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UNDERSTANDING INVESTOR BEHAVIOR: THE IMPACT OF RISK PERCEPTION, FINANCIAL STRESS, AND LITERACY ON INVESTMENT **DECISIONS**

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ABSTRACT. This study investigates the influence of risk perception, financial stress, and financial literacy on investment intention and behavior. Drawing on the behavioral finance framework, the research challenges traditional rational decision-making models by highlighting the critical role of these factors. Using data collected from investors in the Delhi NCR region, the study applies Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine these relationships. The findings reveal that financial literacy and perceived risk significantly and positively impact investment intentions, while financial stress does not exhibit a notable effect. Furthermore, investment intention is a significant predictor of actual investment behavior, reinforcing the theory of planned behavior. This study contributes to the growing body of behavior finance literature by understanding how psychological and cognitive factors influence investment decisions. Practical implications include the need for improved financial literacy programs and better management of risk perceptions to promote informed investment behaviors.

1. Introduction

The study of investor behavior has long been a key focus in finance, with traditional approaches often centered on rational decision-making models. Classical financial theories, such as the Efficient Market Hypothesis (EMH) and Modern Portfolio Theory (MPT), suggest that investors make decisions based on a rational assessment of risk and return. According to these theories, individuals evaluate available financial information, compare potential returns with associated risks, and make decisions that maximize their wealth (Fama 1991; Markowitz 1952). In this view, the investor is assumed to be a rational actor, consistently making choices that align with their best financial interests. These models operate on the premise that financial markets are efficient, meaning that all available information is reflected in asset prices, and any deviation from rationality is swiftly corrected by the market (Fama 1991; Jain et al. 2022; Malkiel 2003).

While these traditional models provide a structured and mathematically rigorous framework for understanding investment decision-making, they are not without limitations. One of the most prominent criticisms is their reliance on the assumption of perfect rationality. Realworld investment behavior often deviates from the rational agent model, as seen in numerous empirical studies and market anomalies. Events such as the global financial crisis of 2008

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and the irrational exuberance of the dot-com bubble have demonstrated that investors do not always act in ways that are consistent with the predictions of traditional models (Akerlof and Shiller 2009; Kahneman and Tversky 2013). In these instances, factors such as overconfidence, herding behavior, and fear of losses play a more significant role than rational analysis of market conditions (Barberis 2003; Jain et al. 2022; Shiller 2005). The traditional approach also fails to account for psychological factors and individual differences that influence how investors perceive and react to market risks and opportunities. Therefore, while these models offer a solid theoretical foundation, they do not fully capture the complexities of human decision-making, particularly in uncertain or volatile markets (Lo 2004).

The limitations of the traditional models underscore the need for a more comprehensive understanding of investor behavior, one that incorporates psychological factors and individual differences. Behavioral finance, a field that combines insights from psychology and economics, provides a more nuanced approach to explaining investment decisions. According to behavioral finance, investors are influenced by a range of cognitive biases, emotional responses, and individual abilities that shape their decision-making processes. For instance, risk perception, which refers to how an individual views the uncertainty and potential losses associated with an investment, plays a critical role in shaping investment intention (Slovic 1987). Unlike the objective measure of risk tolerance proposed by traditional models, risk perception is highly subjective and varies across individuals (Weber and Milliman 1997). Investors may perceive the same investment as either highly risky or relatively safe, depending on their past experiences, emotional state, and understanding of market dynamics (Gupta, Preetibedi, and Mlakra 2014; Jain et al. 2022; Kahneman and Tversky 2013).

Another psychological factor that can significantly influence investment decisions is financial stress. Financial stress arises when individuals face uncertainty about their personal financial situation or the broader economic environment. Traditional models often assume that investors can separate their personal financial concerns from their investment choices, but research in behavioral finance suggests otherwise. High levels of financial stress can lead to more risk-averse behavior, as individuals become more concerned with preserving their capital than with seeking high returns (Lusardi and Mitchell 2014). Conversely, in the absence of financial stress, individuals may be more willing to take calculated risks (Hershey, Mowen, and Jacobs-Lawson 2003). Financial stress, therefore, plays a critical role in shaping investment intentions by either dampening an individual's willingness to invest or pushing them toward more conservative options (Baker et al. 2017; Jain et al. 2022; Yao, Hanna, and Lindamood 2004)

In addition to psychological factors, individual abilities such as financial literacy are crucial for understanding investor behavior. Financial literacy refers to the knowledge and skills required to make informed and effective financial decisions. Traditional models assume that investors possess a uniform level of financial knowledge, enabling them to process and interpret available information in a rational manner (Hogarth and Hilgert 2002). However, this assumption is often unrealistic. Many individuals lack the necessary financial literacy to fully understand the risks and potential returns associated with different investment options (Lusardi and Tufano 2015). Behavioral finance highlights the role of financial literacy in shaping investment intentions. Individuals with higher financial literacy are better equipped to assess investment opportunities and manage risk, which, in turn, positively influences their willingness to invest. On the other hand, individuals with lower financial literacy may be more prone to making decisions based on emotions or misinformation, which can lead to suboptimal investment outcomes (Gupta, Preetibedi, and Mlakra 2014; Hastings and Mitchell 2020).

Based on these insights, this research proposes that psychological factors, namely risk perception and financial stress, along with individual abilities, such as financial literacy, have a significant effect on investment intention, which in turn influences investment behavior. Specifically, the study hypothesizes that higher perceived risk and greater financial literacy positively affect investment intention, while financial stress negatively impacts it. Furthermore, investment intention is expected to serve as a bridge between the independent and dependent

variables, translating these psychological and cognitive factors into actual investment behavior (Ajzen 1991; Barberis and Huang 2001). This hypothesis builds on existing behavioral finance literature.

The current piece of research is significant for several reasons. Although existing literature has explored the constructs under investigation, these constructs have either been examined in isolation or in combination with unrelated variables. However, the collective impact and interaction of these three constructs in the context of individual investment decisions remain underexplored. For instance, previous research fails to explain how these factors interact to shape investment decisions at the individual level (Jain et al., 2022). Our study addresses this gap by investigating these constructs together, offering a more comprehensive understanding of their interrelationships. Additionally, the study's focus on the Delhi NCR region adds a crucial layer of novelty. Delhi NCR is one of India's largest urban agglomerations, characterized by a diverse population with varying income levels, educational backgrounds, and cultural influences. Despite its economic prominence, there is limited empirical research specifically examining investment behavior within this region. Understanding investment behavior in the Delhi NCR region is vital because it provides region-specific insights that can be generalized to other urban centres in developing economies.

2. Literature Review

2.1. Factors Affecting Investment Behavior. Investment behavior is shaped by an intricate array of factors. Both demographic and psychological determinants significantly influence individual investment decisions. Age, income, gender, and socio-economic status are consistently identified as influential factors in shaping investment choices (Ansari and Moid 2013; Bulsara, Desai, and Miniaoui 2015). Furthermore, psychological elements like risk appetite and brand perception contribute to investment behavior, with risk-taking tendencies and perceptions of brand trustworthiness guiding decisions (Jayaraj. S 2013). Financial literacy, alongside access to accounting information, has emerged as a key predictor of sound investment decisions, as it equips investors with the knowledge to navigate complex financial products and market dynamics (Rizvi and Abrar 2015). Additionally, external factors such as market security, liquidity, peer influence, and expected returns also play a role in guiding investment strategies (Kesharwani and Bisht 2012).

Behavioral finance literature adds a deeper dimension, suggesting that cognitive errors and emotional biases affect investor behavior, particularly in times of uncertainty (M. Shafi 2014). Notably, studies on working women emphasize the influence of both internal and external environmental factors on their investment decisions, illustrating the broader context within which financial behaviors operate (Dr. Veena M 2020).

2.2. Perceived Risk and Investment Behavior. Perceived risk is a pivotal factor influencing investment behavior. Research has consistently shown that risk perception directly impacts decision-making, with higher perceived risk often leading to more conservative investment choices (Nur Aini and Lutfi 2019). In contrast, risk tolerance and overconfidence have been associated with more aggressive investment behaviors, highlighting the complex interplay between risk perception and risk-taking (H. Shafi et al. 2011). Retail investors, in particular, exhibit conservative tendencies, as their decisions are shaped by both cognitive and emotional factors, including age, gender, and income (Bairagi 2021; Bairagi and Chakraborty 2018).

Studies suggest that perceived risk plays a dual role—it not only limits the willingness to invest but also influences the type of financial products selected by investors. To mitigate risk, financial experts often recommend diversification strategies and the adoption of more comprehensive approaches to understanding market volatility (Bairagi and Chakraborty 2018). In sum, perceived risk is an important determinant in predicting both the intention to invest and the eventual investment behavior, as investors navigate through their personal risk thresholds.

2.3. Financial Stress and Investment Behavior. Financial stress exerts a considerable influence on investment behavior, particularly in environments characterized by financial uncertainty or distress. High levels of financial stress are associated with short-term focus and suboptimal decision-making, which may undermine long-term wealth accumulation (Weller and Helburn 2010). Stress also exacerbates risk aversion, leading to more conservative investment behaviors, often at the cost of potential financial gains (VanderPal and Brazie 2022). For example, extreme stress events, such as terrorist attacks or financial crises, have been shown to reduce trading activity and impair cognitive decision-making abilities (Agarwal, Ghosh, and Zhao 2019).

Moreover, financial stress not only affects individual investors but also firms, where distressed companies may alter their investment patterns and adopt higher leverage to maintain solvency (López-Gutiérrez, Sanfilippo-Azofra, and Torre-Olmo 2015). Research suggests that financial stress interacts with psychological traits, such as neuroticism, further distorting financial decision-making (Fachrudin and Latifah 2022). Thus, stress not only impacts current investment behavior but also creates long-term barriers to financial health by encouraging more reactive and less strategic financial decisions.

2.4. Financial Literacy and Investment Behavior. Financial literacy is widely acknowledged as a key determinant of investment behavior. Higher levels of financial literacy enable investors to make more informed, rational decisions, leading to better financial outcomes (Bhushan 2014; Rasuma Putri and Rahyuda 2017). Financially literate individuals tend to have a broader understanding of financial products, which facilitates more diversified and profitable investment portfolios (Jariwala 2015). However, the relationship between financial literacy and investment behavior is not always linear. Some studies suggest that financial literacy may not directly lead to better investment behavior, as individual attitudes and biases, such as overconfidence, may negate the benefits of increased knowledge (Choudhary, Kamboj, and Mehta 2021).

Socio-demographic factors, such as age, income, and education, have been shown to moderate the relationship between financial literacy and investment decisions. Research in developing economies, including India and Pakistan, highlights the low levels of financial literacy among the general population, underscoring the need for targeted financial education programs (Arif 2015; Gangwar and Singh 2018). Financial education, in this context, is not only critical for enhancing financial literacy but also for promoting informed investment behavior, especially in environments where access to financial services is limited (Thind and Ray 2023).

Recent studies also suggest that financial literacy influences investment behavior through mediating factors like financial attitudes and risk perceptions. For instance, financial behavior has been shown to mediate the relationship between financial literacy and investment decisions, suggesting that financial knowledge alone is insufficient without the behavioral discipline to apply it effectively (Nugraha, Eksanti, and Haloho 2022).

The literature reveals that perceived risk, financial stress, and financial literacy are significant drivers of investment intention and, subsequently, investment behavior. Perceived risk tends to affect investment decisions by influencing risk tolerance, while financial stress distorts cognitive processes, leading to more conservative or reactionary investment behaviors. Financial literacy, though generally positively associated with better investment outcomes, interacts with demographic and psychological factors that may either amplify or diminish its impact on behavior.

3. Research Methodology

This study employs a quantitative research design to examine the effects of psychological factors, including perceived risk and financial stress, as well as individual abilities, particularly financial literacy, on investment intention and behavior. The research is grounded in the behavioral finance framework, which emphasizes the role of psychological and cognitive factors

in financial decision-making (Kahneman and Tversky 2013; Shiller 2005). To achieve the objectives of the study, data was collected from investors in the Delhi NCR region and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM).

3.1. Sample and Data Collection. The target population for this study consisted of individual investors from the Delhi NCR region. For data collection, a non-probability sampling technique, specifically purposive sampling, was employed to ensure the inclusion of respondents with active investment portfolios (Etikan, Musa, & Alkassim, 2016). The rationale behind choosing this sample was to capture investment behavior in a region with diverse socio-economic backgrounds, offering a broader understanding of the variables under investigation. While this non-probability technique ensured the relevance of responses to the research objective, it may introduce selection bias, as individuals more inclined or knowledgeable about investments are overrepresented. Furthermore, the demographic profile reveals a sample skewed towards younger (60.7% aged 18–30) and highly educated (74.2% with postgraduate or higher degrees) respondents. This limits the generalizability of the findings to other populations, particularly rural investors, older individuals, or those with limited formal education. Hence, caution must be exercised in extrapolating these results beyond urban, digitally literate investor groups in northern India. As far as the sample size is concerned, the study followed the "10 times rule" to determine the minimum sample size. The 10 times rule suggests that the sample size should be equal to 10 times the number of independent variables in the most complex regression in the PLS path model. Based on this rule, considering the number of independent variables (i.e., four), a minimum sample of 40 would be sufficient.

Data collection was conducted through a structured questionnaire, distributed both in person and electronically. The questionnaire comprised several sections designed to measure the constructs of financial literacy, perceived risk, financial stress, investment intention, and investment behavior. All items were measured using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Likert 1932). To ensure clarity and validity, the questionnaire was pre-tested with a small group of investors before full-scale data collection.

Finally, the questionnaire was distributed to 250 respondents, out of which a total of 239 responses were received, and after cleaning of data, we were left with 229 responses for the final analysis. A descriptive analysis of the respondents is provided in Table 1 below.

The descriptive statistics as presented in Table 1 provide valuable insights into the demographic profile of participants. The gender distribution is relatively balanced, with 49.3% male and 50.7% female respondents. The age composition indicates a predominantly young sample, with 60.7% of participants aged between 18 and 30 years, followed by 31.0% in the 31–40 years category. A smaller proportion falls within the 41–50 years (6.1%), 51–60 years (1.3%), and 61 years and above (0.9%) brackets, highlighting a youthful demographic. In terms of marital status, the majority of respondents are unmarried (56.3%), while 41.9% are married. The proportions of separated/divorced (1.3%) and widowed (0.4%) individuals are minimal. The educational attainment of respondents shows a high level of academic qualification, with more than half (54.1%) holding postgraduate degrees.

Additionally, 20.1% have attained higher education qualifications such as M.Phil. or Ph.D., while 15.7% possess undergraduate degrees. A smaller percentage completed intermediate (9.6%) and high school education (0.4%). Regarding occupational status, the largest group comprises salaried employees (46.3%), followed by students (28.8%), indicating substantial participation from the working and academic sectors. Self-employed individuals and business owners constitute 14.0% of the sample, while smaller proportions include unemployed individuals (7.4%), dependents (2.6%), and retirees (0.9%). Overall, the sample represents a diverse cross-section of the Delhi NCR population in terms of age, gender, education, and occupation, which is essential for understanding the investment behavior patterns explored in the study.

3.2. Measurement of Constructs. The constructs of financial literacy, perceived risk, financial stress, investment intention, and investment behavior were measured using validated scales

Table 1. Descriptive Statistics

Grouping Variables	Categories	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	113	49.3	49.3	49.3
	Female	116	50.7	50.7	100.0
	Total	229	100.0	100.0	
\mathbf{Age}	18-30 Years	139	60.7	60.7	60.7
	31-40 years	71	31.0	31.0	91.7
	41-50 years	14	6.1	6.1	97.8
	51-60 years	3	1.3	1.3	99.1
	61 and above	2	0.9	0.9	100.0
	Total	229	100.0	100.0	
Marital Status	Married	96	41.9	41.9	41.9
	Unmarried	129	56.3	56.3	98.3
	Separated/divorced	3	1.3	1.3	99.6
	Widowed	1	0.4	0.4	100.0
	Total	229	100.0	100.0	
Education	High School	1	0.4	0.4	0.4
	Intermediate	22	9.6	9.6	10.0
	Graduation	36	15.7	15.7	25.8
	Post-Graduation	124	54.1	54.1	79.9
	Higher Education (M.Phil, Ph.D.)	46	20.1	20.1	100.0
	Total	229	100.0	100.0	
Occupation	Self- employed/Businessman	32	14.0	14.0	14.0
	Salaried Person	106	46.3	46.3	60.3
	Student	66	28.8	28.8	89.1
	Retired	2	0.9	0.9	90.0
	Unemployed	17	7.4	7.4	97.4
	Dependent	6	2.6	2.6	100.0
	Total	229	100.0	100.0	

Source: Author's own

from existing literature. Financial literacy was assessed using a set of questions that measured the respondents' subjective self-assessment. Perceived risk measures the degree of uncertainty and concern respondents have with investment decisions. Financial stress was assessed through items reflecting the respondents' emotional and psychological state concerning their financial well-being. Investment intention was measured using items adapted from Ajzen's (1991) Theory of Planned Behavior, while investment behavior was captured by self-reported measures of actual investment actions.

3.3. Method of Data Analysis. The collected data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), a robust technique for testing complex models with latent constructs (Hair et al. 2017). The PLS-SEM analysis was conducted using the SEMinR package in R Studio, a statistical software widely used for structural equation modeling.

Before performing the SEM analysis, the dataset was screened for missing values, outliers, and normality (Kline 2016). Descriptive statistics were computed to summarize the demographic characteristics of the sample. The model was then evaluated using a two-step approach: measurement model assessment and structural model assessment.

- 3.3.1. Measurement Model Assessment. The reliability and validity of the constructs were examined through several key metrics. Cronbach's alpha and composite reliability were calculated to assess the internal consistency of the constructs (Nunnally 1978). Convergent validity was evaluated using the Average Variance Extracted (AVE) (Fornell and Larcker 1981), and discriminant validity was assessed through cross-loadings and the Heterotrait-Monotrait (HTMT) ratio (Henseler, Ringle, and Sarstedt 2015).
- 3.3.2. Structural Model Assessment: After ensuring that the measurement model was reliable and valid, the structural model was evaluated by examining the path coefficients, t-values, and R² values (Chin 1998). These metrics were used to assess the strength and significance of the relationships between the constructs, including the direct effects of financial literacy, perceived risk, and financial stress on investment intention, as well as the effect of investment intention on actual investment behavior.

4. Data Analysis

First of all, the cross-loadings were analyzed. The cross-loading matrix helps assess both the reliability and discriminant validity of the constructs. Each indicator should ideally load more strongly on its associated construct compared to others, ensuring distinctiveness between variables. This table provides crucial insights into how well the items represent their intended latent constructs and how much overlap exists with other constructs.

In Table 1, the indicators of financial stress (FS3–FS6) load strongly onto their respective construct, with values ranging from 0.728 to 0.884. This satisfies the recommended threshold of 0.7 for indicator reliability (Hair et al. 2017), confirming that the items robustly capture financial stress. However, there is moderate cross-loading between financial stress and perceived risk (e.g., FS6 with 0.526). This suggests some degree of overlap, possibly indicating that financial stress heightens individuals' risk perception, aligning with previous research (Weller and Helburn 2010). Similarly, Financial literacy indicators (FL3–FL7) exhibit strong loadings on their intended construct, with values ranging from 0.667 to 0.796, exceeding the 0.7 threshold for indicator reliability. The minimal cross-loadings across other constructs suggest high discriminant validity. FL7, however, has a moderate cross-loading on investment intention (0.414), implying that higher financial literacy might directly influence individuals' intentions to invest, which is consistent with previous studies highlighting the role of financial literacy in enhancing decision-making (Lusardi and Mitchell 2014).

The perceived risk indicators (PR1–PR7) show acceptable loadings on their respective construct, ranging from 0.574 to 0.732, which is above the recommended threshold for indicator reliability, except for PR5, which is slightly lower (0.574). This indicates that most items reliably measure perceived risk. There is moderate cross-loading on financial stress, particularly PR6 (0.501), supporting the idea that stressed investors perceive higher risks, as suggested in prior behavioral finance studies.

The indicators of investment intention (SII1–SII4) load strongly on their construct, with values between 0.774 and 0.845, further confirming strong internal consistency and reliability. Some cross-loadings with investment behavior (e.g., SII3 with 0.410) suggest a theoretical overlap, as investment intention directly predicts behavior, aligning with the Theory of Planned Behavior (Ajzen 1991). Lastly, the indicators for investment behavior (SIB4–SIB8) also demonstrate strong loadings, ranging from 0.598 to 0.864. The lower value for SIB6 (0.598) is slightly below the ideal threshold of 0.7, suggesting that this indicator may need further refinement. The remaining indicators meet the reliability criterion, and minimal cross-loadings reinforce good discriminant validity.

Overall, Table 1 supports the robustness of the constructs, with strong loadings on their respective factors, meeting the recommended reliability threshold (Hair et al., 2017). The observed cross-loadings between financial stress and perceived risk, as well as between investment intention and investment behavior, align with theoretically expected relationships. This demonstrates a good balance between convergent and discriminant validity, although specific indicators like PR5 and SIB6 may require further refinement to strengthen their reliability.

Indicators Financial Perceived **Financial** Investment Investment Literacy Risk Stress Intention **Behavior** FS3 0.1450.408 0.809 0.166 0.109 FS4 -0.0490.4760.858 0.1490.102FS5 -0.0840.3770.7280.0710.168FS6-0.001 0.5260.8840.1770.192FL30.667 0.095-0.0050.2050.327FL4 0.236 0.7960.068 -0.0130.335 FL50.741-0.004-0.0450.1780.289FL6 0.7710.123-0.0250.2880.264FL70.7550.231 0.100 0.414 0.279SIB4 0.3100.1680.0950.3590.835SIB5 0.364 0.251 0.1530.449 0.864 SIB6 0.1650.1760.1710.1380.598SIB7 0.2080.1630.1930.1930.716SIB8 0.3360.2250.0870.3290.710SII1 0.3100.2730.1330.7740.269SII2 0.304 0.3460.1710.8450.363 SII3 0.3330.3240.0780.8300.410SII4 0.3200.331 0.218 0.819 0.360PR1-0.0020.719 0.4300.2790.151PR20.096 0.728 0.419 0.2750.173 PR3 0.1540.7320.3640.2960.193PR4 -0.0120.6210.4780.2030.153PR50.115 0.574 0.273 0.1730.181 PR60.7050.1970.0960.5010.198PR70.2710.688 0.2490.361 0.217

Table 2. Cross-loadings of the items

The reliability and validity analysis, as presented in Table 2, demonstrates acceptable levels of internal consistency and construct validity across all variables. Cronbach's Alpha values for all constructs exceed the recommended threshold of 0.7 (Nunnally, 1978), indicating strong internal consistency. Specifically, Cronbach's Alpha values range from 0.769 for Investment Intention to 0.844 for Financial Stress, ensuring that the items within each construct are measuring the same underlying concept consistently.

Composite reliability (rhoC) values, ranging from 0.848 for Investment Intention to 0.894 for Financial Stress, also meet the recommended threshold of 0.7 (Hair et al., 2017). This further confirms that the constructs are well-represented by their indicators and are reliable measures of their respective latent variables.

The Average Variance Extracted (AVE), which evaluates the convergent validity of the constructs, shows that all constructs except Perceived Risk meet the minimum threshold of 0.5 (Fornell & Larcker, 1981). The AVE values range from 0.468 for Perceived Risk to 0.679 for Financial Stress. The slightly lower AVE for Perceived Risk (0.468) suggests that this construct captures slightly less than 50% of the variance from its indicators, which might warrant further

refinement of the items used to measure this construct. However, the AVE for the remaining constructs demonstrates satisfactory convergent validity.

Lastly, the rhoA values for all constructs exceed 0.8, indicating good construct reliability (Dijkstra and Henseler 2015). The results suggest that the model is both reliable and valid, with the exception of Perceived Risk, which may require additional scrutiny to ensure full convergent validity.

Factors	Cronbach Alpha	rhoC	AVE	${ m rho}{f A}$
Financial Literacy	0.812	0.862	0.556	0.869
Perceived Risk	0.812	0.859	0.468	0.823
Financial Stress	0.844	0.894	0.679	0.871
Investment Intention	0.769	0.848	0.547	0.831
Investment Behavior	0.813	0.865	0.565	0.871

Table 3. Reliability and Validity Analysis

The provided HTMT (Heterotrait-Monotrait Ratio) matrix in Table 3 helps assess the discriminant validity between constructs. According to the literature, HTMT values should typically be below 0.85 to confirm adequate discriminant validity (Henseler, Ringle, & Sarstedt, 2015), though a more conservative threshold of 0.90 may be applicable in cases where constructs are closely related (Gold, Malhotra, and Segars 2001). In our matrix, the HTMT values between Financial Literacy and other constructs—Perceived Risk (0.212), Financial Stress (0.133), Investment Intention (0.424), and Investment Behavior (0.454)—are all below the recommended threshold, indicating satisfactory discriminant validity for Financial Literacy. Similarly, Perceived Risk shows acceptable discriminant validity with HTMT values below 0.85 in relation to Financial Stress (0.676), Investment Intention (0.450), and Investment Behavior (0.323). For Financial Stress, the values with Investment Intention (0.209) and Investment Behavior (0.231) are well below the threshold, confirming its discriminant validity. Lastly, Investment Intention shows sufficient discriminant validity from Investment Behavior (0.466). Overall, all constructs demonstrate discriminant validity as per the recommended guidelines, supporting the structural integrity of your model.

Table 4. HTMT Matrix **Factors Financial** Perceived **Financial** Investment Investment Risk Stress Intention **Behavior** Literacy Financial Literacy NA NA NANA NA Perceived Risk 0.212 NANA NANA Financial Stress 0.1330.676 NA NA NA Investment Intention 0.4240.4500.209 NA NA Investment Behavior 0.454 0.323 0.231 0.466 NA

Table 4 presents findings on the hypothesized relationships between financial literacy, perceived risk, financial stress, investment intention, and investment behavior. The results reveal significant relationships between most variables, providing important insights into investment decision-making.

The relationship between financial literacy and investment intention shows a positive and statistically significant effect, with an original estimate of 0.330 and a T-statistic of 4.870, well above the critical value of 1.96, indicating strong significance. This suggests that higher financial literacy leads to a greater likelihood of forming investment intentions. Prior studies align with this finding, emphasizing that financially literate individuals are better equipped to

assess risks and make informed decisions, thereby fostering a greater intention to invest (Lusardi and Mitchell 2014; Van Rooij, Lusardi, and Alessie 2011).

Similarly, perceived risk has a significant positive effect on investment intention (estimate = 0.343, T-statistic = 4.280), indicating that investors who perceive higher risks are also more likely to form investment intentions. This may seem counterintuitive, but research suggests that individuals who perceive higher risks may view investments as opportunities for higher returns, particularly when they are financially literate.

Conversely, financial stress exhibits a small negative and statistically insignificant effect on investment intention (-0.013, T-statistic = -0.209). This finding suggests that financial stress, in this context, does not significantly deter individuals from forming investment intentions. While some studies have found that financial stress can lead to more conservative financial behaviors, the lack of a significant effect here may indicate that other psychological or economic factors moderate the relationship; the relationship between investment intention and investment behavior is both positive and highly significant (estimate = 0.433, T-statistic = 5.572). This finding aligns with the theory of planned behavior, which posits that intentions are a direct predictor of actual behavior (Ajzen, 1991). Numerous studies have corroborated this view, highlighting the crucial role of intention in translating cognitive and psychological factors into real-world investment actions.

Hypothesized Relations	Original Est.	Bootstrap Mean	Bootstrap SD	T Stat.	2.5% CI	97.5% CI
Financial Literacy \rightarrow Investment Intention	0.330	0.340	0.068	4.870	0.211	0.474
Perceived Risk \rightarrow Investment Intention	0.343	0.343	0.080	4.280	0.186	0.500
Financial Stress \rightarrow Investment Intention	-0.013	-0.002	0.064	-0.209	-0.128	0.120
$\begin{array}{c} \text{Investment Intention} \rightarrow \\ \text{Investment Behavior} \end{array}$	0.433	0.441	0.078	5.572	0.289	0.589

Table 5. Test of Hypotheses

The R² and adjusted R² values, as depicted in Figure 1 and presented in Table 5, offer insights into the explanatory power of the model in predicting both investment intention and investment behavior. For investment intention, the R² of 0.260 suggests that the independent variables—financial literacy, perceived risk, and financial stress—account for 26% of the variance in the dependent variable. This is a moderate level of explanatory power, indicating that these factors significantly influence an individual's intention to invest. The adjusted R² of 0.250 further refines this estimate by accounting for the number of predictors and the sample size, showing that about 25% of the variance in investment intention is reliably explained by the model, even after adjustments. This aligns with findings from existing behavioral finance studies, where factors such as financial literacy and perceived risk are often cited as critical determinants of investment intention (Gupta, Preetibedi, and Mlakra 2014; Van Rooij, Lusardi, and Alessie 2011; Weber and Milliman 1997).

For investment behavior, the R² of 0.188 indicates that investment intention explains 18.8% of the variance in actual investment decisions. While lower than the variance explained for investment intention, this still suggests a meaningful link between intention and behavior, in line with Ajzen's (1991) Theory of Planned Behavior. The adjusted R² of 0.184 shows that approximately 18.4% of the variance is explained after accounting for model complexity. This finding is consistent with prior studies, which highlight the role of intention in predicting behavior, though other factors such as external market conditions or personal circumstances may also influence actual investment decisions (Ajzen 1991; Baker et al. 2017; Jain et al. 2022).

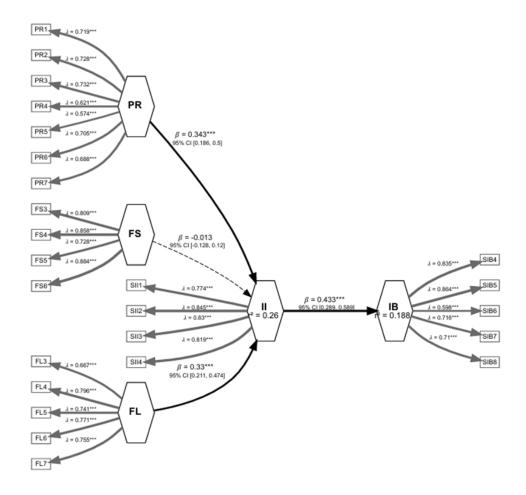


FIGURE 1. Bootstrapped Structural Model

Table 6. Path Coefficients

	Investment Intention	Investment Behavior
\mathbb{R}^2	0.260	0.188
Adjusted R ²	0.250	0.184

5. Discussion and Findings

It's interesting that you're observing a positive effect of perceived risk on investment intention. While it might seem counterintuitive at first, there are logical arguments that can support this result.

One strong argument is that a certain level of perceived risk may actually attract more experienced or risk-tolerant investors. For these investors, higher risk often implies the potential for higher returns. They might perceive risk as an opportunity rather than a deterrent, especially in high-growth or speculative investments. This group of investors could have a greater tolerance for risk because they believe they have the knowledge or strategies to manage it effectively, or they might simply be more motivated by the potential rewards.

Another argument is that perceived risk could be enhanced through due diligence. When investors recognize a high level of risk, they might spend more time researching and understanding the investment, which can lead to increased confidence and, ultimately, a higher intention to invest. This careful consideration might reduce uncertainty, making the investment more attractive despite its initial perceived risk.

Additionally, in certain market conditions, high perceived risk could be associated with unique or exclusive opportunities. Investors might feel that by taking on the risk, they are accessing a chance that others might avoid, giving them a competitive edge. These arguments suggest that perceived risk can, under certain circumstances, be positively associated with investment intention, particularly among those who see risk as a challenge or an opportunity rather than just a threat.

6. Conclusion

This study contributes to the growing body of literature in behavioral finance by examining the complex interplay between psychological factors—such as perceived risk and financial stress—and individual capabilities, specifically financial literacy, in shaping investment intention and behavior. Using Partial Least Squares Structural Equation Modeling (PLS-SEM) on data collected from investors in the Delhi NCR region, the findings offer valuable insights into how these factors influence the investment decision-making process.

The results confirm that perceived risk and financial literacy significantly and positively influence investment intention. Contrary to traditional financial theories that often associate higher risk with deterrence, this study highlights that experienced investor may perceive risk as an opportunity for higher returns, thereby increasing their willingness to invest. In this regard, the current study is not alone; other studies, such as (Diana Rusu and Roman 2020; Trang and Tho 2017), also found a positive effect of perceived risk on investment intention. Furthermore, financial literacy emerges as a crucial determinant of investment intention, reinforcing the notion that individuals with higher financial knowledge are better equipped to evaluate investment opportunities and manage risks, leading to more informed and confident investment decisions.

Interestingly, the findings indicate that financial stress does not significantly impact investment intention. While previous literature has suggested that financial stress can lead to more conservative investment behaviors, this study's results suggest that stress may not directly deter individuals from forming investment intentions, although its indirect influence through heightened risk perception remains noteworthy.

Moreover, the study confirms that investment intention plays a positive role in translating these psychological and cognitive factors into actual investment behavior. The positive and significant relationship between investment intention and behavior underscores the importance of intention as a mediator in the decision-making process, aligning with existing behavioral theories that emphasize the predictive power of intention on subsequent actions.

In conclusion, this research provides both theoretical and practical implications. Theoretically, it challenges the traditional rational decision-making models by incorporating psychological and behavioral dimensions, offering a more nuanced understanding of investor behavior. Practically, the findings emphasize the need for financial education programs to enhance financial literacy and address risk perception, thereby promoting more informed and proactive investment behaviors. Policymakers and financial educators should focus on strategies that improve financial knowledge and mitigate risk perception to foster healthier financial decision-making among investors. Future research could further explore the indirect effects of financial stress and extend these findings to other demographic or geographic contexts.

7. Implication

The implications of this research are multifaceted, offering both theoretical and practical contributions. From a practical standpoint, the study underscores the importance of financial

literacy in shaping investor behavior. Financial educators and institutions can utilize these insights to develop programs aimed at enhancing financial decision-making skills, particularly in managing risk and reducing the influence of financial stress. The findings suggest that improving financial literacy can lead to more informed investment decisions, which have significant implications for educators and policymakers alike. Policymakers could also benefit from this research by promoting financial literacy initiatives at a national level and implementing policies that provide safety nets during economic downturns, thereby reducing financial stress and its impact on investor behavior. Furthermore, the study has significant implications for financial advisors, who should consider psychological factors, such as perceived risk and financial stress, when advising clients, especially in volatile market environments.

On the theoretical side, this study enriches the behavioral finance literature by demonstrating how financial literacy, stress, and risk perception interplay to shape investment intentions and behavior. It extends existing models by incorporating these psychological factors and their influence on actual financial decisions, providing a more comprehensive framework for understanding investor behavior.

The positive impact of perceived risk identified in this study suggests that investment advisors should adopt behavioral segmentation, offering risk-appropriate investment strategies based on investors' tolerance levels. Policymakers should also capitalize on the region's rapid urbanization and digital adoption by introducing digital investment literacy campaigns, emphasizing secure transactions and informed decision-making. Financial institutions can develop customized investment products that align with the diverse risk appetites and literacy levels found in urban populations like Delhi NCR, thereby enhancing market participation. Furthermore, integrating AI-driven financial advisory tools tailored for urban investors could improve personalized investment decisions by accounting for behavioral tendencies linked to risk perception. These recommendations are directly derived from the study's unique insights into how urban investors in emerging markets, particularly in Delhi NCR, respond to evolving financial landscapes and risk dynamics.

8. Limitations

The research also has several limitations that need to be considered. The sample size used may limit the generalizability of the findings, and future studies should employ larger, more diverse samples to improve representativeness across demographic segments. Additionally, the cross-sectional nature of the study restricts its ability to capture changes in investor behavior over time, making it difficult to establish causality. Longitudinal studies would provide more insight into how investment intentions and behaviors evolve in response to changes in financial literacy or stress.

Another limitation is the reliance on self-reported data, which may be subject to biases such as social desirability or inaccurate reporting. Incorporating objective measures of financial literacy and stress in future research would help address this issue. Moreover, the study's findings are context-specific and may not be applicable to different cultural or economic environments. Comparative studies across various countries and regions would help validate and expand upon these results. Finally, while the study focuses on financial literacy, stress, and risk perception, it does not fully account for other psychological variables like cognitive biases, which are known to influence investment decisions. Future research could incorporate these factors to provide a more holistic understanding of investor behavior.

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