Vol. 3 | Issue No. 02 | December, 2024

ISSN (Online): 2583-5203

jaa.kbsaa.org

JOURNAL OF ACADEMIC ADVANCEMENT

Bi-Annual Peer Reviewed Refereed Journal

KOLKATA BIDHANNAGAR
SOCIETY FOR ACADEMIC ADVANCEMENT
WEST BENGAL, INDIA

JOURNAL OF ACADEMIC ADVANCEMENT

(Bi-Annual Peer Reviewed Refereed Journal)

ISSN (Online): 2583-5203 | Volume 3| No. 02| December, 2024

EDITORIAL

We feel honoured and privileged to present the Bi-Annual Peer Reviewed Refereed Journal, ISSN (Online): 2583-5203, Volume 3, No. 02, December, 2024 among our esteemed readers and academic fraternity.

This Journal is the outcome of the contributions of insightful research-oriented papers/articles by various eminent academicians, and research scholars in a highly organized and lucid manner with a clear and detailed analysis related to the emerging areas in the fields of Social Sciences and Allied Areas.

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We also express our sincere thanks and gratitude to all the contributors to research papers/articles who have taken pain in preparing manuscripts, incorporating reviewer(s) valuable suggestions and cooperating with us in every possible way.

We also express our heartfelt gratitude to all the esteemed members of the Editorial Board, Esteemed Reviewer(s) who despite their busy schedules have given their valuable time, suggestions and comments to enrich the quality of the contributory resears paper(s) in bringing to light this December issue.

Last, but not least, we revere the patronage and moral support extended by our parents and family members whose constant encouragement and cooperation made it possible for us to complete on time.

We would highly appreciate and look forward to your valuable suggestions, comments and feedback at **editorbr2022@gmail.com**

December 31, 2024

West Bengal, India

PEMA LAMA
Editor-in-Chief

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(Bi-Annual Peer Reviewed Refereed Journal)
ISSN (Online): 2583-5203 | Volume: 3 | No.: 2 | December, 2024
https://doi.org/10.58574/jaa.2024.v3.i2.01

RESEARCH ARTICLE

Gender Identity and Risk Tolerance: An Empirical Study of Investment Behaviour in Mutual Funds

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Received: October 24, 2024 | **Revised:** November 01, 2024 | **Accepted:** December 19, 2024

Keywords: Mutual Fund | Investment Behaviour | Gender wise | Risk tolerance | Phi Correlation

ABSTRACT

Mutual funds are nothing but a unique pulled collection of funds, managed by professional fund managers and diversified across a range of assets. A type of fund tends to reduce individual investors' exposure to risk. Under the domain of behavioural finance, nowadays it has been observed that studies about gender-specific biases have achieved momentum. Under that, this research explores the association between gender identity and investment behaviour in mutual funds, focusing on whether gender identity affects risk tolerance and investment decisions. To achieve the said objectives researchers attempted a descriptive and empirical methodology on the collected data from individual investors. Data has been collected through a well-structured questionnaire circulated in Kolkata, a district of West Bengal, India. To justify the hypotheses, statistical analysis applications like chi-square, Phi -Correlation, and Mann-Whitney tests have been used.

Results indicate that gender identity was found to not affect the investment of the mutual fund. This further proves that the male and female clients are not different in attitude. Besides, no significant difference in risk tolerance was found between genders. These findings challenge conventional beliefs about gender and risk tolerance, suggesting that factors beyond gender identity may shape individual financial behaviour. The study calls for further research, including the gender of third-category participants, to enhance understanding of gender's role in financial decision-making.

1. INTRODUCTION

Gender is a multi-dimensional concept that encompasses both biological differences and also identity, expression, and societal roles as well. In the past decades, a patriarchal cultural dominance has been observed in the field of investment. Due to socioeconomic norms, women faced a lot to access basic education and employment. The investment opportunities, and education related to investment to women, come later to this picture. As society progressed and gender equality initiatives gained adhesion, women started entering the financial arena in larger numbers. However, despite advancements in gender parity, noticeable differences between male and female investors persist. Under behavioural finance, gender identity gains immense importance, especially regarding the study of the behaviour of a particular gender identity of mutual fund investors. Mutual funds are nothing but a unique pulled collection of funds Managed by professional fund managers and diversified across a range of assets. A type of fund tends to reduce individual investors' exposure to risk. Again, the concept of risk tolerance is a psychological concept that reflects the attitude of investors regarding strategies and willingness to hold or leave to the Investment Avenue and appetite for overall portfolio performance. They are designed for both risk-averse and risk-tolerant investors and are accessible to a wide range.

Nowadays, how gender identity affects the risk tolerance of individual investors' investment choices and financial outcomes has become an emerging topic in most of the studies of investment behaviour. The main focus of this study is to identify whether gender identity influences the decision to invest in mutual funds and perceptions of risk tolerance among various gender identities. Researchers believe that knowledge of these relationships is perilous in helping financial institutions design products and services that could better cater to the diverse needs of investors, as well as contribute to the literature on gender diversity in the domain of finance. Through an analysis of empirical data, the research identifies that investment behaviour particularly the investors of mutual funds is indifferent to gender identity and the risk appetite of individuals is ever influenced by their biological identity of gender.

2. REVIEW OF LITERATURE

To comprehend the different concepts and implications of the current topic of the study, numerous different prior studies are reviewed and analysed thoroughly, and the gist of some of the major research is synthesized chronologically -

Sengupta & Mitra (2024) examined how gender influences investment decisions, highlighting differences in risk tolerance and preferred investment avenues between men and women. The study concludes that men have a more risk tolerance behaviour than women. Further, research foregrounds the barriers that influence the prospect of women investors particularly concerned with mutual funds. It emphasized the need to promote gender diversity and inclusion in the investment world, improving women's financial literacy, and creating more equitable environments to ensure that diverse perspectives are represented in investment decision-making. Iyer et.al (2024) Examined how demographic factors and biases influence academicians' investment behaviour in mutual funds. The sample was collected from respondents associated with the academic profession. Under demographic variable, they consider demographic variables such as gender, experience and behavioural biases in mutual fund investment. Decisions suggest that demographic variables can have a considerable impact on individuals' sensitivity to a variety of behavioural biases. Singh & Babitha Thimmaiah (2020) found that employees usually favoured secure investment options, with significant gender disparities in health insurance, fixed deposits, and market investments. Furthermore, males picked higher-risk investments with possibly bigger returns, but females preferred lower-risk options. This finding indirectly indicated that gender bias influenced investment decisions significantly regarding investment avenues. Ruenzi & Ruenzi (2018) studied the bias of gender at the management level of mutual funds and suggested that significantly individuals having a bias towards gender tend to invest less in female-managed funds. This finding indicated that biases towards gender identity significantly influenced investment decisions, which may have contributed to the underrepresentation of women in the mutual fund industry. Bhargava & Hasija (2018) showed that women, once seen as big spenders, were later recognized for having better saving and investment habits than men and concluded that age as a demographic variable, significantly influenced investment decisions concerning a particular gender identity as maturity led to more informed financial decisions at various life stages.

3. RESEARCH GAP

Based on the above extensive review of literature, it was found out by the researchers that so far studies have highlighted that gender has some role in investment decisions particularly in the case of choice of investment, and their perception of risk also significantly differ in terms of gender. After going through the existing studies, researchers came to a thought about how gender identity truly affects the decision of investment particularly investment towards mutual funds, and how their perception regarding risk influences their decisions regarding investment towards mutual funds. Thereby, the researcher tried to highlight the untouched area that has equal importance to mutual fund investors and the industry by conducting an exploratory and empirical study through its well-defined objectives of the study.

4. RESEARCH OBJECTIVES

The Research Objectives of the study are as follows –

- To know whether any association exists or not between gender identity and investment behaviour with respect to investment decisions regarding mutual funds.
- To know whether the perception of risk tolerance differs or not of a specific gender identity with respect to investment decisions regarding mutual funds.

5. RESEARCH HYPOTHESIS

H_{o1}: There is no significant association between gender and investment behaviour with respect to investment decisions of mutual funds.

H_{11}: There is a significant association between gender identity and investment behaviour with respect to investment decisions of mutual funds.

H_{o2}: The perception of risk tolerance does not significantly differ between specific gender identities with respect to investment decisions of mutual funds.

H_{12}: The perception of risk tolerance significantly differs between specific gender identities with respect to investment decisions of mutual funds.

6. RESEARCH METHODOLOGY

To achieve the research objectives, we have deployed a descriptive and empirical research design. A quantitative approach has also been used. This study is based on primary data collected through a well-designed closed-end questionnaire. The questionnaire has been distributed online via platforms like Google Forms to ensure accessibility to a wide range of participants all around the Kolkata district, a district under West Bengal, a state of India. The target population for this research includes individual investors who actively participate in mutual fund investments in Kolkata.

To justify the said hypothesis, gender identity is considered the independent variable, and investment behaviour and risk appetite are considered the dependent variable. The study will aim to include at least 50 participants to ensure the generalizability of the findings. The internal consistency of the data indicates that the total Cronbach's alpha coefficient is 0.958. Hence the dataset also achieved a strong internal consistency. The collected data will be analysed using statistical software such as Jamovi, and MS. Excel. The chi-square test of the hypothesis, Phi coefficient, and t-test have been used to justify the hypothesis.

7. DATA PRESENTATION AND ANALYSIS

The following information is presented and analysed using particular tools to achieve the above study objectives based on the well-defined research methodology. We arrange variables in the following ways -

Analysis 1: To analyse the association between Gender Identity and Investment Behaviour

H_{o1}: There is no significant association between Gender and Investment Behaviour with respect to investment decisions of mutual funds.

H_{11}: There is a significant association between Gender Identity and Investment Behaviour with respect to investment decisions of mutual funds.

To examine the association between gender and investment behaviour, specifically, whether individuals are currently investing in mutual funds, and whether their gender identity influences their investment attitude, a Phi correlation analysis has been conducted. Phi correlation is a measure used to evaluate the strength of association between two naturally dichotomous variables. Here, Two Dichotomous variables are Gender identity and Investment Behaviour. The following test has been run to evaluate the association between the two.

$\chi2=\Sigma\ (Oi-Ei)^2 / Ei$ ………………. (i)

$\Phi = \sqrt{\chi^2} / N$ ……………...........(ii)

TABLE 1: CLASSIFICATION OF GENDER LEVEL AND INVESTMENT BEHAVIOUR

Gender Level / Investment Behaviour	Gender		
	Male	Female	Total
Yes	19	12	31
	61%	38%	57%
No	14	9	23
	60%	40%	43%
Total	33	21	54
	62%	38%	100%

Table 1 above suggests that out of the total observation of 54, 61% of male and 38% of female respondents have the attitude to investing in mutual funds. This might reflect female respondents have a reluctant attitude towards investment in mutual funds**.**

TABLE 2: CHI-SQUARE TEST

Observed Frequency (Oi)	Expected Value (Ei)	(Oi-Ei)	(Oi-Ei)2	(Oi-Ei)2/ Ei
19	18.94444444	0.055555556	0.00308642	0.00016292
12	12.05555556	-0.055555556	0.00308642	0.000256016
14	14.05555556	-0.055555556	0.00308642	0.000219587
9	8.944444444	0.055555556	0.00308642	0.000345066
			X^2	0.000983589

Table 2 shows the calculated chi-square value as 0.000983589 for the degree of freedom at 1 is insignificant. The above result in Table 2 suggests that a Chi-square value of 0.000983589, which is less than 3.84, implies, that in this sample, there is almost no significant relationship between gender and the decision to invest.

TABLE 3: VALUE OF PHI COEFFICIENT

Phi – Coefficient (Φ)	0.004268
d.f.	1
Sig at 0.05%?	No

Table 3 shows the value of the Phi Coefficient i.e. 0.004268 suggests the relationship between gender and investment behaviour is almost negligible. Hence, we will accept the null hypothesis and conclude that both the male and female respondents appear to exhibit similar investment behaviours regarding mutual funds.

Analysis 2: To analyse the impact of Gender Identity on Risk Tolerance Capacity

H_{o2}: The perception of risk tolerance does not significantly differ between specific gender identities with respect to investment decisions of mutual funds.

H_{12}: The perception of risk tolerance significantly differs between specific gender identities with respect to investment decisions of mutual funds.

8. ASSUMPTIONS

To test the hypothesis mentioned above, we first take an attempt for the test of normality. For evaluation of normality, the Shapiro–Wilk test has been run.

TABLE 4: TEST OF NORMALITY

Normality Test (Shapiro-Wilk)		
	W	**p**
Risk Tolerance	0.920	0.002
Note. A low p-value suggests a violation of the assumption of normality Source*: Jamovi 1.6.23 Statistical Software*		

The Normality Test ((Shapiro-Wilk) result indicates that the data set does not follow normality in the distribution of the data sets corresponding to a P value of 0.002 which is less than 0.05. *(Source: Jamovi 1.6.23 Statistical Software)*.

TABLE 5: TEST OF HOMOGENEITY

Homogeneity of Variances Test (Levene's)				
	F	df	df2	p
Risk Tolerance	4.09	1	52	0.048
Note. A low p-value suggests a violation of the assumption of equal variance Source*: Jamovi 1.6.23 Statistical Software*				

The Homogeneity of Variances Test (Levene's) result indicates that variances significantly differ from each other as the value of P 0.048, which is less than a value of 0.05. *(Source: Jamovi 1.6.23 Statistical Software)*. Since the data is not normally distributed, researchers used the Mann-Whitney U test, a non-parametric method, to evaluate the Hypothesis (H_{o2}) (see Table 6).

TABLE 6: INDEPENDENT T - TEST

Independent Samples T-Test			
		Statistic	p
Risk Tolerance	Mann-Whitney U	309	0.366
Note. H_a μ Male≠μ Female			

Source: Jamovi 1.6.23 Statistical Software

The results indicate that there is no statistically significant difference in risk tolerance between genders, as the p-value is 0.366, which is greater than the threshold of 0.05. Therefore, we will accept the null hypothesis and conclude that male and female investors do not differ significantly in their risk tolerance.

9. FINDINGS AND CONCLUSION

The results of this empirical study provide insight that gender has little influence on investment behaviour and risk appetite of investors and is free from gender biases concerning investment in mutual funds. As empirical data suggested in the study, the Chi-Square value of $\chi2$ =0.000983589 indicated that gender does not significantly influence whether individuals choose to invest in mutual funds. Again, the value of the Phi Coefficient i.e. 0.004268 suggests the relationship between gender and investment behaviour is almost negligible. From the responses, it has been observed that around 61% of males and 38% of females show a positive attitude toward mutual fund investments and hence participants from both gender identities exhibited similar patterns in their investment behaviours. This can be concluded as while societal stereotypes may suggest otherwise, men and women in this sample displayed comparable inclinations toward investing in mutual funds. The study further tested the appetite of investors for risk tolerance among different gender identities.

The risk tolerance was tested using several tests that include the Shapiro-Wilk test to affirm normality then later tested by the Mann-Whitney U test that ascertains if indeed the risk perception differs across genders. The results indicate that investors' risk tolerance does not depend on gender. There is no significant difference between male and female investors regarding their concerns about risk in mutual funds. The p-value that comes from the Mann-Whitney U test is 0.366 which is above the threshold of significance. Somehow, the present study attempts to challenge the very wide and prevailing belief that males seem to be more risk-tolerant than women in financial decision-making. Though the research did focus on the two aspects of gender which means, establishing a relationship between male and female, it still must be explored to include the third category, whose investment behaviours could vary from those of gendered men and women. Again, a pulled collection of data can justify the finding more strongly.

In conclusion, this study provides some evidence that gender identity does not appear to influence the propensity to invest in mutual funds. Though there might exist some gendered patterns in decision-making in finance, at least concerning mutual fund investments, it appears not especially dramatic. This challenges the traditional perceptions of gender and risk tolerance, and points towards the fact that many more factors than initially assumed will determine individual financial behaviour, such as personal preference, financial literacy, and access to investment opportunities. These results are hugely valued by financial institutions looking at devising more inclusive and tailored investment products to reach a vast variety of investors.

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