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A STUDY ON THE ROLE OF RISK PERCEPTION AND FINANCIAL LITERACY IN RETAIL INVESTORS' MUTUAL FUND INVESTMENT DECISIONS

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ABSTRACT
Mutual funds have become a preferred investment vehicle for retail investors, offering diversification and professional fund management. Financial literacy and risk perception are key factors influencing mutual fund investment decisions. This study examines their impact on investment behavior among retail investors in Mumbai and Navi Mumbai, analyzing the association between risk perception and financial literacy, how they affect portfolio diversity, and how they both influence investing choices.

A descriptive quantitative research design was employed and data were collected through structured questionnaires from 164 retail investors using convenience sampling. To test the internal consistency of the data researcher used. Statistical analyses, including independent t-tests, correlation tests, and multiple regression, were conducted to test the hypotheses. The results indicate that individuals with higher financial literacy exhibit significantly lower risk perception. It was found that, financial literacy and portfolio diversification have a weak but statistically significant relationship, and mutual fund investing decisions are influenced by both financial literacy as well as risk perception.

Findings suggest that risk perception plays a more dominant role in investment behavior than financial literacy, although financial literacy enhances investment knowledge. Investors with higher risk perception tend to adopt conservative investment strategies, emphasizing the need for financial education initiatives that address behavioral biases alongside technical knowledge. By contributing to the growing body of research on investor psychology and financial decision-making, this study provides insight to policymakers and financial educators on how to create focused interventions that enhance investor confidence and decision-making accuracy.

Keywords: *Financial Literacy, Risk Perception, Mutual Fund, Portfolio Diversification, Investment Decision.*

INTRODUCTION
As a handy approach to diversify portfolios and take advantage of professional fund management, mutual funds have become one of the most popular and accessible investing choices for retail investors over the years. The mutual fund sector in India has grown substantially; as of December 2024, assets under management (AUM) were up by 31.81% year over year to ₹66.93 lakh crore. Similarly, there were 22.50 crore mutual fund accounts, or folios, resulting in an annual increase of 36.46%. This quick growth demonstrates how more retail investors are entering the market. Still, many investors still find it difficult to make wise choices in spite of this growing trend, which emphasizes the need of grasping the main variables influencing investment behavior.

Risk perception and financial literacy constitute two of the most important factors among the numerous variables that influence investment decisions. A competent investor is more likely to analyze potential risks, critically evaluate investment opportunities, and make calculated choices that support their financial objectives. In contrast, risk perception reflects an investor's subjective assessment of uncertainties in the market and their willingness to accept potential fluctuations in returns. This perception directly impacts investment preferences, influencing whether an investor opts for low-risk debt funds, high-risk equity funds, or a moderate-risk balanced portfolio.

Understanding the interaction between financial literacy and risk perception is vital for analyzing the decision-making patterns of retail investors in Mumbai and Navi Mumbai, which have a diverse and dynamic investor base. Higher financial literacy levels can empower individuals to make informed choices, while risk perception determines their comfort level with different investment vehicles. By examining these factors, financial educators, policymakers, and investment firms can develop targeted strategies to enhance investor awareness, promote prudent financial planning, and ultimately drive sustainable growth in the mutual fund industry.

REVIEW OF LITERATURE

Risk Perception in Mutual Fund Investments:
Risk perception plays a critical role in how investors approach mutual funds. Deb and Singh (2018) found that factors like fear, lack of confidence, and knowledge gaps significantly influence how individuals perceive

investment risks. Walia and Kiran (2016) highlighted the importance of understanding the risk-return trade-off and suggested that mutual fund providers must innovate to address varying risk appetites. Chandrakala and Suresh (2016) further found a substantial correlation between risk tolerance and investment choices, with women investors in Bengaluru exhibiting a higher degree of risk tolerance, which results in greater variety in investment choices.

Financial Literacy and Investment Decisions:
Financial literacy has been shown to be a major determinant of investment behavior. According to Mahdzan, Zainudin, and Yoong (2020), people who were more financially literate had a larger tendency to invest in mutual funds. Investors' risk attitudes and investing preferences are shaped by financial literacy, which also aids in the assessment of financial products.Verma et al. (2023) further emphasized that financial literacy was strongly linked with a better understanding of risk and investment products, which led to more favorable investment decisions, especially among younger investors. Alexander et al. (1997) Pension investors demonstrate a comparable understanding of mutual fund costs, risks, and returns to those investing through other distribution channels.

Demographic and Socioeconomic Factors Influencing Investment:
Demographic and socioeconomic factors, have been found to influence mutual fund investments. Deb and Singh (2017) noted that these factors significantly affect risk perception, with individuals from higher socio-economic backgrounds exhibiting a more positive view of mutual fund investments. Anil et al. (2024) pointed out that education and income levels shape investor awareness and decision-making.

Factors Influencing Mutual Fund Selection:
The factors that influence investors' selection of mutual funds include fund credibility, tax benefits, and various fund attributes such as entry and exit loads, lock-in periods, and professional management. Chawla (2014) found that these attributes, alongside the financial health and risk perceptions of investors, shaped their investment choices.

RESEARCH GAP AND CONTRIBUTION
While financial literacy and risk perception influence investment decisions, their specific impact on retail investors in Mumbai and Navi Mumbai remains underexplored. Given the region’s diverse investor base, understanding how these factors shape mutual fund choices is essential. This study addresses that gap by examining their combined role in investment behavior.

RESEARCH OBJECTIVES
- To investigate how risk perception and financial literacy influences mutual fund investment decisions of retail investors in Mumbai and Navi Mumbai.
- To investigate the connection between retail investors' perceptions of risk and financial literacy in Mumbai and Navi Mumbai.
- To determine how financial literacy impacts the investing strategy and portfolio diversification of retail investors in Mumbai and Navi Mumbai.
- To analyze whether higher financial literacy leads to lower risk perception in mutual fund investment decisions among retail investors in Mumbai and Navi Mumbai.

HYPOTHESIS

Hypothesis 1:

Null Hypothesis (H0): There is no significant difference in risk perception between individuals with high and low financial literacy.

Alternative Hypothesis (H1): Individuals with higher financial literacy have significantly lower risk perception compared to those with lower financial literacy.

Hypothesis 2:

Null Hypothesis (H0): There is no significant association between financial literacy and portfolio diversification.

Alternative Hypothesis (H1): There is a significant association between financial literacy and portfolio diversification.

Hypothesis 3:

Null Hypothesis (H0): Financial literacy and risk perception do not have a significant combined effect on mutual fund investment decisions.

Alternative Hypothesis (H1): Financial literacy and risk perception have a significant combined effect on mutual fund investment decisions..

RESEARCH METHODOLOGY

Research Design:
The researcher adopted a quantitative, descriptive, and analytical approach to examine the impact of financial literacy and risk perception on retail investors' investment decisions in mutual funds.

Sample Selection:
The researcher surveyed 164 retail investors from Mumbai and Navi Mumbai, selected through convenience sampling. Participants represented diverse backgrounds in terms of age, income levels, and education, ensuring a broad perspective on investment behavior.

Data Sources:
For a thorough analysis, this researcher used both primary and secondary data. A systematic questionnaire encompassing demographics, financial literacy, risk perception, and investing preferences has been utilized to collect primary data via a Google Form. Adapted from established literature, the reliability of the questionnaire was ensured using Cronbach's alpha. To complement this, secondary data was sourced from peer-reviewed journals, industry reports, and financial market sources, including the Association of Mutual Funds in India (AMFI) website and its monthly reports.

Data Collection & Analysis
Data was collected through online surveys, enabling broad participation while ensuring efficiency in reaching the target audience. To evaluate the impact of risk perception and financial literacy on mutual fund investment decisions, a variety of statistical techniques were used, such as multiple regression analysis, Pearson correlation, and t-tests. These analytical tools provided a quantitative foundation for evaluating the strength and significance of relationships between the studied variables.

RESULTS AND DISCUSSION
This chapter presents the findings of the statistical analyses conducted to assess the relationship between financial literacy, risk perception, and investment decisions. It covers demographic analysis, reliability assessment using Cronbach's Alpha, and hypothesis testing through t-tests, correlation analysis, and multiple regression.

1. Demographic Profile of Respondents

Table 1: Summary of Respondents' Demographic Characteristics

Demographic Variables	Levels	Counts	% of Totals	Cumulative %
Age	Below 25	114	69.51	69.51
	26-35	29	17.68	87.20
	36-45	15	9.15	96.34
	46-55	5	3.05	99.39
	Above 55	1	0.61	100.00
	Total	164	100.00	
Gender	Male	77	46.95	46.95
	Female	87	53.05	100.00
	Total	164	100.00	

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Education Level	High School	18	10.98	10.98
	Graduate	92	56.10	67.07
	Post Graduate	42	25.61	92.68
	Professional Degree	12	7.32	100.00
	Total	164	100.00	
Occupation	Salaried	45	27.44	27.44
	Business Owner	12	7.32	34.76
	Student	101	61.59	96.34
	Others	6	3.66	100.00
	Total	164	100.00	
Annual Income	Less than ₹3,00,000	111	67.68	67.68
	₹3,00,000 – ₹6,00,000	25	15.24	82.93
	₹6,00,000 – ₹10,00,000	15	9.15	92.07
	Above ₹10,00,000	13	7.93	100.00
	Total	164	100.00	
Location	Mumbai	70	42.68	42.68
	Navi Mumbai	94	57.32	100.00
	Total	164	100.00	

Source: Primary data based on survey(2025)

A total of 164 respondents participated in the study. The majority of respondents (69.51%) were below the age of 25, 17.68% were between 26-35 years, and 12.81% were above 35 years. The gender distribution showed that 53.05% of respondents were female, while 46.95% were male. In terms of education level, 56.10% were graduates, 25.61% held postgraduate degrees, and 10.98% had only a high school education. Regarding occupation, a significant portion (61.59%) of respondents were students, while 27.44% were salaried employees. The majority (67.68%) had an annual income of less than ₹3,00,000. Geographically, 57.32% of respondents were from Navi Mumbai, while 42.68% were from Mumbai.

2. RELIABILITY ANALYSIS

Table 2: Cronbach’s Alpha Reliability Test Results

Component	No. of Items	Cronbach’s Alpha	Reliability Level
Financial Literacy	5	0.9001	Excellent
Risk Perception	4	0.7605	Acceptable
Investment Decisions	5	0.8006	Good

****Source:*** Author’s calculation based on survey data (2025)

Cronbach’s Alpha was computed to evaluate the internal consistency of the survey constructs. The results revealed that financial literacy achieved a Cronbach’s Alpha value of 0.9001, indicating excellent reliability. Risk perception scored 0.7605, while investment behavior and decisions recorded a value of 0.8006, both reflecting acceptable reliability. Since Cronbach’s Alpha values exceeding 0.7 are deemed reliable, these results confirm the internal consistency and suitability of measuring scales employed in this study.

3. HYPOTHESIS TESTING

3.1 Hypothesis 1:

H_0: There is no significant difference in risk perception between individuals with high and low financial literacy.

H_1: Individuals with higher financial literacy have significantly lower risk perception compared to those with lower financial literacy.

Table 3: t-Test and Variance Equality Test for Risk Perception and Financial Literacy

Test	Test Statistics	p-value	Conclusion
Levene's Test (Equality of Variance)	F = 0.0103	0.9194	Variances are equal ($p > 0.05$)
Two Sample t-test (One tailed)	t = -5.19	0.000000317	Reject H_0 ($p < 0.05$)

***Source:** Author's calculation based on survey data (2025)

A hypothesis was tested to determine if individuals with higher financial literacy exhibit significantly lower risk perception compared to those with lower financial literacy. Levene's test confirmed homogeneity of variances (p = 0.9194), and a two-sample t-test assuming equal variance was conducted. The results showed a t-statistic of -5.19 and a p-value of 0.000000317, which is highly significant. Since the p-value is less than 0.05, the null hypothesis was rejected, confirming that individuals with higher financial literacy have significantly lower risk perception. These findings highlight the role of financial education in influencing how individuals perceive financial risks.

3.2 Hypothesis 2:

H_0: There is no significant association between financial literacy and portfolio diversification.

H_1: There is a significant association between financial literacy and portfolio diversification.

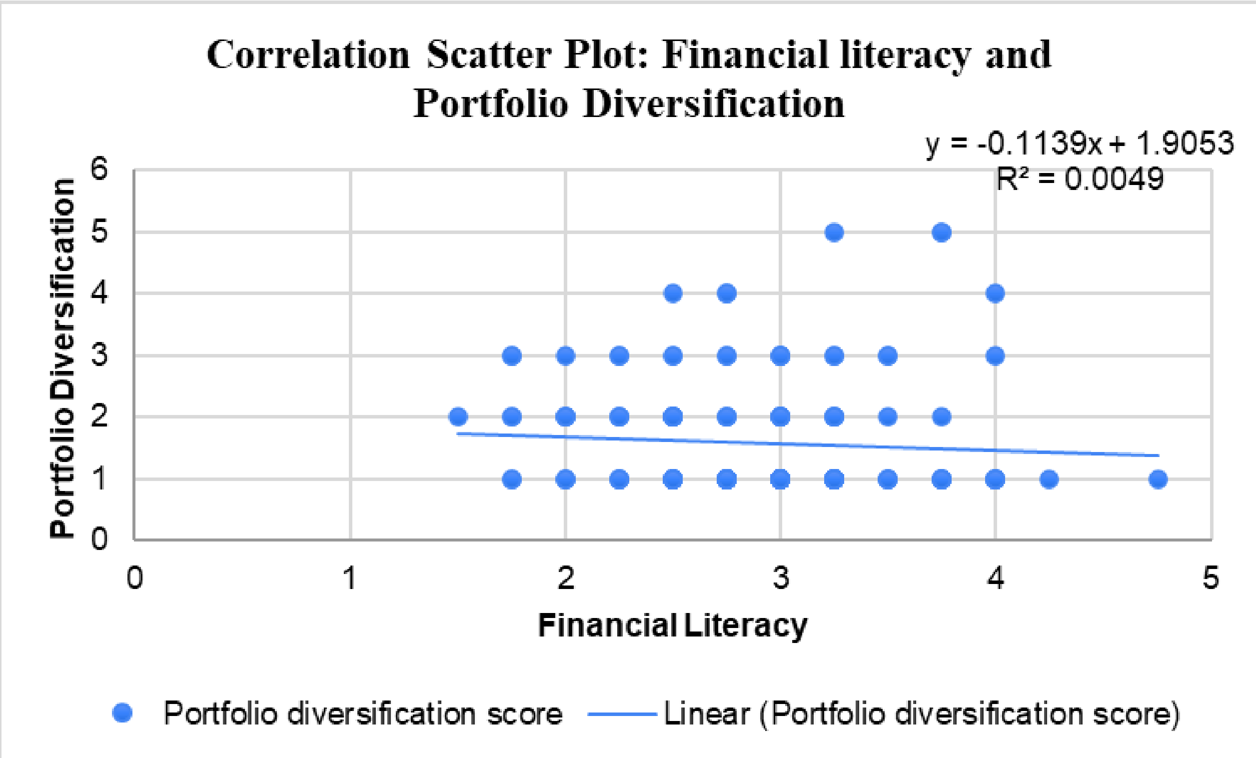

Figure 1: Correlation between Financial Literacy and Portfolio Diversification

***Source:** Author's calculation based on survey data (2025)

The scatter plot illustrates the relationship between financial literacy and portfolio diversification scores among retail investors. The trend line shows a slightly negative slope, suggesting a weak inverse relationship between these two variables. However, the data points are widely scattered, indicating weak correlation.

Table 4: Correlation Analysis between Financial Literacy and Portfolio Diversification

Correlation Test	Correlation Coefficient (r)	p-value	R2 value	Conclusion
Pearson Correlation	-0.07007	~0 (1.03231E-75)	0.0049	Weak negative correlation

Source: Author's calculation based on survey data (2025)

A correlation analysis was conducted to examine the association between financial literacy and portfolio diversification. The correlation coefficient (r) was found to be -0.07007, indicating a very weak negative relationship. The p-value was effectively 0 (1.03231E-75), indicating a statistically significant result, but the R^2 value of 0.0049 suggests that financial literacy explains only 0.49% of diversification behavior. Although the relationship is statistically significant, the practical impact is negligible. This implies that financial literacy alone does not strongly predict portfolio diversification, and other factors such as income levels and investment goals may play a more significant role.

3.3 Hypothesis 3:

H_0: Financial literacy and risk perception do not have a significant combined effect on mutual fund investment decisions.

H_1: Financial literacy and risk perception have a significant combined effect on mutual fund investment decisions.

Table 5: Multiple Regression Analysis for Financial Literacy, Risk Perception, and Investment Decisions

Predictor	Coefficient (β)	Standard Error	t-statistics	p-value	95% Confidence Interval	Conclusion
Intercept	2.8943	0.3236	8.9444	<0.0001	[2.2553, 3.5334]	Significant positive baseline investment decision level.
Financial Literacy	0.0078	0.0514	0.1528	0.8788	[-0.0936, 0.1093]	No significant impact on investment decisions.
Risk Perception	-0.1995	0.0745	-2.6790	0.0082	[-0.3466, -0.0524]	Significant negative effect on investment decisions.

Source: Author's calculation based on survey data (2025)

A multiple regression analysis was performed to determine the combined effect of financial literacy and risk perception on mutual fund investment decisions. The regression model was significant, with an F-statistic of 5.27 and a p-value of 0.0061. However, financial literacy was found to be statistically insignificant (p = 0.8788), while risk perception had a significant negative effect (β = -0.1995, p = 0.0082).

These results suggest that while financial literacy contributes to knowledge, it does not directly drive investment decisions. Instead, risk perception plays a more dominant role, influencing conservative investment behaviors.

4. RESEARCH FINDINGS

Table 6: Summary of Hypothesis Testing Results

Hypothesis	Test Applied	Test Statistics	p-value	Conclusion
H_1: Individuals with higher financial literacy have significantly lower risk perception compared to those with lower financial literacy.	Independent t-test	t = -5.19	0.000000317	Reject Null Hypothesis
H_2: There is a significant association between financial literacy and portfolio	Correlation Test	r = -0.07007	1.03231E-75	Reject Null Hypothesis

diversification.				
H_3: Financial literacy and risk perception have a significant combined effect on mutual fund investment decisions.	Multiple Regression	F = 5.27	0.0061	Reject Null Hypothesis

***Source:** Author's calculation based on survey data (2025)

The reliability analysis confirmed that the measurement scales used in this study exhibit strong internal consistency. Hypothesis testing offered valuable insights into the interplay between financial literacy, risk perception, and investment decisions. The significant negative correlation between financial literacy and risk perception suggests that increased financial knowledge can help mitigate perceived risks, potentially fostering more confident investment decisions. However, the minimal influence of financial literacy on portfolio diversification indicates that investors may rely on additional factors beyond financial knowledge when making diversification choices. Furthermore, multiple regression analysis revealed that while financial literacy plays a crucial role, risk perception emerges as a more dominant factor in shaping mutual fund investment behavior. This underscores the need to address psychological biases related to risk perception in financial education initiatives.

The study provides meaningful insights into the impact of financial literacy and risk perception on investment decisions. While financial literacy enhances overall awareness, risk perception exerts a stronger influence on investor behavior. These findings highlight the importance of targeted financial education programs that not only enhance knowledge but also address psychological biases associated with risk assessment to improve investment decision-making. Future research could explore additional determinants of investment behavior, such as cognitive biases, past investment experiences, and macroeconomic influences, to develop a more comprehensive understanding of retail investors' decision-making processes.

5. LIMITATIONS OF THE STUDY

Although this study offers insightful information, it has certain limitations. The findings may not be as broadly applicable to investors in other areas with distinct economic and cultural circumstances due to the research's geographic limitation to Mumbai and Navi Mumbai. Furthermore, the use of convenience sampling raises the possibility of bias because the sample might not accurately reflect the variety of retail investors. The study mostly concentrates on risk perception and financial literacy, ignoring other important elements that can also have a big impact on investing decisions, like behavioral biases, demographic impacts, and sociocultural variables. Furthermore, time and financial limitations have limited the scope of data collection and analysis, making it more difficult to thoroughly examine more intricate investor behaviors.

CONCLUSION

This study explored the interplay between financial literacy and risk perception in shaping retail investors' mutual fund investment decisions. The results indicate that while financial literacy enhances investment knowledge, it does not serve as the sole driver of investment behavior. Instead, risk perception emerged as a more influential factor, with investors who perceive higher risks displaying a tendency toward conservative investment choices. The study also established that individuals with greater financial literacy generally exhibit lower risk perception, suggesting that a deeper understanding of financial concepts enables investors to assess and navigate risks more effectively, fostering informed decision-making.

Additionally, the research examined how financial literacy affects portfolio diversification and investment strategies. The findings revealed a weak yet statistically significant relationship, implying that although financial literacy plays a role, factors such as income levels, personal risk tolerance, and investment goals exert a stronger influence on diversification decisions. These insights underscore the need for financial education programs that not only improve technical knowledge but also address behavioral and psychological biases that impact investment choices. By implementing such targeted interventions, financial institutions and policymakers can support investors in making well-rounded, strategic decisions. Despite this study offering insightful information about investor behavior, subsequent research ought to investigate deeper at the role that psychological biases play in changing market dynamics, and demographic differences to develop a more holistic understanding of retail investment patterns.

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