

From Fear to Trust: An Integrated Perspective of Investors Perception towards Role of AI in Investment Decision-Making

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ABSTRACT

The rapid advancements in artificial intelligence (AI) have significantly influenced various sectors, including financial decision-making. This study explores the attitudes and perceptions of investors in the Delhi NCR region regarding the integration of AI tools into the investment process. By examining the transition from skepticism to trust, the study explores into critical factors such as ease of use, risk-reward optimization, and the influence of transparency on trust-building. A structured questionnaire was designed to collect data, employing a judgmental sampling method to target investors with varied experience levels and familiarity with AI-driven financial tools. The research seeks to provide a significance understanding of the interplay between emotional barriers, technological trust, and investor confidence, offering an integrated perspective on how AI adoption is shaping modern investment behavior. Key findings aim to highlight the catalysts for trust development, the challenges investors face in adopting AI, and their expectations of its role in enhancing financial outcomes. By providing actionable insights, this paper contributes to the growing discourse on AI's transformative impact on behavioral finance and offers practical recommendations for financial institutions and fintech companies to bridge the trust gap. The study underscores the importance of a transparent, user-friendly, and personalized approach to AI-driven investment platforms to ensure broader acceptance among investors. This research is particularly relevant as AI continues to redefine the investment landscape, paving the way for further studies on the intersection of technology and human decision-making in finance.

Keywords: Investment, Artificial Intelligence, Decision Making, Emotional Barriers, Technological Trust.

Introduction

The rapid integration of Artificial Intelligence (AI) into financial markets has transformed traditional investment decision-making processes, offering unprecedented levels of efficiency, accuracy, and personalization. In recent years, AI-powered tools have gained significant traction among institutional and retail investors alike, providing predictive analytics, portfolio optimization, risk assessment, and sentiment analysis capabilities that were previously unimaginable. However, the adoption of AI in investment decision-making is not without its challenges, particularly in the time of investor perceptions. While some investors embrace AI as a revolutionary force, others remain skeptical, driven by concerns about transparency, ethical considerations, and the potential for human disintermediation.

This study seeks to explore the nuanced journey of investors from fear to trust regarding the role of AI in investment decision-making. It focuses on the dynamic interplay of apprehensions and confidence-building measures that shape investors' perceptions. In doing so, it addresses critical questions such as: How do investors perceive the efficacy and reliability of AI in managing their financial portfolios? What are the underlying psychological, ethical, and contextual factors that influence their trust in AI-driven financial systems? How does the demographic and regional context, specifically in the Delhi NCR region, contribute to shaping these perceptions? Delhi NCR, a hub of financial activity and a melting pot of diverse investor profiles, provides a unique setting for this investigation. As a region characterized by its rapid technological adoption and vibrant financial ecosystem, it serves as an ideal microcosm to

examine the broader implications of AI in investment decision-making. By employing a structured questionnaire-based approach, this research aims to capture the perspectives of investors across various age groups, professional backgrounds, and investment expertise. The study's findings are anticipated to offer valuable insights for policymakers, financial institutions, and AI developers in creating more investor-friendly AI solutions.

The transition from fear to trust is a critical dimension of technology acceptance, especially in domains as sensitive as financial investments. This research contributes to the literature by integrating psychological theories of trust, technology acceptance models, and behavioral finance to provide a comprehensive framework for understanding investors' perceptions. Moreover, the study emphasizes the role of education, transparency, and ethical AI practices in fostering trust among investors. By bridging theoretical insights with empirical evidence from Delhi NCR, this paper endeavors to illuminate pathways for enhancing investor confidence and optimizing the deployment of AI in financial markets. In an era where technological advancements are redefining the boundaries of financial decision-making, understanding and addressing the concerns of investors is paramount. This research not only fills a critical gap in the existing literature but also lays the groundwork for more inclusive and trust-centric financial ecosystems. As we transition into an AI-driven future, fostering a collaborative relationship between human investors and intelligent systems will be key to ensuring equitable and sustainable growth in financial markets.

Literature Review

The integration of Artificial Intelligence (AI) in investment decision-making has emerged as a transformative force in modern financial systems, reshaping traditional paradigms and introducing innovative approaches to data analysis, predictive modeling, and portfolio management. The intersection of AI and investment decision-making is marked by an intricate relationship between technological capabilities and human behavioral dynamics. Existing literature underscores that while AI offers efficiency, speed, and accuracy in processing vast datasets, investor perceptions and emotional intelligence remain crucial factors in determining its successful adoption.

Rehman et al. (2024) highlight that emotional intelligence plays a pivotal role in investment decision-making, especially in contexts characterized by high levels of uncertainty and volatility. Their study emphasizes that emotional intelligence not only directly influences investment choices but also acts as a mediator when coupled with AI tools. The researchers argue that while AI enhances decision-making through objective, data-driven insights, emotional awareness ensures a balanced approach by addressing psychological biases such as fear, greed, and overconfidence. However, their findings also indicate that AI only partially mediates the relationship between emotional intelligence and investment outcomes, signifying that human emotional factors cannot be entirely replaced by AI systems.

Investor perception is another critical dimension discussed extensively in the literature. According to Jayanthi and KembuRaj (2024), the adoption of AI in financial services is deeply influenced by investors' cognitive biases and attitudes towards technology. Their research reveals that while investors recognize the potential benefits of AI—such as improved risk management, enhanced predictive analytics, and cost reduction—they are also concerned about algorithmic bias, data privacy issues, and the opacity of AI decision-making processes. Furthermore, they highlight the importance of investor education in bridging the trust gap between users and AI systems.

Ismail and Meena (2023) conducted a region-specific study in Delhi NCR, focusing on management students' awareness and attitudes toward AI adoption in investment practices. Their findings suggest that while students demonstrate a general awareness of AI's capabilities, their understanding of its limitations and ethical implications remains limited. This gap underscores the necessity for educational initiatives tailored to equip future investors and financial professionals with the skills and knowledge required to leverage AI effectively in financial decision-making.

On a broader scale, the CFA Institute (2019) identifies three key applications of AI in investment management: natural language processing (NLP) for sentiment analysis, machine learning (ML) for predictive analytics, and big data tools for handling unstructured datasets. Their research highlights how investment firms are increasingly utilizing AI for high-frequency trading, market sentiment analysis, and portfolio optimization. Notably, case studies from Goldman Sachs and State Street Corporation demonstrate successful AI implementation in generating actionable market insights and improving decision-making accuracy.

Despite these advancements, several challenges persist in the adoption of AI technologies in financial decision-making. Akour et al. (2024) identify algorithmic biases, cybersecurity vulnerabilities,

and regulatory ambiguity as significant barriers to seamless AI integration. They emphasize that reliance on AI systems without proper oversight can lead to unforeseen risks, including flawed decision-making and ethical concerns. The lack of transparency in AI-driven algorithms, often referred to as the "black-box problem," further exacerbates investor skepticism.

Sanchez (2020) explores the adoption of AI within private equity and venture capital firms, revealing a paradoxical scenario where AI tools are utilized for portfolio analysis but remain underutilized in internal operational processes. Senior management in these firms often exhibit caution due to operational complexities, integration challenges, and cultural resistance to technological change. The study advocates for a strategic approach that combines AI capabilities with human expertise, ensuring that both technological and emotional intelligence contribute to robust investment outcomes.

From a behavioral finance perspective, researchers like Onyenahazi and Antwi (2024) argue that the symbiosis of human intelligence and AI—often referred to as the "AI + HI" model—represents the optimal approach for leveraging AI in investment decision-making. Their study emphasizes that while AI systems excel at processing large datasets and identifying market trends, human judgment remains essential for interpreting nuanced market dynamics and addressing ethical considerations. This collaborative approach seeks to mitigate the limitations of both human biases and algorithmic flaws.

In the regional context of Delhi NCR, the literature reveals unique insights into the adoption landscape of AI in investment decision-making. While technological infrastructure and financial awareness are steadily improving, cultural attitudes, knowledge gaps, and regulatory uncertainties continue to pose challenges. Educational institutions are identified as key stakeholders in addressing these challenges, with a focus on creating AI literacy programs that emphasize both technical and ethical dimensions of AI adoption.

Overall, the existing body of literature converges on the understanding that AI offers substantial opportunities for improving investment decision-making processes through enhanced risk assessment, predictive analytics, and portfolio management. However, successful AI adoption hinges on addressing critical challenges, including investor perception, regulatory clarity, algorithmic transparency, and the integration of emotional intelligence with AI-driven tools. The collective insights suggest that while AI serves as a powerful enabler, its true potential can only be realized through a balanced, human-centered approach that emphasizes trust, transparency, and continuous education. This review underscores the need for ongoing research and policy interventions to create an ecosystem where AI and human intelligence can coalesce to drive meaningful advancements in investment decision-making.

Research Methodology

Research Design

The study will employ a descriptive and exploratory research design. The descriptive aspect will focus on identifying and analyzing patterns, attitudes, and perceptions of investors regarding AI adoption in investment decisions. The exploratory aspect will allow deeper insights into the reasons behind investor confidence, hesitation, or fear towards AI adoption.

- **Population:** Investors in the Delhi NCR region.

Sampling Method

- **Sampling Technique:** Purposive Sampling
- **Sample Size:** 124

Data Collection Tool

- **Primary Data:** A structured questionnaire will serve as the main tool for data collection.

Data Analysis Techniques

- **Quantitative Data:** Statistical analysis using tools like **SPSS** and **Microsoft Excel**.

Ethical Considerations

- Participants will be informed about the purpose of the study.
- Informed consent will be obtained.
- Anonymity and confidentiality of respondents will be strictly maintained.

Limitations of the Study

- The study is region-specific (Delhi NCR), which might not fully represent national-level trends.
- Self-reported data may be subject to response bias.

Data Analysis

Table 1: Demographic Profile of Respondents

Demographic Variable	Categories	Frequency (n=124)	Percentage (%)
Age Group	18–25	30	24.2
	26–35	45	36.3
	36–50	35	28.2
	51+	14	11.3
Gender	Male	68	54.8
	Female	56	45.2
Education Level	Graduate	53	42.7
	Postgraduate	60	48.4
	Doctorate	11	8.9
Investment Experience	<1 year	25	20.2
	1–3 years	50	40.3
	4–7 years	32	25.8
	>7 years	17	13.7
Portfolio Size (INR)	<50,000	28	22.6
	50,000–2,00,000	42	33.9
	2,00,000–10,00,000	35	28.2
	>10,00,000	19	15.3

Interpretation

The demographic profile reveals a diverse group of respondents, with the majority aged between **26–35 years (36.3%)**, followed by the **36–50 age group (28.2%)**, indicating active participation from younger and middle-aged investors. Gender distribution is relatively balanced, with **54.8% male** and **45.2% female** respondents. In terms of education, **Postgraduates (48.4%)** form the largest segment, followed by **Graduates (42.7%)**, reflecting a highly educated sample. Regarding investment experience, most respondents have **1–3 years of experience (40.3%)**, showing early-stage investors' engagement with AI tools. In portfolio size, **50,000–2,00,000 INR (33.9%)** emerges as the dominant bracket, indicating moderate investment profiles. Overall, the sample represents a well-distributed demographic that provides meaningful insights into investor perceptions of AI adoption in financial decision-making.

Awareness of AI

Awareness of AI	Responses
Yes	75
No	49
Total	124

Source:

Interpretation: 60.5% of respondents are aware of AI in the context of investment, while 39.5% are not. This foundational lack of awareness reflects the early stage of AI's penetration into personal finance. Without awareness, trust and usage cannot follow—establishing a key starting point in the “fear to trust” journey. This finding is consistent with the low reported usage in the next section.

Usage of AI Tools in Investment

Used AI Tools	Responses
Yes	37
No	87
Total	124

Source:

Interpretation: Although 75 respondents were aware of AI, only 37 (29.8%) have actually used AI tools. This drop from awareness to usage suggests that awareness alone does not guarantee action. This supports the hypothesis that other barriers (trust, complexity, or perceived value) are at play. When linked to reasons for not using AI, it becomes clear that even interested investors are hesitant due to psychological and informational barriers.

AI Tools have you used

AI Tool	Responses
Robo-advisors	22
AI Trading Platforms	11
Sentiment Analysis Tools	4
Predictive Analytics	0
Total	37

Source:

Interpretation: Among AI users, 59.5% use robo-advisors, indicating a preference for user-friendly, accessible applications. Tools that require more technical understanding—like sentiment analysis or predictive analytics—are rarely used. This supports the idea that lack of knowledge plays a major role in limiting deeper AI engagement.

Reasons for not using AI Tools

Awareness of AI	Responses
Lack of trust in AI systems	24
Lack of awareness	35
Data privacy concerns	22
Prefer traditional methods	6
Total	87

Source:

Interpretation: The primary reasons for non-use are lack of awareness (40.2%) and trust issues (27.6%). Together, they account for nearly 68% of non-use. These concerns mirror the broader narrative of investor hesitation and support the central thesis that trust and education are critical enablers for AI adoption.

AI helps in Reducing Risks in Financial Investments

Response	Number of Respondents
Strongly Agree	25
Agree	40
Neutral	30
Disagree	20
Strongly Disagree	9

Source:

Interpretation: Over half (52.4%) of respondents believe AI can help reduce investment risk, indicating a moderately positive perception. However, the sizeable neutral and disagreeing segment shows caution. When contrasted with usage levels (29.8%), this implies that belief in AI's potential doesn't always translate to actual application—again reinforcing the gap between perception and behavior.

AI Provides better Insights Compared to Traditional Methods

Better Insights with AI	Number of Respondents
Strongly Agree	22
Agree	45
Neutral	30
Disagree	18
Strongly Disagree	9

Source:

Interpretation: A majority (54%) acknowledge AI's ability to provide better insights than traditional methods. This correlates with the 52.4% who believe it reduces risk. The overlap suggests that when investors believe in AI's capabilities, they tend to value both insight and outcome. Yet, the consistent ~24% neutrality across questions indicates a population segment that remains undecided—likely due to lack of experience or knowledge.

Concern of Lack of Transparency in AI Decision-Making

Concern of transparency with AI	Number of Respondents
Strongly Agree	30
Agree	40
Neutral	25
Disagree	18
Strongly Disagree	11

Source:

Interpretation: Transparency is a major concern, with 56.5% expressing worry. This significantly overlaps with those lacking confidence in AI. The pattern reveals that trust cannot be built without explainability—a crucial barrier identified throughout the data.

AI platforms to make accurate financial predictions

Response	Number of Respondents
Strongly Agree	20
Agree	32
Neutral	35
Disagree	25
Strongly Disagree	12

Source:

Interpretation: Confidence in AI's accuracy is weaker than in its insight-generating capabilities. This may reflect fears of over-automation or unpredictable outcomes, and is further highlighted in the next question about AI-driven losses.

Financial Loss Due to AI Errors or Biases

Response	Number of Respondents
Strongly Agree	35
Agree	40
Neutral	30
Disagree	12
Strongly Disagree	7

Source:

Interpretation: A significant 60.5% fear financial loss due to AI errors or biases. This high level of concern helps explain low usage and modest confidence, despite perceived value. Fear of error is a powerful emotional barrier.

AI Lacks Human Judgment

Response	Number of Respondents
Strongly Agree	40
Agree	38
Neutral	25
Disagree	15
Strongly Disagree	6

Source:

Interpretation: Nearly two-thirds (62.9%) agree that AI lacks human judgment—a common philosophical concern in financial decision-making. This belief explains the continued preference for human advisors and resistance to full automation, tying into hybrid model preferences explored elsewhere.

Recommend AI tools

Response	Number of Respondents
Strongly Agree	15
Agree	30
Neutral	40
Disagree	30
Strongly Disagree	9

Source:

Interpretation: Only 36.3% would recommend AI tools—lower than those who find them insightful or risk-reducing. The high neutral (32.3%) and negative (31.4%) responses further show that trust and satisfaction are not yet strong enough to drive advocacy.

Improvements to use AI Tools more Confidently

Suggested Improvement	Number of Respondents
Improved transparency	40
Better data security	30
Enhanced user education	35
More human-AI interaction	19

Source:

Interpretation: Transparency and education dominate the list of suggested improvements. These align precisely with identified concerns: lack of understanding, transparency and fear of misuse. These areas represent actionable gaps to help shift investors from fear to trust.

Biggest barrier to AI Adoption in Financial Investment

Barrier to AI Adoption	Number of Respondents
Trust issues	38
Lack of knowledge	42
Data privacy	26
Regulatory concerns	18

Source:

Interpretation: Knowledge gaps and trust issues represent two-thirds of the barriers. This affirms findings from almost every previous question. It's evident that addressing these barriers could significantly improve adoption and perception.

Attend a Workshop/Training Session on AI Investment Tools

Would Attend Workshop	Number of Respondents
Yes	76
No	48

Source:

Interpretation: Despite concerns and low usage, 61.3% are willing to attend workshops. This is encouraging—it shows openness to learning and suggests that the path to trust lies in education and exposure, not just technical improvement.

Findings

- **Low General Awareness of AI in Investment:** Only 60.5% of respondents were aware of AI applications in financial decision-making, indicating that a good portion (39.5%) remain unaware of its role and potential.
- **Significant Gap Between Awareness and Adoption:** While 75 respondents were aware of AI, only 37 (29.8%) had actually used AI tools, revealing a notable drop-off between recognition and usage.
- **Dependence on Simplified AI Tools:** Among users, 59.5% engaged with robo-advisors—tools requiring minimal technical understanding—while more advanced tools like predictive analytics saw no usage.
- **Trust and Awareness Are Major Barriers to Adoption:** Among non-users, 40.2% cited lack of awareness and 27.6% cited lack of trust as primary reasons for not adopting AI tools.

- **Moderate Perception of AI's Investment Value:** Over 52% of respondents believe AI helps reduce risk, and 54% agree it offers better insights than traditional methods, indicating general optimism regarding AI's potential.
- **Low Confidence in Relying on AI for Decisions:** Despite perceived benefits, only 38.7% felt confident relying on AI, suggesting a cautious stance fueled by lack of experience or transparency.
- **Widespread Concern Over Transparency and Accuracy:** 56.5% expressed concern about the lack of transparency in AI decision-making, and 60.5% feared financial losses due to AI errors or bias.
- **Strong Perception That AI Lacks Human Judgment:** 62.9% agreed that AI lacks the intuitive understanding and contextual judgment of human advisors, underscoring psychological resistance to full automation.
- **Limited Advocacy for AI Tools:** Only 36.3% of respondents would recommend AI tools to others, showing that even those who benefit from AI may not be fully satisfied or trusting.
- **Positive Attitude Toward Learning and Engagement:** Encouragingly, 61.3% of respondents expressed willingness to attend workshops or training sessions on AI investment tools, indicating openness to change and learning.

Recommendations

- Launch structured awareness campaigns, webinars, and seminars to improve basic understanding of AI applications in finance.
- Developers should focus on explainable AI models that allow investors to understand how decisions or recommendations are generated.
- Encourage use of platforms that combine AI analytics with human oversight to address trust and judgment concerns.
- Financial service providers must enforce strict data protection standards and clearly communicate privacy safeguards to users.
- Offer demo versions or low-risk trials of AI tools to reduce fear of financial loss and encourage first-time usage.
- National and institutional financial literacy programs should include dedicated modules on AI-driven investing.
- Policymakers should introduce regulatory frameworks to ensure ethical, transparent, and accountable use of AI in financial services.

Conclusion

This study explored how investors perceive, engage with, and respond to the growing integration of Artificial Intelligence in financial decision-making processes. The findings reveal a landscape marked by cautious optimism. While investors recognize the potential of AI to enhance insights and reduce risks, actual adoption remains low due to limited awareness, lack of trust, and concerns about transparency and data privacy. A significant portion of investors are not only unaware of AI's role in investment but also reluctant to fully rely on it, largely due to perceived shortcomings such as the absence of human judgment and fear of algorithmic errors. Despite these reservations, the study also uncovers encouraging signs of transition. A majority of respondents express a willingness to learn and engage—particularly through workshops and educational interventions—highlighting that the journey from fear to trust is not obstructed but simply incomplete. This openness offers a strategic entry point for financial institutions, AI developers, and policymakers to intervene constructively. In sum, the findings underscore that the successful integration of AI in investment decision-making hinges not solely on technological advancement but equally on human-centric factors: trust, education, and transparency. Bridging the gap between fear and trust will require a concerted effort to demystify AI, build confidence, and design tools that are both powerful and comprehensible. Only then can AI realize its full potential as a trusted ally in the evolving landscape of investment behavior.

References

1. Rehman, M., Dhiman, B., & Cheema, G. S. (2024). Minds and machines: Impact of emotional intelligence on investment decisions with mediating the role of artificial intelligence. *International Journal of Engineering, Business and Management*, 8(1), 1–12. <https://dx.doi.org/10.22161/ijebm.8.1.1>
2. Ismail, P., & Meena, R. P. (2023). A study on the awareness and attitude of management students towards artificial intelligence (AI) for investment with special reference to Delhi NCR. *International Journal of Artificial Intelligence in Business*, 1(1), 1–17. <https://doi.org/10.17605/OSF.IO/B5Y8D>
3. Akour, I., Alzyoud, M., Alquqa, E. K., Tariq, E., Alzboun, N., Al-Hawary, S. I. S., & Alshurideh, M. T. (2024). Artificial intelligence and financial decisions: Empirical evidence from developing economies. *International Journal of Data and Network Science*, 8(1), 101–108. <https://doi.org/10.5267/j.ijdns.2023.10.013>
4. Jayanthi, M., & KembuRaj, K. (2024). Investor perception in adoption of artificial intelligence in financial services. *International Journal of Research Publication and Reviews*, 5(4), 8884–8893. <http://www.ijrpr.com>
5. Onyenahazi, O. B., & Antwi, B. O. (2024). The role of artificial intelligence in investment decision-making: Opportunities and risks for financial institutions. *International Journal of Research Publication and Reviews*, 5(10), 70–85. <https://doi.org/10.55248/gengpi.5.1024.2701>
6. Sanchez, O. (2020). *The role of artificial intelligence in investment decision making: A study of senior management perceptions within private equity and venture capital firms* (Master's thesis, National College of Ireland). National College of Ireland Repository.
7. CFA Institute. (2019). AI pioneers in investment management: An examination of the trends and use cases of AI and big data technologies in investments. CFA Institute. <https://www.cfainstitute.org/en/research/survey-reports/ai-pioneers-in-investment-management>.

