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THE MEDIATING ROLE OF RISK PERCEPTION IN LINKING FINANCIAL KNOWLEDGE AND WELL-BEING OF RETAIL INVESTORS

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ABSTRACT

With a focus on retail investors, this study investigates the role of risk perception (RP) as a mediator between financial Knowledge (FK) and financial well-being (FWB). Knowledge of finance, at the very least, should result in the improvement of an individual's well-being, but that is not the case in the modern financial markets that continue to develop with cutting-edge technology and varying degrees of instrument complexity. With the help of structural equation modeling, the author analyzes the direct and indirect associations of financial knowledge (FK), risk perception (RP), and financial well-being (FWB) using survey data from 450 retail investors in India. The result shows that the knowledge of finance improves the emotional well-being of the individual. More importantly, it shows that emotional well-being is achieved through cognitive and emotional risk perception (RP). Specifically, financially literate investors have a good appreciation of the risk in finance and are able to make constructive emotional decisions regarding finance. The author emphasizes the importance of risk perception (RP) in closing the gap between the cognitive and emotional aspects of the decision process. The proposed integration of behavioral finance, prospect theory, and subjective well-being will strengthen the theoretical boundaries of the discipline and should interest practitioners designing financial literacy (FL) intervention programs. It is suggested that investor results will be enhanced if educational interventions are designed to combine traditional knowledge teaching with risk perception (RP) techniques that include scenario-based training and interactive simulations. By empirically validating risk perception (RP) as a significant psychological component in emerging market contexts, this study contributes to the literature, providing a basis for policy, educational, and financial advisory efforts to assist retail investors.

KEYWORDS: Financial knowledge; Risk perception; Financial well-being; Retail investors; Behavioral finance; Financial literacy; Emerging markets.

1. INTRODUCTION

In the last decade, retail investors have the opportunity to engage in a financial marketplace that is more varied, digital, and rapid than ever before. The introduction of new financial products such as exchange-traded funds, crypto-assets, and a range of fintech savings and lending platforms has facilitated and cheapened the ability to trade. However, the marketplace has also become more complex, and users are more susceptible to marketplace volatility (JPMorgan Chase Institute, 2024; FINRA Foundation 2022). In such a context, the importance of having the skills and knowledge to make informed financial decisions is paramount. Financial knowledge (FK) is a critical factor determining the rationality of an individual's economic behavior and one's financial position in the long term (Lusardi & Streeter, 2023; OECD/INFE, 2020). A large number of empirical studies have described the positive impact that financial literacy (FL) has on higher planning and savings, improved debt management, and financial well-being (FWB) (Lone et al., 2022; Xiao, 2021). Knowledge of a subject may not translate into welfare gains, however, as psychological factors such as investors' subjectivity concerning potential risk and loss—are dominant in real decision-making (behavioral finance literature). Recently, work has noted that risk perception (RP), emotional responses and biases such as overconfidence and loss aversion are the leading factors guiding investor decisions, and that these elements are likely to cause outcomes that diverge from what is deemed rational (Almansour, 2023; Kumar, 2024).

While there is an abundance of research demonstrating the positive impact of financial literacy (FL) on behaviors and overall well-being, it is important to note that there are still significant gaps that need to be addressed. To start, Federal Reserve (2022) stated some poorly performing, retail investors, notwithstanding, possessing, some financial literacy (FL), still experienced, in relatively, poor financial well-being (FWB), indicating, that, knowing (something), isn't enough. In addition, risk perceptions (RP) is (are) contextual and subjective, therefore, this explains, why, it (RP) can enhance or reduce the behavioral returns of financial knowledge (FK) (Kumar, 2024; Almansour, 2023). Finally, while, to some extent, the body of knowledge has dealt with risk perceptions (RP) as a determinant of investment decisions or has characterized it (RP) as a - in a chain of other such influencing/impacting) variables - sequence; it is, still a great gap of no or little research that, for example, risk perception (RP) is a mediating factor to enable financial knowledge (FK) to convert

to financial well-being (Saleem, 2020; Malik, 2022). This absence fails to capture the degree to which, and in what way, financial knowledge (FK) is able to improve (or fail to improve) the investors' welfare, given subjective risk perceptions (RP). Without such understanding, educators and policymakers are likely to be overly confident in knowledge-oriented strategies which fail to address the gaps arising from the misalignment of the mental risk frameworks and behaviors (Fernandes, Lynch, & Netemeyer, 2014; Kaiser et al., 2020).

This research has its implications for theory and practice. On the theoretical side, including RP as a mediating mechanism advances financial decision-making models by accommodating cognitive (i.e., knowledge) and affective/attitudinal (i.e., RP) components, thus bridging the gap between the FL and behavioral finance streams (Nogueira et al., 2025; Katenova, 2025). On the practical side, identifying mediation makes it possible to assess financially educated gains in relation to well-being and determine if interventions need to focus on risk calibration (i.e., scenario training, interactive risk simulators) in addition to information (OECD/INFE, 2020; FINRA Foundation, 2022). Mediation offers regulators, advisors, and designers of fintech solutions the means to optimize the foundational evidence of tools and training materials that aid retail clients in achieving specified goals.

This research aims to focus on understanding how RP acts as a mediator between FK and FWB for retail investors. More specifically, the research will:

1. Assess the direct correlation between financial literacy and financial well-being.
2. Analyze how understanding finance correlates with the perception of risk.
3. Evaluate the influence of risk perception on financial well-being; and
4. Investigate whether the perception of risk mediates the relationship between financial knowledge and well-being.

The main objectives of this research using retail investor survey responses and advanced methods of structural equations / mediation analysis are to disentangle direct and indirect influences and provide insights for educational and policy frameworks. Prior research has shown that cognitive mediators such as self-efficacy and cognitive flexibility partially carry the reward of literacy and welfares ends, as such, this research advances this line of thinking by testing RP as a grounded theoretical cognitive mediator in the domain of investments.

The paper expands the literature by proposing and

empirically estimating a mediated model describing the association between FK and well-being through the variables of perceived risk and well-being, as well as offering practical recommendations for integrated (knowledge + risk calibration) interventions targeted at improving welfare for investors, specifically for the retail investor sample. The research also strengthens the current body of work regarding the geography and the context of the research done, as stated in the papers (e.g. Lusardi, 2023; OECD reports) referring to the emerging markets or specific national cohorts in relation to the predominantly U.S. and Europe focused literature, regarding gaps. When policymakers quantify the mediated path, they are best able to design and target focused FL interventions at the most important impact; Advisors, on the other hand, can address psychological gaps by incorporating the FWB knowledge gained and satisfaction behavioral adjustment tools.

The remaining sections of the paper correspond as follows. In Section 2, the theoretical foundations and empirical literature on FK and RP and FWB are integrated, and hypotheses are constructed. In Section 3, the research design, sample, instruments, and analysis are outlined. Section 4 includes the results of the measurement and structural models, as well as the mediation analysis. Sections 5 and 6 proceed to discuss the findings, related theories, and policy recommendations which also includes suggestions for future research. Finally, Section 7 presents the implications for educators, counsellors, and policymakers, as well as the research limitations.

2. THEORETICAL FOUNDATIONS AND EMPIRICAL LITERATURE

2.1. Theoretical Framework Development

2.1.1. Behavioral Finance Theory

Behavioral Finance Theory suggests that the cognitive biases, heuristics and emotions influencing financial decisions contest the idea of rational investors (Barberis & Thaler, 2003). The theory proposes that psychological influences and limitations on the processing of information cause individuals to often not meet rational expectations (Shefrin, 2021). FK, in this context, is important in reducing such biases by equipping individuals with the required skills to interpret and analyze information and in this case financial information (Baker et al., 2019). Financially knowledgeable investors are more likely to make reasoned decisions, better portfolio diversification and are less likely to fall into behavioral biases such as herding and overconfidence (Raut, 2020; Xiao & Porto, 2021). Hence, behavioral finance is the underpinning theory

for cognitive competence and the emotional and psychological factors that drive financial behavior and results. Knowledge empowers investors, but the behavioral tendencies and biases will still impact decisions unless education and awareness are in place (Kumar & Goyal, 2019; Statman, 2019).

2.1.2. Prospect Theory

Kahneman and Tversky's (1979) Prospect Theory has provided numerous distinctions in the ways the human brain rationalizes and understands risk and uncertainty. Most results of an outcome are compared with a benchmark. Loss aversion and the prevailing results make losses feel worse than equivalent gains. Investors with the same level of knowledge experience different RPs and behaviors due to subjectivity of the stated outcomes (Barberis, 2018). Thus, a wide range of elements such as past experiences and individual characteristics' tolerances, positive or negative psychological framing, and experience, affect RP. Psychological Framing, Past Experience, and Psychological Framing comprise the range of elements affecting RP. In the current study, RP is seen to play a mediating role. Prospect Theory explains how investors define losses and gains, subsequently defining the level of FK and FWB (Liang et al., 2023; Glaser & Langer, 2022).

2.1.3. Subjective Well-being Theory

Diener (1984) proposed the Subjective Well-being (SWB) Theory, which defines well-being as an individual's subjective evaluation of their life that includes feelings of contentment, good affect, and lack of negative emotions. According to Joo and Grable (2020) and Netemeyer et al. (2018), FWB can be compared to SWB and is centered on the satisfaction, the control, the feeling of control, and the stability of the financial concerns from the perspective of an individual. Those who are well-versed in money matters and have realistic assessments of risk are more likely to make better decisions, which in turn improves their financial situation (Brüggen et al., 2017; Shim et al., 2021). Hence, SWB Theory serves as the primary linkage to the psychological and economic components of investor welfare which this research strives to emphasize through RP as the mediator between knowledge and well-being.

2.2. Literature Reviews and Hypotheses Development

2.2.1. Financial Knowledge

Existing research on financial knowledge (FK) highlights the correlation between increasing FL and

the improvement of investment decisions, the adoption of more diversified financial products and positive financial behaviors. Studies performed in developing countries documented that retail investors possessing stronger FK evaluated returns and risks and portfolio strategies more systematically and in a more financially prudent manner (Prasad, 2021; Rana, 2024). An array of consumer surveys and empirical studies have also shown that having digital and product literacy (in particular regarding fintech tools or digital investment platforms) accounts for variation in investor outcomes to a greater extent than traditional measures of numeracy (Choung, 2023). For other studies, the context and method of delivery utilized were also noted as influential on the outcomes of financial education; simply providing information resulted in negligible changes in behavior, especially without the addition of experiential learning or decision aids (Merter, 2025; Bhandari, 2023). Regarding self-reported FL, research noted that self-assessment of knowledge as compared with objective measures diverged and that such divergence predicted retail traders' trading activity and risk exposures (Asry, 2024).

2.2.2. Risk Perception

Risk perception (RP) literature highlighted investors' subjective evaluations of uncertainty and loss implications and how those evaluations affected investment choices and countered knowledge advantages. Some literature suggested that RP depended on experience, familiarity with the product, recent events in the market, and often mediated the relationship between investor traits and investor behavior (Kling, 2023; Kumar, 2024). Other literature indicated that risk framing and mental models influenced the behavior of investors in the information action gap where those that perceived downside risk would withdraw from the market or take risk-averse positions even when the risk-return trade-off would suggest the position was a loss (Merter, 2025; Asry, 2024). Numerous studies in practice reported that RP that was altered and risk-calibrated investment responses was a result of targeted exercise tools like risk simulators and scenario planning (Togan, 2025; research summaries). Scholars suggested that, in retail investment, RP functioned primarily as psychological filter and, secondarily, as a behavioral driver.

2.2.3. Financial Well-Being

Research on financial well-being (FWB) revealed that it consists of multiple dimensions which comprise objective elements (savings, emergency funds) along with subjective components (satisfaction, perceived financial security). As part of qualitative and survey-based research, it has been established that, for younger age groups, the FWB (friends with benefits) relationships mean something quite different (more aligned with freedom and lifestyle), than for older age groups (more aligned with security and future provisioning). Moreover, these definitions shaped the knowledge and risk attitudes which in turn shaped the outcomes (Riitsalu et al., 2023). In the quantitative literature, FWB was found to be positively correlated with the different components of FL, with the strongest relations depending on a person's income and education and financial shocks (Das, 2025; Jaffar, 2024). Recent work highlighted the importance of incorporating tools that adjust RP and strengthen behavioral capacities to any policy and educational efforts centered on FL (Garg, 2024; Alqam, 2024). The literature states that for the improvement of retail investor welfare the synthesis of RP's cognitive and affective components is essential.

Linked with RP, FK, and FWB are interconnected constructs that influence behavioral and outcome aspects of investors. Prior studies have consistently shown that people who possess FK make informed decisions and, as a result, achieve a higher level of FWB. However, knowledge also appeared to shape investors' perceptions of financial risk and how financial risks are managed, subjecting investors to risk. On the contrary, a higher perception of risk is associated with a decrease in FWB due to increased financial stress and the avoidance of productive investments, thus explaining the inference that RP might be a crucial mediating factor through which FK leads to increased FWB. Thus, to explore the relationships with retail investors in the empirical context, the following relationships were posited:

H1: Financial knowledge has a significant positive effect on the financial well-being of retail investors.

H2: Financial knowledge has a significant relationship with risk perception among retail investors.

H3: Risk perception has a significant effect on the financial well-being of retail investors.

H4: Risk perception significantly mediates the relationship between financial knowledge and financial well-being of retail investors.

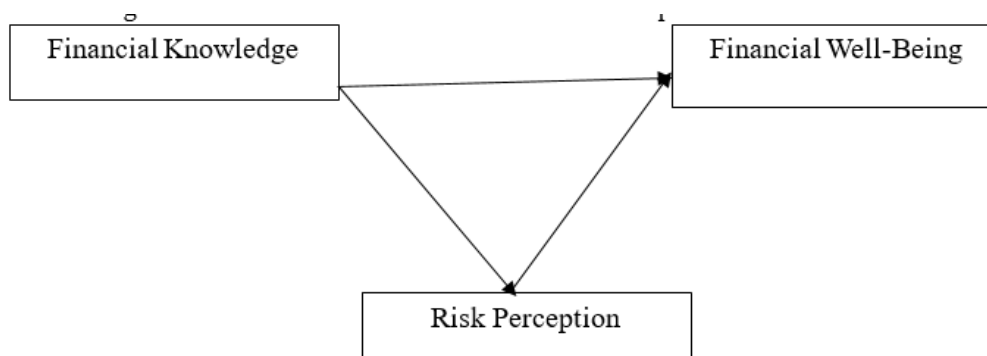


Figure 1: Research Model of the Study

The research model illustrates how RP mediates the effect of FK on the FWB of retail investors. In the model, FK is the independent variable which primarily impacts FWB and secondarily impacts it through RP. RP is the mediating variable which describes how individuals' comprehension and estimation of financial risks affect the knowledge that people possess as well as the behavioral and emotional outcomes concerning finances. FWB is positioned as the dependent variable, as it constitutes the total financial satisfaction and stability from the investors' perspective. Thus, the model illustrates both direct and indirect pathways showing how higher FK leads to better FWB, as modified by RP.

3. RESEARCH METHODS

3.1. Research Design

The study used a mixed methods approach that integrated quantitative methods with an explanatory design to prove the hypothesis that retail investors' perceptions of risk, as the FL and financial security, would constrain the relationship. This approach fit the purpose of the study as it gives room for the analysis of the interrelations among the variables. Similar to the preceding study, this one was also cross-sectional, relying heavily on primary data from retail investors collected through a structured questionnaire. With RP as mediation, it was explanatory design was to some extent clarify the direct and indirect effects of FK on investors' well-being. In addition, the study aimed to verify the mediation analysis hypotheses and to validate the conceptual model through statistics.

3.2. Sample Size

A total of 450 retail investors formed the study sample for this research. The sample size was determined to be both statistically and representatively significant in relation to the target population of the study. It was determined that the sample size of 450 would be statistically adequate for conducting analyses to explore the correlations and potential regression and/or mediation relations

across FK, RP and FWB, while at the same time maintaining adequate power, and a minimal margin of error. The sample size is commensurate with the requirements of the behavioral finance literature, which stipulates larger sample sizes to improve the reliability and generalizability of the results. Cochran's formula is used to compute the required sample size in relation to proportion estimation for large populations under the assumption of an infinite population.

$$n = \frac{Z^2 p(1-p)}{e^2} = \frac{(1.96)^2(0.5)(1-0.5)}{(0.05)^2} = 385$$

Although 385 responses would have been sufficient, 450 responses were needed to ensure reliability and validity. Google survey links were sent to Indian retail investors on several online platforms to gather the sample. From the 600 surveys sent, 482 were completed which corresponds to an 80.3% response rate. 32 responses were ultimately excluded from the study due to incomplete and insufficient data. By having responses from 450 retail investors, the study manages to find a fair compromise between being reflectively balanced and having sufficient statistical power.

3.3. Data Collection

Subsequent to the relationships among FK, RP, and FWB, some lessons data is collected and analyzed directly from the retail investors for primary data pointing to the relationships among the constructs. Age, sex, education, earnings level, and investment experience were some with the 450 respondents of different demographic variables. For this purpose, an ordered questionnaire designed for the study is utilized, and in this case, data from retail investors is collected through different means, such as online investment forums and social media groups, as well as brokerages and email surveys. This approach facilitates the collection of data from a wide and geographically diverse population of retail investors.

The research utilized purposive sampling, whereby the criteria of respondents in the study were restricted to individuals in the decision-making positions with financial stakes, as such respondents

are expected to have the required FK, lived experiences, perceptions, and insights to determine the extent FK influences the risk and FWB. Throughout the data collection period, all participants were explained to the objective of the study, their right to voluntarily partake, and the confidentiality of their personal and financial data. Subsequently, the response collection period

spanned 4 to 6 weeks, and non-respondents were followed up with to encourage feedback. The recorded responses are systematically structured and organized for efficient statistical analysis. Consistency and accuracy are emphasized in the documentation to ensure that perceptions and experiences of retail investors are properly captured and presented.

Table 1: Demographic Profile of the Respondents

S No.	Profile	Category	N	%
1.	Age	20-30 years	160	35.6%
		31-40 years	139	30.9%
		41-50 years	91	20.2%
		51-60 years	60	13.3%
2.	Educational Qualification	Undergraduate	102	22.7%
		Graduate	94	20.9%
		Post-graduate	86	19.1%
		Professional Degree	97	21.6%
		Others	71	15.8%
3.	Occupation	Private Sector Employee	141	31.3%
		Public Sector Employee	95	21.1%
		Self-Employed	155	34.4%
		Part-time working or freelance	59	13.1%
4.	Monthly Income	₹20,001-₹40,000	98	21.8%
		₹40,001-₹60,000	101	22.4%
		₹60,001-₹80,000	117	26.0%
		₹80,001-₹1,00,000	82	18.2%
		More than 1,00,000	52	11.6%
5.	Marital Status	Single	126	28.0%
		Married	165	36.7%
		Divorced/Separated	94	20.9%
		Widowed	65	14.4%
6.	Residential Location	Rural	140	31.1%
		Semi-Urban	153	34.0%
		Urban	157	34.9%
7.	What is your preferred investment avenue?	Fixed Deposits	88	19.6%
		Gold	101	22.4%
		Mutual Funds	102	22.7%
		Real Estate	42	9.3%
		Stock Market	77	17.1%
		Others	40	8.9%
8.	How frequently do you review your investments?	Weekly	132	29.3%
		Monthly	102	22.7%
		Quarterly	92	20.4%
		Annually	87	19.3%
		Rarely/Never	37	8.2%

Demographics show variation in Retail Investors in regard to age, qualification, work, revenue, marital condition, location of residency, investment option, and frequency of review on investment. Most respondents (35.6%) fall within the age range of 20 to 30 years making them largely young and middle-aged investors, with the next significant age category being 31 to 40 years (30.9%). With respect to educational qualification, there is a fairly high level of education within the sample with 22.7% being undergraduates, 20.9% being graduates, 19.1% being postgraduates, and 21.6% being professionals, hence the respondents are likely to have a good educational

background in finance. In terms of occupation, 34.4% are self-employed, 31.3% work in the private sector, 21.1% work in the public sector, while 13.1% are part-time or freelance workers, meaning the sample holds a variety of employment structures. The moderate earning groups fall within the monthly income of ₹60,001 – ₹80,000 (26.0%) while the next groups are ₹40,001 – ₹60,000 (22.4%) and ₹20,001 – ₹40,000 (21.8%). In marital status, the majority are married (36.7%) while singles are 28%, divorced/separated are 20.9% and widowed are 14.4%. The spread of residences is almost evenly split with urban respondents at 34.9%, semi-urban at 34.0%, and rural

at 31.1%, suggesting strong geographic diversity as well. In terms of investment interests, respondents most preferred mutual funds (22.7%) and gold (22.4%), next were fixed deposits (19.6%), and stock market investments (17.1%). Real estate (9.3%) and other options (8.9%) are least favoured. Considering the frequency of their investment monitoring, the majority of respondents do so on a weekly (29.3%) or monthly (22.7%) basis. Fewer respondents monitor their investments on a quarterly (20.4%), yearly (19.3%), or rare/never (8.2%) basis. This shows varying degrees of investment monitoring among the respondents. Conclusively, the respondents have a heterogeneous demographic and financial behavior, which provide a solid foundation to analyze the relationship among FK, perception of risk and financial wellness.

3.4. Research Instrument (Questionnaire Design)

A structured questionnaire will serve as the principal research instrument to assess the three main constructs: FK, RP, and FWB. For each of the constructs, scales adopted from previous studies will be used. As in the other studies, multiple constructs were measured, and all items used were comprehensive multi-item scales from previous literature, each rated using a five-point Likert scale, which was structured from 1 (Strongly Disagree) to 5 (Strongly Agree). The FK Scale by Thung et al. (2012) and included statements like "I have better understanding of how to invest my money" and "I have a very clear idea of my financial needs during retirement" the RP Scale by Hossain and Siddiqua (2022) which included "I generally do not have a fear of capitalizing on stocks with a certain gain" and "I am careful about stocks that show unexpected fluctuations in price or transaction" and the FWB Scale by Bhatia and Singh (2023) which included "I could handle a major unexpected expense." and "I am securing my financial future." The verification of each construct and ensuring content validity and consistency was operationalized through these items. These operational scales, as stated by the authors, were utilized in the study. The survey was conducted through Google Forms, which allowed for accessibility from various demographics.

3.5. Data Analysis

As for data analysis, the study used IBM SPSS 25.0 and AMOS 24.0 for both inferential and descriptive statistics. For analytical purposes, the demographic

data were first summarized and the normality was checked. Construct reliability and validity were determined using Cronbach's alpha, CR, and AVE. To test the proposed relationships, structural equation modeling (SEM) was used, given that it estimates multiple relationships among the variables simultaneously and assesses mediation. Path analysis was used to assess the direct effects (H1, H2, and H3) and bootstrapping with 5,000 resamples was used to assess the mediation of RP (H4) and the significance of the indirect effects was tested. Several criteria were used to assess the model fit including the Chi-square/df ratio (<3), CFI (>0.90), TLI (>0.90), and RMSEA (<0.08). The analysis confirmed the RP mediation effect as posited in the research model, showing the degree to which FK affected FWB in both direct and indirect ways.

4. RESULTS

The Findings Section outlines the factual conclusions obtained during the analysis of data collected from 450 retail investors. This section examines the descriptive statistics, the normality of the data pertaining to the various constructs, the reliability and validity of the measurement instruments, and the tested hypothesized relationships using structural equation modeling (SEM). This section outlines the direct and indirect relationships among financial literacy, risk perception, and financial well-being. This section explains the RP's mediating role in the FK and FWB relationship and, thus, confirms the proposed conceptual model and offers important implications for the financial behavior of investors.

4.1. Multicollinearity Analysis

The multicollinearity analysis findings involving the independent variables FK and RP (RP) is included in Table 2. The tolerance and VIF values were both 0.981 and 1.020 respectively, thereby confirming the absence of multicollinearity. As noted by Hair et. al., (2019) and Kock (2015) multicollinearity should be of no concern when tolerance is greater than 0.10 and VIF is less than 5.0, indicating that the independent variables will not excessively overlap in variance explaining the dependent variable. This finding indicates that the predictors are independent and can be used reliably in regression and mediation analysis. The values also indicate the potential of the model, as discussed in prior studies in behavioral finance, is robust (O'Brien, 2007; Gujarati & Porter, 2020).

Table 2: Multicollinearity Analysis

Construct	Collinearity Statistics	
	Tolerance	VIF
RP	.981	1.020
FK	.981	1.020

Source: Researcher's Compilation

4.2. Descriptive Statistics and Data Normality

Table 3 contains descriptive statistics. The mean values for all constructs (FWB, RP, and FK) ranged between 3.39 and 4.08 which is indicative of a moderate to high level of agreement by respondents. In general, retail investors seemed to have an adequate understanding of the components of finance, perceived risk, and overall well-being. The standard deviation values, mostly between 0.93 and 1.26, show reasonable, yet varied perceptions within the sample. Furthermore, skewness values ranged from -0.27 to -1.10 and kurtosis values from -1.10 to 1.01. Thus, for both cases, the values were within the allowable range of -2 and 2, confirming the data were normally distributed (Hair et al, 2019). The slightly negative skewness values also indicate that most respondents most likely reported high levels of

knowledge about finances and well-being. This is consistent with previous findings about the satisfaction and confidence that financially literate (and thus, more likely to be financially satisfied) investors possess (Lusardi and Mitchell, 2014; Xiao and Porto, 2017). In the same vein, the higher mean scores for RP items (M = 4.03 - 4.08) indicate that retail investors were more likely to concentrate on the cautious end of the spectrum about their financial decisions. This is in line with previous studies that placed emphasis on the impact of perceived risk on the behavior of investors (Weber et al, 2002; Hoffmann et al, 2015). The overall data suggested that sufficient normality and reliability span were demonstrated to perform the desired statistical analysis. Hence, it is appropriate to proceed with the desired hypothesis testing using structural equation modeling.

Table 3: Descriptive Statistics and Data Normality of Constructs

Descriptive Statistics									
	N	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Financial Well-Being									
FWB1	450	1.00	5.00	3.6022	1.14612	-.551	.115	-.629	.230
FWB2	450	1.00	5.00	3.9556	1.03299	-.982	.115	.414	.230
FWB3	450	1.00	5.00	3.8733	1.02288	-.760	.115	.039	.230
FWB4	450	1.00	5.00	4.0267	1.04645	-1.061	.115	.496	.230
FWB5	450	1.00	5.00	3.7422	1.11489	-.737	.115	-.197	.230
FWB6	450	1.00	5.00	3.7822	1.06017	-.750	.115	-.045	.230
FWB7	450	1.00	5.00	3.7667	1.03663	-.690	.115	-.035	.230
FWB8	450	1.00	5.00	3.7844	1.14834	-.759	.115	-.367	.230
FWB9	450	1.00	5.00	3.7422	1.06168	-.592	.115	-.324	.230
FWB10	450	1.00	5.00	3.9933	.93792	-1.028	.115	.972	.230
Risk Perception									
RP1	450	1.00	5.00	4.0644	.95457	-1.101	.115	1.012	.230
RP2	450	1.00	5.00	4.0800	.97533	-1.000	.115	.498	.230
RP3	450	1.00	5.00	4.0311	1.01609	-1.099	.115	.761	.230
RP4	450	1.00	5.00	4.0333	1.04306	-1.096	.115	.633	.230
Financial Knowledge									
FK1	450	1.00	5.00	3.5289	1.16379	-.419	.115	-.860	.230
FK2	450	1.00	5.00	3.7044	1.03361	-.746	.115	.106	.230
FK3	450	1.00	5.00	3.6067	1.13202	-.627	.115	-.430	.230
FK4	450	1.00	5.00	3.3933	1.26753	-.276	.115	-1.098	.230
FK5	450	1.00	5.00	3.6711	.98239	-.421	.115	-.527	.230
FK6	450	1.00	5.00	3.7956	1.00021	-.842	.115	.495	.230
FK7	450	1.00	5.00	3.5800	1.07370	-.556	.115	-.455	.230

Source: Researcher's Compilation

4.3. Reliability and Validity of Construct

Results concerning reliability and validity in Table 4 suggest affirmatively for the constructs FK, RP, and FWB that internal consistency and convergent validity was achieved, thereby affirming the overall model's adequacy, or fit, for the measurement. Consistency was calculated using Cronbach's alpha

for all sets of items as partitioned and attained 0.870 to 0.935 for the constructs, exceeding the critical 0.70, thus affirming the recommendation by the authors Nunnally and Bernstein (1994). Construct reliability levels, or Composite Reliability (CR) as attained, were all above 0.86 for each of the constructs, thereby exceeding the critical value of 0.70 as suggested by

Hair and colleagues (2019) for reliable measurements of the constructs. The average variance extracted (AVE) values for each of the constructs closely consolidated and were well above the critical value attaining 0.778 to 0.821, exceeding the value benchmark of 0.50 as proposed by Fornell and Larcker (1981). Points of standardized factor were, thus, affirmatively, derived of and over determined by 0.70, as of consolidated aligned and literature by Kline (2016). All were thus and affirmatively

consolidated, as there being cohered to the reliability and validity of the underlying measurement model of the study. The levels of reliability and validity echo previous accounts in the literature on financial behavior (e.g., Xiao & Porto, 2017; Stolper & Walter, 2017). These accounts further reinforce the trustworthiness of the current model in demonstrating the mediating role of RP in connecting FK and FWB.

Table 4: Reliability and Validity Analysis

Constructs	Items	Standardized loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Financial Well-Being (FWB)	FWB10	0.746	0.935	0.936	0.821
	FWB9	0.847			
	FWB8	0.845			
	FWB7	0.890			
	FWB6	0.891			
	FWB5	0.793			
	FWB4	0.731			
Risk Perception (RP)	RP4	0.709	0.880	0.863	0.778
	RP3	0.784			
	RP2	0.838			
	RP1	0.858			
Financial Knowledge (FK)	FK4	0.843	0.870	0.872	0.793
	FK3	0.729			
	FK2	0.699			
	FK1	0.839			

Source: Researcher's Compilation

4.4. Discriminant Validity

The findings from the discriminant validity analysis regarding the FWB, RP, and FK constructs are provided in Table 5. The square roots of the AVE scores are presented along the diagonal; these scores range from 0.882 to 0.906 and are higher than the inter-construct correlations, which confirms the discriminant validity outlined in Fornell and Larcker (1981). The moderate correlation between FWB and RP (0.338) indicates an important, albeit non-overlapping, relationship. This suggests that RP does

affect FWB, but the constructs have enough separation to be treated as independent. The lower correlations in the other direction between FK and FWB (0.174) as well as RP (0.166) underscore the conceptual independence of FK, and thus, that each construct is measuring a different aspect of financial behavior. Similar findings have been reported in the literature (e.g., Hair et al., 2019; Henseler, Ringle, & Sarstedt, 2015) which emphatically fine-tunes the discriminant validity needed for the constructs to be distinct and valid to test hypotheses in the structural equation modeling approach.

Table 5: Discriminant Validity Analysis

	FWB	RP	FK
FWB	0.906		
RP	0.338	0.882	
FK	0.174	0.166	0.891

Source: Researcher's Compilation

4.5. The Goodness of Model Fit of Model

As presented in Table 6, the model fit indices shows that the measurement model achieved an excellent level of goodness of fit and confirmed the model was appropriate for structural analysis. The CMIN/df 2.460 value substantially greater than the average fit score of 5.00 as acceptable fit for a model of that complexity (Byrne, 2016). The GFI (0.942) and AGFI (0.917) both of which exceed 0.90, supports the degree of fit between the observed covariance matrix 90 and estimated covariance matrix (Hu & Bentler,

1999). The incremental fit indices CFI (0.973), NFI (0.955), and TLI (0.966) also exceeded 0.90, demonstrating a substantially favorable model fit (Hair et al., 2019 and Kline, 2016). The RMSEA value of 0.057 is in the acceptable range of 0.08 which indicates an appropriate model fit (Steiger, 2007). Thus, the model fits the data sufficiently and the constructs FK, RP and FWB as defined are measuring reliable constructs. The fit indices confirm the robustness of the proposed model and meets the level

of acceptable work in the area of financial behavior research (Schumacker & Lomax, 2016; Awang, 2015).

Table 6: Goodness of Model Fit of Measurement Model

The Goodness of Model Fitness Index	CMIN/Df	GFI	AGFI	CFI	NFI	TLI	RMSEA
Calculated Value	2.460	0.942	0.917	0.973	0.955	0.966	0.057
Required Value	Less than 5	More than 0.9	More than 0.9	More than 0.9	More than 0.9	More than 0.9	Less than 0.08

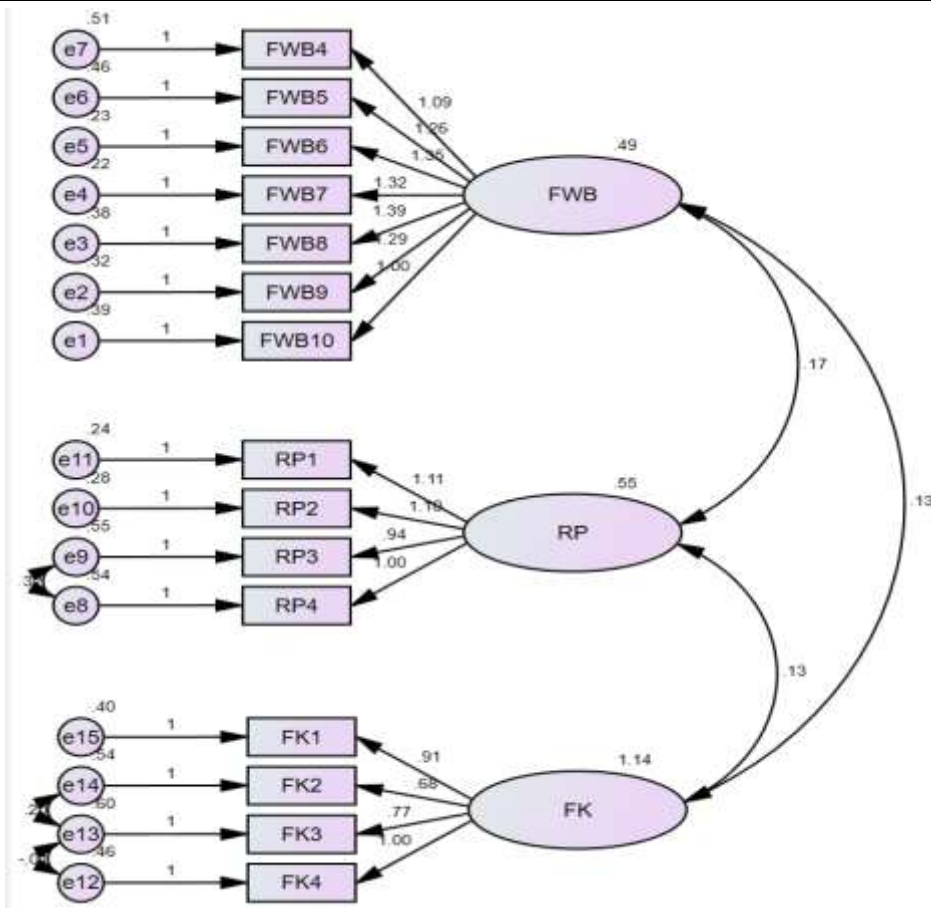


Figure 2: Measurement Model

4.6. Hypothesis Testing

The findings from hypothesis testing presented in Table 7 provide strong empirical support for the suggested conceptual model regarding RP as a mediator between FK and FWB in the context of retail investors. The results affirm that all four relationships in the model (H1-H4) were posited as positive and statistically significant, evidenced by the positive standardized estimates and p-values below the 0.05 threshold for each model, thereby confirming the relevance of each path to the overall model.

Hypothesis 1 posits that FK exerts a positive influence on an individual's FWB. The t-value = 2.393 and the p-value = 0.017. Hence, the standardized prediction is 0.079, implying that an increase in FK is associated with a positive increase in the FWB of

retail investors. Investors are apparently skilled in a number of important financial skills, i.e., budgeting, the diversification of investments, and calculating interest, all of which enhance their decision-making and therefore their financial well-being increase.

H2 examined the relationship between FK and RP. The association between the measured variables with a standardized estimation of 0.115 demonstrates statistically significant association with a t-value of 3.027 and a p-value of 0.002. This shows that with higher levels of financial expertise, there are improvements in understanding and perceptual sophistication with respect to financial risk. It needs to be mentioned that those people who are financially knowledgeable are also financially risk critics and are much more likely to make decisions that are rational

rather than emotional. This is behaviourally financed in the sense that knowledge is the aspect that decreases the instinctive gap of risk and increases sound behavior in finance.

The purpose of H3 was to measure how much RP impacts FWB . The standard estimate of 0.300, accompanied by a t-value of 5.850 and a p-value of 0.000, suggests a strong positive correlation . Therefore, RP suggests investors with a high understanding of financial risks are more likely to attain higher levels of FWB. Meaning, keeping a balance in RP - not having a fear of risks or being overly confident to the point of making illogical financial decisions - prompt effective risk management with a balanced psychological and financial state to avoid high risks to an individual's FWB.

H4 looked at how RP might be mediating the association of FK and FWB. In mediation analysis, the mediation effect was significant given the standardized estimate 0.284, t = 2.725, and p = 0.010.

Evidence also shows that FL contributes FWB directly and indirectly through how an individual perceives and approaches financially threatening situations. It is the mediating effect that shows the understanding of risk to be an important psychological pathway through which FL is translated to better outcomes in well-being.

All the above information confirms the great reliability the described model results have. Especially, the findings convey that the extent of FK an individual have influences the how superior their FWB is, both directly and indirectly through the former's effects on RP. This is consistent with literature that notes that as prudent and rational risk-takers are, the more informed they are as investors, resulting in well-managed finances, thereby high FWB. It is then sensible to focus on the improvement and sustenance of FL and education of investors to strengthen risk and financial robustness for the retail investors.

Table 7: Hypothesis Testing (Regression and Mediation Analysis)

S No.	Hypothesis testing	Standardized Estimates	t-value	p-value	Results
H1	Financial Knowledge → Financial Well-Being	0.079	2.393	.017	Supported
H2	Financial Knowledge → Risk Perception	0.115	3.027	.002	Supported
H3	Risk Perception → Financial Well-Being	0.300	5.850	.000	Supported
H4	Risk Perception → Financial Knowledge → Financial Well-Being	0.284	2.725	.010	Supported

Source: Researcher’s Compilation

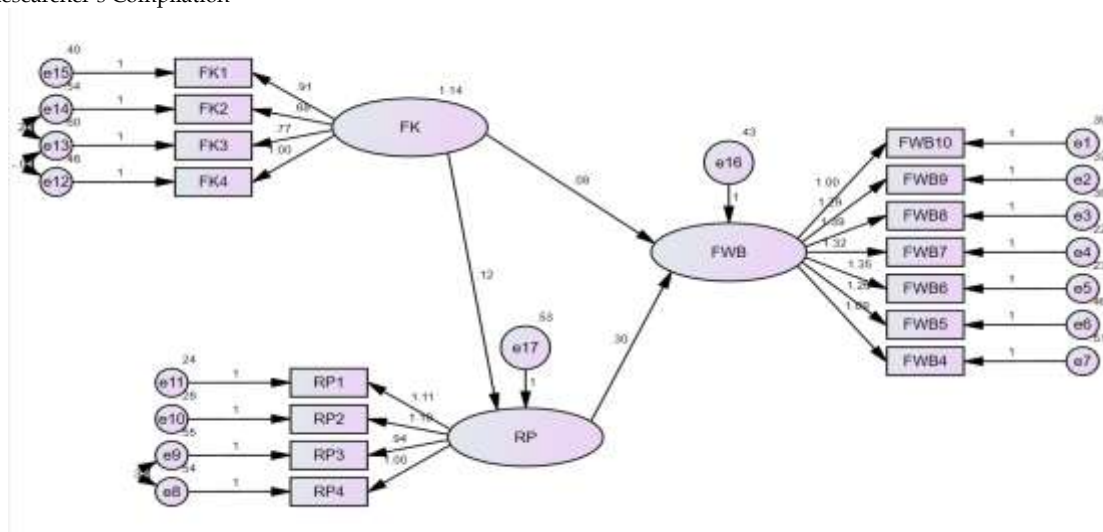


Figure 3: Structural Model

5. DISCUSSION

Robust hypothesis-testing within the study has revealed new insights relating to the complexities of retail investors’ FK and the perceptions of risk and FWB and how they interrelate. The observed FK spurring FWB (H1) has positive influence of statistical significance in recent studies document that FL positively influences FWB and good inflation positive stable (Lusardi & Streeter, 2023; Lone et al,

2022). The evidence supports the claim that knowledge endows investors the ability to make rational decisions that enhance their financial welfare over the long term (Prasad, 2021; Das, 2025).

The connection between FL and RP (H2) suggests that educated investors have better evaluations and assessments of financial risks. As an investor’s financial education increases, so does his/her ability to understand and interpret rationally the market uncertainty, lessening the emotionally driven and

biased responses (Kumar, 2024; Merter, 2025). This is consistent with the behavioral finance viewpoint that suggests that education enhances risk assessment and reduces the effect of cognitive biases (Bhandari, 2023; Asry, 2024).

Most importantly, RP was shown to impact FWB (H3). Those investors that maintain a flexible outlook on risk, neither running away from it nor being overconfident, will be more effective in handling the uncertainty involved in the sustaining finances (Togan, 2025; Kling, 2023). The positive relationship of calibrated RP with greater well-being is evidence in more recent studies stating that behavioral strategies focusing on the evaluation of risk result in improvements, both within the performance of the investments and the psychological state of the investor (Liang et al., 2023; Glaser & Langer, 2022).

Furthermore, as articulated in hypothesis testing, the mediating function of RP between the constructs of FK and well-being (H4) shows the degree to which knowledge propels welfare in addition to the direct impact, which hinges on the manner risk is perceived and acted upon (Sekciska, 2025; Malik, 2022). This not only augments the prevailing view that the impact of FL programs is realized in the presence of complementary resources and strategies that alter RP, for example, scenario practices and risk simulation—but also emphasizes the need to move away from an over attention to knowledge transfer (OECDINFE, 2020; Garg, 2024).

In conclusion, the evidence attests to the theoretical and empirical collating of the cognitive and emotional behavior components of financial decision making to converge models. As pointed out in recent studies, the “integrated approach” in knowledge content to risk calibration is vital in advancing the investor’s well-being (Nogueira et al., 2025, Alqam, 2024). This study contributes to the literature by being the first to show the relation mediated by knowledge transfer to well-being psychological factors in the case of retail investors in emerging markets. This suggests that future educational and policy efforts need to balance RP as much as the transfer of FK for the facilitation of effective FWB and appropriate investor integration.

6. THEORETICAL CONTRIBUTION OF THE STUDY

This research has made an important contribution to behavioral finance and FWB in several of ways. Most importantly, managing to demonstrate the mediating role of RP in addressing the major gap of bridging the cognitive aspect of FK and the emotional aspect of RP, as hypothesized in the recent works (Nogueira et al, 2025; Katenova,

2025). In addition, the research extends the scope of previous models by not only incorporating the influence of FL at the more psychological and emotional levels and how a person perceives and evaluates risk in finance that is also in the explaining of the knowledge and the attainment gap in FWB (Liang et al., 2023; Malik, 2022).

The principles within behavioral economics integrated with prospect theory and subjective well-being theory establish a strong theoretical grounding to analyze financial behavior in a more holistic manner. By proposing RP as a mediating construct, the study clarifies and answers the question why investors with the same level of knowledge achieve different financial outcomes, addressing the need for comprehensive theoretical models combining cognitive, and emotional and behavioral streams (Garg, 2024; Glaser & Langer, 2022). It also helps to fill the literature gap by empirically testing the framework in the context of an emerging market, thus broadening the theoretical generalizability of research that has primarily focused on U.S. and European samples (Lusardi & Streeter, 2023; OECDINFE, 2020).

The study contributes to theoretical discourse by measuring FK direct and indirect impact on well-being, elucidating the crucial mediating influence of RP, and arguing the need for multi-dimensional strategies in theory and policy to improve investor decisions and welfare across a range of situations.

7. CONCLUSION, IMPLICATION AND LIMITATIONS OF THE STUDY

This study has shown empirically that the strengthening of the FWB of retail investors is to a large degree the result of the growth of FK. Investors with advanced FL understand how to make sound, rational investment decisions which positively impacts their FWB. Also, the study shows the significant mediating role of RP, showing that an essential part of the influence FK has on well-being is how investors understand and assess financial risk. This dual pathway model shows that knowing is not enough, and that the required knowledge must be complemented with an appropriate RP to attain the desired financial results.

Currently, the merger of behavioral finance and subjective well-being continuation indicates the understanding of emotion and psychology as the knowledge of the market and finance behavior by the investor’s integration with the emotional and cognitive attitudes toward the sustaining and examination of risk. The RP impact as a mediator underscores the complexity of the decision uncertainty and the psychological pathways that

filter the knowledge and behavior, and the knowledge and well-being interconnections. This understanding fits perfectly with the current discussions that financial education goes beyond the traditional approaches of informing to supplementary experiential and risk-prone education that embeds emotion in the learning processes.

This study suggests that educational practitioners, policymakers and financial advisors should pay attention to FWB interventions as more than the dispensing of financial knowledge, but as the designing of more sophisticated and more effective structures around perceptions of risk. These initiatives can produce more resilient, less anxious, and more adaptable investors, all of which contribute to increased satisfaction and stability. This is particularly important in advancing markets, where the profiles of investors and the conditions of the markets can be quite complicated.

The investigation extends and expands the portion of the body of knowledge and the literature by building and improving the theoretical frameworks of investor behavior and providing the foundations of all-encompassing FL programs to provide defensible empirical grounding. Integrated Education is a topic the research is partly contributing to by addressing the cognitive and psychological

aspects of the financial wellness of retail investors and positing that knowledge and risk perceptions act as complements to the financial decision-making process. All research has its limitations, and this one is no exception. The first limitation is that the nature of the data collection is cross sectional and therefore leaves no room for the interpretation of cause and effect; the use of longitudinal data collection would enhance our understanding of the temporal components and issues at play. The second limitation has to do with self-reported knowledge in understanding and the risk attitude scales; the variables of knowledge and risk biases, both over and under, as well as the need to consider self-reported knowledge in understanding. Other limitations of the research include the rest of the sample that was reasonably diverse, but was predominantly concerned with the Indian retail investor, and other research particularly in the less well-endowed regions of the world with their different regulatory, economic, or socio-cultural frameworks, thus providing little global perspective. The study also assumes that other psychological factors, particularly self-efficacy, will not be significant in explaining the relationship between knowledge and well-being, as will situationally factors, such as market shocks.

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