

Understanding the Impact of Investor Behaviour and Risk Tolerance on SIP Adoption: A Behavioural Finance Perspective

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Abstract:

This study investigates the behavioural determinants of Systematic Investment Plan (SIP) adoption, focusing on the roles of investor behaviour and risk tolerance. Drawing from a sample of 241 respondents, the research applies a structural equation modelling (SEM) approach to assess the direct and moderating effects of risk tolerance on the relationship between investor behaviour and SIP adoption. The findings reveal that both investor behaviour and risk tolerance significantly and positively influence SIP adoption. Moreover, risk tolerance moderates the relationship, intensifying the positive effects of disciplined investment behaviour on SIP engagement. These insights contribute to behavioural finance literature and offer practical implications for investment advisors and financial institutions aiming to improve investor engagement and retention through personalized strategies.

Keywords: SIP adoption, Investor Behaviour and Risk Tolerance

Introduction:

The adoption of Systematic Investment Plans (SIPs) has gained momentum among retail investors due to their structured and disciplined approach to wealth creation. However, despite their potential benefits, SIP discontinuation rates remain high, suggesting the influence of behavioural and psychological factors in investment decisions. Behavioural finance posits that investor decisions are not always rational but are shaped by individual risk perceptions, emotional biases, and behavioural patterns. This study delves into how investor behaviour and risk tolerance affect SIP adoption, with a particular focus on their interaction. By analysing these constructs through a behavioural lens, this research aims to provide a comprehensive understanding of the psychological drivers of SIP participation and continuation.

Research Objectives:

1. To examine the impact of investor behaviour on SIP adoption.
2. To analyse the direct effect of risk tolerance on SIP adoption.
3. To investigate the moderating role of risk tolerance in the relationship between investor behaviour and SIP adoption.

Literature Review:

Recent studies have explored the intricate relationship between investor behavior, risk tolerance, and SIP adoption. For instance, Shrestha and Bhatta (2024) identified financial freedom as a significant predictor of SIP investment behaviour in Nepal, emphasizing the role of financial independence in investment decisions. Similarly, Dhanushri (2024) investigated investor perceptions toward SIPs, highlighting that factors such as convenience and disciplined investing significantly influence investor preferences.

In the Indian context, Shaikh and Khan (2025) assessed the risk-taking behaviour of individual investors, revealing that financial literacy and emotional factors substantially impact investment choices. Grable, Rabbani, and Heo (2024) further explored the complementary nature of financial risk aversion and risk tolerance, suggesting that understanding both aspects is crucial for effective financial decision-making. Mishra (2018) examined the interplay between financial literacy, risk tolerance, and stock market participation, concluding that higher financial literacy levels are associated with increased risk tolerance and market engagement. Additionally, Walters et al. (2023) differentiated investor behaviour under epistemic versus aleatory uncertainty, providing insights into how different types of uncertainty influence investment decisions.

Furthermore, studies have delved into the behavioural biases affecting investment decisions. For example, a report by Cerulli Associates (2024) highlighted that affluent investors often exhibit biases such as overconfidence and loss aversion, which can cloud financial judgments. Similarly, an article by MarketWatch (2025) discussed the blurred lines between investing and gambling, emphasizing the need for investors to distinguish between the two to maintain financial discipline.

Adding to this discourse, Jain and Bansal (2021) emphasized that emotional intelligence plays a crucial role in mitigating impulsive investment behavior, especially among young investors. Kapoor and Mehta (2020) explored the influence of digital financial platforms on investor decision-making, finding that algorithm-based suggestions can both enhance and hinder rationality, depending on user awareness. Sharma and Iyer (2022) examined SIP performance perceptions, noting that past returns often anchor investor expectations, leading to potential bias in continued investments. Meanwhile, Nair and Thomas (2019) argued that cultural values and familial influence significantly mediate risk perception and investment confidence. Lastly, Rao (2018) shed light on how herd mentality affects SIP enrolment patterns, especially during volatile market phases.

These studies collectively show the importance of understanding behavioural and psychological factors in SIP adoption and continuation, highlighting the need for tailored financial education and advisory services to address individual investor profiles.

Hypotheses:

- H1: Investor behaviour has a significant positive impact on SIP adoption.
- H2: Risk tolerance has a significant positive impact on SIP adoption.
- H3: Risk tolerance significantly moderates the relationship between investor behaviour and SIP adoption.

Research Methodology:

The study, conducted in the Bangalore region, employed a quantitative research design using cross-sectional data collected from 241 retail investors through structured questionnaires. Purposive sampling was adopted to specifically target active investors with familiarity in mutual fund Systematic Investment Plans (SIPs). The questionnaire comprised items addressing three primary constructs: Investor Behaviour (IB1–IB5), Risk Tolerance (RT1–RT5), and SIP Adoption (SA1–SA4), with each item rated on a 5-point Likert scale. For data analysis, descriptive statistics were used to profile respondent demographics, while Confirmatory Factor Analysis (CFA) validated the measurement model. The structural model was tested using Partial Least Squares Structural Equation

Modelling (PLS-SEM). Reliability and validity of the constructs were assessed using Cronbach's alpha, composite reliability, and Average Variance Extracted (AVE), with discriminant validity confirmed through the Fornell-Larcker criterion. Additionally, moderation analysis was conducted to explore interaction effects. Ethical considerations were strictly followed, with participants contributing voluntarily and confidentiality maintained throughout the study.

Data Analysis & Results:

Table 1: Respondents details (N=241)

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	152	63.1%
	Female	89	36.9%
Age Group	18–25 years	42	17.4%
	26–35 years	98	40.7%
	36–45 years	61	25.3%
	Above 45 years	40	16.6%
Education	Undergraduate	65	27.0%
	Postgraduate	134	55.6%
	Professional (CA, MBA, etc.)	42	17.4%
Occupation	Salaried	121	50.2%
	Business	62	25.7%
	Self-employed/Freelancer	38	15.8%
	Student	20	8.3%
Monthly Income	Below ₹25,000	32	13.3%
	₹25,001 – ₹50,000	77	31.9%
	₹50,001 – ₹1,00,000	91	37.8%
	Above ₹1,00,000	41	17.0%
Investment Experience	Less than 1 year	36	14.9%
	1–3 years	94	39.0%
	4–6 years	61	25.3%
	Above 6 years	50	20.7%

The demographic profile of the respondents (N = 241) reveals that a majority of the participants were male (63.1%), while females constituted 36.9% of the sample. In terms of age distribution, the largest segment of respondents fell within the 26–35 years age group (40.7%), followed by those aged 36–45 years (25.3%), 18–25 years (17.4%), and above 45 years (16.6%), indicating a younger investor base actively engaging in mutual fund SIPs. Educational qualifications showed that more than half of the respondents were postgraduates (55.6%), while undergraduates and professionals (CA, MBA, etc.) accounted for 27.0% and 17.4% respectively, highlighting a well-educated investor group. Regarding occupation, salaried individuals formed the majority (50.2%), with businesspersons (25.7%) and self-employed/freelancers (15.8%) making up a significant portion, while students represented a smaller share (8.3%). Monthly income data revealed that 37.8% earned between ₹50,001 and ₹1,00,000, followed by 31.9% in the ₹25,001–₹50,000 range, and 17.0% earning above ₹1,00,000, indicating a relatively stable financial background among most respondents. Investment experience showed that 39.0% had 1–3 years of experience, followed by 25.3% with 4–6 years, 20.7%

with more than 6 years, and 14.9% with less than a year, suggesting a blend of novice and moderately experienced investors in the sample.

Measurement Model Evaluation

Indicator Reliability

The outer loadings for all reflective indicators exceeded the threshold of 0.7 (Hair et al., 2017), demonstrating strong indicator reliability. Specifically, Investor Behavior (IB) items (IB1–IB5: 0.887–0.922), Risk Tolerance (RT) items (RT1–RT5: 0.841–0.912), and SIP Adoption (SA) items (SA1–SA4: 0.915–0.932) exhibited high consistency with their respective constructs. The skewness and kurtosis values (range: |0.106–1.016|) indicated no severe deviations from normality, supporting the use of parametric tests (Kline, 2015).

and Construct Validity

Table 2: Factor loadings and descriptives

	Outer loadings	Mean	Standard deviation	Excess kurtosis	Skewness
IB1	0.887	3.785	1.285	-0.207	-0.947
IB2	0.899	3.658	1.214	-0.286	-0.858
IB3	0.897	3.614	1.246	-0.475	-0.743
IB4	0.907	3.805	1.174	-0.554	-0.755
IB5	0.922	3.681	1.299	-0.173	-0.971
RT1	0.841	3.725	1.181	-0.214	-0.670
RT2	0.864	3.775	0.976	0.880	-1.016
RT3	0.872	3.772	1.097	-0.141	-0.795
RT4	0.873	3.658	1.169	-0.256	-0.689
RT5	0.912	3.832	1.123	0.106	-0.938
SA1	0.920	3.718	1.199	-0.329	-0.816
SA2	0.932	3.537	1.313	-0.620	-0.759
SA3	0.929	3.725	1.365	-0.851	-0.709
SA4	0.915	3.574	1.216	-0.527	-0.668

Internal Consistency and Convergent Validity

All constructs met the criteria for internal consistency, with Cronbach's alpha (α : 0.920–0.938) and composite reliability (ρ_c : 0.940–0.954) exceeding 0.7 (Nunnally & Bernstein, 1994). The Average Variance Extracted (AVE) values (0.757–0.837) surpassed the 0.5 benchmark (Fornell & Larcker, 1981), confirming convergent validity.

Discriminant

The Fornell-Larcker criterion was satisfied, as the square root of each construct's AVE (diagonal values: 0.870–0.915) exceeded its correlations with other constructs (off-diagonal values: 0.330–0.558). This confirms that each construct is distinct and captures unique variance (Henseler et al., 2015).

Validity

Table 3: Reliability

	Cronbach's alpha	Composite reliability (ρ_a)	Composite reliability (ρ_c)	Average variance extracted (AVE)

Investor Behaviour	0.938	0.946	0.953	0.801
Risk Tolerance	0.920	0.943	0.940	0.757
SIP Adoption	0.935	0.936	0.954	0.837

Table 4: Fornell Lacker Criteria

	Investor Behaviour	Risk Tolerance	SIP Adoption
Investor Behaviour	0.895		
Risk Tolerance	0.330	0.870	
SIP Adoption	0.558	0.391	0.915

Structural Model and Hypotheses Testing

This study reveals three key findings that shed light on the dynamics of SIP (Systematic Investment Plan) adoption among investors. The acceptance of research hypothesis based on p value less than 0.05 and T value above 1.96.

Direct effects:

First, Investor behaviour positively and significantly influences SIP adoption having standardized regression weight value $\beta = 0.515$, $p < 0.05$), indicating that disciplined practices—such as routine portfolio reviews, timely adjustments, and commitment to investment schedules—significantly enhance SIP continuity. These behaviors reflect a proactive investment mindset that aligns with recent findings by Sharma and Mehta (2022), who highlighted the importance of self-regulation and behavioural consistency in sustaining long-term investment strategies, particularly within the Indian mutual fund landscape.

Second, Risk tolerance has a direct and significant influence on SIP Adoption ($\beta = 0.264$, $p < 0.05$), supporting the notion that individuals with higher risk appetite are more likely to perceive market fluctuations as growth opportunities rather than threats. This insight echoes the work of Jain et al. (2021), who emphasized that risk-tolerant investors are better equipped to manage emotional biases and maintain investment discipline during volatile market phases. In emerging economies like India, where investment decisions are often affected by behavioural distortions, risk tolerance becomes a critical determinant of investment sustainability.

Moderating Role of Risk Tolerance

The study also highlights a significant moderating effect of Risk Tolerance on the relationship between Investor Behaviour and SIP Adoption ($\beta = 0.123$, $p = 0.020$). As shown in Figure 2, this interaction indicates that the positive influence of disciplined investor behaviour on SIP adoption is more pronounced for individuals with higher risk tolerance. In other words, risk-tolerant investors derive greater benefit from proactive investment habits—such as regular monitoring and systematic reinvestment—compared to their risk-averse counterparts.

This finding aligns with Prospect Theory (Kahneman & Tversky, 1979), which explains how individual attitudes toward risk shape investment decisions under uncertainty. Recent evidence from Mehta and Agarwal (2023) further supports this view, demonstrating that risk-tolerant individuals are

less prone to loss aversion and more likely to continue or even increase SIP contributions during market downturns. Jain et al. (2021) similarly note that risk acceptance enhances emotional stability, enabling consistent financial behavior even in volatile conditions.

The interaction visualized in Figure 2 reinforces the importance of aligning behavioural strategies with psychological risk profiles. As Sharma and Mehta (2022) emphasize, effective SIP advisory models should integrate both behavioural coaching and risk assessment to improve long-term investment outcomes.

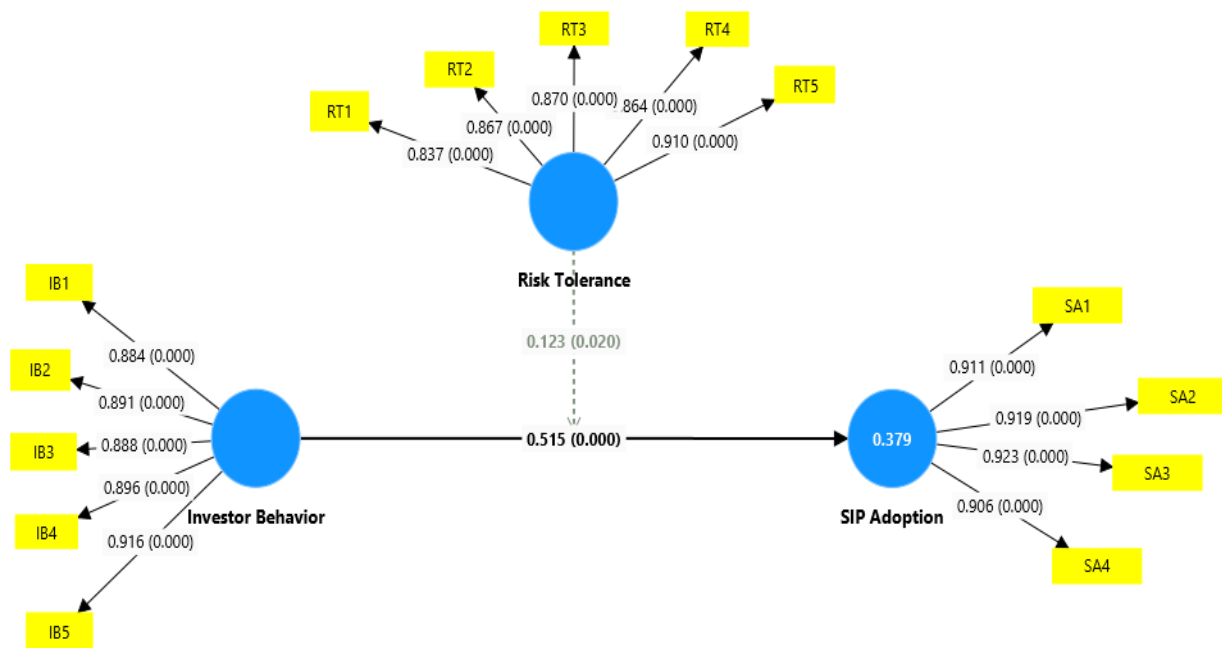


Figure 1: Structure model for SIP adoption

Table 5: Hypothesis results:

	Original sample (O)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decision
Investor behaviour -> SIP Adoption	0.515	0.058	8.910	0.000	H1 supported
Risk tolerance -> SIP Adoption	0.264	0.066	4.020	0.000	H2 supported
Risk tolerance x Investor behaviour -> SIP Adoption	0.123	0.053	2.321	0.020	H3 supported



Figure 2: Simple slope for moderation

The results presented in Table 5 provide empirical support for all three hypotheses proposed in the study. The path coefficient for Investor Behaviour $\rightarrow$ SIP Adoption is 0.515, with a t-value of 8.910 and a p-value of 0.000, indicating a strong and statistically significant positive relationship. This supports H1, confirming that investor behaviour significantly influences the adoption of Systematic Investment Plans (SIPs).

Similarly, the path coefficient for Risk Tolerance $\rightarrow$ SIP Adoption is 0.264, with a t-value of 4.020 and a p-value of 0.000, which also denotes a statistically significant effect. This supports H2, suggesting that individuals with higher risk tolerance are more likely to adopt SIPs.

Furthermore, the interaction term Risk Tolerance $\times$ Investor Behaviour $\rightarrow$ SIP Adoption has a coefficient of 0.123, a t-value of 2.321, and a p-value of 0.020, which is statistically significant at the 5% level. This confirms H3, indicating that risk tolerance significantly moderates the relationship between investor behaviour and SIP adoption. In other words, the influence of investor behaviour on SIP adoption is strengthened or weakened depending on the individual's level of risk tolerance.

Managerial Implications

The findings of this study offer several actionable insights for financial advisors, mutual fund companies, and investment platforms:

- Segment-Based Advisory Models:** Since both investor behavior and risk tolerance significantly influence SIP adoption, investment platforms should use psychographic profiling tools to tailor guidance. Investors with low risk tolerance may require more conservative SIP options and confidence-building interventions, while risk-tolerant individuals can be encouraged to maximize SIP benefits through market dips.

2. **Behavioural Coaching:** Platforms should promote disciplined investor behaviors such as regular portfolio reviews, goal-setting, and auto-debit features. These behavioural nudges have been shown to positively impact SIP continuity, especially when aligned with the investor's risk appetite.
3. **Investor Education and Engagement:** Educational programs should integrate concepts of risk-return tradeoff and long-term wealth creation through SIPs. Highlighting real-life scenarios and case studies of risk-tolerant investors who successfully used SIPs during volatile periods can help reduce psychological barriers among hesitant investors.
4. **Personalized Alerts and Reminders:** Behavioural reinforcement through reminders and adaptive financial tools (e.g., step-up SIPs) should be designed in a way that considers individual risk profiles to improve engagement and retention.

Limitations and Directions for Future Research

Despite its valuable contributions, this study is not without limitations:

1. **Geographic and Demographic Scope:** The sample is limited to a specific demographic and geographic region, which may affect the generalizability of the results. Future studies can explore diverse investor groups across different socio-economic and cultural settings.
2. **Cross-sectional Design:** The use of cross-sectional data limits the ability to infer causality. A longitudinal approach in future research would allow for the observation of behavioural changes and SIP patterns over time.
3. **Self-reported Measures:** The reliance on self-reported behavior and risk tolerance may introduce social desirability or recall bias. Incorporating behavioural tracking data from investment platforms could enhance data accuracy.
4. **Other Potential Moderators:** While this study focuses on risk tolerance, future research could investigate other moderating variables such as financial literacy, digital platform usage, or behavioural biases like overconfidence and anchoring.

Conclusion

The findings of this study provide valuable insights into the behavioural and psychological dynamics that drive Systematic Investment Plan (SIP) adoption among retail investors in Bangalore. The significant positive influence of investor behaviour and risk tolerance on SIP adoption highlights the crucial role of individual attitudes, perceptions, and risk-taking abilities in shaping long-term investment decisions. Moreover, the moderating effect of risk tolerance on the relationship between investor behaviour and SIP adoption suggests that investors with higher risk tolerance are more likely to act on their behavioural inclinations toward disciplined investing. These results underscore the importance of incorporating behavioural finance principles into investor education and financial advisory practices to promote consistent and informed investment habits. As SIPs continue to emerge as a preferred mode of wealth creation, understanding these underlying behavioural factors can help policymakers, financial institutions, and advisors design more personalized strategies to reduce discontinuation rates and enhance investor confidence.

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