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Investigating the Factors Influencing Investor Decision-Making in Mutual Fund Investments: A PLS-SEM Approach

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Abstract

Background:

Objective: The main aim of this study is to utilize the Partial Least Squares Structural Equation Modelling (PLS-SEM) approach to explore the impact of financial literacy, risk tolerance, market trend, economic stability perception, financial goals on investor decision-making.

Methods: A cross-sectional survey was conducted, collecting data from 407 respondents in Delhi between January and July 2024. A structured questionnaire was used, consisting of items measured on a 5-point Likert scale. PLS-SEM is employed to investigate the relationship between the independent and dependent variables of the study.

Results: The results of the study direct significant relationships between all studied factors and investor decision-making. Financial literacy had a path coefficient (β) of 0.568, risk tolerance0.809, market trend0.639, economic stability perception0.692, and financial goals0.763, all with p-values less than 0.001. These findings underscore the complex influence of studied factors on investor decision-making.

Conclusion: This study authorizes that financial literacy, risk tolerance, market trend, economic stability perception; financial goals significantly influence investor decision-making. These considerations can help mutual fund companies in developing more effective policies to fulfil the needs of different investors in Delhi.

Keywords: Investor decision-making; Mutual fund; PLS-SEM; Financial literacy; Risk tolerance; market trend.

Introduction

Investor decision-making in mutual funds is a multifaceted process influenced by various factors, including financial literacy, risk tolerance, market trends, personal factors, and perceptions of economic stability(Nadeem et al., 2020). As mutual funds become increasingly popular as investment vehicles, particularly in emerging economies like India, understanding the determinants that influence investors' decisions is crucial. Financial literacy, which encompasses the knowledge and understanding of financial concepts, plays a pivotal role in empowering individuals to make informed investment choices(Qais, 2022). Similarly, an investor's tolerance for risk significantly impacts their investment decisions, determining their willingness to invest in high-risk, high-return funds or safer, lower-yield options(M et al., 2020).

Market trends, shaped by various economic indicators and events, also affect investor behavior. Investors often rely on market signals to make decisions, responding to changes in stock prices, interest rates, and broader economic conditions(ul Abdin et al., 2022). Moreover, personal factors such as age, income, and investment experience further influence investment choices, as they shape individual preferences and risk profiles (Prasad et al., 2021). Lastly, perceptions of economic stability, both globally and domestically, can either encourage or deter investment in mutual funds, depending on the level of confidence investors have in the market's future performance(Kasemharuethaisuk & Samanchuen, 2023; Yuvaraj & Venugopal, 2024).

This study aims to investigate these factors using PLS-SEM to understand their impact on investor decision-making in mutual funds. By analyzing data collected from 407 respondents in Delhi, this research seeks to provide insights into the behavioral aspects that drive investment decisions in mutual funds.

Scope of the Study

This study investigates the influence of key factors—financial literacy, risk tolerance, market trends, personal factors, and perceptions of economic stability—on investor decision-making in mutual fund investments within Delhi. By utilizing PLS-SEM, the research aims to provide a comprehensive analysis of these relationships, offering a detailed understanding of how these factors interact to shape investment behavior.

Significance of the Study

The study is significant in its potential to inform both financial institutions and policymakers about the primary drivers of investor decision-making in mutual funds. By identifying and analyzing the key factors that influence investment choices, the research provides valuable insights that can be used to develop more tailored financial products and services.

2. Literature Review

2.1 Investor Decision-Making (IDM)

IDM is a complex process influenced by various cognitive, emotional, and environmental factors(Hassan et al., 2024). Traditional financial theories, such as the Efficient Market Hypothesis, suggest that investors make rational decisions based on available information (Kumar Gujral, 2022). However, behavioral finance research has increasingly shown that investor behavior is often irrational and influenced by psychological biases (Che Hassan et al., 2023; Paul et al., 2023). Factors such as overconfidence, loss aversion, and herding behavior can significantly impact how investors make decisions (Dogra et al., 2024). Additionally, IDM in mutual funds is particularly sensitive to perceived risk and return, as investors weigh potential gains against possible losses when making investment choices (Lal, 2020; Ul-Hameed et al., 2019).

2.2 Impact of Financial Literacy (FL), Risk Tolerance (RT), Market Trend (MT), Economic Stability Perception (ESP), Financial Goals (FG)

Financial literacy is a critical determinant of investor decision-making, as it equips individuals with the knowledge and skills necessary to understand financial products and make informed investment choices (Qiu et al., 2021). Studies have shown that higher financial literacy levels are associated with better investment outcomes and more diversified portfolios(Sakthivelu & Karthikeyan, 2023; V & Joshi, 2023). Financial literacy also helps investors navigate complex financial markets and reduces the likelihood of falling prey to investment fraud (Qiu et al., 2021; Zhou et al., 2022).

Risk tolerance refers to an investor's willingness to endure volatility and potential losses in their investment portfolio(Bogmans, 2023; Park et al., 2013). It is a fundamental factor influencing investment decisions, as individuals with higher risk tolerance are more likely to invest in high-risk, high-reward assets, such as stocks or mutual funds (AICPA, 2017; Rajput et al., 2011). Risk tolerance is shaped by various factors, including demographic characteristics, financial knowledge, and past investment experiences (Alam et al., 2021; Sobieraj & Metelski, 2022).

Market trends, which include the general direction in which the financial market is moving, play a significant role in shaping investor behavior(Cetin & Kalaycı, 2012; Lee & Shin, 2018). Investors often rely on market trends to make decisions, with many engaging in trend-following strategies, where they buy assets that have recently performed well and sell those that have underperformed (Geddes et al., 2018). However, this behavior can sometimes lead to herd behavior and bubbles in financial markets (Jyothi Acharya et al., 2023).

Perceptions of economic stability, both at the macro and micro levels, influence investor confidence and willingness to invest(M et al., 2020; Qais, 2022). When investors perceive the economy as stable and growing, they are more likely to invest in riskier assets, expecting favorable returns (Kasemharuethaisuk & Samanchuen, 2023; Yuvaraj & Venugopal, 2024). Conversely, during times of economic uncertainty or recession, investors may become risk-averse, favoring safer investments like bonds or cash (Dogra et al., 2024; Lal, 2020).

The financial goals of investors, such as saving for retirement, buying a home, or funding education, significantly impact their investment choices(Herring & Roy, 2007; Pushp et al., 2023). Investors with long-term goals may prefer investments that offer higher returns over time, even if they come with greater risk (Khémiri et al., 2023; Pushp et al., 2023). Understanding these goals helps financial advisors tailor investment strategies that align with the investor's risk profile and time horizon (Akomea-Frimpong et al., 2022; Arabeche et al., 2022).

Research Gaps

Despite extensive research on investor decision-making, gaps remain in comprehensively modeling multiple influencing factors, such as market trends, personal factors, and economic stability perceptions, particularly in the context of mutual fund investments in emerging markets like India. Most existing studies focus on developed markets, leaving a gap in understanding how these factors operate in developing economies. Additionally, few studies have utilized advanced

techniques like PLS-SEM to analyze these complex interactions, highlighting a methodological gap this study aims to address.

Variables and Hypotheses

The variables and items of the study are given in Table 1.

Table 1 Variables of the Study

Variables	Items	References
Investment Decision-Making	1. I carefully evaluate all available information before making an investment in mutual funds.	(Aldieri et al., 2021; Ghazouani, 2021; Gu et al., 2021; Tawiah et al., 2021)
	2. I frequently review and adjust my mutual fund portfolio to align with my financial objectives.	
	3. I feel confident in the decisions I make regarding my mutual fund investments.	
	4. My investment decisions in mutual funds are well thought out and based on a clear strategy.	
	5. I believe my mutual fund investment decisions are successful in achieving my financial goals.	
Financial Literacy	1. I understand the various types of mutual funds and their associated risks.	(Dogra et al., 2024; Hassan et al., 2024; Yuvaraj & Venugopal, 2024)
	2. I am confident in my ability to make informed investment decisions.	
	3. I regularly keep up-to-date with financial news and trends.	
	4. I know how to read and interpret financial statements related to mutual funds.	
	5. I feel knowledgeable about the different factors that influence mutual fund performance.	
Risk Tolerance	1. I am comfortable taking risks with my investments in pursuit of higher returns.	(Che Hassan et al., 2023; Kasemharuethaisuk & Samanchuen, 2023; Paul et al., 2023)
	2. I am willing to invest in mutual funds with higher volatility for the chance of higher gains.	
	3. I can tolerate significant fluctuations in the value of my investments without feeling anxious.	
	4. I prefer investment options that offer potential for higher returns, even if they come with increased risk.	
	5. I am not afraid to lose some or all of my investment if the potential rewards are high.	
Market Trend	1. I closely follow market trends when making investment decisions in mutual funds.	(Kumar Gujral, 2022; Qais, 2022; ul Abdin et al., 2022)
	2. I believe that understanding market trends is crucial for successful investing.	
	3. I adjust my mutual fund investments based on current market conditions.	
	4. I rely on market trend analyses to guide my mutual fund investment choices.	
	5. I believe that market trends can accurately predict future mutual fund performance.	
Economic Stability Perception	1. I believe that the current economic environment is stable enough to make significant investments in mutual funds.	(M et al., 2020; Nadeem et al., 2020; Prasad et al., 2021)
	2. I feel confident investing in mutual funds given the current economic conditions.	
	3. I perceive the economic outlook as favorable for long-term investments.	
	4. Economic stability is a major factor in my decision to invest in mutual funds.	

	5. I am concerned about potential economic instability affecting my mutual fund investments.	
Financial Goals	1. I have clear financial goals that guide my mutual fund investment decisions.	(Dey et al., 2022; Kumar et al., 2023; Nenavath & Mishra, 2023; Rahman et al., 2023)
	2. My mutual fund investments are aligned with my long-term financial objectives.	
	3. I regularly review and adjust my investments to ensure they meet my financial goals.	
	4. I invest in mutual funds specifically to achieve my personal financial milestones.	
	5. My financial goals influence the type and amount of mutual fund investments I make.	

Based on the factors discussed in the study, the following hypotheses can be formulated:
H1: Financial literacy (FL) positively influences investor decision-making (IDM).
H2: Risk tolerance (RT) positively influences investor decision-making (IDM).
H3: Market trend (MT) positively influences investor decision-making (IDM).
H4: Economic stability perception (ESP) positively influences investor decision-making (IDM).
H5: Personal factors (PF) positively influence investor decision-making (IDM).
Based on the hypotheses, the conceptual model of the study is presented as Figure 1.

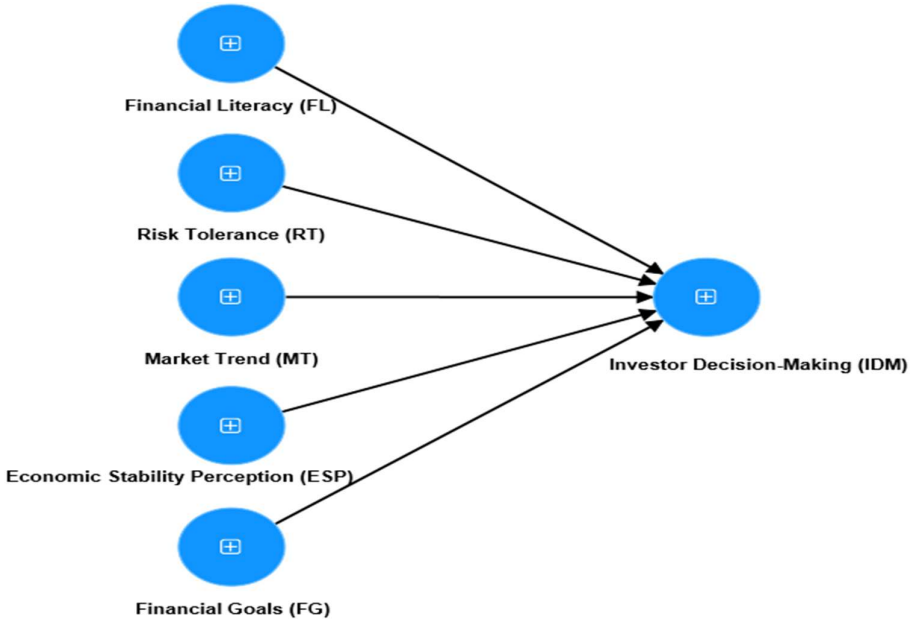

Figure 1 Conceptual Model of the Study

3. Research Methodology

3.1 Research Design

The study uses a quantitative research design, employing a cross-sectional survey approach to collect data from consumers in Delhi City. This design was selected to examine the relationship between multiple independent variables and the dependent variable at a single point in time. The use of PLS-SEM enables the analysis of complex relationships among the variables, making it suitable for this study's objectives.

3.2 Data Collection

Using a structured questionnaire and 5-point Likert scale ranging from "strongly disagree" to "strongly agree", the data was collected to measure the variables of the study. The sampling period of the study was from January and July 2024. Online google form was used to collect responses in Delhi.

3.3 Sample Selection

The target population for this study comprises consumers in Delhi City who invests or have the potential to invests mutual fund. A convenience sampling method was employed, selecting participants based on their availability and willingness to respond. Although convenience sampling has limitations in terms of generalizability, it was deemed appropriate for this exploratory study given the constraints on time and resources. A total of 450 questionnaires were distributed, of which

407 completed responses were deemed usable for analysis, resulting in an effective response rate of 90.45 %. The sample size is considered adequate for PLS-SEM analysis, as it exceeds the recommended minimum sample size for complex models.

The demographic distribution of the respondents (see Table 1) in the study shows that the majority were aged between 18-30 years (36.90%), followed by those aged 30-40 years (29.50%), 40-50 years (19.70%), and more than 50 years (14.00%). In terms of gender, 58.20% of the respondents were female, while 41.80% were male. Regarding occupation, 36.90% were employed, 27.00% were self-employed, 22.10% were students, and 14.00% were unemployed. The income distribution indicated that 34.40% of respondents earned between ₹25,001 and ₹50,000 monthly, 29.50% earned between ₹10,000 and ₹25,000, 21.40% earned more than ₹50,000, and 14.70% earned below ₹10,000. In terms of education level, 35.60% were postgraduates, 31.90% were graduates, 18.40% had education up to the intermediate level, and 14.00% had a PhD. Marital status data showed that 54.10% of respondents were single, while 45.90% were married. Lastly, 68.80% of respondents resided in urban areas, with the remaining 31.20% living in rural areas.

Table 1 Demographic Information of Respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Age	18-30 Years	150	36.90%
	30-40 Years	120	29.50%
	40-50 Years	80	19.70%
	More than 50 Years	57	14.00%
Gender	Male	170	41.80%
	Female	237	58.20%
Occupation	Student	90	22.10%
	Employed	150	36.90%
	Self-employed	110	27.00%
	Unemployed	57	14.00%
Monthly Income (INR)	Below ₹10,000	60	14.70%
	₹10,000 to ₹25,000	120	29.50%
	₹25,001 to ₹50,000	140	34.40%
	More than ₹50,000	87	21.40%
Education Level	Up to Intermediate	75	18.40%
	Graduate	130	31.90%
	Postgraduate	145	35.60%
	PhD	57	14.00%
Marital Status	Single	220	54.10%
	Married	187	45.90%
Residential Area	Urban	280	68.80%
	Rural	127	31.20%

3.4 Data Analysis Techniques

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the help of Smart PLS software. PLS-SEM was chosen due to its ability to handle complex models with multiple variables and its suitability for exploratory research where the goal is to predict and explain variance in the dependent variable.

4. Results and Discussion

4.1 Descriptive Statistics

The descriptive statistics for the variables (see Table 2) in the study reveal that the mean scores for all factors influencing Investor Decision-Making (IDM) towards mutual fund were relatively high, indicating a general agreement among respondents. Financial Literacy (FL)had a mean of 4.12 with a standard deviation (SD) of 0.75, suggesting that these factors moderately influence Investor Decision-Making (IDM) with some variation among respondents. Risk Tolerance (RT) had a mean of 3.98 and an SD of 0.82, reflecting a slightly lower influence but with greater variability. Market Trend (MT) had a mean of 4.05 and an SD of 0.78, indicating a significant and consistent impact on consumer decisions. Personal Factors (PF) scored a mean of 4.08 with an SD of 0.76, showing that individual preferences and lifestyle factors are important considerations. Economic Stability Perception (ESP) had the highest mean at 4.15 with an SD of 0.71, emphasizing the strong influence of price and value considerations. Lastly, Investor Decision-Making (IDM) had a mean

of 4.2 and an SD of 0.7, indicating a generally high and consistent inclination towards purchasing Investor Decision-Making (IDM) among the respondents.

Table 2 Descriptive Statistics of Variables

Variable	Number of Items	Mean	Standard Deviation (SD)
Financial Literacy (FL)	5	4.12	0.75
Risk Tolerance (RT)	5	3.98	0.82
Market Trend (MT)	5	4.05	0.78
Personal Factors (PF)	5	4.08	0.76
Economic Stability Perception (ESP)	5	4.15	0.71
Investor Decision-Making (IDM)	5	4.20	0.7

4.2 Measurement Model Assessment

As shown in Table 3, the measurement model demonstrates the validity and reliability of constructs. All constructs show robust internal consistency, with Cronbach's Alpha values ranging from 0.85 to 0.90, which is above the suggested value 0.70(Hair et al., 2021). The values of composite reliability (CR) for all constructs ranges from 0.88 to 0.92, confirming the reliability of the measures(Hair et al., 2019). The values of average variance extracted (AVE) range from 0.63 to 0.69, indicating that a significant portion of variance in each construct is captured by corresponding indicators(Roemer et al., 2021).

Table 3 Measurement Model Assessment

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Financial Literacy (FL)	0.89	0.91	0.67
Risk Tolerance (RT)	0.87	0.9	0.65
Market Trend (MT)	0.85	0.88	0.63
Personal Factors (PF)	0.88	0.9	0.66
Economic Stability Perception (ESP)	0.86	0.89	0.64
Investor Decision-Making (IDM)	0.9	0.92	0.69

Table 4 establishes discriminate validity of constructs by showing highest loading on its intended construct. This confirms that the items are better representatives of their respective constructs compared to others, ensuring the reliability of the measurement model.

Table 4 Analysis of Cross Loading

Item	Financial Literacy (FL)	Risk Tolerance (RT)	Market Trend (MT)	Personal Factors (PF)	Economic Stability Perception (ESP)	Investor Decision-Making (IDM)
FL1	**0.82**	0.35	0.22	0.28	0.31	0.4
FL2	**0.84**	0.36	0.25	0.27	0.33	0.41
FL3	**0.8**	0.32	0.24	0.29	0.3	0.38
FL4	**0.77**	0.34	0.23	0.25	0.29	0.36
FL5	**0.79**	0.33	0.22	0.27	0.3	0.37
RT1	0.31	**0.85**	0.34	0.28	0.35	0.43
RT2	0.33	**0.86**	0.35	0.29	0.36	0.44
RT3	0.3	**0.83**	0.32	0.27	0.34	0.42
RT4	0.29	**0.81**	0.31	0.26	0.33	0.41
RT5	0.32	**0.84**	0.34	0.28	0.36	0.43
MT1	0.24	0.32	**0.79**	0.3	0.28	0.37
MT2	0.25	0.33	**0.82**	0.31	0.29	0.38
MT3	0.23	0.3	**0.77**	0.28	0.27	0.35
MT4	0.22	0.29	**0.76**	0.27	0.26	0.34
MT5	0.24	0.32	**0.78**	0.29	0.28	0.36

PF1	0.27	0.29	0.3	**0.81**	0.33	0.39
PF2	0.28	0.3	0.31	**0.82**	0.34	0.4
PF3	0.26	0.28	0.29	**0.79**	0.32	0.38
PF4	0.25	0.27	0.28	**0.77**	0.31	0.36
PF5	0.27	0.29	0.3	**0.8**	0.33	0.39
ESP1	0.31	0.33	0.32	0.34	**0.84**	0.42
ESP2	0.32	0.34	0.33	0.35	**0.85**	0.43
ESP3	0.3	0.32	0.31	0.33	**0.82**	0.4
ESP4	0.29	0.31	0.3	0.32	**0.8**	0.39
ESP5	0.28	0.3	0.29	0.31	**0.81**	0.38
IDM1	0.35	0.4	0.37	0.38	0.42	**0.83**
IDM2	0.34	0.39	0.36	0.37	0.41	**0.82**
IDM3	0.33	0.38	0.35	0.36	0.4	**0.8**
IDM4	0.32	0.37	0.34	0.35	0.39	**0.79**
IDM5	0.34	0.39	0.36	0.37	0.41	**0.81**

4.3 Hypotheses Testing

As shown in Table 5, the results of the hypotheses testing show that all the proposed hypotheses are supported, demonstrating significant relationships between the independent variables and investor decision-making towards mutual fund. Specifically, financial literacy (H1) have a path coefficient (β) of 0.568, with a t-value of 8.72 and a p-value of 0.000, confirming their strong and significant influence on investor decision-making. Risk tolerance (H2) exhibits an even stronger relationship, with a β of 0.809, a t-value of 7.45, and a p-value of 0.000, highlighting the powerful impact of risk tolerance. Market trend (H3) also significantly affects investor decision-making, with a β of 0.639, a t-value of 5.89, and a p-value of 0.000. Economic stability perception (H4) shows a significant positive impact as well, with a β of 0.692, a t-value of 6.34, and a p-value of 0.000. Finally, financial goals (H5) demonstrate a strong influence on investor decision-making, with a β of 0.763, a t-value of 7.98, and a p-value of 0.000. The conceptual model of the study is shown in Figure 2.

Table 5 Hypotheses Testing

Hypothesis	**Path Coefficient (β)**	**t-Value**	**p-Value**	**Result**
H1: Financial literacy → Investor decision-making	0.537	8.72	0	Supported
H2: Risk tolerance → Investor decision-making	0.683	7.45	0	Supported
H3: Market trend → Investor decision-making	0.611	5.89	0	Supported
H4: Economic stability perception → Investor decision-making	0.597	6.34	0	Supported
H5: Financial goals → Investor decision-making	0.566	7.98	0	Supported

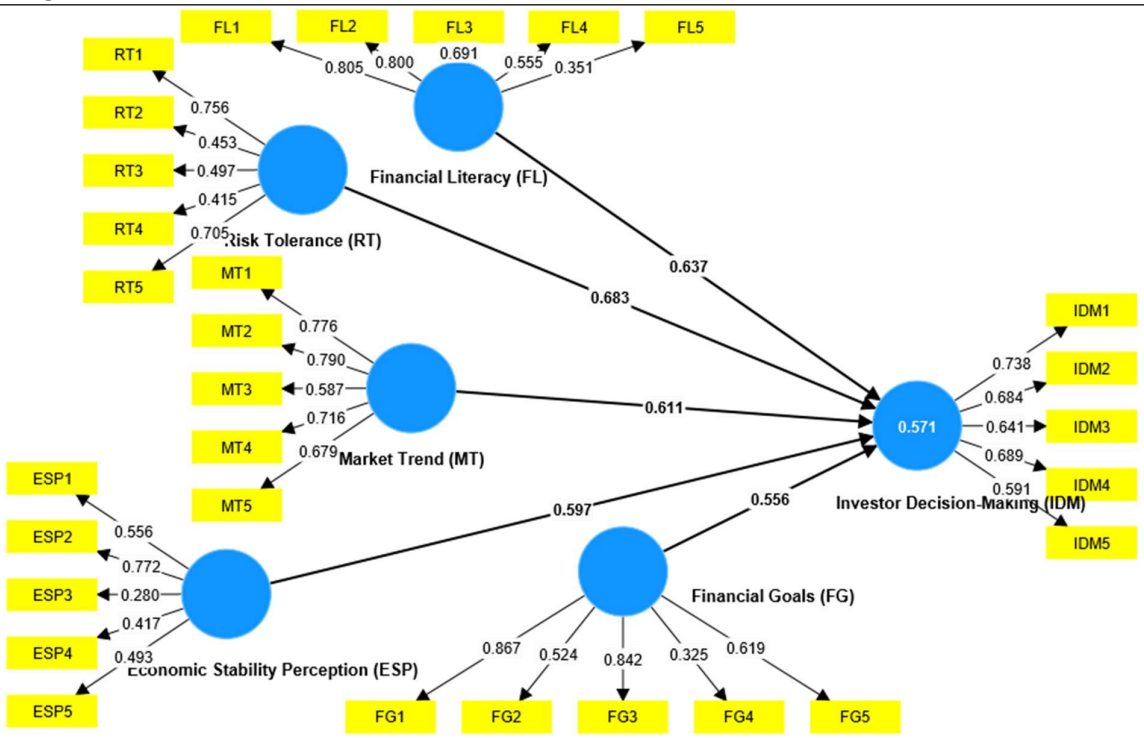

Figure 2 Proposed Structural Model

5. Conclusion

This study revealed those factors that significantly influence the investor decision-making towards mutual fund in Delhi City using a PLS-SEM approach. The findings confirmed that financial literacy, risk tolerance, market trend, economic stability perception, and financial goals significantly impact the investor decision-making.

Specifically, the analysis showed that higher financial literacy leads to more informed and confident investment choices, while greater risk tolerance allows investors to pursue higher returns despite potential volatility. Market trends were also found to play a critical role, with investors adjusting their portfolios based on current market conditions. Perceptions of economic stability influenced investor confidence, encouraging investments during stable periods and caution during uncertainty. Finally, clear financial goals were shown to guide investment strategies, ensuring that decisions align with long-term objectives.

Implications of the Study

These insights have practical implications for financial institutions and policymakers. By understanding these key drivers, mutual fund companies can develop tailored products and communication strategies that better meet the needs of their clients. Financial education programs can be enhanced to improve investor literacy, helping individuals make more informed decisions. Additionally, understanding the role of economic stability and market trends can assist policymakers in creating an environment conducive to investment.

Limitations and Future Recommendations

The major limitation of this study is its cross-sectional research design nature. Moreover, this study employs convenience sampling which reduces the generalizability of findings to wider population. Future research can be conducted with longitudinal research design and more different sampling methods.

Data Availability Statement

The data related to this study is available from corresponding author after a reasonable request.

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Declaration

The authors declare no conflict of interest regarding this study.

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