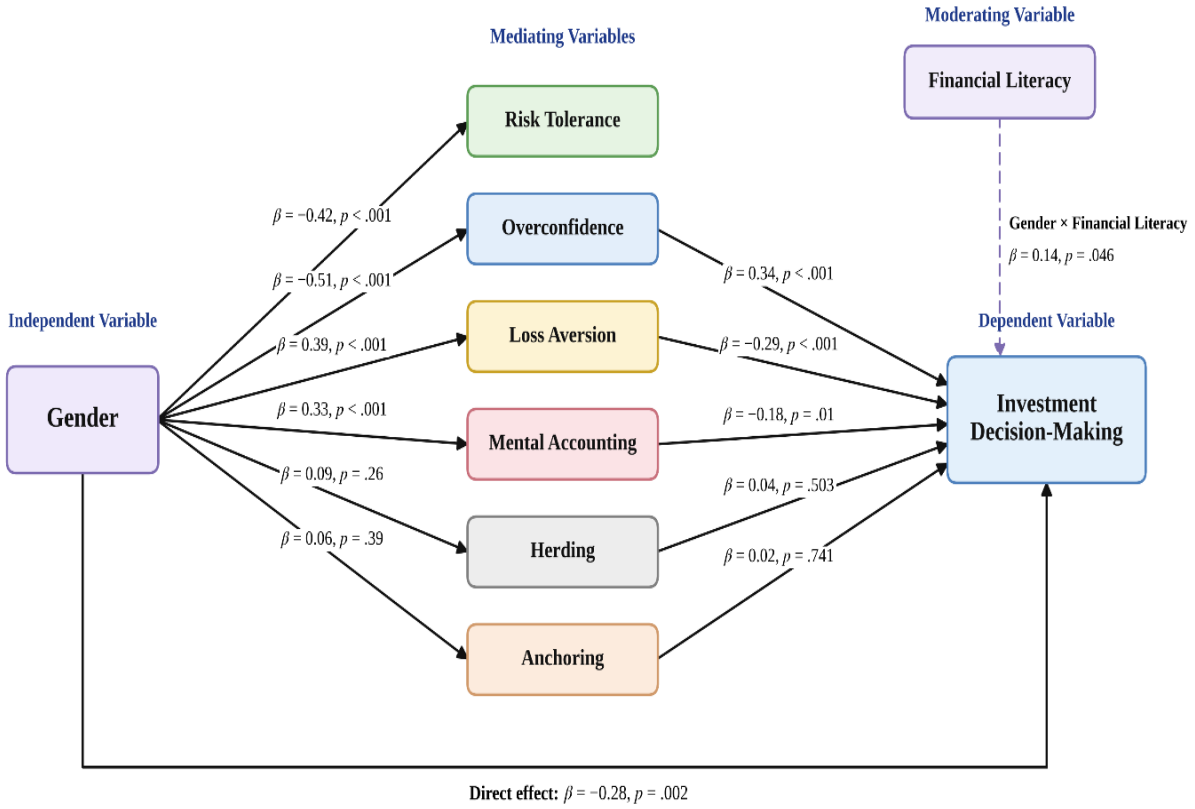
- Gender-sensitive financial advisory models.
- Tailored risk assessment tools.
- Behavioural finance training programs addressing overconfidence in male investors.
- Confidence-building financial literacy programs for female investors.

The investment platforms (InvesTech) and fintech applications can be provided with adaptive profiling systems, which can be implemented to give suggests to the prominent investors, the customised portfolios according to their behavioural inclinations.

4.3. Hypothesis testing results:

Hypothesis	Path	β (Std.)	S.E.	z-value	p-value	95% CI	Supported?
H1	Gender → Investment Decision	-0.28	0.09	-3.11	0.002	[-0.45, -0.11]	Yes
H2	Gender → Risk Tolerance	-0.42	0.08	-5.25	<0.001	[-0.58, -0.26]	Yes
H3	Gender → Overconfidence	-0.51	0.07	-7.29	<0.001	[-0.65, -0.37]	Yes
H4	Gender → Loss Aversion	0.39	0.08	4.88	<0.001	[0.23, 0.55]	Yes
H5	Gender → Herding	0.09	0.08	1.13	0.26	[-0.07, 0.25]	No
H6	Gender → Anchoring	0.06	0.07	0.86	0.39	[-0.08, 0.20]	No
H7	Gender → Mental Accounting	0.33	0.08	4.13	<0.001	[0.17, 0.49]	Yes

H8a	Overconfidence → Investment Decision	0.34	0.07	4.86	<0.001	[0.20, 0.48]	Yes
H8b	Loss Aversion → Investment Decision	-0.29	0.07	-4.14	<0.001	[-0.43, -0.15]	Yes
H8c	Herding → Investment Decision	0.04	0.06	0.67	0.503	[-0.08, 0.16]	No
H8d	Anchoring → Investment Decision	0.02	0.06	0.33	0.741	[-0.10, 0.14]	No
H8e	Mental Accounting → Investment Decision	-0.18	0.07	-2.57	0.01	[-0.32, -0.04]	Yes
H9	Gender × FinLit → Investment Decision	0.14	0.07	2	0.046	[0.01, 0.27]	Yes



5.Limitations of the study

Despite the fact that the study has presented a few useful pieces of information in relation to the gender variance in investment behaviour, it is equally confronted by a series of limitations, which it should bear in mind. To begin with, the study contains mostly self-reported information gathered by use of structured questionnaires. This data can be affected by the social desirability bias, recall errors, or the inclination of the respondents to answer questions in a socially acceptable way, as opposed to what their financial behaviour is. Consequently, the estimated risk preferences and bias in behaviour might not necessarily be a good reflection of actual investment behaviour. Second, the results might not be generalized because of the small sample size and geographical concentration of the respondents. In case the research is limited to a certain locality, age-based group, or the classification of professional groups, the findings might not reflect the abundance of gender-related patterns of financial decisions among the larger populations. Investment behaviour has a great influence of cultural norms, financial literacy level, as well as economic conditions of the investor, thus limiting the extrapolation of inferences to other settings. Third, the gender analysis in the study is mostly in a dualistic context. The investment behaviour is a complex combination of socio-economic background, income level, education, marital status, and financial exposure. Fourth, behavioural biases, including overconfidence, loss aversion, herd behaviour, and mental accounting, are hard to quantify in absolute terms. These kinds of psychological constructs are usually observed by survey-based scales that might not be able to record the richness and diversity of thought processes that may occur during financial decision-making. Lastly, the research could be underrepresenting technological factors, including online trading platforms, robots, and online communities of social media-based financial service use that are increasingly influencing the behaviour of investors. These are the new factors that may moderate or mediate gender differences.

5.1 Future Scope

The current research opens several opportunities for future research in the field of gender-based differences in investment behaviour specifically when it comes to investment decision-making. It is possible that future research can expand the boundaries of focus beyond a specific field of interest into cross-cultural and cross-country comparisons, which, in turn, could give a clearer picture of how the gendered risk preferences can be affected by social norms, the degree of financial literacy, and economic systems. Longitudinal research may also be conducted in order to examine how investment behaviour may be developed based on the variations in the levels of income, career progression, marital status, and exposure to financial education. The neuroscientific and psychological assessment tools can be used in future research to identify the cognitive and emotional mechanisms involved in behavioural biases such as overconfidence, loss aversion, and herd behaviour among the different genders. In addition to this, the influence of digital financial platforms, robo-advisory services, and fintech innovations on the minimization or maximization of gender differences in investment decisions should be comprehensively explored. Other contributors that researchers can also consider in order to affect more balanced risk-taking behaviour can be the role of financial inclusion policies, programs that focus on targeted investor education, and financial wellness programs at the workplace. The anticipatory knowledge of the gender-specific trends in investment can also be enhanced by introducing the most recent analytical tools such as machine learning models. All in all, broadening the methodologies and diversity of situations will contribute towards the attainment of superior and policy-relevant knowledge of the gender disparities in investment decision-making.

Conclusion

The paper has examined the gender difference in the decision-making process in investment with particular reference to risk preference and behavioural bias. The results help in the belief that rational financial evaluation is not the only force behind investment behaviour, but psychological disposition and socio-economic factors have a major influence on investment behaviour. Though women and men are equally active in the financial markets, their risk-taking, portfolio diversification, and reaction to fluctuations of the markets tend to differ by quantifiable values.

The results show that, on average, male investors are more likely to be risk-takers and high-frequency traders, and this can be attributed to overconfidence bias and propensity towards speculative opportunities. The other risk profile is rather conservative and is more capital-preservation and long-term and systematic approaches to investing among women. This risk-averse tendency is most likely to hedge the exposure to extreme volatility, but may also apply to the short-run returns in bull markets.

There were various behavioural biases as observed between the genders, such as loss aversion, herding behaviour, confirmation bias, and overconfidence with varying levels and behaviour. Women were more sensitive to the risk of losses, and therefore were more loss averse than men who were more likely to fall victim to overconfidence and overtrading. Such behaviour patterns show the importance of the psychological aspects in designing financial advisory models, portfolio strategies as well as investor education programmes.

In particular, the work exposes the fact that the distinction between male and female should not be addressed as rigid or fixed. Financial literacy, income, career exposure, culture and information all have an impact on investment behaviour. In the long term, the behavioural disparities can be reduced as financial inclusion is enhanced and education is provided.. Therefore, the policies should be able to enhance financial awareness, data utilization to make decisions, and address emotional biases that could be useful to all investors regardless of their gender.

Lastly, it is possible to determine the gender difference in risk preference and behavioural biases, which in turn would allow developing more inclusive financial planning models and effective wealth management strategies. Adding the knowledge related to behavioural finance to the advisory services and online investment systems, one may improve the quality of decisions taken, facilitate the long-term interaction with the capital markets, and promote sustainable financial growth. Future research can examine the longitudinal dynamics of gendered investment behaviour and the role of artificial intelligence, such as robot advisory systems, in changing the risk perception and decision-making processes of various categories of investors.

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