AI IN INVESTMENT PRACTICES: CHALLENGES OF GLOBALIZATION, TRUST AND LIABILITY

Algirdas Justinas STAUGAITIS

Panevėžio kolegija / University of Applied Sciences, Lithuania

Abstract. This study investigates how Artificial Intelligence (AI) influences investment decision-making, with a focus on trust, responsibility, and regulatory perceptions. Using a quantitative survey approach, the research explores how frequently investors use AI tools, their perceived benefits and challenges, and attitudes toward accountability and oversight. Results indicate that while awareness of AI is increasing, adoption remains moderate and concentrated on accessible applications such as market analysis and forecasting. Respondents reported limited but positive effects on investment outcomes, alongside concerns about data reliability, transparency, and excessive reliance on automated systems. Trust in AI was found to be cautious—investors generally viewed AI as a supportive analytical tool rather than an independent decision-maker. Most participants assigned responsibility for AI-related losses to investors themselves but also favored stronger regulation to ensure ethical and transparent use. The study concludes that AI's successful integration into investment practices depends on balancing efficiency with accountability and human oversight. These findings contribute to the ongoing discussion on ethical governance and responsible innovation in global financial systems.

Keywords: Artificial intelligence, investment decision-making, trust, financial technology, responsible innovation

INTRODUCTION

The quick advancement of artificial intelligence (AI) technology is changing the way investors make decisions and the global financial markets. With the ability to handle complex data and facilitate well-informed decision-making, AI-driven systems like machine learning algorithms, predictive analytics, and automated trading platforms have grown in popularity in investment practices (Chen et al., 2021). AI systems can estimate asset performance, identify market trends, and dynamically manage portfolios using massive datasets (Olanrewaju, 2025). As data-driven automation threatens conventional investment paradigms, the financial sector, which has historically relied on human skill and market intuition, is undergoing a fundamental shift (Li et al., 2020). This change has resulted in skepticism about AI's transparency, accountability, and ethical consequences as well as hope about its potential to improve efficiency (Radanliev, 2025).

Long-standing issues with human decision-making, such as cognitive bias, information overload, and emotional influence, may be resolved by AI technology (Leonidas et al., 2025). AI systems can estimate asset performance, identify market trends, and dynamically manage portfolios by utilizing massive datasets (Sutiene et al., 2024). Algorithmic trading, risk management, and retail investing via robo-advisors are all using these systems more frequently (Tao et al., 2021). Nevertheless, despite these benefits, there is still uneven practical use of AI in investment processes. Individual investors frequently rely on more approachable, user-friendly technologies like ChatGPT, sentiment analysis, and AI-based stock screeners, while institutional investors are implementing sophisticated prediction algorithms. This divide underscores a need to better understand how trust, regulation, and risk perception influence AI's integration into everyday investment behavior.

From simple rule-based systems to complex models utilizing machine learning (ML), deep learning, and natural language processing, AI applications in investment management have advanced (Li et al., 2020). These days, sentiment analysis, algorithmic trading, robo-advisory services, and portfolio optimization are all powered by these technologies. They are appealing because they increase productivity, lessen bias, and reveal intricate market trends. Research indicates that in turbulent situations, AI-assisted decision-making can maximize risk and boost portfolio returns (Li et al., 2025). However, results are still inconsistent and largely rely on market dynamics and data quality.

The acceptability of AI in finance depends heavily on trust. As Luhmann (2017) pointed out, trust simplifies difficult choices. In the context of artificial intelligence, this entails depending on algorithmic results despite having little knowledge of how they are generated (de Fine Licht & de Fine Licht, 2020). Accountability and risk assessment are made more difficult by the "black box problem" (Burrell, 2016). According to research, investor trust is influenced by perceived transparency, data reliability, and human oversight (Dietvorst, Simmons, & Massey, 2015; Miller, 2019). On the other hand, systemic problems and moral hazards may result from opaque algorithms (Pasquale, 2015). Thus, striking a balance between responsibility, explainability, and efficiency continues to be a major difficulty.

The accountability for investment losses becomes more hazy when AI operates more independently. AI introduces developers and data suppliers as potentially liable parties, complicating the traditional regulation's assignment of accountability to human actors (Bryson & Winfield, 2017). Transparency and human oversight are key components of emerging governance frameworks like the OECD AI Principles (OECD, 2019/2024) and the EU's AI Act (2024). Because

inadequate oversight may increase systemic risks, scholars contend that accountability should combine technological explainability with legal responsibility (Wachter & Mittelstadt, 2019).

The widespread use of AI also brings up moral and legal concerns. Because regulations vary by market, regulatory fragmentation creates uncertainty (Zetzsche, Buckley, & Arner, 2020). While ethical frameworks place a strong emphasis on accountability and fairness (Jobin, Ienca, & Vayena, 2019), AI's place in ESG and sustainable investment is still debatable, offering both enhanced data analytics and the possibility of bias replication (Kotsantonis & Pinney, 2022; Pizzi et al., 2021). Therefore, coordinated regulation and ethical congruence across international markets are necessary for responsible AI in finance.

Three frameworks are used in this study: Responsible Innovation, Trust Theory, and the Technology Acceptance Model (TAM). According to Davis (1989), TAM explains AI adoption through perceived utility and usability, which are influenced by risk tolerance and financial literacy (Lee, 2021). The key to trusting automation, according to Trust Theory (Mayer, Davis, & Schoorman, 1995), is ability, integrity, and compassion. When it comes to regulating developing technologies like artificial intelligence in finance, the Responsible Innovation framework (Stilgoe, Owen, & Macnaghten, 2013) emphasizes anticipation, reflexivity, and reactivity.

In summary, AI is transforming investment decision-making by enabling advanced analytics and automation but also introducing new challenges regarding trust, accountability, and regulation. Investors must balance efficiency and innovation with ethical responsibility and transparency. To explore these dynamics, this research addresses the following questions:

1. How does the use of AI influence trust, responsibility, and risk perception in investment decision-making?

2. How frequently do students and professionals use AI tools in learning and work contexts?
3. What benefits and risks are perceived when applying AI in investment systems?
4. Who is perceived as responsible when AI-based investment decisions cause financial losses?

THE RESEARCH METHOD

The study focuses on the relationships between AI usage, trust, perceived effectiveness, responsibility, and attitudes toward regulation. The research population included both professionals and respondents with at least a basic understanding of financial investments, reflecting diverse perspectives across experience levels.

Data were collected through an online questionnaire distributed via professional networks, investment forums, and academic channels between August and September 2025. The survey contained 11 structured questions, grouped into four thematic areas: (1) usage and adoption of AI tools, (2) perceived effectiveness and challenges, (3) trust, responsibility, and regulation, and (4) general investment practices and sustainability preferences. Most questions used Likert-type scales and multiple-choice formats, allowing for both frequency and attitude measurement.

A total of N = 31 respondents participated in the survey. Respondents represented varied age groups and investment experience levels, ensuring a balanced perspective on AI adoption and trust formation.

Data were analyzed using descriptive statistics to identify patterns in responses and visualize trends through charts. Frequencies and percentages were used to summarize adoption rates, trust levels, and perceived challenges. Thematic groupings were aligned with the study's research questions.

This approach provided both an empirical overview of AI usage in investing and a conceptual understanding of how users relate to emerging technological, ethical, and regulatory challenges.

THE RESULTS/DISCUSSION

Usage and Adoption of AI in Investment Decisions

The survey results provide how frequently respondents use AI tools in their investment activities and the primary purposes for which these tools are applied (Table 1). Most participants reported not using AI tools regularly (12 people), while some use them once a week or less (4), every day (3), several times a week (2), or irregularly (1). Market analysis is the leading purpose with 14 responses, followed by price forecasting (7), portfolio management (6) and risk assessment (6), while fewer respondents use AI for generating investment ideas (4) or trading automation (2).

Table 1. Frequency and purposes of AI tool use in investment decision-making

AI Usage Frequency	Number of responses	Purposes of AI Use	Number of responses
Do not use regularly	12	Market analysis	14
Once a week or less	4	Price forecasting	7
Every day	3	Portfolio management	6
Several times a week	2	Risk assessment	6
Irregularly	1	Generating investment ideas	4
—	—	Trading automation	2

The data shows that the use of AI tools in investment decision-making varies widely, with simple, easy-to-use solutions being the most common (Figure 1). Simple AI tools such as ChatGPT are used by 9 respondents, making them the most frequently adopted option. Market analysis tools and automated trading robots follow with 6 users each, indicating moderate uptake of more specialized analytical and automation features. A noticeable portion of respondents report not using AI tools at all (5) or not knowing whether the tools they use incorporate AI (4), highlighting ongoing uncertainty or limited engagement. More advanced technologies—such as self-developed AI models (3), portfolio optimization systems (3), automated investment advisors (3), and AI-integrated trading platforms (1)—are used by relatively few participants. Overall, the results suggest that current adoption leans strongly toward accessible AI solutions, with more complex or technical systems seeing lower levels of use.
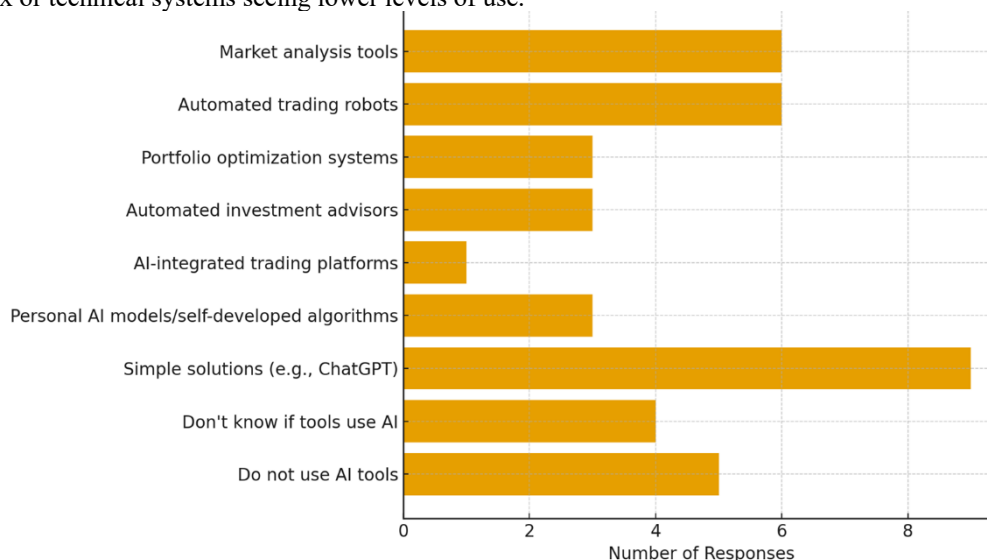

Figure 1. **AI tools most often used when investing**

Perceived Effectiveness and Challenges of AI in Investing

The findings reveal a mixed perception of AI's effectiveness in improving investment outcomes (Figure 2). The largest group of respondents—10 people—reported that using AI tools has not changed their investment results. A smaller share indicated positive effects, with 7 respondents reporting that their results slightly improved and 3 respondents noting substantial improvement. Only 2 respondents felt that their results got worse, suggesting that negative experiences with AI are relatively uncommon. In terms of challenges, participants most frequently identified data quality and reliability, cited by 14 respondents, as the primary obstacle to effective AI use. This was followed by concerns about the "black box" nature of AI algorithms (9 responses) and high dependence on technology (9 responses). Legal and ethical issues, while still relevant, were mentioned less often, with 5 respondents selecting this option. Overall, the results indicate that while AI is generally not perceived as harmful, its benefits are viewed as modest, and significant concerns about data integrity, algorithm transparency, and technological reliance continue to limit broader confidence in AI-driven investment decision-making.
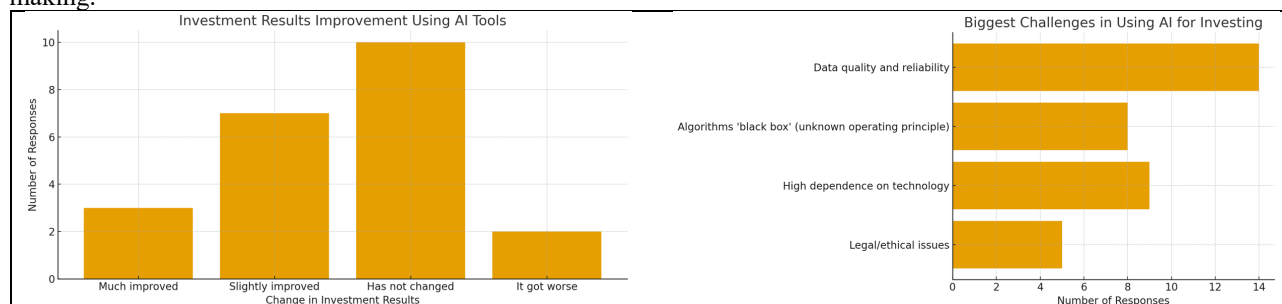

Figure 2. **Responses to questions regarding usage and adoption of AI in investment decisions**

Trust, Responsibility, and Regulation

The survey results indicate a generally cautious attitude toward AI tools in investment contexts. Trust levels are moderate: 10 respondents reported that they partially trust AI tools, while 9 respondents stated that they have little confidence in them. Strong trust was less common, with only 2 respondents expressing that they trust AI very much, and 1 respondent reporting no trust at all. These figures suggest measured openness toward AI, accompanied by persistent reservations. When evaluating responsibility for investment losses resulting from AI-driven decisions, the vast majority—16 respondents—believed that the investor themselves should bear responsibility. Smaller groups assigned responsibility to other parties, including AI developers or providers (4 respondents), no clearly identifiable party (2 respondents), and financial intermediaries such as banks or platforms (1 respondent). This distribution reflects a strong perception of personal accountability in the use of AI tools. Regarding regulatory oversight, 50% of respondents supported introducing

greater regulation for AI tools in investing, while 36.4% expressed no opinion, and 13.6% opposed additional regulation. Overall, these results suggest that although respondents are willing to engage with AI technologies, they simultaneously emphasize the importance of clear responsibility structures and appropriate regulatory safeguards to mitigate emerging risks.

Broader Investment Behavior and Sustainability

The analysis of respondents' general investment behaviors and motivations shows a clear preference for cautious and traditional approaches (Figrue 3). The most common strategy reported was investing in traditional financial instruments (7 respondents), followed closely by conservative investing focused on safety and capital preservation (6 respondents). A moderate number expressed interest in innovative financial instruments such as cryptocurrencies or green bonds (5 respondents) and ESG-based investing (3 respondents), while ethical-principles-based investing attracted 2 respondents. Higher-risk strategies were less common: 3 respondents identified as risky investors seeking greater potential returns, 2 as speculative investors, and 2 indicated they were beginners without a clear investment style. Overall, these results suggest that most investors adopt stable and security-oriented strategies, with smaller groups experimenting with innovative, ethical, or high-risk investment approaches.
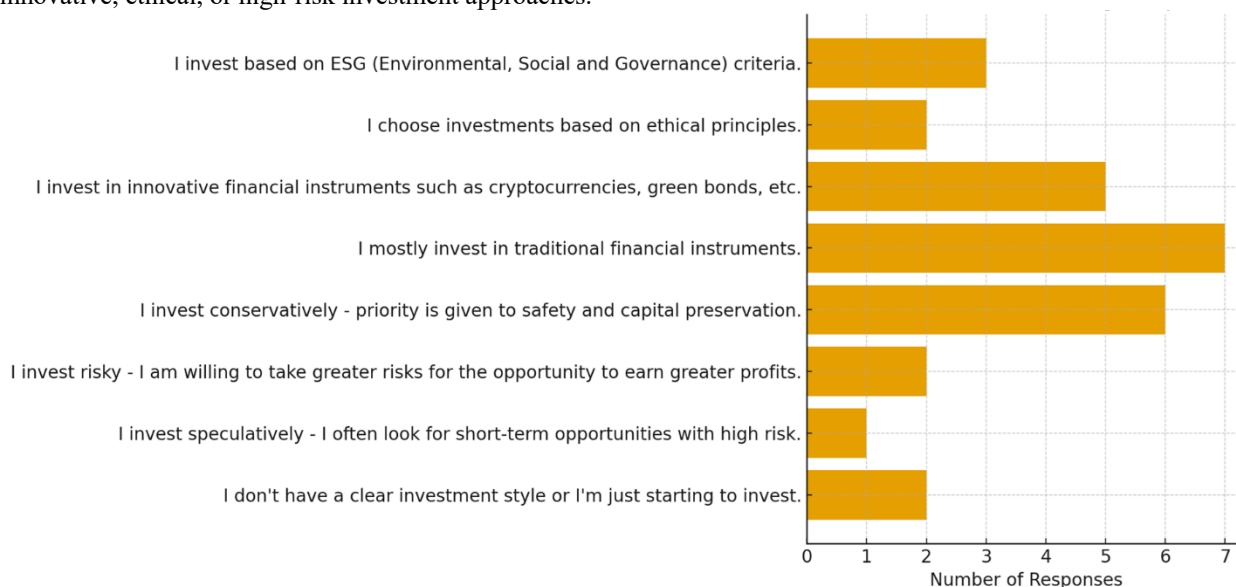
Figure 3. **Responses to questions regarding broader investment behavior and sustainability**

Overall, the results indicate that while awareness and partial adoption of AI tools in investing are growing, usage remains limited and primarily focused on accessible applications for market analysis. Respondents perceive modest benefits but also cite significant challenges such as data reliability and lack of transparency. Trust in AI remains cautious, with investors emphasizing personal responsibility and supporting stronger regulation. Their broader investment behaviors show a preference for conservative and profitability-driven approaches, relying largely on online information and demonstrating only moderate engagement with sustainable and innovative financial instruments.

The study's findings align with existing research showing that although AI technologies offer substantial analytical advantages, their adoption among everyday investors remains cautious and uneven. Similar to Chen et al. (2021) and Li et al. (2020), respondents primarily used accessible AI tools for basic analytical tasks such as market analysis and forecasting, while more advanced applications—such as automated trading or self-developed models—were adopted by only a small minority. This limited uptake appears to reflect persistent concerns about data quality, algorithmic opacity, and overreliance on technology, echoing the challenges highlighted by Burrell (2016), Dietvorst et al. (2015), and Pasquale (2015). Consistent with Trust Theory (Mayer et al., 1995) and work on transparency in AI (de Fine Licht & de Fine Licht, 2020; Miller, 2019), respondents expressed only moderate trust in AI systems and emphasized the continued importance of human oversight. The strong perception of personal responsibility for AI-related investment losses corresponds with debates on accountability in automated decision-making (Bryson & Winfield, 2017), while support for increased regulation aligns with emerging governance frameworks such as the EU AI Act and OECD AI Principles. Overall, the findings reinforce earlier arguments that AI's benefits in finance can be realized only when efficiency is balanced with explainability, ethical safeguards, and clear responsibility structures.

CONCLUSIONS

This study explores how Artificial Intelligence (AI) shapes investment practices, focusing on usage, effectiveness, trust, responsibility, and regulation. Results show that while awareness of AI is growing, adoption remains limited and centered on basic analytical tasks such as market forecasting and portfolio assessment. Respondents viewed AI as a supportive tool rather than a substitute for human judgment, citing modest performance benefits but persistent concerns over transparency, data quality, and technological dependence.

Trust in AI was cautious and conditional. Investors valued its analytical potential but preferred to retain oversight, perceiving responsibility for losses as primarily their own. Nonetheless, a majority favored stronger regulatory frameworks to ensure transparency and accountability in AI-driven finance.

Broader investment patterns revealed conservative approaches and reliance on informal information sources. Profitability remained the dominant motivation for both traditional and sustainable investments, while ethical and environmental considerations played a secondary role.

In sum, AI presents both opportunities and challenges for investors. Its successful integration depends not only on technical capability but also on trust, clear responsibility structures, and supportive regulation. Strengthening financial literacy and ethical standards will be crucial for realizing AI's potential while safeguarding investor confidence in an increasingly automated financial environment

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