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Exploring the Nexus between Financial Knowledge & Investment Behaviour: An Insight from Kolkata

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Abstract

This study employed a cross-sectional design to examine the relationships among Financial Knowledge, risk perception, and investment behaviour among urban residents of Kolkata. Data were collected through a primary survey of 384 respondents, determined using the Krejcie and Morgan (1970) formula based on the 2011 Census population of Kolkata. Structural Equation Modelling (SEM) was used to test the hypothesized relationships. The results indicated that Financial Knowledge had a significant standardized direct effect on investment behaviour ($\beta = 0.271$, 95% CI [0.004, 0.538]). Moderation analysis within the SEM displays that FK ✻ RP → IB ($\beta = 0.0793$, $p = 0.043$), which confirms that risk perception moderated (significant at the 1% level) the relationship between Financial Knowledge and Investment Behaviour.

Keywords: Financial Knowledge, Investment Behaviour, Risk Perception, Kolkata, Structural Equation Modelling
JEL Classification: G11, G53, D81, C10

1. Introduction

Financial Knowledge encompasses understanding fundamental economic and financial ideas, coupled with the skill of managing personal finances effectively (Deepak et al., 2015). Numerous experts have contended that achieving financial success and competitiveness necessitates a thorough understanding of financial concepts (Ghasarma et al., 2017). The concept of Financial Knowledge is commonly understood to have four interconnected aspects – financial knowledge and skills, which form the foundational levels,

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followed by financial attitude and behaviour, which represent progressive dimensions, ultimately leading to financial well-being, sometimes considered a fifth dimension. (Chaulagain, 2015). Constantly evolving developments in the field of Financial Knowledge are largely driven by the fluctuating global economy, mirroring the continuous development observed in all fields of expertise (Kovács & Terták, 2019). Financial education programs offered by employers, schools, credit advisors, or community groups have consistently demonstrated significant positive outcomes (Gale & Levine, 2011). While modern financial tools like bank cards, mobile banking, and insurance enhance our lives, a general lack of understanding and ability prevents people from using them effectively and responsibly (Sudakova, 2018). A lack of Financial Knowledge hinders individual well-being and household financial capacity, weakens financial institutions, highlighting the increasing importance of personal financial security for economic progress and public welfare. (Vovchenko et al., 2018). Financially educated consumers foster a more competitive financial market place by demanding fairly priced and clear services through comparison, informed questioning, and effective negotiation, while also encouraging governmental bodies to establish market standards and ensure proper financial system oversight, ultimately benefiting financial institutions through reduced risk and a stable customer base for long-term services (Kefela, 2011).

Unlike traditional finance theory, which posits that investors are consistently risk averse, the theory here suggests that investors are risk avoidant when anticipating gains to secure those profits but become risk-seeking when faced with potential losses. (Dar & Hakeem, 2015). Firstly, experience in investment amplifies the impact of accounting information on individuals' investment-related assessments, and secondly, Financial Knowledge further enhances the influence of these disclosures specifically on investors' judgments, but not on those without investment experience (Krische, 2019). Besides Financial Knowledge, investment decisions are also commonly influenced by demographic determinants (Senda et al., 2020). Rather than adhering to the assumptions of traditional finance, behavioral finance analyzes the actual behavior of investors, financial markets, and related professionals to derive its conclusions (Kumar et al., 2020). Throughout their lives, investors seekinvestment options that balance

minimizing risk with maximizing returns, though individual investment choices vary based on their risk tolerance and specific financial goals. (Mailcontractor & Ingalag, 2019). As global economic grow thin fluences the trajectory of financial markets, improving economic conditions have spurred a shift in investment from safer government bonds to stocks, which closely mirror economic expansion, indicating a growing risk appetite among global investors (Baihaqqy et al., 2020). Some researchers have investigated the connection between emotional intelligence and investment choices, suggesting that individuals or organizations capable of effectively managing their emotions are better equipped and make sound decisions (Hadi, 2017).

Risk perceptions in investment decisions involve physical responses, with emotions acting as the catalysts for action aimed at achieving the investor's goal of future financial improvement; among negative emotions, fear appears to be the primary driver of concerns about potential financial shortfalls, whereas anger and sadness are typically experienced after investment outcomes are known (Olsen, 2010). The inclination to feel more secure in familiar investment products as safer, even though traditional portfolio theory suggests that risk-averse investors should prioritize diversification to maximize their expected utility (Wang et al., 2011). Risk perception has a mediating role in how factors like aggression, positive mood etc. influence decisions of investment; however, social network's moderating effect does not extend to all tested psychological factors in the context of Indian investors' stock market choices (Chaitanya & Nordin, 2021). Behavioural biases contribute to limited rationality, causing investors to make suboptimal choices by failing to thoroughly assess available alternatives, as their decision-making is influenced by feelings, emotions, and intuition rather than purely rational analysis (Mallik et al., 2017). Investors who take more risks trade more, exhibiting greater portfolio turnover, demonstrate lower buy-sell ratios, and maintain portfolios with higher overall risk (Hoffmann et al., 2015).

As motivation for this research, it is posited that though financial knowledge significantly influence investment decisions, the interplay of risk perception moderates how financial knowledge influence investment choices (Ademola et al., 2019).

2. Survey of Literature

Financial Knowledge

A study on Financial Knowledge by Mandell (2008) show students from financially well-off families generally demonstrate greater levels of financial awareness than those from less affluent backgrounds. Another study by Lusardi & Mitchell (2011) show that older population overestimate their knowledge, being less informed than the general population. Selim & Aydemir (2014) found that risk averse people lack financial knowledge while some studies report that mother's education level affects the level of their Financial Knowledge. Garg & Singh (2018) demonstrate low Financial Knowledge among young people as a significant concern worldwide. This level of understanding is influenced and shaped by various social, financial, and individual attributes, including age, gender, relationship status and educational background. Rehman & Mia (2024) suggest that technology and religious aspects, particularly digital and Islamic Financial Knowledge, may influence Financial Knowledge and require more research.

Risk Perception

Gustafsod (1998) suggests that gender structures, encompassing both gender based ideologies and practices have lead to consistent gender differences in how risk is perceived. Exploring these varied differences necessitates employing both data driven and interpretative research strategies. Slovic (1987) shows regulators and promoters of health and safety must grasp how individuals perceive and react to risk. Without this insight, even well intentioned policies might fail. Wahlberg & Sjoberg (2000) assert that media exposure can influence risk perception through availability of information and greater access to information amplifies overall effect, thus making it simpler to alter general perception of risk than personal sense of risk.

While Sjöberg (2007) observe there is a direct relationship between having interest in a threat(a positive emotion) and a higher perceived risk, Nolte & Hanoch (2024) display how taskelements (e.g., supplied information, option framing) influence behavioural risk-taking inequality by age and also state that

the capacity to take meaningful risks may be limited by cognitive changes (e.g., in learning, risk/reward processing).

Investment Behaviour

Collard (2009) emphasises on age, income, and gender and asserts that young investors' investments are not impacted by these factors. Kaur & Kaushik (2016) found that how much investors knew about mutual funds differed based on socioeconomic factors such as age, gender, income, job, and education. Mak & Ip (2017) through the application of regression models, display that financial service providers can forecast their clients' investment behaviour and tastes and use that information to frame marketing and strategic choices, like customizing their clients' financial investment portfolios. Kappal & Rastogi (2020) argue that women entrepreneurs approach investments cautiously and are risk-averse when viewing them as long-term tools. However, this contrasts with their willingness to take chances in business endeavours. Yadav & Banerji (2024) show that both saving and investing behaviours are strongly favoured by higher levels of digital financial education.

Financial Knowledge, Risk Perception, and Investment Behaviour

Almansour et al. (2023) underscores that the risk perceiving capability of an individual impacts the ultimate success of his investment portfolio. Iram et al., (2023) indicate that Financial Knowledge is a crucial mediator between these heuristics and investment decision-making. According to their findings, women entrepreneurs should be better acquainted with finances to enhance decision making power. Suriyanti et al., (2024) in their study highlight how important it is to take emotional aspects into account while creating individualized financial interventions also educational efforts. Long-term investigations, cross-cultural comparisons, and methods from multiple disciplines combining information from psychology, economics, and finance are some possible fields for future study. Redawati & Hayat (2024) show financial expertise significantly and beneficially influences investment decisions, suggesting that experienced investors make more strategic and informed choices. This relationship is further mediated by risk perception and financial experience greatly affects how risk is perceived, which influences investment decisions. Almansour et al. (2025) in their results highlight how crucial it is for shareholders to recognize and deal with their

behavioural biases, therefore the legislators must develop strategies for reducing the effects of these biases. Despite numerous studies, there's a clear gap in research gap in research, particularly concerning Kolkata, regarding the role of risk perception in the nexus between Financial Knowledge and investment behaviour. This study aims to address this gap by pursuing the objectives outlined below.

3. Objectives & Hypothesis

3.1 Objectives

1. To explore whether Financial Knowledge influence Investment Behaviour of an individual or not.
2. To determine whether risk perception acts as a moderator in the association between Financial Knowledge and Investment Behaviour.

3.2 Hypotheses

Financial Knowledge and Investment Behaviour

Fixed deposits, mutual funds, stock market investments and bonds all have been found to have significantly different levels of awareness, although the mean score difference for post office savings was not statistically significant (Bhushan, 2014). IT professionals' investment behaviour shows that the majority of respondents only had modest savings (Shaik et al., 2022). According to contemporary finance theories, rational considerations do not guide investment decision-making, investors sometimes make impulsive judgments about their investments (Suresh, 2024). The respondents' age is significantly associated with his degree of financial understanding (Choudhary et al., 2021). Long-term financial planning requires an individual to be financially literate (Zulaihati et al., 2020). People who are not financially aware are inclined towards portfolios with conventional and low-risk routes (Rodrigues & Gopalakrishna, 2024).

H_1: Financial Knowledge affects Investment Behaviour

Role of Risk Perception and Financial Knowledge Towards Investment Behaviour

There is a mediating function of risk tolerance and the investors with more Financial Knowledge are more risk tolerant, which is associated with better and more

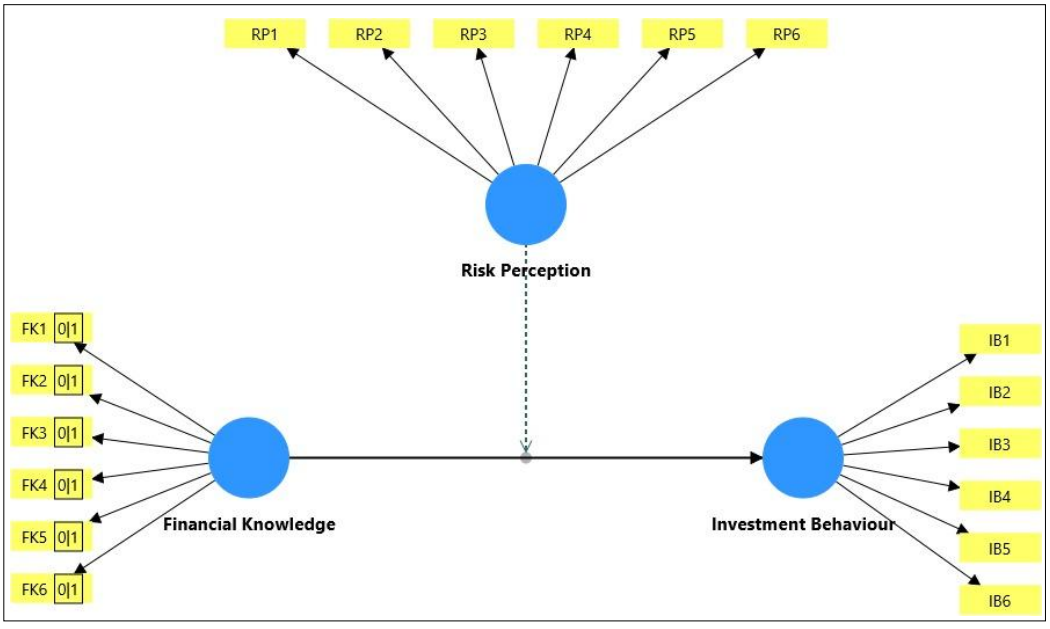
fulfilling investment performance (Kanagasabai & Aggarwal, 2020). Compared to an undiversified portfolio, a diversified portfolio can yield a greater return for investors (Sharma, 2020). Employee risk perception is strongly tied to investment behaviour, and there is a significant link between both. (Shafi et al., 2011). Understanding financial decisions requires taking into account psychological variables (Robba et al., 2024). Facts show that the perceived risk can be explained by the level of financial education and individual behaviour (Aren & Canikli, 2019). Men show a higher sense of self- credit, false sense of control, and bias in confirmation, females are substantially less probable to have regrets than males showing that financial education reduces gender inequalities in behaviour bias (Hsu et al., 2021).

H_2: Risk Perception acts as a moderator in the relationship between Financial Knowledge and Investment Behaviour.

Proposed Model

The model examines the relationships between Risk Perception (RP), Investment Behaviour (IB), and Financial Knowledg e (FK) using structural equation modelling.

Figure 1: Proposed Model



Source: Authors' own diagram

The proposed model considers the following variables:

- RP1 – Life Stage
- RP2 – Financial Dependents
- RP3 – Investable Income Percentage
- RP4 – Investment Knowledge
- RP5 – Investment Preference
- RP6 – Investment Experience
- IB1 – Investing Experience
- IB2 – Investment Independence
- IB3 – Investment Information Source
- IB4 – Investment Frequency
- IB5 – Investment Portfolio Size
- IB6 – Past Investment Returns
- FK1 – Interest Rate 1
- FK2 –Interest Rate 2
- FK3 – Inflation Impact
- FK4 – Time Value Money
- FK5 – Purchasing Power
- FK6 – Diversification & Risk

4. Data & Methodology

4.1 Data Collection

The questionnaire used to collect the responses comprised of questions regarding risk perception, financial knowledge and investment behaviour.

4.2 Sample Design

A primary survey of the people of Kolkata was carried out, focusing on the urban populace. The sampling frame for collection of responses was from January 2025 to March 2025. The questionnaire was sent to 500 respondents via mail and LinkedIn, out of which 384 responses were recorded.

The population size considered for sample size determination is the population of Kolkata as per the last census (Census, 2011). The sample size has been decided to be 384[1] with help of the formula devised by the National Educational Association (Krejcie & Morgan, 1970). The responses have been collected by employing a non-probability sampling method, specifically convenience sampling in public and commercial areas of Kolkata.

Table 1: Variables Considered

Construct	Description of Variable	Source
Risk Perception (RP)	RP1 – Life Stage	Sachse et al. (2012), Wang et al. (2011), Nguyen et al. (2019)
	RP2 – Financial Dependents	
	RP3 – Investable Income Percentage	
	RP4 – Investment Knowledge	
	RP5 – Investment Preference	
	RP6 – Investment Experience	
Investment Behaviour (IB)	IB1 – Investing Experience	Durand et al. (2008), Mayfield et al. (2008), Choi and Yoon (2020), Biais and Weber (2009)
	IB2 – Investment Independence	
	IB3 – Investment Information Source	
	IB4 – Investment Frequency	
	IB5 – Investment Portfolio Size	
	IB6 – Past Investment Returns	
Financial Knowledge (FK)	FK1 – Interest Rate 1	Van Rooij et al. (2011)
	FK2 – Interest Rate 2	
	FK3 – Inflation Impact	
	FK4 – Time Value Money	
	FK5 – Purchasing Power	
	FK6 – Diversification & Risk	

Source: Authors' own tabulation

[1] Using the Krejcie and Morgan (1970) formula,

$$s = \frac{X^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)},$$

the sample size for Kolkata was calculated based on the 2011 Census population of 4,496,694 (Kolkata Municipal Corporation area). Assuming a 95% confidence level, a 5% margin of error, and a population proportion (P) of 0.5, the resulting sample size is approximately 384.07, which is rounded up to 384 respondents.

4.3 Tools Used

The data was compiled, coded, and analysed using SPSS, Jamovi and SmartPLS. Descriptive Statistics has been employed at first. Harman's single factor test has been applied to examine the issue of common method bias. Thereafter, Fornell–Larcker criterion and HTMT ratio have been used to test discriminant validity. Latent correlation matrix is also used to measure the relationship between constructs at the latent (unobserved) level. The interrelationships between the variables have been checked by employing a structural equation model. The convergent validity has been checked using AVE. The association between the latent variables and the observed variables was explained using a measurement model. A path diagram has also been used to explore the association between the variables.

The following equations are framed for running structural equation modelling:

Latent Variables

RP=~RP1+RP2+RP3+RP4+RP5+RP6

IB=~IB1+IB2+IB3+IB4+IB5+IB6

FK=~FK1+FK2+FK3+FK4+FK5+FK6

5. Results & Discussions

Table 2 Descriptive Statistics

	RP Score	IB Score	FK Score
N	384	384	384
Mean	14.902	14.543	3.491
Median	15.001	15.002	4.002
Mode	15[a]	17	6
Std. Deviation	3.663	3.949	1.995
Range	20	20	6

Source: Authors' own tabulation

RP Score

The mean score is 14.902, with a median of 15 and mode of 15.001, indicating that most participants scored around 15. The standard deviation shows a fair amount of spread, meaning participants' scores varied moderately around the average.

IB Score

The mean is 14.543, and the median is 15.002, indicating that the majority of participants scored close to the midpoint of the range. The mode of 17 suggests that slightly higher scores occurred more frequently. The standard deviation of 3.949 indicates moderate variability among participants.

FK Score

The mean is 3.491, and the median is 4.002, within a total range of 6. This shows that participants' scores are mostly toward the upper middle of the scale. The standard deviation (1.995) indicates some variation, but most scores cluster around the mean.

Table 3: Frequencies

Age	Frequency	Percent
Less than 20	58	15.100
20-25	159	41.400
26-35	75	19.500
36-45	48	12.500
Above 45	44	11.500
Total	384	100.000

Source: Authors' own tabulation

The largest group of respondents (41.4%) are aged 20–25 years, followed by 19.5% in the 26–35 years range. 15.1% are below 20 years, while 12.5% are between 36–45 years and 11.5% are above 45 years. The sample is largely

composed of young adults, indicating that the majority of respondents are in the early stages of their careers or education.

Table 4: Frequencies

Gender	Frequency	Percent
Female	203	52.900
Male	181	47.100
Total	384	100.000

Source: Authors' own tabulation

Female respondents form the majority (52.9%) compared to males (47.1%). The gender distribution is nearly balanced, with a slight predominance of females in the sample.

Table 5: Frequencies

Marital status	Frequency	Percent
Unmarried	276	71.900
Married	104	27.100
Other	4	1.000
Total	384	100.000

Source: Authors' own tabulation

A significant majority (71.9%) of respondents are unmarried, while 27.1% are married and only 1% identified as other. The sample mainly consists of single individuals, which aligns with the younger age composition of respondents.

Table 6: Frequencies

Education	Frequency	Percent
Class 10	58	15.100
Class 12	159	41.400
Graduate	82	21.400
Post Graduate	70	18.200
Higher	15	3.900
Total	384	100.000

Source: Authors' own tabulation

The largest educational group is those who have completed Class 12 (41.4%), followed by graduates (21.4%) and postgraduates (18.2%). A smaller portion completed only Class 10 (15.1%) or attained higher degrees (3.9%). Most respondents have intermediate to undergraduate-level education, showing a moderately educated population.

Table 7: Frequencies

Profession	Frequency	Percent
Salaried	103	26.800
Self-employed	49	12.800
Student	202	52.600
Homemaker	19	4.900
Unemployed	11	2.900
Total	384	100.000

Source: Authors' own tabulation

Over half of the respondents (52.6%) are students, while 26.8% are salaried employees and 12.8% are self-employed. A small fraction are homemakers (4.9%) or unemployed (2.9%). The sample is student-dominated, consistent with the younger and unmarried profile observed earlier.

Table 8: Frequencies

Monthly Income		
	Frequency	Percent
Less than 20000	222	57.800
20000-40000	62	16.100
40000-60000	7	1.800
60000-80000	19	4.900
Above 80000	74	19.300
Total	384	100.000

Source: Authors' own tabulation

More than half of the respondents (57.8%) earn less than ₹20,000 per month, while 16.1% earn between ₹20,000–₹40,000. Only 1.8% fall in the ₹40,000–₹60,000 range, 4.9% in ₹60,000–₹80,000, and 19.3% earn above ₹80,000.

The income levels are generally low, which can be attributed to the high number of students and early-career individuals in the sample.

Table 9: Harman's Single Factor Test

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.392	24.400	24.400	4.392	24.400	24.400
2	2.476	13.754	38.154			
3	1.538	8.543	46.697			
4	1.392	7.736	54.433			
5	1.213	6.737	61.170			
6	1.015	5.637	66.807			
7	0.816	4.532	71.339			
8	0.755	4.193	75.532			
9	0.698	3.876	79.408			
10	0.659	3.661	83.069			
11	0.553	3.070	86.139			
12	0.494	2.745	88.884			
13	0.448	2.486	91.371			
14	0.392	2.180	93.551			
15	0.377	2.097	95.647			
16	0.312	1.735	97.382			
17	0.262	1.454	98.837			
18	0.209	1.163	100.000			

Source: Authors' own tabulation

The first component (factor) has an eigenvalue of 4.392, explaining 24.40% of the total variance. According to Harman's test, if a single factor accounts for more than 50% of the total variance, it suggests the presence of common method bias (CMB). If the first factor accounts for less than 50%, it indicates that CMB is not a major concern.

The first factor explains only 24.40% of the total variance. This is well below the 50% threshold, meaning no single factor dominates the variance structure.

Table 10: Fornell–Larcker Criterion Tests

	IB	FK	RP
IB	0.531	0.330	0.081
FK	0.330	0.690	0.086
RP	0.081	0.086	0.415

Source: Authors' own tabulation

The Fornell–Larcker criterion is used to test discriminant validity in a measurement model — that is, whether the constructs are truly distinct from each other. Here, the square root of AVE (diagonal values) of each construct should be greater than its correlations (off-diagonal values) with other constructs.

The square root of AVE (Diagonal) are

For IB (0.531) → greater than 0.331 and 0.082

For FK (0.690) → greater than 0.331 and 0.086

For RP (0.415) → greater than 0.082 and 0.086

All constructs satisfy the Fornell–Larcker criterion, meaning: Each construct shares more variance with its own indicators than with other constructs. There is good discriminant validity — the constructs IB, FK, and RP are distinct and measure different concepts.

Table 11: HTMT Tests

	IB	FK	RP
IB	1	0.376	0.840
FK	0.376	1	0.607
RP	0.840	0.607	1

Source: Authors' own tabulation

The HTMT ratio is another measure of discriminant validity, focusing on the ratio of correlations between constructs. HTMT values should generally be less than 0.85 for constructs to be considered distinct.

Check Off-Diagonal Values:

IB – FK: 0.376 (well below 0.85) → distinct

IB – RP: 0.840 (below 0.85 but approaching threshold) → borderline, but acceptable

FK – RP: 0.607 (below 0.85) → distinct

Most construct pairs are clearly below the 0.85 threshold, indicating good discriminant validity. The IB–RP pair (0.840) is close to 0.85, suggesting a slightly higher association, but still acceptable under common thresholds.

Table 12: Latent Correlations

Construct	Correlation	SE	95% CI Lower	95% CI Upper
FK	0.330	0.047	0.238	0.416
RP	0.081	0.036	0.014	0.153
IB	0.086	0.044	0.001	0.177

Source: Authors' own tabulation

Latent correlation measures the relationship between constructs at the latent (unobserved) level measures the relationship between constructs at the latent (unobserved) level, accounting for measurement error. If the CI does not include 0, the correlation is statistically significant.

The correlation between FK and the reference construct is 0.3307, with a 95% confidence interval ranging from 0.2384 to 0.4166, which does not include zero. This indicates that FK has a moderate, positive, and statistically significant correlation with the reference construct.

The correlation between RP and the reference construct is 0.0816, with a 95% confidence interval of 0.0140 to 0.1531, which also does not include zero. This suggests that RP has a weak, positive, but statistically significant correlation with the reference construct.

Another correlation of RP with the reference construct is 0.0860, with a 95% confidence interval of 0.0009 to 0.1778, which is barely above zero. This implies a very weak positive correlation, which is statistically significant but extremely close to zero.

All correlations are statistically significant because their 95% CIs do not include 0, though the strength varies.

Table 13: Indices Showing Reliability & Validity

Variable	α	ω	AVE
RP	0.827	0.853	0.545
IB	0.785	0.701	0.530
FK	0.783	0.748	0.619

Source: Authors' own tabulation

Cronbach's alpha of 0.7 or above indicates the acceptability of reliability (Cronbach, 1951). The reliability has been assessed for the following constructs, namely Risk Perception (RP), Investment Behaviour (IB), and Financial Knowledge (FK). Table-13 depicts that the Cronbach's alpha for RP, IB and FK are more than 0.7, which proves that these constructs are reliable. McDonald's omega of 0.70 or above indicates the acceptability of consistency (McNeish, 2018). The value of McDonald's omega is more than 0.7 for Risk Perception (RP), Investment Behaviour (IB), and Financial Knowledge (FK), indicating consistency for these constructs. As per Table-13, Average Variance Extracted (AVE) of more than 0.5 depicts convergent validity considering all variables (Fornell & Larcker, 1981).

Table 14: Fit Indices

Indices	Figures
Root Mean Square Error of Approximation (RMSEA)	0.077
Comparative Fit Index (CFI)	0.952
Tucker-Lewis Index (TLI)	0.951
Bollen's Incremental Fit Index (IFI)	0.953
Standardised Root Mean Squared Residual (SRMR)	0.078

Source: Authors' own tabulation

The Root Mean Square Error of Approximation (RMSEA) indicates how well a model fits the population covariance matrix. Values ≤ 0.05 represent a good fit, 0.06–0.08 an acceptable fit, and values above 0.10 a poor fit (Browne & Cudeck, 1993; Hu & Bentler, 1999).

The Comparative Fit Index (CFI) compares the proposed model with a null model. Values of ≥ 0.90 indicate acceptable fit, while ≥ 0.95 indicate a good fit (Bentler, 1990; Hu & Bentler, 1999).

The Tucker–Lewis Index (TLI), also known as the Non-Normed Fit Index, adjusts for model complexity. Values of ≥ 0.90 show an acceptable fit, and ≥ 0.95 a good fit (Tucker & Lewis, 1973; Hu & Bentler, 1999).

The Bollen's Incremental Fit Index (IFI) measures model improvement over a null model, with values ≥ 0.90 considered acceptable and ≥ 0.95 good (Bollen, 1989).

The Standardized Root Mean Square Residual (SRMR) reflects the average standardized residuals between observed and predicted correlations. Values ≤ 0.05 indicate a good fit, and up to 0.08 are acceptable (Hu & Bentler, 1999; Kline, 2016).

The proposed model is assessed using following indices.

- RMSEA= 0.077 and SRMR= 0.078 fall within the acceptable range, which portray a reasonable model fit.
- CFI = 0.952, IFI = 0.953 and TLI= 0.951 exceed the threshold, confirming a good model fit.

Table 15: Direct Effects Model

Dep	Pred	Estimate	SE	β (Unstandardised)	z	p
IB	FK	0.271	0.147	0.271	2.005	0.045

Source: Authors' own tabulation

Table-15 displays the path coefficients (β values), standard errors (SE), and significance levels (p-values), which discusses the mediation set up between the variables.

- FK → IB (β = 0.271, p = 0.045) indicates a direct effect. Financial Knowledge significantly influences Investment Behaviour at the 5% level. This result confirms that Financial Knowledge impacts Investment Behaviour to a great extent.

Table 16: Measurement Model

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
FK1 <- Financial Knowledge	0.708	0.702	0.043	16.425	0
FK2 <- Financial Knowledge	0.611	0.612	0.054	11.261	0
FK3 <- Financial Knowledge	0.683	0.677	0.049	13.991	0
FK4 <- Financial Knowledge	0.662	0.655	0.05	13.257	0
FK5 <- Financial Knowledge	0.639	0.631	0.057	11.308	0
FK6 <- Financial Knowledge	0.771	0.768	0.032	23.901	0
IB1 <- Investment Behaviour	0.695	0.694	0.037	18.625	0
IB2 <- Investment Behaviour	-0.487	-0.485	0.076	6.414	0
IB3 <- Investment Behaviour	-0.296	-0.295	0.088	3.354	0.001
IB4 <- Investment Behaviour	0.705	0.703	0.04	17.533	0
IB5 <- Investment Behaviour	0.831	0.83	0.021	40.24	0
IB6 <- Investment Behaviour	0.839	0.838	0.016	53.331	0
RP1 <- Risk Perception	0.43	0.425	0.079	5.432	0
RP2 <- Risk Perception	0.189	0.189	0.094	2.015	0.044
RP3 <- Risk Perception	-0.443	-0.44	0.076	5.83	0
RP4 <- Risk Perception	-0.616	-0.613	0.061	10.059	0
RP5 <- Risk Perception	0.378	0.376	0.081	4.657	0
RP6 <- Risk Perception	0.828	0.825	0.037	22.253	0

Source: Authors' own tabulation

Table-16 displays the following observations with regards to the aforementioned variables.

Factor loadings (β values) for all observed variables are statistically significant ($p < 0.05$), ensuring construct validity. A crucial finding in the measurement model is the negative sign on the standardized loadings for RP3 (Investable Income Percentage) and RP4 (Investment Knowledge). These negative signs are conceptually acceptable and do not indicate a measurement error because a higher score on RP4 (higher Investment Knowledge) is expected to reduce the Perceived Risk (RP), and similarly, a higher RP3 (higher Investable Income relative to total income) may be associated with a lower perception of risk, given the context of the RP construct.

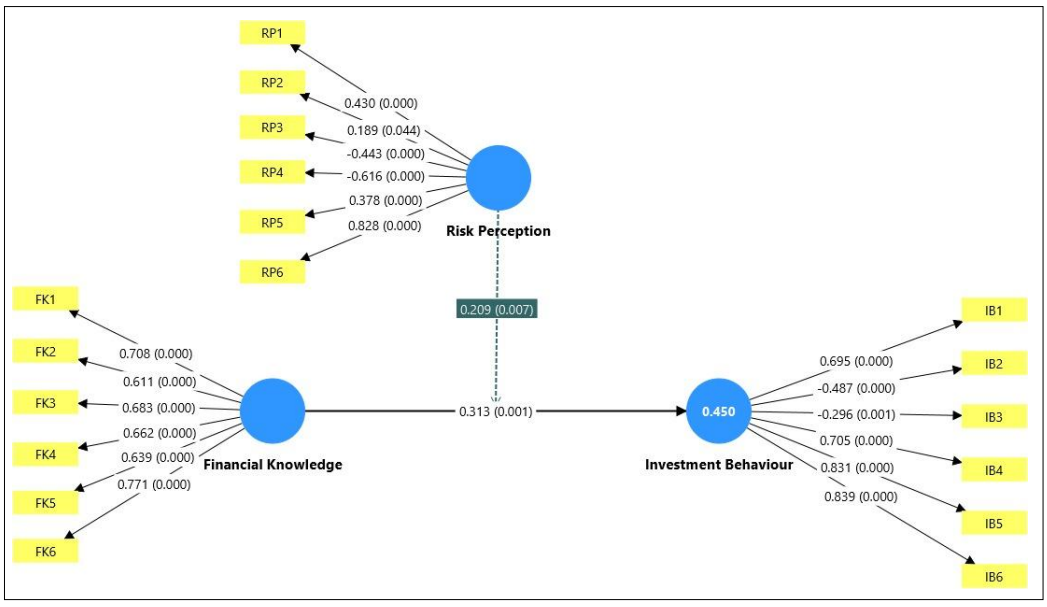
A heavy reliance on unvetted or generalized external sources (IB2) (e.g., social media tips, casual friends' advice, conflicted salespersons) may lead to poor, impulsive, or inappropriate investment decisions that don't align with an individual's personal financial goals, risk tolerance, or knowledge level. Making completely independent decisions while lacking financial knowledge or skill (IB3) can also lead to faulty investment behaviour.

The strong factor loadings validate the measurement model and confirm that the proposed constructs are well-defined.

Path Diagram

Arrows between latent variables represent hypothesized causal relationships in the model. Path coefficients (β values) indicate the extent of these associations.

Figure 2: Path Diagram



Source: Authors' own diagram

Figure-2 portrays the moderation effect of risk perception on the relationship between financial knowledge and investment behaviour.

- FK → IB (p = 0.001) suggests that Financial Knowledge directly influences Investment Behaviour, and to a great extent. Thus, H_1 is accepted.

- RP moderates the relationship between FK and IB significantly, which is clearly evident from the path diagram and also from the p value of 0.007.

Table 17: Moderation Estimates

(The role of Risk Perception (RP) is analysed below)

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Financial Knowledge -> Investment Behaviour	0.313	0.331	0.09	3.47	0.001
Risk Perception x Financial Knowledge -> Investment Behaviour	0.209	0.217	0.078	2.676	0.007

Source: Authors' own tabulation

Table-17 implies the test for moderation of Risk Perception in the relationship between Financial Knowledge and Investment Behaviour. A separate moderated regression was used for Hypothesis 2. The interaction term (FK ✻ RP → IB, p = 0.007) is significant at the 1% level, indicating that Risk Perception significantly acts as a moderator in strengthening the nexus between Financial Knowledge and Investment Behaviour. The direct influence of Financial Knowledge on Investment Behaviour ($p<0.001$) is highly significant.

This implies that that financially literate people are more inclined in using their risk perception effectively when making investment choices. Thus, H_2 is accepted.

The key relationships to be claimed (based on objectives and confirmed hypotheses):

1. **FK→ IB** (Direct effect, H_1 accepted)
2. **RP Moderates the FK→ IB relationship** (H_2 accepted)

5. Conclusion, Policy Implications & Scope of Further Research

Investors' behaviour is greatly influenced by desire to become more financially literate (Suresh, 2021). The findings of this research portray a strong direct connection between Financial Knowledge and investment behaviour (Bhushan, 2014; Adil et al., 2022). Thus, H_1 is accepted. Therefore, it can be asserted that financially literate people possibly make more rational investment decisions. It is significant to note that risk perception acts as a moderator which further strengthens the association between Financial Knowledge and Investment Behaviour (Ademola et al., 2019), which confirms H_2.

This research has many policy implications. It is necessary to stimulate financial education campaigns for improving investment capabilities of individuals as well as help them become financially better off. Banks, schools, and employers can cooperate to design specialized financial education programs for individuals. Policymakers must campaign to incorporate Financial Knowledge into the secondary and tertiary curriculum. This study also yields utilitarian benefit to individual investors by encouraging them to take personal investment choices based on self-assessment rather than others' views. Proper training and education can also mitigate behavioural biases. Investors should also educate themselves with regard to related information and market news concerning the stocks owned to enhance the understanding of market movements and trends.

The study has few unfathomed areas. The sample size could have been more in order to get a more transparent picture. A sample of 384 might not represent entire city of Kolkata. In future, the sample size can be increased by including the rural population also in order to get a more transparent picture. Furthermore, the sample could not have been restricted to Kolkata only. Further studies could be conducted incorporating responses from all over India so that we can get a larger picture as the policy implications will be for the entire country and not for a single city. Thirdly, the impact of Financial Knowledge on investment behaviour could have been analysed from the perspective of different generations, which is an unexplored area.

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