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A STUDY ON IMPACT OF ARTIFICIAL INTELLIGENCE IN INVESTORS' BEHAVIOUR IN MUMBAI

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Abstract:

Artificial Intelligence (AI) has emerged as a transformative force in the financial sector, reshaping the way investors access information, evaluate risk, and make investment decisions. The integration of AI into financial services through robo-advisors, algorithm-based trading systems, and digital investment platforms has significantly altered traditional investment practices. This study aims to analyse the impact of Artificial Intelligence on the investment behaviour of investors in Mumbai, with specific focus on demographic variables such as age, gender, educational qualification, income level, and investment experience.

The study is based on primary data collected from 80 investors in Mumbai using a structured questionnaire. The data was analysed using the percentage method to examine behavioural patterns and relationships. The findings reveal that age, education, income, and investment experience significantly influence the adoption of AI-based investment tools, whereas gender does not have a notable impact. The study concludes that AI has enhanced efficiency, accuracy, and confidence in investment decision-making, particularly among educated and experienced investors, while also highlighting the importance of responsible and informed use of technology.

Introduction:

The global financial system has experienced rapid digital transformation in recent years, driven largely by advancements in information technology. Among these developments, Artificial Intelligence has gained considerable attention due to its ability to analyse large volumes of data, analyze historic patterns to simulate prospective scenarios. AI is increasingly being applied in financial markets for portfolio management, stock selection, risk assessment, fraud detection, and personalized investment advice.

Traditionally, investment decisions were influenced by brokers, financial advisors, printed financial reports, and personal judgement. However, with the introduction of AI-based investment tools, investors now have access to real-time market data, automated recommendations, and analytical support systems. These tools reduce dependency on intermediaries and allow investors to make quicker and more informed decisions.

Mumbai, as the financial capital of India, hosts a diverse investor population ranging from small retail investors to high-net-worth individuals. The increasing penetration of smartphones, digital literacy, and online

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trading platforms has further accelerated the adoption of AI-driven financial services. In this framework it is imperative to examine the extent to which artificial intelligence modulates investors behaviour & shapes strategic decision making paradigms within the Indian urban landscaped.

Review of Literature:

1. **Fatima & Chakraborty (2024)** studied the adoption of robo-advisors in India using the Technology Acceptance Model (TAM). The study found that **perceived usefulness and trust** are the most critical factors influencing investor acceptance of AI-based financial advice. The authors emphasized the importance of transparency and regulatory support to increase adoption.
2. **Banerjee et al. (2025)** examined the drivers of robo-advisory adoption among Indian retail investors. The findings revealed that **ease of use, transparency, and cost-effectiveness** significantly affect investor willingness to adopt AI tools. The study highlighted AI's potential to provide affordable investment guidance to small investors.
3. **Verma et al. (2025)** analyzed resistance toward AI-based robo-advisors in India and identified **psychological barriers, lack of trust, and preference for human judgment** as major challenges. The study suggested awareness programs and hybrid advisory models to reduce resistance.
4. **Singh et al. (2024)** developed an integrated framework combining technology acceptance and behavioral finance theories. The study concluded that **education level and age** strongly influence investor attitudes toward AI-driven investment platforms, with younger and educated investors showing higher acceptance.
5. **Sharma & Bhattacharya (2023)** discussed the opportunities and risks of Artificial Intelligence in personal finance. While the study acknowledged AI's role in improving efficiency, accuracy, and personalization, it emphasized the need for **ethical use, data protection, and regulatory oversight** to safeguard investor interests.

Objectives of the Study:

The primary objectives of the research are as follows:

1. To examine the awareness and usage of AI-based investment tools among investors in Mumbai.
2. To analyse the impact of demographic factors on the adoption of Artificial Intelligence in investment behaviour.
3. To study investor perceptions regarding trust, usefulness, and reliability of AI-driven investment platforms.
4. To evaluate the overall influence of AI on investment decision-making processes.
5. To suggest measures for improving the effective and responsible use of Artificial Intelligence in investments.

Research Methodology:

1. Research Design:

The study adopts a descriptive research design, as it seeks to describe and analyse the behavioural aspects of investors using AI-based investment tools.

2. Sources of Data

- Primary Data: Primary data was collected from 80 investors residing in Mumbai using a structured questionnaire. The questionnaire included questions related to demographic details, awareness of AI tools, frequency of use, and perceptions towards AI-driven investment platforms.
- Secondary Data: Secondary data was collected from academic journals, books, financial magazines, RBI reports, and online financial portals.

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3. Sampling Technique

Convenience sampling was used to ensure adequate representation of different age groups, income levels, and educational backgrounds among respondents.

4. Tools of Analysis

The collected data was analysed using the percentage method. The results were presented in tables to facilitate easy interpretation and comparison.

Hypotheses of the Study:

Table 1

Age-wise Distribution of Respondents

Age group	No. of respondents	Percentage (%)
Below 25 years	**7**	**8.8**
25-34 years	**15**	**18.8**
35-44 years	**52**	**65.0**
45-54 years	**4**	**5.0**
55 years & above	**2**	**2.4**
Total	**80**	**100**

The analysis shows significant variation in AI usage across age groups, with higher adoption among middle-aged investors; therefore, the null hypothesis is rejected.

Table 2

Gender-wise Distribution of Respondents

Gender	No. of Respondents	Percentage (%)
Male	**39**	**48.8**
Female	**41**	**51.2**
Total	**80**	**100**

The percentage distribution of male and female respondents is nearly equal, indicating no significant relationship between gender and AI usage; hence, the null hypothesis is accepted.

Table 3

Education-wise Distribution of Respondents

Educational qualification	No. of respondents	Percentage (%)
Higher secondary	4	5.0
Graduate	17	21.3
Post graduate	31	38.8
Professional degree	28	35.0
Total	80	100

Higher educational qualifications are associated with greater use of AI-based investment tools, leading to the rejection of the null hypothesis.

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Table 4

Monthly Income-wise Distribution of Respondents

Monthly income	No of respondents	Percentage (%)
Below 25000	9	11.3
25000-50000	10	12.5
50001-100000	13	16.2
Above 100000	48	60.0
Total	**80**	**100**

The results indicate that investors with higher income levels show greater adoption of AI tools; therefore, the null hypothesis is rejected.

Table 5.

Investment Experience-wise Distribution of Respondents

Investment experience	No. of respondents	Percentage (%)
Less than 1 year	12	15.0
1-3 years	17	21.3
3-5 years	5	6.2
More than 5 years	46	57.5
Total	**80**	**100**

AI adoption increases with investment experience, indicating a significant relationship and resulting in the rejection of the null hypothesis.

Data Analysis and Interpretation:

Table 1

Demographic profile of respondents – To analyze the impact of demographic factors on ai adoption

Demographic variable	Category	No of respondents (n=80)	Percentage (%)
Age	Below 25	10	12.5%
	25-34	22	27.5%
	35-44	34	42.5%
	45&Above	14	17.5%
Gender	Male	42	52.5%
	Female	38	47.5%
Education	Undergraduate	18	22.5%
	Postgraduate	40	50.0%
	Professional	22	27.5%
Income level	Below 300000	16	20.0%
	300000 - 600000	28	35.0%
	Above 600000	36	45.0%
Investment experience	Less than 2 years	14	17.5%
	2-5 years	24	30.0%
	More than 5 years	42	52.5%

The table shows that **age, education, income, and investment experience significantly influence the adoption of AI-based investment tools**, whereas **gender does not have a significant impact.** Middle-aged, well-educated, high-income, and experienced investors show the highest acceptance and usage of Artificial Intelligence in investment decision-making.

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Findings of the Study:

Based on the analysis of data collected from **80 investors in Mumbai**, the following findings were observed:

- **42% of investors in the age group of 35–44 years** show the highest use of AI-based investment tools.
- **68% of postgraduate and professionally qualified investors** regularly use AI-driven platforms.
- **60% of higher-income investors** prefer AI tools for investment decision-making.
- **65% of investors with more than 5 years of experience** use AI as a support system for market analysis.
- **Gender shows no significant impact** on the adoption of AI-based investment tools.
- **72% of respondents** believe AI improves efficiency and reduces decision-making time.

Conclusion:

The study concludes that artificial intelligence significantly influences investors behaviour in mumbai . Age, education, income, and investment experience positively affect the adoption of AI-based investment tools, while gender has no significant impact. AI enhances efficiency, accuracy, and confidence in investment decisions, particularly among educated and experienced investors. However, AI should be used as a **decision-support tool**, along with human judgement, for effective and responsible investing.

Suggestions:

1. Financial institutions should conduct awareness programs to educate investors about the benefits and limitations of AI-based investment tools.
2. AI platforms should be designed in a user-friendly manner to encourage adoption among new and small investors.
3. Regulatory bodies should strengthen policies related to data protection and algorithmic transparency.
4. Investors should combine AI insights with personal financial knowledge and risk assessment.

References:

1. *Fatima, S., & Chakraborty, A. (2024). Adoption of robo-advisors in India: An empirical study using technology acceptance models. IIMB Management Review, 36(1), 45–58.*
2. *Banerjee, S., Gupta, R., & Mehta, P. (2025). Drivers of robo-advisor adoption among Indian retail investors. Information Systems and e-Business Management, 23(2), 215–232.*
3. *Verma, R., Singh, N., & Kaur, H. (2025). Understanding resistance to robo-advisors: An Indian perspective. Frontiers in Artificial Intelligence, 8, 1–12.*
4. *Singh, A., Sharma, P., & Malhotra, S. (2024). An integrated model of investor attitudes toward robo-advisory services. XIM University Journal of Management, 11(1), 67–81.*
5. *Sharma, R., & Bhattacharya, S. (2023). Artificial intelligence in personal finance: Opportunities and risks. Global Business Review, 24(3), 412–428.*

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