# ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue



# JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

# **Investor Behavior and Financial Decision-Making** in Northeast India: Evidence from the Indian Stock Market

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## **Abstract**

This study examines the behavioral dynamics that influence investor decision-making in the northeastern region of India, with a special focus on Assam, Meghalaya, and Tripura. Rooted in the principles of behavioral finance, the research explores how cognitive biases, emotional tendencies, and varying levels of financial literacy shape investment preferences among retail investors. Using data collected from 420 respondents across seven states—Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura—this paper evaluates the influence of factors such as overconfidence, herding, loss aversion, and financial literacy on participation in the Indian stock market.

The findings reveal that overconfidence and herding behaviors dominate investment choices in relatively literate regions like Assam and Meghalaya, while loss aversion and financial conservatism are stronger in Mizoram and Nagaland. Regression results suggest that financial literacy significantly predicts investment participation ( $\beta = 0.53$ , p < 0.05), whereas emotional biases negatively influence long-term investment holding periods. The paper concludes that targeted financial literacy programs, regional awareness drives, and behavioral interventions can strengthen investor confidence and enhance stock market participation in Northeast India.

Keywords: Behavioral Finance, Investor Psychology, Financial Literacy, Overconfidence, Herding, Loss Aversion, Northeast India, Stock Market Behavior.

# 1. Introduction

Investor behavior has emerged as a crucial dimension of modern financial research, reflecting how real-world decisions deviate from the classical assumptions of rationality. Traditional finance models assume that investors make decisions logically, based on complete information and risk-return optimization. However, the growing field of behavioral finance challenges this assumption, revealing that psychological and emotional factors significantly shape financial decisions.

In the context of India, where stock market participation remains low compared to global standards, understanding investor behavior is critical for promoting inclusive financial growth. According to SEBI's 2024 report, only around 12% of India's population actively invests in equity markets, and within the northeastern region, the participation rate falls below 3%. This discrepancy highlights the role of socioeconomic and behavioral constraints that limit engagement with financial markets.

The northeastern states—Assam, Meghalaya, Tripura, Manipur, Nagaland, Mizoram, and Arunachal Pradesh—present unique socio-cultural and economic characteristics. Despite improvements in banking outreach, digital connectivity, and literacy levels, these states continue to lag behind the national average in

stock market participation. Investors often rely on informal advice, local perceptions, and community-driven cues, which contribute to herding and loss-averse behavior.

The study seeks to address the following objectives:

- 1. To examine the extent and nature of behavioral biases among investors in Northeast India.
- 2. To analyze the relationship between financial literacy and investment decisions.
- 3. To assess the impact of overconfidence, herding, and loss aversion on market participation.
- 4. To propose region-specific policy recommendations to enhance informed investing.

This research contributes to behavioral finance literature by offering empirical evidence from a region that remains underexplored in Indian financial studies. It provides a holistic understanding of how psychological and cultural variables interact with economic realities in shaping investment behavior.

# 2. Review of Literature

The roots of behavioral finance trace back to the pioneering works of Kahneman and Tversky (1979), who developed Prospect Theory, explaining how individuals perceive gains and losses asymmetrically. Their theory suggests that people are risk-averse when it comes to gains but risk-seeking when facing potential losses—a tendency known as loss aversion. Later, Barber and Odean (2001) demonstrated that overconfidence leads investors to trade excessively, often undermining portfolio performance. Shiller (2003) expanded on these insights, highlighting how collective behavior drives asset bubbles and market volatility.

In the Indian context, studies by Purohit and Shetty (2017) and Singh (2020) have documented the prevalence of cognitive biases among retail investors, with herding and overconfidence being particularly common. However, most existing research focuses on metropolitan centers such as Mumbai, Delhi, and Bengaluru, while regional perspectives—especially from the Northeast—are missing.

Research on financial literacy provides further insights. Lusardi and Mitchell (2014) emphasized that financial literacy strongly correlates with investment participation and wealth accumulation. In India, the Reserve Bank of India (RBI) and SEBI have launched initiatives such as the National Centre for Financial Education (NCFE) to address literacy gaps, yet their impact varies across states. Studies indicate that regions with lower economic integration tend to exhibit stronger emotional biases and dependence on informal financial systems (Kumar & Bhattacharya, 2022).

Thus, a key gap emerges: limited empirical understanding of how behavioral biases and literacy interact in peripheral regions like Northeast India. This paper addresses that gap through primary data and regional analysis.

# 3. Research Methodology

### 3.1 Research Design

This study adopts an empirical design using both primary and secondary data. Primary data were collected via a structured questionnaire distributed to 420 respondents from the seven northeastern states. A stratified sampling approach was employed to ensure representation from urban, semi-urban, and rural areas. Secondary data were sourced from SEBI bulletins, RBI reports, and AMFI statistics.

### 3.2 Sample Profile

The sample included 180 respondents from Assam, 60 from Meghalaya, 50 from Tripura, and 130 from the remaining states (Nagaland, Mizoram, Manipur, and Arunachal Pradesh). Respondents were categorized by gender, occupation, income, and investment experience.

#### **Demographic Category % of Respondents**

Male	61%
Female	39%
Age 21–30	28%
Age 31–45	46%
Above 45	26%
Salaried	52%
Business/Self-Employed	32%
Students/Retired	16%

#### 3.3 Data Collection Tool

The questionnaire contained 28 items, divided into three sections:

- 1. Demographic and Socioeconomic Profile
- 2. Investment Experience and Preferences
- 3. **Behavioral Dimensions:** Overconfidence, Herding, Loss Aversion, and Financial Literacy. Responses were recorded using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

### 3.4 Reliability and Validity

A pilot test was conducted with 30 respondents from Guwahati to verify reliability. The Cronbach's alpha coefficient was 0.82, indicating acceptable internal consistency. Content validity was established through expert review by finance faculty and industry practitioners.

#### 3.5 Analytical Tools

Data were analyzed using descriptive statistics, Pearson correlation, and multiple regression analysis. Statistical summaries were created to examine relationships between behavioral biases and investment participation.

# 4. Data Analysis and Results

The empirical analysis explores how financial literacy and behavioral biases—specifically **overconfidence**, **herding**, and **loss aversion**—influence stock-market participation among investors in Northeast India. Data from 420 respondents were processed using SPSS 26.0, applying descriptive and inferential techniques.

#### 4.1 Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
Financial Literacy Score	3.42	0.71	1.8	4.9
Overconfidence Index	3.58	0.68	2.0	4.8
Herding Tendency	3.21	0.74	1.7	4.7
Loss Aversion Level	3.89	0.66	2.1	4.9
Investment Participation (1–5)	3.15	0.82	1.0	4.8

### **Interpretation:**

Respondents exhibit moderate financial literacy (M = 3.42) but relatively high loss aversion (M = 3.89). Overconfidence and herding are also above the neutral mid-point, suggesting behavioral tendencies strongly influence market actions.

#### 4.2 Correlation Matrix

Variable	$\mathbf{FL}$	$\mathbf{OC}$	HD	LA	INV
Financial Literacy (FL)	1.00	-0.31	-0.22	-0.45	0.57
Overconfidence (OC)	-0.31	1.00	0.48	0.29	-0.18
Herding (HD)	-0.22	0.48	1.00	0.33	-0.25
Loss Aversion (LA)	-0.45	0.29	0.33	1.00	-0.41
Investment Participation (INV)	0.57	-0.18	-0.25	-0.41	1.00

#### **Interpretation:**

Financial literacy has a **strong positive correlation** with investment participation (r = 0.57), while loss aversion and herding exhibit negative correlations, indicating these biases reduce active market engagement.

### 4.3 Regression Analysis

**Dependent Variable:** Investment Participation

Independent Variables: Financial Literacy, Overconfidence, Herding, Loss Aversion

Variable	β Coeffic	ient t-value	p-value	e Significance
Constant	1.22	2.48	0.014	*
Financial Literacy	0.53	8.32	0.000	***
Overconfidence	-0.18	-2. <mark>04</mark>	0.043	*
Herding	-0.22	-2.59	0.011	**
Loss Aversion	-0.31	-3.76	0.000	***
$R^2 = 0.47$ , Adjusted $R^2 = 0.4$	15			

#### **Interpretation:**

Financial literacy emerges as the **most significant positive predictor** of investment participation, explaining nearly half of the variance. Behavioral biases negatively influence investor activity, validating behavioral finance theory within the regional context.

#### **4.4** Behavioral Bias Index (State-wise Comparison)

State	Overconfidence (OC)	Herding (HD)	Loss Aversion (LA)	Financial Literacy (FL)	Investment Participation
Assam	3.68	3.27	3.72	3.59	3.38
Meghalaya	3.55	3.22	3.78	3.46	3.27
Tripura	3.43	3.11	3.90	3.22	3.05
Nagaland	3.30	3.06	3.94	3.08	2.88
Mizoram	3.25	3.09	3.97	3.02	2.82
Manipur	3.36	3.20	3.86	3.19	3.01

State	Overconfidence	Herding	Loss Aversion	Financial	Investment
	(OC)	(HD)	(LA)	Literacy (FL)	Participation
Arunachal Pradesh	3.40	3.18	3.88	3.14	3.02

#### **Interpretation:**

Assam and Meghalaya show the highest literacy and participation levels, while Mizoram and Nagaland demonstrate higher loss aversion and limited engagement. These differences reflect cultural and informational diversity across states.

### 5. Discussion

The findings affirm the central propositions of behavioral finance—that investor decisions are driven by psychological biases rather than purely rational assessments risk and return. In Northeast India, three interconnected behavioral forces dominate:

#### 1. Overconfidence and Local Information Bias

Investors in relatively developed markets like Guwahati and Shillong display overconfidence, relying heavily on local news and informal "tips." This leads to short-term trading and reduced diversification.

### 2. Herding Behavior and Social Influence

Across Tripura and Manipur, community-based decision making creates herding tendencies, where investors imitate peers or follow perceived "market leaders." This behavior is reinforced by limited access to certified advisors.

#### 3. Loss Aversion and Capital Preservation Mindset

Strong cultural aversion to loss, especially in Mizoram and Nagaland, discourages participation in volatile assets like equities. This aligns with Prospect Theory, illustrating that emotional pain from losses outweighs potential gains.

#### 4. Financial Literacy as a Corrective Force

Regression results show that literacy mitigates the negative impact of biases. Participants with higher financial knowledge demonstrate better diversification, longer holding periods, and less emotional trading.

#### 5. Socioeconomic and Cultural Mediation

Religion, community norms, and economic exposure shape financial attitudes. States with strong cooperative movements (e.g., Tripura) show more collective learning, while isolated rural areas exhibit dependency on informal channels.

These observations collectively indicate that behavioral finance provides a robust framework to interpret regional disparities in financial participation.

# 6. Policy Implications

#### 1. Localized Financial Education:

Tailored literacy campaigns in local languages can bridge awareness gaps. Partnerships between SEBI, NCFE, and state universities could strengthen outreach.

#### 2. Behavioral-Based Investor Training:

Training modules that highlight common cognitive errors—such as overconfidence or herding—can empower investors to make independent decisions.

#### 3. Integration of FinTech Platforms:

Mobile-based micro-investment tools and digital advisors can simplify access for semi-urban investors, promoting transparency and confidence.

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## 4. Institutional Support in Rural Areas:

Establishing *Investor Service Centers* in towns like Aizawl, Kohima, and Agartala can reduce dependence on informal advice networks.

#### 5. Policy Synergy:

State governments should integrate financial inclusion goals with behavioral insights, ensuring that literacy programs address both knowledge and psychology.

# 7. Conclusion

This empirical study investigated the behavioral and cognitive dimensions influencing investor decisionmaking in Northeast India, focusing particularly on Assam, Meghalaya, and Tripura. Using survey data from 420 respondents across seven states, the research highlighted how varying levels of financial literacy, emotional biases, and social influences determine participation in the Indian stock market.

The findings reveal that despite growing financial inclusion, behavioral biases remain the primary **impediment** to rational investment decisions. Overconfidence leads to excessive trading and speculative investment, while herding behavior results in trend-following without adequate analysis. Loss aversion, on the other hand, discourages participation by magnifying the perceived risk of losses, especially in regions with low capital market exposure.

However, the study also demonstrates that financial literacy acts as a stabilizing and enabling force. Investors who possess higher financial knowledge are more likely to adopt disciplined, long-term investment strategies. They are also less susceptible to social pressures and emotional decision-making. Thus, literacy not only enhances market participation but also reduces market volatility caused by irrational trading behavior.

From a policy perspective, this research underscores the need for regionalized financial education frameworks that address behavioral aspects, not merely financial concepts. Programs such as SEBI's Investor Awareness Campaigns and RBI's financial literacy initiatives should incorporate behavioral finance modules that reflect the cultural and socioeconomic nuances of Northeast India. Furthermore, integrating financial education into academic curricula in colleges across Assam, Meghalaya, and Tripura can have longterm positive effects.

The paper contributes to behavioral finance literature by offering empirical validation from a previously underexplored region. It extends the scope of financial psychology in India by showing that investor behavior is not uniform across the nation—it is contextually and culturally shaped. Future research can expand this work through time-series data and cross-regional comparisons to examine how digital literacy and technology-driven platforms alter behavioral tendencies.

In essence, the financial behavior of investors in Northeast India represents a blend of rising awareness, cultural caution, and evolving risk perception. Addressing the behavioral and informational asymmetries in this region will be critical to unlocking its potential participation in India's growing financial markets.

# 8. Limitations and Scope for Future Research

Despite providing valuable insights, the study has several limitations.

- The sample size of 420, though statistically sufficient, may not fully represent the entire investor population of the Northeast.
- Self-reported data can introduce bias, as participants may overstate their financial competence or underreport risk-averse tendencies.
- The cross-sectional design captures perceptions at one point in time; behavioral patterns may evolve with policy or market changes.

Future studies could employ **longitudinal data** to assess how investor psychology changes over time, especially as digital access expands through platforms like Groww, Zerodha, and Paytm Money. Comparative studies with other underrepresented regions in India (such as eastern or central states) could also enhance understanding of cultural determinants in financial decision-making.

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# **Appendix A: Survey Questionnaire (Excerpt)**

The following section presents a summarized version of the questionnaire used to collect data for this study. Respondents were asked to indicate their level of agreement on a **5-point Likert scale** (1 = Strongly Disagree, 5 = Strongly Agree).

Sample Questions

Section	Sample Questions
A. Demographics	Age, gender, education, income, occupation, investment experience
B. Investment Patterns	"I regularly invest in mutual funds or equities." / "I prefer traditional saving instruments."
C. Overconfidence	"I believe my investment knowledge is above average." / "I can predict market trends accurately."
D. Herding Behavior	"I often invest after observing my peers' actions." / "I rely on recommendations from friends or relatives."
E. Loss Aversion	"I avoid selling investments at a loss, even if better opportunities exist." / "I prefer low-risk assets over higher returns."
F. Financial Literacy	"I understand basic financial concepts like diversification and inflation." / "I can evaluate the risk-return tradeoff of investments."
G. Decision Outcomes	"I make independent financial decisions." / "My investments align with long-term goals."

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## **Scoring Method:**

Each construct was measured as the average of relevant items:

Overconfidence: 5 items

• Herding: 4 items

• Loss Aversion: 5 items • Financial Literacy: 6 items

• Investment Participation: 3 items

Reliability was established with a Cronbach's alpha of 0.82, indicating high internal consistency.

# **Appendix B: Summary of Findings (Condensed Table)**

Construct	High in	Low in	Key Effect on Behavior
Financial Literacy	Assam, Meghalaya	Mizoram, Nagaland	Increases participation and diversification
Overconfidence	Assam, Manipur	Mizoram	Leads to frequent trading and short-termism
Herding	Tripura, Meghalaya	Nagaland	Encourages group-based decisions
Loss Aversion	Mizoram, Nagaland	Assam	Reduces market entry and risk-taking
Investment Participation	Assam, Meghalaya	Mizoram, Nagaland	Positively correlated with literacy levels