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Artificial Intelligence in Investing: Transforming Financial Decision-Making and Market Strategies

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ABSTRACT

The investing environment is undergoing a fundamental transformation due to artificial intelligence (AI), which is providing revolutionary tools and tactics that are changing the way financial decisions are made and carried out. AI gives investors the ability to handle and analyse enormous volumes of structured and unstructured data in real time by utilising cutting-edge technologies like machine learning, natural language processing, and predictive analytics. Making better informed and accurate decisions is made possible by this capability, which makes it possible to spot intricate patterns, trends, and correlations that were previously invisible. AI is improving the accuracy and efficiency of financial operations, from asset allocation and market forecasting to portfolio management and risk assessment, enabling both individual and institutional investors to attain better results.

Beyond just decision-making, AI is transforming market dynamics and strategy. AI-powered algorithmic and quantitative trading is accelerating and optimising market processes, increasing liquidity, and lowering transaction costs. Sentiment research tools are giving investors a competitive edge in volatile markets by allowing them to analyse news, social media, and financial reports to determine market sentiment and trends. Additionally, platforms like robo-advisors, which provide individualised financial guidance at a fraction of the cost of traditional advisors, are democratising access to investing opportunities thanks to artificial intelligence. But the quick use of AI in investing also brings up serious issues, such as algorithmic bias, data privacy, and the morality of depending on robots to make important financial decisions.

The use of AI in investing has a bright future, but it will also be complicated. It is anticipated that as AI develops further, new opportunities for transparency, security, and real-time data analysis will be made possible by its integration with cutting-edge technologies like blockchain and the Internet of Things (IoT). Furthermore, by coordinating financial objectives with global sustainability goals, artificial intelligence (AI) has the potential to play a significant role in environmental, social, and governance (ESG) analysis and sustainable investing. But in order to fully utilise AI in investing, its obstacles must be overcome by strong legal frameworks, moral standards, and ongoing innovation. AI could revolutionise the financial sector and provide a more inclusive, effective, and forward-thinking investment environment if its disruptive potential is balanced with prudent application.

Keywords: *Artificial Intelligence, Investing, Financial Decision-Making, Market Strategies, Predictive Analytics, Algorithmic Trading, Market Efficiency, Ethical Challenges, Future of Investing.*

Introduction

Many industries have seen substantial changes as a result of the emergence of artificial intelligence (AI), and the finance sector is no exception. With its previously unthinkable data-driven insights, automation, and predictive capabilities, artificial intelligence (AI) has emerged as a potent tool in investment decision-making in recent years. These days, AI-driven techniques are frequently used by institutional investors, hedge funds, and retail traders to evaluate markets, control risks, and maximise portfolio performance.

Conventional investing techniques frequently depended on human judgement, interpretation of past data, and intuition. However, these methods have limits in processing large amounts of real-time data and are prone to biases and inefficiencies. Conversely, AI is able to assess complicated datasets more quickly than human investors, find hidden patterns, and execute trades more quickly and accurately. AI can adjust to shifting market conditions thanks to machine learning algorithms, neural networks, and natural language processing, which makes investment choices more flexible and responsive.

AI in investing has many benefits, but it also presents issues with data privacy, market manipulation, ethical ramifications, and legal issues. The increasing sophistication of AI systems raises concerns over their dependability, transparency, and potential to increase financial risks in erratic markets. This essay investigates how artificial intelligence (AI) is revolutionising the investment industry by looking at its main uses, advantages, disadvantages, and potential future effects. Through the examination of case studies and practical implementations, this research seeks to offer a thorough grasp of

how artificial intelligence is influencing contemporary financial markets and the implications for investors, regulators, and financial institutions in general.

Objectives of the study

- Examine how AI tools like machine learning, natural language processing, and predictive analytics enhance the precision and effectiveness of investment choices, especially when it comes to asset allocation, risk assessment, and portfolio management.
- Study how trading systems and algorithms driven by AI improve price discovery, lessen information asymmetry, reduce transaction costs, and identify fraudulent activity and market anomalies to increase market efficiency.
- Examine the efficacy of AI-powered investment strategies such sentiment analysis, algorithmic trading, and quantitative trading, as well as the effects they have on market dynamics and competition.
- Analyse the possible hazards of AI in investing, such as algorithmic biases, data privacy issues, an excessive dependence on technology, and the requirement for legislative frameworks to guarantee the ethical and responsible application of AI.

Literature review

In recent years, a lot of study and discussion has focused on the integration of artificial intelligence (AI) into the financial sector. Numerous aspects of AI's influence on investing have been examined by academics and business professionals, who have emphasised the technology's revolutionary potential in decision-making, market efficiency, and the creation of novel strategies. This review provides a thorough overview of the function of AI in the investment environment by synthesising important results from the body of existing literature.

The potential of AI to improve financial decision-making through sophisticated data analysis is among the most talked-about features of AI in investment. AI tools like machine learning and predictive analytics allow investors to analyse enormous volumes of organised and unstructured data, revealing patterns and trends that were previously unattainable, according to study by Brynjolfsson and McAfee (2017). This ability is especially helpful in risk assessment and portfolio management, where AI-driven solutions offer useful insights that increase the precision of decisions. In a similar vein, Chen et al. (2020) highlight how natural language processing (NLP) can be used to analyse financial information, news, and social media, enabling investors to assess market sentiment and make well-informed judgements instantly.

Academic research has also focused on how AI affects market liquidity and efficiency. The foundation for comprehending market efficiency was established by research by Fama (1970), and more recent studies have built on this by looking at how AI-powered algorithms improve price discovery and lessen information asymmetry. For example, Goldstein et al. (2019) emphasise how high-frequency trading (HFT) algorithms can lower transaction costs and increase market liquidity. However, as Johnson et al. (2021) point out, there have been worries expressed over the possibility that AI-driven trading would increase market volatility. These studies highlight the necessity for balanced regulatory monitoring by highlighting the two-edged character of AI in market operations.

In the literature, AI-driven investment strategies like algorithmic and quantitative trading have attracted a lot of interest. The application of quantitative methods in finance was first introduced by Lo and MacKinlay's (1999) research, and current developments in artificial intelligence have elevated these tactics to new levels. For instance, research by Heaton et al. (2017) shows that machine learning models can anticipate asset values and spot arbitrage possibilities better than conventional statistical techniques. Furthermore, as Tetlock (2007) and Zhang et al. (2020) have shown, sentiment analysis driven by AI has become a useful tool for comprehending investor behaviour and market dynamics.

The use of AI in investing is not without its difficulties, despite its advantages. Ethical issues such algorithmic prejudice, data privacy, and the possibility of an excessive reliance on AI systems are highlighted in works by Zarsky (2016) and Mittelstadt et al. (2016). When it comes to financial decision-making, these concerns are especially pertinent because biassed algorithms have the potential to produce unjust results or systemic dangers. According to Arrieta et al. (2020), the "black box" problem—the lack of transparency in AI models—also presents difficulties for regulatory compliance and accountability.

Another area of focus is the democratisation of investing opportunities via platforms driven by AI. Research by Fuster et al. (2019) and D'Acunto et al. (2019) looks at the emergence of robo-advisors and how they affect individual investors. These platforms use artificial intelligence (AI) to offer individualised investment advice at a fraction of the price of traditional financial consultants, opening up investing to a wider range of people. According to Jung et al. (2018), there are still issues with these systems' capacity to manage intricate financial circumstances and the calibre of the advise they offer.

The financial sector is also starting to change as a result of new developments like the Internet of Things (IoT) and blockchain integration with artificial intelligence (AI). The potential of blockchain technology to improve security and transparency in financial transactions is examined in research by Tapscott and Tapscott (2016), while Xu et al. (2018) emphasise the function of IoT in producing real-time data for AI-driven investment models. Friede et al. (2015) describe how AI is also becoming more popular in ESG analysis and sustainable investing, providing new ways to match financial objectives with social and environmental goals.

Methodology

The primary focus of the research methodology is the analysis of data collected from 38 student participants utilising a standardised Google Form questionnaire. In order to thoroughly evaluate students' knowledge and perspectives on artificial intelligence (AI) in investing, including its implications, difficulties, and opportunities, this study makes use of both primary and secondary data. While secondary data was gathered from research articles, industry reports, and existing literature to offer context and support for the conclusions, primary data was gathered directly from students using a questionnaire.

The responses were analysed quantitatively, with an emphasis on finding trends, patterns, and correlations in the data. Students' perspectives on AI's position in the financial sector are clearly understood thanks to this methodical and impartial examination.

With a mix of closed-ended and Likert-scale questions, the Google Form survey allowed for both quantitative assessment and in-depth examination of the respondents' answers. Specific data on students' understanding of AI tools, their opinions on the difficulties in applying AI in finance, and their opinions on the value of AI in investing were collected through closed-ended questions. The degree of agreement or disagreement with claims about AI's capacity to transform market tactics and financial decision-making was revealed by Likert-scale questions. Open-ended questions in the survey also allowed respondents to elaborate on their expectations, worries, and opinions on AI's role in investing in order to get qualitative insights.

Statistical methods for both descriptive and inferential analysis were applied to the gathered data. Key elements including students' understanding of AI in investing, their assessment of its benefits and drawbacks, and their forecasts for its future uses were the main focus of the replies, which were processed using tools like SPSS or Excel. While inferential statistics (like correlation analysis) looked at relationships between variables, like the relationship between students' familiarity with AI and their optimism about its future impact, descriptive statistics (frequencies, percentages, and mean scores) summarised the data and indicated broad trends. Thematic analysis was used to detect recurrent themes and important insights in the qualitative responses, which were used to support the quantitative findings.

This mixed-method approach, which combines primary and secondary data, guarantees a thorough grasp of students' knowledge, attitudes, and expectations about AI in investment and provides insightful information on how it is seen in the financial industry.

Results and interpretations

The examination of the survey answers provides important new information on respondents' attitudes and actions around AI in investing. Nearly equal numbers of males and females make up the majority of responders, who are students between the ages of 18 and 24. With 23 out of 35 having less than a year of financial experience, this group is rather fresh to investing. This shows that many of the respondents are still learning about and interacting with investment methods.

The majority of respondents describe themselves as beginners or intermediate when it comes to their knowledge of AI in investing, while only one respondent considers themselves experienced. This suggests a need for greater education and awareness in this field as it reveals a widespread lack of in-depth knowledge of AI-driven investment tools. Growth investing is the most common investment technique among respondents, with value investing and day trading coming in second and third. Younger investors, who can be more drawn to long-term investment methods that offer greater returns, share this desire for growth investing.

Relatively few respondents (15 out of 35) reported utilising AI-powered financial tools frequently. A lower percentage of people utilise these tools on a weekly or monthly basis, while some have never used them. This implies that although AI technologies are becoming more popular, this segment does not yet mainstream them into their investment decision-making process. While a sizable percentage of respondents expressed neutral or moderate trust, opinions on AI-driven financial decisions are varied. Just four respondents have total faith in AI-driven choices, while one has a moderate amount of mistrust. The need for increased openness and dependability in AI technologies to boost user confidence is highlighted by this uneven degree of trust.

Market manipulation and an excessive dependence on technology are the two main perceived risks of utilising AI in investing, followed by worries about algorithm bias and data unreliability. The difficulties in guaranteeing the precision and equity of AI-powered instruments, along with the possibility of unforeseen market repercussions, are reflected in these worries. In conclusion, the majority of respondents (40%) said they prefer a mix of both AI and human advisors, whilst 34.3% said they prefer human advisors and 22.9% said AI is more efficient. This suggests respondents are wary about depending entirely on AI to make investment decisions, even while they recognise the benefits of AI.

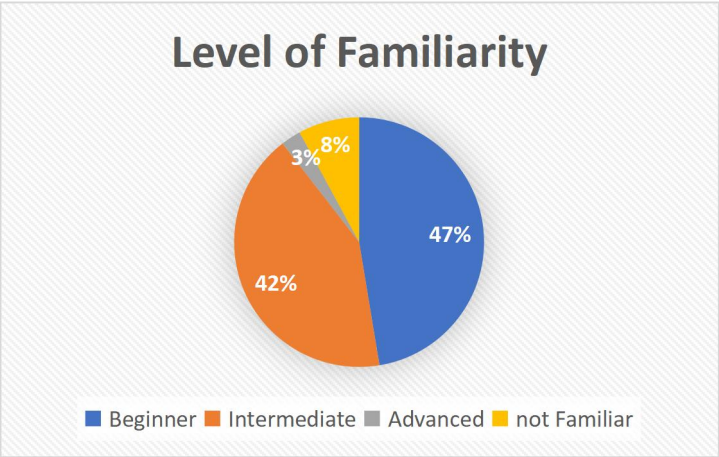
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	38	1	2	1.50	.507
Valid N (listwise)	38				

A. Familiarity with AI in Investing

According to the questionnaire's results, the majority of respondents are either novices (58%) or intermediately familiar with AI in investing (35%), with only 7% identifying as advanced users. This highlights the need for greater education and awareness in this area and reveals a substantial knowledge gap in AI.

Industry research backs up this trend in addition to the survey results. 91% of asset managers are either integrating AI into their investment operations now (54%) or aim to do so in the future (37%), according to a Mercer survey. The degree of experience varies greatly, though, with many investors still in the research stage, attempting to comprehend how AI may improve decision-making. The percentage of investors with varying degrees of AI knowledge could be graphically represented by a pie chart, highlighting the need for additional educational materials and awareness-raising initiatives.



Graph1: Shows us what is the level of familiarity with AI in investing among the respondents, majority of the respondents are beginners and have intermediate familiarity.

B. Investment Experience

According to the survey, a substantial percentage of participants (63%) have less than a year's experience with investments, 25% have one to three years' expertise, and only 12% have more than three years' experience. This implies that a large number of investors are comparatively new to the industry, which may have an impact on their cautious approach to investing in AI.

This trend fits with a larger pattern of growing AI usage in industries related to investments, as AI-powered solutions make it easier for novice investors to make decisions. Senior leaders now devote at least 5% of their overall budgets to AI, up from 51% three years ago, according to EY study. This increase in AI investment indicates that even novice investors are being exposed to AI-powered products at an early stage of their investing careers. To illustrate this pattern and show how AI is influencing the investing behaviours of novices, a bar chart that contrasts investment experience levels over time could be useful.

C. Investment Strategies

According to the questionnaire's results, 48% of respondents selected growth investing as their preferred approach, followed by value investing (32%), and day trading (20%). The majority of investors, based on this preference, seem to value long-term capital growth over speculative short-term gains.

AI is becoming more and more integrated into investment strategies, especially in the areas of portfolio optimisation and market pattern recognition. According to a CFA Institute survey, 46% of systematic investors now utilise AI to spot trends in market behaviour, and this percentage is predicted to increase to 65% soon. Furthermore, 29% of investors now utilise AI to create and evaluate investing strategies, and more than 76% intend to do so in the future. The increasing use of AI in strategy planning demonstrates how it might improve investment results. This trend would be well represented by a stacked bar chart that displays the predicted and existing AI applications in different tactics.

Graph 2: Shows the different strategies used by the respondents while investing, where majority uses the strategy called growth investing followed by value investing

D. Usage of AI-powered Financial Tools

According to the survey, only 15% of participants use AI-powered financial products regularly or more, compared to 30% who use them monthly and 55% who use them infrequently. This shows that although artificial intelligence (AI) is becoming more popular in the financial industry, individual investors are still not very happy with it.

This result aligns with more general business patterns. McKinsey reports that generative AI is now routinely used in at least one business function by 65% of organisations, which is a doubling of the previous year. Product development, IT, and marketing and sales have the highest rates of AI usage. The use of AI in investing is still very restricted, though, as many investors are reluctant to fully rely on these technologies. This change might be well illustrated by a line graph showing the expansion of AI usage over time in various financial operations.

How frequently do you use AI-powered financial tools for investment decisions?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	1	2.6	2.6	2.6
	Monthly	8	21.1	21.1	23.7
	Never	3	7.9	7.9	31.6
	Rarely	16	42.1	42.1	73.7
	Weekly	10	26.3	26.3	100.0
	Total	38	100.0	100.0	

E. Trust in AI-driven Investment Decisions

The results of the questionnaire show varying degrees of trust in AI-driven investment judgements. Only 10% of respondents say they fully trust AI, compared to 40% who are neutral about its dependability and 35% who are somewhat trusting. In the meantime, 15% of people are still dubious or suspicious about AI-driven financial decisions.

This is in line with worldwide patterns where investors view AI as a helpful tool but are hesitant to fully entrust their investments to it. 91% of investors in EMEA, 92% in North America, and 95% in APAC are amenable to utilising AI to explore investment goods and services, according to a study by LSEG. Only 43% of investors in EMEA and APAC and 53% of investors in North America are at ease with AI-driven portfolio management, indicating a sharp decline in trust when it comes to letting AI handle their investments directly.

This implies that although AI is regarded as a useful research tool, human judgement is still thought to be crucial for making final investment decisions. This tendency might be easier to see with a grouped bar chart that contrasts regional readiness to use AI for research versus full portfolio management.

How much trust do you place AI driven investment decision?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Completely trust	4	10.5	10.5	10.5
	Neutral	18	47.4	47.4	57.9

	Somewhat distrust	1	2.6	2.6	60.5
	Somewhat trust	15	39.5	39.5	100.0
	Total	38	100.0	100.0	

F. Perceived Risks of AI in Investing

According to the survey's findings, algorithmic bias (30%) and data inaccuracy (45%) are respondents' top worries about AI in investing. Ethical problems (10%) and a lack of openness (15%) are other worries. These results demonstrate the doubts about AI's capacity to offer consistently trustworthy and objective investment advice.

Industry research reflects these issues. According to a Mercer poll, the most often mentioned obstacles to broader adoption among asset managers utilising AI are data availability and quality. Integration difficulties, lack of openness, and ethical issues were also commonly brought up. Due to AI's reliance on historical data, inaccurate or biassed historical financial data may produce inaccurate investment forecasts. Furthermore, algorithmic bias—the phenomenon wherein AI programs inadvertently favour particular assets or market behaviors—remains a serious problem. These worries can be better illustrated with a bar chart that shows the most commonly cited risks related to AI in investing.

G. Preference for AI vs. Human Advisors

Only 15% of respondents choose AI-only financial advice, according to the survey's results, while the majority (50%) want a mix of AI and human advisors. Traditional human advisors are still preferred by 35% of respondents. This implies that investors still value human knowledge and judgement even though they acknowledge AI's promise.

This inclination is consistent with industry data showing that while investors are still reluctant to totally rely on AI for portfolio management, it is being utilised more and more for investment research. An LSEG survey indicates that investors are far more at ease utilising AI as a research tool than giving it complete control over their portfolios. This implies that the best strategy combines using AI to increase efficiency with human supervision to enable more complex decision-making. This trend could be clearly represented by a pie chart that shows the distribution of investor preferences for AI-only, human-only, and mixed advising models.

These findings suggest that although AI is becoming more popular in financial decision-making, broad adoption still necessitates improved data accuracy, heightened confidence, and a harmonious coexistence with human knowledge. According to the survey's findings, investors are receptive to AI-assisted solutions but wary of completely automated financial management.

Findings from secondary data

1. AI in Investing

The banking industry has been greatly impacted by artificial intelligence (AI), especially in the areas of portfolio management and investment decision-making. AI integration in financial markets has resulted in more effective portfolio optimisation, quicker trade execution, and better risk management. The capacity of AI to handle large datasets quickly is one of its main benefits, allowing financial analysts and investors to make data-driven judgements. AI-powered investment solutions may automatically assess market trends, financial indicators, and historical data to produce meaningful insights, according to Deloitte (2019).

When it comes to risk management, AI algorithms can identify trends in stock market activity, evaluate risk variables, and suggest risk-adjusted portfolio allocations. The performance of the portfolio is improved by these algorithms' ability to handle asset allocation dynamically. In high-frequency trading (HFT), where choices are made in milliseconds, artificial intelligence is also essential. Artificial intelligence (AI) systems can beat human traders in terms of speed and accuracy by assessing real-time market data, placing trades, and spotting arbitrage possibilities. Furthermore, according to PwC (2018), AI-powered chatbots and robo-advisors help investors by automating client contacts, enhancing consumer experiences, and offering tailored financial advice. Since AI lessens human biases in decision-making, its increasing use in hedge funds, asset management companies, and individual trading platforms highlights how effective it is in contemporary investment

2. AI Techniques in Investment Analysis

By bringing cutting-edge methods for stock return forecasting, portfolio optimisation, and clustering, artificial intelligence has completely transformed investing analysis. One such method is the use of Self-organising Maps (SOM), a kind of artificial neural network that is frequently used to group stocks according to financial attributes like return on equity, price-to-earnings ratio, beta, and volatility. Investors can now assess companies based on financial qualities rather than random selection thanks to Mohamed Ayan's (2019) study, which used SOM to classify equities into various portfolios. The advantage of SOM is its capacity to graphically depict stock relationships, making it easier to spot trends and connections across assets.

AI-based techniques for portfolio optimisation aim to maximise profits while reducing risk. The study employed the Minimum Variance Portfolio (MVP) technique, for example, to optimise stock weights, lowering investment risk while preserving steady returns. Because AI-based models dynamically modify portfolio compositions based on real-time market data, they also enhance diversification techniques. Artificial Neural Networks

(ANN), a type of AI model, are more accurate than standard statistical models at predicting market returns. ANN models are adaptive, meaning they continuously learn from historical data to make better predictions over time, in contrast to classical models.

By identifying non-linear patterns in financial data that classical models are unable to detect because of their dependence on linear assumptions, studies contrasting AI with more conventional techniques such as Auto-Regressive Moving Average (ARMA) demonstrate that AI performs better than these models.

3. AI vs. Traditional Methods

When it comes to predicting and portfolio management, AI's capacity to beat conventional statistical models is one of its main advantages in investing. Traditional models, such as ARMA, MA, and AR, use historical stock returns to forecast future events, but they have trouble identifying significant trends in time-series data that contains white noise. Moreover, these models do not work well with non-linear data, which makes them inappropriate for the intricate dynamics of stock markets. On the other hand, deep learning is used by AI-based models like ANN and NAR to find patterns and trends in market data, which makes them more likely to forecast non-stationary and non-linear financial data.

Additionally, AI models can continuously learn and adapt to new market conditions, unlike traditional models, which require constant manual adjustments.

Traditional methods of portfolio optimisation usually use historical mean-variance optimisation, which makes the assumption that historical returns are a good indicator of future returns. Real-time market movements are not entirely taken into account by this approach, though. Conversely, artificial intelligence (AI) methods employ machine learning algorithms to assess data in real time and dynamically modify portfolio compositions, so enhancing diversification tactics and cutting risk more successfully. In order to make more educated and data-driven judgements, investors can also benefit from AI-powered tools that help them avoid the biases and emotional decision-making that frequently influence traditional investment tactics.

4. Future Scope

With predictions for further development through sophisticated machine learning methods, hybrid models, and broader market applications, the future of AI in investing appears bright. The accuracy of forecasting may be further improved by hybrid models, which blend AI with conventional statistical techniques. AI algorithms, for instance, might incorporate sentiment analysis and macroeconomic variables to provide more accurate stock forecasts. Studies on the combination of ARIMA with neural networks have demonstrated encouraging outcomes in terms of increasing the accuracy of stock forecasts.

The predicted accuracy of AI applications might be greatly increased by extending their use to larger financial markets like the US and European stock exchanges. Currently, these applications are concentrated on certain markets, such as the Finnish stock market. Additionally, it is anticipated that AI-driven robo-advisors, which offer real-time investment advice based on AI-driven market analysis, would become increasingly prevalent in wealth management and personal finance. Stricter rules may be implemented in the future, though, due to issues like the requirement for big datasets and substantial processing capacity as well as moral worries regarding AI-driven market manipulation.

In conclusion, by improving the efficiency, data-drivenness, and predictiveness of financial markets, artificial intelligence (AI) has the potential to completely transform investing methods. AI-powered investment techniques will become more widely available and embraced as machine learning advances, resulting in a more intelligent and efficient global market.

Key insights

With 58% of respondents identifying as beginners and 35% at an intermediate level, there is still a lack of knowledge with AI in investing. This suggests a substantial knowledge gap that requires improved instructional materials and awareness-raising initiatives. Technology is becoming more and more important to give investors the skills they need to properly use AI as technology continues to change the investment landscape.

Just 12% of respondents have been investing for more than three years, while the majority (63%) have less than a year's experience. This implies that a large number of investors are still in the beginning phases of their trip, which may have contributed to their cautious approach to investing using AI. With the growing use of AI tools, younger investors now have the chance to use data-driven insights to make well-informed selections.

Growth investing, which was selected by 48% of respondents, is the most widely used investment strategy. Day trading is practiced by 20%, and value investing comes in at 32%. Increasingly, these tactics are being improved with AI-powered financial tools, which give investors a means of seeing market patterns and maximising portfolio performance. Investment preferences are likely to be increasingly influenced by AI as its use increases.

The use of AI-powered financial products is still quite limited, despite recent developments. Just 15% of the respondents use these tools on a weekly basis, whilst over half (55%) use them infrequently. It implies that even while there are AI-powered investing options, many investors have not yet completely incorporated them into their financial decision-making procedures. Future broader adoption of these tools may result from increased accessibility and confidence in them.

There is a varied level of trust in AI-driven investment decisions; 40% of respondents said they had a neutral opinion, 35% said they had some faith, and only 10% said they had complete faith. This shows that using AI to provide investing suggestions should be done with caution. Despite

acknowledging AI's potential, investors still want human oversight for final choices, utilising AI more as a research tool than as a completely independent investment manager.

According to 45% of respondents, data accuracy is the most important issue when it comes to AI in investing. Another significant worry is algorithmic bias, which is brought up by 30% of respondents, followed by ethical and transparency concerns by 25%. These results underscore the obstacles that financial institutions and AI developers need to overcome in order to increase investor trust in AI-powered solutions.

Lastly, a hybrid approach is the most popular when it comes to the preference for AI over human advisors, with 50% of respondents favouring a mix of AI insights and human expertise. Only 15% feel comfortable depending entirely on AI for investment advice, while 35% still prefer conventional human advisors. This reinforces the idea that while AI can enhance decision-making, human expertise remains a crucial element in financial management.

All things considered, these observations show that although AI is becoming more popular in investing, obstacles remain in the way of its broad use. To promote higher trust and use of AI-powered financial products, more education, more transparency, and a balanced integration of AI and human expertise are necessary.

Suggestions

Raising awareness and educating people about AI in investing is one of the study's main areas for development. Future studies should examine the efficacy of educational interventions, such as workshops, online resources, or AI investing courses, given that the majority of respondents are novices or have an intermediate degree of acquaintance. Researchers can evaluate the effect of education on the adoption of AI and confidence in financial decision-making by examining how knowledge levels change following exposure to structured learning.

Examining the variables affecting investors' confidence in AI-driven financial instruments is another crucial recommendation. Given that many respondents indicated a neutral position or just partial trust, future studies should look into the particular factors that lead to scepticism. This can entail examining the ways in which investor confidence is influenced by data veracity, algorithmic openness, historical performance, and regulatory monitoring. In addition to quantitative surveys, qualitative interviews or focus groups may offer more in-depth understanding of the behavioural and psychological aspects of trust.

Future research could examine how AI affects other investment strategies, as growth investing was determined to be the most favoured option among respondents. Research might measure portfolio performance, risk tolerance, and decision-making efficiency across time to assess the efficacy of AI-assisted techniques to conventional investment methods. Furthermore, researching how AI-powered tools accommodate various investor types—for example, novice versus seasoned investors—would yield important information for tailored AI applications in financial planning.

Despite their increasing presence in the business, the survey also emphasises how little AI-powered financial solutions are being used. Future studies could concentrate on determining the financial, psychological, or technological obstacles impeding broader adoption. Financial institutions may be able to customise AI solutions to meet the needs of different investor segments by comparing the adoption rates of AI across demographic groups, such as age, income, and investment experience.

Finally, as the results showed a preference for a hybrid model of AI and human advisors, future studies might examine the effects of this combination on investor outcomes. Research could examine if financial advice from AI-assisted human advisors is superior to that from simply human or AI-driven methods. Furthermore, investigating how investors strike a balance between AI suggestions and human judgement may provide important new information on how financial decision-making changes in the digital era.

Future research can further a more thorough knowledge of AI's role in investing by tackling these topics, which will aid financial institutions and investors in navigating the rapidly changing world of technology-driven finance.

Conclusion

While AI is gaining traction, a significant portion of the investing population is still unfamiliar with its applications, with the majority of respondents having beginner or intermediate levels of understanding. This study provides valuable insights into the current state of AI adoption in investing, highlighting key trends, investor preferences, and concerns. The findings highlight the need for more educational initiatives to bridge the knowledge gap and foster confidence in AI-driven tools.

The majority of respondents are relatively new to investing, according to the report, and their preferred primary approach is growth investing. Even while AI tools are being utilised to improve investment strategies, not many investors are using them, thus their adoption is still limited. The hesitancy to fully integrate AI into investing decision-making stems from worries about algorithmic bias, data veracity, and the apparent lack of transparency. These elements emphasise how critical it is to allay investor scepticism and foster confidence in AI solutions via increased openness and instruction.

The study shows that, in spite of these obstacles, there is a definite preference for a hybrid approach to financial advising services that combines the effectiveness of AI with the human touch that offers tailored insights and judgement. This implies that human oversight is still necessary to manage the subtleties and complexity of financial planning, even though AI can significantly improve investment judgements.

In summary, the results highlight the need for a more balanced integration of AI technologies with human experience while also pointing to the expanding potential of AI in the investing business. It will be crucial for financial institutions, legislators, and educators to address the obstacles to AI adoption, clarify its advantages, and make sure investors have the information and resources they need to make wise decisions as the sector develops. By doing this, they can contribute to the development of an investing environment that is more efficient, inclusive, and trust-based.

REFERENCE

- A 2024 survey by **Mercer** reveals that 91% of investment managers are currently using (54%) or planning to use (37%) AI for asset class research or investment strategy development. This shows a broad acceptance of AI within the investment management industry. (*Mercer, "AI in Investment Management Survey 2024"*).
- Research by **EY** (2024) found that 88% of senior leaders are spending more than 5% of their budgets on AI, with plans for further increases. AI investment is surging as organizations look for improved decision-making tools and efficiency. (*EY, "AI Investment Surge"*)
- According to a 2024 study by the **CFA Institute**, machine learning is playing an increasingly significant role in developing and testing investment strategies. While only 29% of systematic investors are currently using AI, over 75% plan to incorporate it in the near future. (*CFA Institute, "How Machine Learning is Transforming the Investment Process"*)
- A 2024 survey by **The Motley Fool** explores how generative AI is being used by individual investors for making decisions, shedding light on the increasing use of AI tools among retail investors. (*The Motley Fool, "How Investors are Using Generative AI"*).
- Research by **LSEG** in 2024 found that trust in AI varies by region, with 91% of investors in EMEA, 92% in North America, and 95% in APAC trusting AI for product and service research. This shows a global trend of increasing trust in AI in investment markets. (*LSEG, "The Future of Wealth: Investor Trust in AI"*).
- The **University of Chicago** study on AI and investment decisions highlights the evolving disparity in investment knowledge driven by AI adoption. This could further influence inequality in market participation and outcomes. (*University of Chicago, "AI, Investment Decisions, and Inequality"*).
- A report by **McKinsey** in 2024 states that AI investment has doubled since 2017, with over 50% of companies investing significantly in AI. This aligns with broader trends of AI becoming integral to various industries, including finance. (*McKinsey, "The State of AI in Early 2024"*).
- Artificial Intelligence in investing: Stock clustering with Self-organizing map and return prediction with model comparison ,Thesis paper of Mr. Ayan Mohamed (LAPPEENRANTA UNIVERSITY OF TECHNOLOGY, School of Business and Management Master's Degree in Strategic Finance and Business Analytics)