Implementation of AI in Share Market for the Continence of Indian Investors

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Implementation of AI in Share Market for the Continence of Indian Investors

Shreeram Sundararajan[1] and J. Srinivasanarayanan[2]

Abstract

AI is revolutionizing the capital markets, leading the second wave of innovation infinance. Before AI, traders relied on stock analysts and media coverage for investment decisions. The rise of online trading platforms democratized the sector, eliminating high brokerage fees. Now, AI-powered trading platforms use advanced algorithms to analyze and predict stock market movements, providing valuable insights for investors.

Keywords: Trading, Stock market, Technology, Investors, Investment

INTRODUCTION:

According to an industry player, “Artificial intelligence is to be trading what fire was to cavemen.” In other words, AI stock trading has been a game-changer for modern investors. AI’s inception in the stock market started on a theoretical level back in the 1960s. A book called “Probability and Statistics for BusinessDecision.” The fallout from its publication saw an increase in popularity regarding research in the domain of statistics in the business world. On a practical level, the 1980s saw the growth of artificial neural networks and fuzzy systems, both of whichwere to be incorporated to give financial tools better predictive power. Another tool was developed by Arthur D. Little Inc. and Chase Lincoln First Bank around the same time that ran on AI. This system was able to carry out debt, retirement, education, life insurance, and investment planning, in addition to budgetrecommendations, income tax planning, and wealth achievement for other financialgoals.

[1] Student, Department of Accounting and Finance, Ramakrishna Mission Vivekananda College, Evening College (Autonomous), Mylapore, Chennai-600004.
[2] Student, Department of Accounting of Finance, Ramakrishna Mission Vivekananda College, Evening College (Autonomous), Mylapore, Chennai-600004.

LITERATURE REVIEW:

Alberto Antonio Agudelo Aguirre, Ricardo Alfredo Rojas Medina, and Néstor Darío Duque Méndez (2020) have used of tools such as genetic algorithms have not been exploited since forecast asset prices regardless of their strength, robustness, and application potential in Stock market. This article is intended to fill in the gaps in the literature on the use of Genetic algorithms to predict asset valuations of equity investment strategies market and study its advantages over the traditional Buy & Hold and technical analysis of its peers. The Genetic Algorithm Strategy applied to MACD has been implemented in two different validation stages and find ways to optimize the parameters generated buy-sell signal. Performance between machine learning-based approaches,

Shuhadah Othman, Etienne Schneider (2010) presents the use of fuzzy if-then rules for a stock market decision support system. The following three language variables will be the input to the rule: expert view, earnings — per share and price/earnings ratio. The purpose of this rule is to help investors make decisions about their stocks. Investors need to make the right decisions to get high profits in stock trading. The stock market is a complex environment. Therefore, the use of this fuzzy logic (FL) artificial intelligence (AI) application both simplifies and benefits investors. Most previous studies suggest that FL can function in the stock environment.

Ariel K. H. Lui, Maggie C. M. Lee, E. Ngai (2021) has recently gained popularity and attention, interest and investment in AI has also increased rapidly. However, the impact of AI on business value is rarely discussed. Based on 119 announcements from 62 listed companies that have invested in AI, this study shows that investing in AI has a negative impact on the market value of companies. The company's share price fell 1.77% on the day of the announcement. Non-manufacturing companies and companies with weak information technology capabilities or poor credit ratings are more negatively affected than other companies. The results show that investors consider AI investment announcements as unwelcome news for the majority of companies. Next, the characteristics that influence shareholder response to AI adoption are presented. This study provides some of the first empirical evidence on the market value of AI and provides a benchmark for companies looking to invest in AI.

STATEMENT OF THE PROBLEM:

The challenge is to help Indian investors efficiently process and analyze the overwhelming amount of data about the stock market, including historical prices, news, financial reports and sentiment, to make informed choices. timely and wise investment. Investors in the Indian stock market grapple with navigating its inherent volatility, creating uncertainties around optimal investment timing and portfolio management.

Effective risk assessment and management is essential to investing; however, Indian investors often lack the necessary tools to assess risk levels and apply strategies, which increases the risk of losses significantly. Cognitive biases, including fear, greed, and herd tendencies, can influence investor decision-making, leading to irrational choices and ultimately underperformance optimal level.

OBJECTIVES OF THE STUDY

1. To study the existing AI technologies and methods applied to the stock market by the Indian investors.
2. To analyze the potential benefits of implementing AI, including improved accuracy of data analysis, improved prediction of market trends, better risk management, and reduction of behavioral biases.
3. To examine Assess the feasibility of integrating AI solutions into the existing infrastructure of the Indian stock market ecosystem, taking into account technological requirements, regulatory aspects and investor preferences invest.
4. To suggest the future strategies and recommendations for effective implementation of AI in the stock market for Indian investors, including data processing, trend prediction, risk mitigation, behavioral biases risk management and automated trading.

ANALYSIS AND INTERPRETATION

TABLE 1: Combine education and the right trading strategies to make informed investment decisions

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.015035	3	1.005012	0.00311	0.00598472	1.598061
Within Groups	76.42727	48	1.592235			
Total	79.44231	51				

INTERPRETATION

H_0: There is no significant relationship between combining education and utilizing tailored trading strategies in influencing investment decisions.

H_1: There is a significant relationship between combining education and utilizing tailored trading strategies in influencing investment decisions

From the above table, the significant value of P is less than 0.05 so accept the null hypothesis and reject the alternative hypothesis. Hence, There is no significant relationship between combining education and utilizing tailored trading strategies in influencing investment decisions.

Table 2: Occupational Dynamics and Leveraging Tailored Trading Strategies for Optimized Investment Outcomes

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.680817	2	0.840409	0.48335	0.00236	1.186582
Within Groups	27.76149	49	0.566561			
Total	29.44231	51				

INTERPRETATION:

H_0: There is no significant relationship between occupational dynamics and the effectiveness of leveraging tailored trading strategies in influencing investment outcomes.

H_1: There is a significant relationship between occupational dynamics and the effectiveness of leveraging tailored trading strategies in influencing investment outcomes.

From the above table, the significant value of P is less than 0.05 so accept the null hypothesis and reject the alternative hypothesis. Hence, there is no significant relationship between occupational dynamics and the effectiveness of leveraging tailored trading strategies in influencing investment outcomes.

Table 3: Revolutionizing Investment Strategies: Harnessing AI for Enhanced Efficiency and Performance

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.286713	3	0.762238	0.0878737	0.00458762	1.798061
Within Groups	41.63636	48	0.867424			
Total	43.92308	51				

INTERPRETATION:

HO: There is no significant relationship between the utilization of AI for investment strategies and the enhancement of efficiency and performance.

H_1: There is a significant relationship between the utilization of AI for investment strategies and the enhancement of efficiency and performance.

From the above table, the significant value of P is less than 0.05 so accept the alternative hypothesis. Hence, there is no significant relationship between the utilization of AI for investment strategies and the enhancement of efficiency and performance.

Table 4: "Occupational Profiling and Personalized Investment Portfolios: Leveraging AI-Driven Platforms for Tailored Financial Growth"

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.184998	2	0.092499	0.069846	0.03263	1.186582
Within Groups	64.89193	49	1.324325			
Total	65.07692	51				

INTERPRETATION

H0: There is no significant relationship between an individual's occupation and the effectiveness of AI-driven platforms in analyzing investor data to create personalized investment portfolios.

H1: There is a significant relationship between an individual's occupation and the effectiveness of AI-driven platforms in analyzing investor data to create personalized investment portfolios.

From the above table, the significant value of P is less than 0.05 so accept the null hypothesis and reject the alternative hypothesis. There is no significant relationship between an individual's occupation and the effectiveness of AI-driven platforms in analyzing investor data to create personalized investment portfolios.

FINDINGS

1. There is no factors that influence between combining education and utilizing tailored trading strategies in influencing investment decisions.
2. The occupational dynamics and the effectiveness of leveraging tailored trading strategies in influencing investment outcomes with innovative ideas.
3. The utilization of AI for investment strategies and the enhancement of efficiency and performance of shares in market
4. The individual's occupation and the effectiveness of AI-driven platforms in analyzing investor data to create personalized investment portfolios

SUGGESTIONS

1. AI's sentiment analysis counters bias by offering objective insights into news and market sentiment, enabling fact-based decisions for investors.
2. AI's sentiment analysis counters bias by offering objective insights into news and market sentiment, enabling fact-based decisions for investors.
3. Foster collaboration with regulators to establish stock market AI guidelines that harmonize

innovation with investor protection, ensuring ethical and responsible AI implementation.

4. Promote continuous research and development to enhance AI algorithms, predictive models, and risk assessment tools, ensuring their alignment with evolving market dynamics and adaptability to changing conditions.

CONCLUSION

The implementation of AI in the Indian stock market has shown promising results in improving convenience for investors. Through improved data analytics, predictive analytics, risk management, behavioral bias reduction and automated trading, AI technologies have empowered Indian investors to make strategic decisions. more effective and wise investment strategies. While challenges such as regulatory considerations and ethical issues need to be addressed, AI integration has the potential to transform the stock market landscape, making it more accessible, efficient and effective. and beneficial to the wealth growth of Indian investors.

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QUESTIONNAIRE:

SECTION 1: Demographics
Description (optional)

1. NAME:
*
2. GENDER:
*

- Male
- Female
- Prefer not to say

3. AGE:
*

18-25
26-35
36-45
46-55
Above 55

4. EDUCATION:
*

Senior secondary
Higher secondary
Under Graduation
Post Graduation

5. OCCUPATION:
*

Student
Employed
Unemployed

SECTION 2: INVESTORS PERCEPTION ON IMPLEMENTATION OF AI IN SHARE MARKET.

1.Do you agree with implementation of AI in share market.
*

Strongly agree
Agree
Neutral
Strongly disagree
Disagree

2. AI can analyze real-time market performances. Do you agree with this statement?
*

Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

3. AI can save time and improve investment strategies. Do you agree with this opinion?
*

Strongly agree
Agree
Neutral
Strongly disagree
Disagree

4. Tailored trading strategies can enhance investment outcomes.
*

Strongly agree

Agree
Neutral
Strongly disagree
Disagree

5. AI-driven platforms can analyze investor data to create personalized investment portfolios.
*

Strongly agree
Agree
Neutral
Disagree
Strongly Disagree

6. AI can analyze news, social media, and market data to gauge market performance and its impact on stock prices.
*

Strongly agree
Agree
Neutral
Strongly disagree
Disagree

7. AI-powered chatbots can answer basic queries about stock prices and market trends.
*

Strongly agree
Agree
Neutral
Strongly disagree
Disagree

8. AI-powered trading algorithms be developed to optimize trades and minimize risks for Indian investors.
*

Strongly disagree
Disagree
Neutral
Agree
Strongly agree

9. AI be used to detect and prevent fraudulent activities, such as pump-and-dump schemes, in the Indian stock market.
*

Strongly disagree
Disagree
Neutral
Agree
Strongly agree

10. What is your opinion on implementing AI in share market write your review below?

***