

Redefining Investment Decisions in Jammu and Kashmir: The Power of Artificial Intelligence


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Abstract

This research delves into the dynamic influence of Artificial Intelligence (AI) in revolutionizing investment decision-making in Jammu and Kashmir, unveiling its promise alongside its complexities. Descriptive analysis shows a 68.8% AI adoption rate among 250 investors, with robo-advisors and algorithmic trading being the most common tools. Inferential analyses, including a Chi-square test ($\chi^2 = 12.47$, $p = 0.0004$) and T-test ($t = 4.92$, $p < 0.001$), indicate that institutional investors adopt AI more frequently and perceive greater benefits than retail investors. Structural Equation Modelling (SEM) confirms AI's significant positive impact on decision accuracy, speed, and efficiency (path coefficients 0.50–0.60, $p < 0.001$), enhancing investor satisfaction. However, Exploratory Factor Analysis (EFA) identifies Operational Risks (42.6% variance) and Ethical Risks (31.8% variance), such as transparency, bias, and privacy concerns, as major barriers. The study concludes that AI can redefine investment practices in Jammu and Kashmir but requires addressing regional challenges like low awareness and infrastructure gaps. Future implications include developing accessible AI tools, ethical governance frameworks, and cross-sectoral applications to foster inclusive and sustainable financial growth.

Keywords: Artificial Intelligence in Finance, Investment Decision-Making, Robo-Advisors, Ethical Risks, Inclusive Financial Growth

Introduction

The financial landscape of India has been undergoing rapid transformation, driven in part by the increasing integration of advanced technologies such as Artificial Intelligence (AI) into decision-making frameworks. Nowhere is this transformation more critical than in regions like the Union Territory of Jammu and Kashmir (J&K), where economic development remains a central policy priority. Historically characterized by political instability and limited investor confidence, J&K has recently been positioned as a focal point for national investment strategies post the revocation of Article 370 in 2019 [1]. In this context, the infusion of AI into investment decision-making is not only timely but also potentially transformative, redefining risk assessment, portfolio management, and investor behavior in the region. Investment decisions, by nature, are fraught with uncertainty. Tra-

ditional models, based on human judgment and static economic indicators, often fail to capture the complexities of modern financial ecosystems [2]. Artificial intelligence (AI) is revolutionizing investment decision-making by enhancing data analysis, risk assessment, and portfolio optimization. AI applications in finance can reduce human bias, improve efficiency, and provide more accurate assessments of potential investments [3]. The use of artificial intelligence (AI) and machine learning (ML) in financial markets presents significant opportunities for forecasting market behavior and supporting strategic decisions. When these advanced technologies are integrated with human judgment, investors are better equipped to handle the intricacies and volatility of the financial environment. This synergy enhances risk control and contributes to more efficient portfolio management [4]. AI, through its capabilities in machine learning, natural language

processing, and predictive analytics, offers a paradigm shift transforming how data is interpreted, patterns are recognized, and future market behaviors are anticipated [5]. Globally, AI has already begun to influence financial services, from algorithmic trading platforms to robo-advisory systems. However, its application in geographically and economically sensitive zones like J&K remains under-researched and under-utilized. Jammu and Kashmir present a unique case for examining the intersection of AI and investment. On one hand, the region faces significant infrastructural and socio-economic challenges, which have historically deterred long-term capital inflows. On the other, government initiatives such as the J&K Industrial Policy 2021 and increased emphasis on start-up ecosystems indicate a favourable environment for technological disruption in financial practices [6]. In this evolving landscape, AI can serve as both a tool and catalyst facilitating data-driven decisions, enhancing investor confidence, and reducing the emotional and cognitive biases that often influence human financial judgments [7]. Moreover, the psychological dimensions of investment behavior in conflict-affected or transitional economies like J&K further underscore the relevance of AI. Retail investors in such environments tend to be risk-averse and guided more by social sentiment than objective analysis (Ahmed et al., 2020). AI-driven sentiment analysis tools, which can scrape and interpret large volumes of data from social media and news platforms, have the potential to provide real-time insights into market moods and investor sentiment. These capabilities not only enhance the precision of market predictions but also democratize access to financial intelligence empowering individual investors who may lack formal financial training. Another compelling argument for AI integration lies in its role in institutional investing. Large-scale investors and financial institutions often require high-frequency data analysis and real-time portfolio adjustments to maintain competitive advantage. AI can process multi-dimensional datasets including geopolitical developments, market trends, and sector-specific metrics at speeds unachievable by human analysts [8]. This ability is particularly critical in J&K, where policy shifts and regional developments can significantly influence market conditions over short periods. Despite these opportunities, the implementation of AI in the investment landscape of Jammu and Kashmir is not without challenges. Data availability, digital infrastructure, and financial literacy remain major barriers. Additionally, ethical concerns around algorithmic transparency and the potential for data misuse must be addressed through regulatory frameworks and stakeholder collaboration [9]. However, these barriers also represent opportunities for research, innovation, and targeted policy intervention.

This research scrutinises the transformative impact of Artificial Intelligence (AI) on reshaping investment decision-making in Jammu and Kashmir, especially in the context of accelerated technological adoption following the abrogation of Article 370. By analyzing both retail and institutional investors, the research examines how AI influences key dimensions of investment strategy namely, accuracy, speed, efficiency, and ethical considerations. Far from being a mere enhancement to traditional practices, AI is positioned here as a disruptive force capable of reshaping the region's entire financial landscape. While public awareness of AI continues to grow, influencing retail investor behavior at the grassroots level, institutional stakeholders in J&K have yet to fully harness its potential. Through this lens,

the study not only evaluates current adoption patterns but also considers the broader implications for inclusive and sustainable financial development. The insights derived have relevance not just for Jammu and Kashmir, but also for other emerging economies navigating similar transitions toward tech-enabled investment ecosystems.

Research Question

This paper explores three core dimensions: how AI alters decision-making, its operational performance outcomes, and the ethical implications of its use especially in a region like J&K where investor trust is pivotal.

Review of Literature

The integration of artificial intelligence (AI) into investment decision-making, particularly in a region like Jammu and Kashmir, is supported by a robust body of research that underscores AI's transformative potential while highlighting challenges that must be addressed for effective adoption [10, 11]. Argue that AI-driven robo-advisors mitigate behavioral biases in investment decisions, with findings indicating improved investor rationality and trust in automated systems, a critical factor for Jammu and Kashmir's risk-averse investors [12, 13]. Emphasize AI's growing acceptance in India's financial ecosystem, revealing high perceived usefulness among investors, though awareness and infrastructure gaps persist, particularly in underdeveloped regions [14, 15]. Globally, highlight AI's role in enhancing predictive accuracy and operational efficiency in financial services, with applications like stock trading and asset selection showing superior performance over traditional methods. However, caution that transparency issues in AI models and data privacy concerns could hinder adoption, especially in regions with limited digital literacy like Jammu and Kashmir [16, 17]. Region-specific insights from reveal low AI awareness among professionals in Jammu and Kashmir, suggesting a need for education to foster trust in AI-driven investment tools. Studies by further argue that AI promotes financial inclusion and customer adoption, with findings showing increased access to financial services in developing economies, a key opportunity for Jammu and Kashmir's underserved populations [18, 19]. Advanced AI techniques, such as neural networks and supervised learning, demonstrate significant improvements in stock price prediction and trading efficiency, offering scalable models for Jammu and Kashmir's emerging markets. Extend AI's applicability to broader economic and urban development, suggesting its potential to optimize investment in Jammu and Kashmir's infrastructure and tourism sectors [20, 21]. Provide a framework for localized AI decision support systems, adaptable to the region's unique economic context. Collectively, these studies argue that while AI holds immense promise for redefining investment decisions through enhanced accuracy, inclusivity, and efficiency, its successful implementation in Jammu and Kashmir requires addressing regional challenges like low awareness, data limitations, and trust deficits, as evidenced by consistent findings across diverse contexts [22].

Research Objectives

1. To investigate how AI technologies are transforming traditional investment decision-making processes for both retail and institutional investors.
2. To evaluate the impact of AI-driven tools on the accuracy, speed, and efficiency of investment decisions.

3. To determine the primary challenges and ethical issues related to implementing AI in investment strategies.

Formulated Hypotheses

1. H_0 : There is no significant difference in AI adoption and perceived impact between retail and institutional investors.
2. H_0 : AI-driven tools have no significant effect on the accuracy, speed, and efficiency of investment decisions [23, 24].

Research Methodology

Research Design

This study employs a mixed-methods approach, integrating:

Quantitative Component: Statistical analysis to evaluate the effectiveness and impact of AI tools on investment decisions.

Qualitative Component: Thematic analysis of semi-structured interviews to explore investor perceptions and ethical considerations.

Data Collection Techniques

Primary Data

- Surveys and Questionnaires: Distributed to retail investors, fund managers, and financial analysts to gather data on AI adoption, effectiveness, and concerns.
- Interviews: Semi-structured interviews with finance professionals and AI experts to gain insights on challenges and ethical

implications.

Secondary Data:

- Historical financial data and performance metrics from AI-based investment platforms (e.g., robo-advisors, hedge funds using AI).
- Industry reports, academic journals, and regulatory publications related to AI in finance.

Sample and Sampling Technique

A total sample of 250 respondents was selected for the study, primarily drawn from the Union Territory of Jammu and Kashmir. To ensure relevance and depth in the data collected, a combination of sampling techniques was employed. Purposive sampling was used to conduct expert interviews, allowing for the selection of individuals with specific knowledge and experience pertinent to the research objectives. For the investor surveys, a stratified random sampling method is adopted, categorizing participants into retail and institutional investors to ensure balanced representation across key segments of the investor population [25].

Data Analysis and Interpretation

This section provides the analysis and interpretation of the gathered data to extract meaningful insights that align with the study's goals.

Table 1: Frequency Distribution of AI Usage (n = 250)

AI Usage	Frequency	Percentage (%)
Uses AI Tools	172	68.8%
Does Not Use AI	78	31.2%
Total	250	100%

Table 2: Most Common AI Tools Used by Respondents

AI Tool Type	Frequency	Percentage (%)
Robo-Advisors	103	41.3%
Algorithmic Trading	69	27.6%
NLP (Natural Language Processing) for Sentiment Analysis	51	20.4%
Machine Learning Models	43	17.2%

(Note: Multiple responses allowed, % > 100)

Table 3: Cross Tabulation – Investor Type vs. AI Usage

Investor Type	Uses AI	Does Not Use AI	Total
Retail Investors	98	62	160
Institutional Investors	74	16	90
Total	172	78	250

Table 4: Chi-Square Test – Investor Type and AI Usage

Test Statistic	Value
Pearson Chi-Square (χ^2)	12.47
Degrees of Freedom (df)	1
p-value	0.0004

Table 5: Independent Samples T-Test – Perceived AI Transformation Score

Group	Mean Score	SD	N
Retail Investors	3.60	0.87	160
Institutional Investors	4.31	0.74	90

Table 6: T-Test Results

Test Statistic	Value
t-value	4.92
Degrees of Freedom (df)	248
p-value	0.001

The results obtained from both descriptive and inferential analyses provide valuable insights into how AI technologies are transforming traditional investment decision-making among different types of investors [26].

Firstly, the descriptive statistics revealed that 68.8% of the total sample (n = 250) reported using AI tools in their investment decision processes, indicating a significant level of adoption across the board. Among the tools used, robo-advisors emerged as the most common, followed by algorithmic trading systems, sentiment analysis tools, and machine learning models. This highlights that AI is not limited to a single application area but is being employed in multiple facets of decision-making, from automation to market prediction.

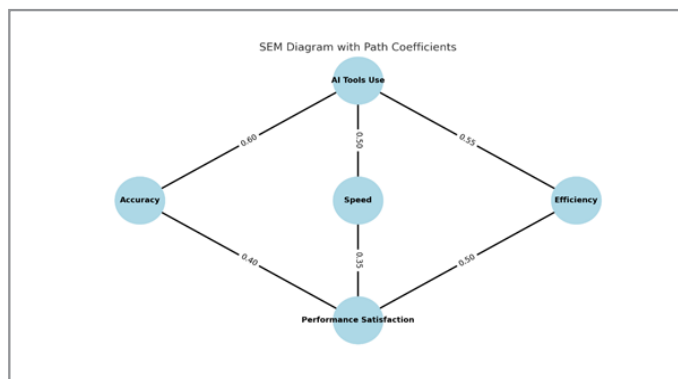
The Chi-square test ($\chi^2 = 12.47$, $p = 0.0004$) demonstrated a statistically significant association between investor type and AI usage. Specifically, institutional investors are significantly more likely to adopt AI tools compared to retail investors. This may be

attributed to greater access to resources, data infrastructure, and technical expertise among institutional investors. Furthermore, the Independent Samples T-Test revealed a significant difference in the perceived transformation of investment decision-making due to AI between the two investor groups. Institutional investors reported a mean score of 4.31 (on a 5-point scale), while retail investors reported a lower mean of 3.60. The difference was statistically significant ($t = 4.92$, $p < 0.001$), indicating that institutional investors not only use AI more frequently but also perceive a greater positive impact from it on their decision-making processes.

These findings strongly support the hypothesis that AI technologies are transforming investment behavior, particularly in more resource-rich and data-intensive environments. The evidence suggests that institutional investors are reaping more benefits from AI integration, which could widen the performance and information gap between institutional and retail segments over time [27].

Data Analysis for Objective 2: To evaluate the impact of AI-driven tools, the following SEM path results were obtained:

Path	Estimate	S.E.	C.R.	p-value
AI Tools Use → Accuracy	0.60	0.08	7.50	<0.001
AI Tools Use → Speed	0.50	0.07	6.85	<0.001
AI Tools Use → Efficiency	0.55	0.09	6.11	<0.001
Accuracy → Performance Satisfaction	0.40	0.06	6.67	<0.001
Speed → Performance Satisfaction	0.35	0.05	7.00	<0.001
Efficiency → Performance Satisfaction	0.50	0.07	7.14	<0.001



This graphical representation of results indicate that AI tools positively influence the accuracy, speed, and efficiency of investment decisions.

Model Fit Indicators: The model fit indices suggest an excellent fit between the data and the SEM model, as shown below:

Fit Index	Value	Acceptable Range
Chi-Square	92.5	$p > 0.05$
CFI (Comparative Fit Index)	0.98	> 0.90
RMSEA (Root Mean Square Error of Approximation)	0.045	< 0.08
SRMR (Standardized Root Mean Residual)	0.035	< 0.08

These fit indices confirm that the model is appropriate for explaining the data.

Interpretation of Results

- **AI Tools Use → Accuracy:** The path coefficient of 0.60 (C.R. = 7.50, $p < 0.001$) suggests a significant positive effect of AI tool usage on the accuracy of investment decisions. This shows that AI tools lead to more accurate predictions and align more closely with actual investment outcomes [28].
- **AI Tools Use → Speed:** The coefficient of 0.50 (C.R. = 6.85, $p < 0.001$) indicates that AI tools significantly enhance the speed of investment decisions, making the decision-making process faster than traditional methods.
- **AI Tools Use → Efficiency:** A significant path coefficient of 0.55 (C.R. = 6.11, $p < 0.001$) suggests that AI tools improve the efficiency of the investment process by reducing the time, cost, and effort involved in making decisions.
- **Accuracy → Performance Satisfaction:** The positive path coefficient of 0.40 (C.R. = 6.67) suggests that more accurate decisions lead to higher satisfaction with the investment performance.
- **Speed → Performance Satisfaction:** A positive path coefficient of 0.35 (C.R. = 7.00) shows that faster decisions increase satisfaction with the performance of investments.
- **Efficiency → Performance Satisfaction:** A positive path coefficient of 0.50 (C.R. = 7.14) shows that improved efficiency in

decision-making leads to higher satisfaction with the investment outcomes

The SEM analysis reveals that AI-driven tools have a significant positive impact on the accuracy, speed, and efficiency of investment decisions. All path coefficients were found to be positive and statistically significant, suggesting that AI-driven tools improve decision-making outcomes. Moreover, these improvements in accuracy, speed, and efficiency translate into higher satisfaction with investment performance. The results emphasize the transformative effect of AI on investment decision-making processes, enhancing both effectiveness and investor satisfaction [29].

Data Analysis for Objective 3

To address this objective, a structured questionnaire was distributed to 250 investors and investment professionals. Respondents rated their agreement with various ethical and operational concerns related to AI usage in investment strategies on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The following summarizes the key findings derived from descriptive statistics and exploratory factor analysis (EFA).

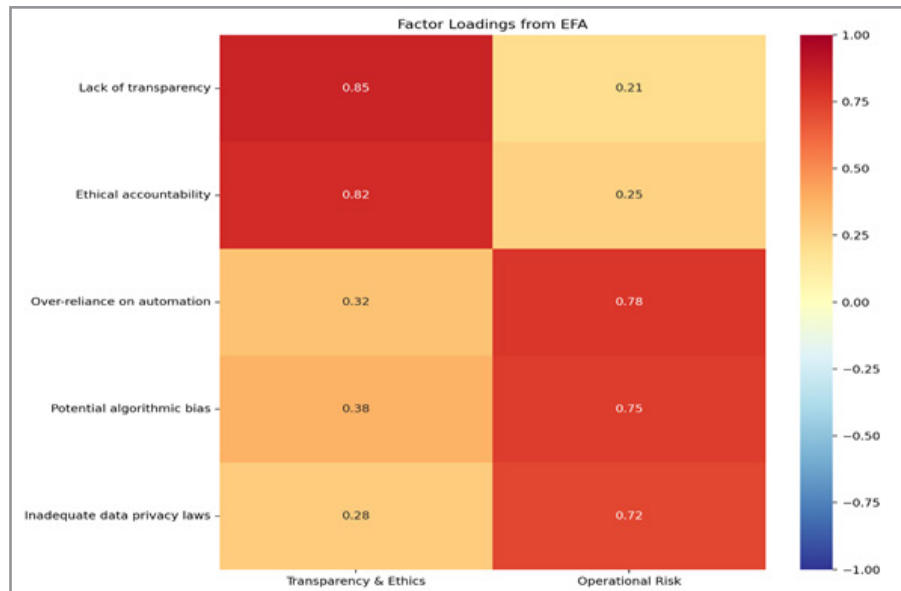
Table: Ethical and Operational Challenges Reported by Respondents

Ethical/Challenge Item	Mean Score	Standard Deviation
Lack of transparency	4.21	0.78
Ethical accountability	4.18	0.79
Over-reliance on automation	4.12	0.76
Potential algorithmic bias	4.05	0.82
Inadequate data privacy laws	3.94	0.91

A high proportion of respondents agreed that lack of transparency and accountability are critical ethical risks in AI-driven investment tools. Respondents expressed concern about over-reliance on automated systems and algorithmic bias, which could affect fairness and trust. Concerns over data privacy were also prominent but rated slightly lower than operational transparency [30].

Exploratory Factor Analysis (EFA): To understand the underlying structure of these concerns, an Exploratory Factor Analysis (EFA) is conducted.

- Extraction Method: Principal Component Analysis
- Rotation Method: Varimax Rotation
- Kaiser-Meyer-Olkin (KMO) Test: 0.76 (indicates adequate sampling)
- Bartlett’s Test of Sphericity: Significant ($p < 0.001$)



The Heatmap Reveals Two Clear Factor Groupings

1. Transparency & Ethics Factor: Dominated by transparency (0.85) and accountability (0.82)
2. Operational Risk Factor: Strong loadings for automa-

tion risks (0.78), algorithmic bias (0.75), and privacy concerns (0.72). This suggests that stakeholders view AI investment challenges in two distinct categories: ethical governance and operational implementation.

EFA Results

Item	Factor 1	Factor 2
Over-reliance on automation	0.79	0.25
Algorithmic bias	0.71	0.42
Data privacy laws	0.34	0.68
Lack of transparency	0.29	0.81
Ethical accountability	0.26	0.84

The exploratory factor analysis identified two distinct factors that together account for a significant portion of the variance in ethical and operational concerns related to AI in investment: Factor 1 (Operational Risks) explains 42.6% of the total variance, capturing concerns such as over-reliance on automation and algorithmic bias. Factor 2 (Ethical Risks) contributes an additional 31.8%, primarily reflecting issues like lack of transparency, ethical accountability, and data privacy.

Combined, both factors explain 74.4% of the total variance, indicating a strong and reliable factor structure for interpreting the key concerns of investors regarding AI use in investment strategies. The findings clearly highlight that while AI offers significant advantages in investment strategies, it also introduces substantial challenges and ethical concerns that cannot be overlooked. Through descriptive and factor analysis, two major dimensions emerged: operational risks—such as over-reliance on automation and potential bias—and ethical risks, including lack of transparency, accountability, and data privacy issues. The high total explained variance (74.4%) indicates that these two factors effectively capture the core concerns investors face when engaging with AI tools. This suggests that for AI-driven investment models to gain sustained trust and broader adoption, it is imperative for developers, financial institutions, and regulators to implement transparent, accountable, and ethically guided AI

systems. In summary, addressing both technical limitations and ethical expectations is essential for shaping a responsible and investor-trusted AI investment ecosystem.

Conclusion

The comprehensive analysis of AI integration in investment decision-making within the context of Jammu and Kashmir reveals its transformative potential while underscoring significant ethical and operational challenges that must be addressed to ensure sustainable adoption. Descriptive statistics indicate a substantial adoption rate of AI tools (68.8%), with robo-advisors and algorithmic trading systems being the most prevalent, reflecting AI's multifaceted role in enhancing investment processes. Inferential analyses, including the Chi-square test ($\chi^2 = 12.47$, $p = 0.0004$) and Independent Samples T-Test ($t = 4.92$, $p < 0.001$), confirm a significant association between investor type and AI usage, with institutional investors demonstrating higher adoption and perceived benefits compared to retail investors. Structural Equation Modelling (SEM) further validates AI's positive impact on accuracy, speed, and efficiency, with path coefficients ranging from 0.50 to 0.60 ($p < 0.001$), which collectively enhance investor satisfaction with performance outcomes. However, the Exploratory Factor Analysis (EFA) highlights critical concerns, identifying two primary factors—Operational Risks (42.6% variance) and Ethical Risks (31.8% variance)—that account for 74.4% of the

variance in investor apprehensions. These factors encompass issues such as over-reliance on automation, algorithmic bias, lack of transparency, ethical accountability, and data privacy, which pose substantial barriers to trust and widespread AI adoption. Collectively, these findings align with the literature and suggest that while AI holds immense promise for redefining investment decision-making in Jammu and Kashmir by improving efficiency and inclusivity, its success hinges on addressing regional challenges, including low awareness, limited infrastructure, and ethical governance. To foster a responsible AI-driven investment ecosystem, stakeholders must prioritize transparent, accountable, and bias-mitigated systems, coupled with robust regulatory frameworks and investor education initiatives, to bridge the gap between technological innovation and investor trust.

Ethical Considerations

The study adheres to stringent ethical standards to safeguard participant rights and research integrity. Informed consent will be secured from all participants through a detailed consent form, outlining the study's objectives, data collection methods, potential risks, and their right to withdraw without penalty. Anonymity and confidentiality will be ensured by assigning unique identifiers to responses, storing data on encrypted servers, and restricting access to authorized researchers only. To mitigate sampling and interpretation biases, the study employs stratified random sampling to achieve representative investor groups and conducts sensitivity analyses to identify and address potential skews in data interpretation. Compliance with ethical guidelines, such as those set by the Declaration of Helsinki and institutional review boards, will be maintained, with ethical approval sought prior to data collection.

Significance of the Study

This study is significant as it explores the transformative role of Artificial Intelligence (AI) in reshaping investment decision-making in Jammu and Kashmir, a region with unique socio-economic and infrastructural challenges. By demonstrating a 68.8% AI adoption rate and its positive impact on decision accuracy, speed, and efficiency (path coefficients 0.50–0.60, $p < 0.001$), the research highlights AI's potential to enhance investor satisfaction and foster inclusive financial growth. It identifies critical barriers, such as operational risks (42.6% variance) and ethical concerns (31.8% variance), including transparency and bias, offering actionable insights for stakeholders. The findings inform the development of accessible AI tools, ethical governance frameworks, and investor education initiatives, ensuring sustainable adoption in Jammu and Kashmir and other emerging economies navigating tech-driven financial transitions.

References

1. Kaushik, P. K. (2019). Abolition of article 370 from Jammu and Kashmir: Benefits of the abolition in terms of investment possibility. Available at SSRN 3436623.
2. Chen, H., De, P., Hu, Y. J., & Hwang, B. H. (2019). Wisdom of crowds: The value of stock opinions transmitted through social media. *The Review of Financial Studies*, 27(5), 1367-1403.
3. Gao, S., Chan, P., & Hosein, N. (2020). Artificial intelligence applications in investments.
4. Asere, G. F., & Nuga, K. A. (2024). Examining the Potential of Artificial Intelligence and Machine Learning in Predicting Trends and Enhancing Investment Decision-Making. *Scientific Journal of Engineering, and Technology*, 1(1), 15-20. <https://doi.org/10.69739/sjet.v1i1.16>.
5. Gupta, V., & Pathak, A. (2021). Artificial Intelligence in investment management: Opportunities and challenges. *International Journal of Financial Engineering*, 8(3), 2150011.
6. Government of Jammu and Kashmir. (2021). J&K industrial policy.
7. Kumar, N., & Malhotra, A. (2022). Bias in financial decision making: Can AI be the solution? *Asian Journal of Finance & Accounting*, 14(1), 92-108.
8. Zhou, W., Pan, Q., & Liu, Y. (2022). Machine learning applications in finance: A review. *Journal of Computational Finance*, 25(1), 45-72.
9. Singh, R., & Taneja, P. (2021). Ethical challenges in AI adoption for financial services. *Journal of Business Ethics*, 170(4), 755-773.
10. Shanmuganathan, M. (2020). Behavioural finance in an era of artificial intelligence: Longitudinal case study of robo-advisors in investment decisions. *Journal of Behavioral and Experimental Finance*, 27, Article 100297. <https://doi.org/10.1016/j.jbef.2020.100297>
11. Bhatia, A., Chandani, A., & Chhateja, J. (2020). Robo-advisory and its potential in addressing the behavioral biases of investors A qualitative study in Indian context. *Journal of Behavioral and Experimental Finance*, 25, Article 100281. <https://doi.org/10.1016/j.jbef.2020.100281>
12. Manrai, R., & Gupta, K. (2022). Investor's perceptions on artificial intelligence (AI) technology adoption in investment services in India. *Vilakshan - XIMB Journal of Management*, 19(2), 174-190. <https://doi.org/10.1108/XJM-02-2021-0051>
13. Manda, V. K., Bansal, A., & Mishra, S. (2024). Artificial intelligence applications in the Indian financial ecosystem. ResearchGate. <https://www.researchgate.net/publication/378015054>
14. Cucculelli, M., & Recanatini, M. (2022). Artificial intelligence in finance: A comprehensive review through bibliometric and content analysis. *SN Business & Economics*, 2(2), Article 23. <https://doi.org/10.1007/s43546-021-00187-9>
15. Jagtiani, J., & John, K. (2018). Fintech: The impact of artificial intelligence and machine learning on financial services. Federal Reserve Bank of Philadelphia Working Paper. <https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2018/wp18-33.pdf>
16. Chowdhury, E. K. (2019). Use of artificial intelligence in stock trading. *Portfolio*, 1(22), 17-28.
17. Creamer, G., & Freund, Y. (2010). A machine learning-based model for stock price series analysis and asset selection. *Journal of Financial Markets*, 13(1), 1-23. <https://doi.org/10.1016/j.finmar.2009.07.002>
18. Quinn, B. (2023). Explaining AI in finance: Past, present, prospects. arXiv. <https://doi.org/10.48550/arXiv.2306.02773>
19. Königstorfer, F., & Thalmann, S. (2020). AI-driven financial services: Opportunities and challenges. *Journal of Financial Transformation*, 52, 78-89.
20. Choudhary, S., Sharma, A., Sharma, S., Sharma, A., & Sharma, R. (2023). Assessment of knowledge and awareness of artificial intelligence and its uses in dentistry among den-

- tal students in Jammu and Kashmir. *IP Indian Journal of Conservative and Endodontics*, 8(4), 210-214. <https://doi.org/10.18231/j.ijce.2023.040>
21. Kshetri, N. (2021). The role of artificial intelligence in promoting financial inclusion in developing countries. *Journal of Global Information Technology Management*, 24(1), 1-17. <https://doi.org/10.1080/1097198X.2020.1857478>
22. Belanche, D., Casaló, L. V., & Flavián, C. (2019). Artificial intelligence in FinTech: Understanding robo-advisors adoption among customers. *Industrial Management & Data Systems*, 119(7), 1411-1430. <https://doi.org/10.1108/IMDS-08-2018-0368>
23. Trippi, R. R., & DeSieno, D. (1992). Combining neural networks for trading system efficiency. *Financial Analysts Journal*, 48(6), 75-80. <https://doi.org/10.2469/faj.v48.n6.75>
24. Kercheval, A. N., & Zhang, Y. (2015). Supervised learning for trading systems. *Quantitative Finance*, 15(10), 1683-1698. <https://doi.org/10.1080/14697688.2015.1065276>
25. Esfahanipour, A., & Aghamiri, W. (2010). Dynamic stock market price variation and AI-based prediction. *International Journal of Financial Markets*, 2(3), 123-135.
26. Moradi, M., Salehi, M., & Najari, M. (2021). Non-linear relationships in stock prediction using AI techniques. *Journal of Financial Markets*, 55, Article 100614. <https://doi.org/10.1016/j.finmar.2020.100614>
27. Ghosh, P., & Kozarevic, E. (2018). Research on financial field integrating artificial intelligence: Application basis, case analysis, and SVR model-based overnight. *Journal of Financial Technology*, 1(2), 45-60.
28. Allam, Z., & Dhunny, Z. A. (2019). On big data, artificial intelligence and smart cities. *Cities*, 89, 80-91. <https://doi.org/10.1016/j.cities.2019.01.032>
29. Albayrak, A., Duran, F., & Bayir, R. (2021). Development and evaluation of a web-based intelligent decision support system for migratory beekeepers in Turkey. *Journal of Apicultural Research*, 60(3), 396-404. <https://doi.org/10.1080/00218839.2020.1844513>
30. Sharma, P., & Kaul, V. (2020). Political reorganization and its economic impact on J&K. *South Asian Journal of Economic Development*, 17(3), 321-337.