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ARTIFICIAL INTELLIGENCE-ENABLED FINANCIAL REPORTING AND ITS ROLE IN IMPROVING INVESTMENT EFFICIENCY AND FIRM PERFORMANCE

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ABSTRACT

This study analyses the usefulness of artificial intelligence (AI)-based financial reporting as a system of informational infrastructure, and assesses its effect on investment efficiency, managerial decision-making, and firm performance, and differentiates information enhancement and asset valuation. The research is based on a quantitative, secondary-data approach using 400 firm-years of observation between 2018 and 2022. The financial statements of firms are aggregated with proxy-measures of AI-enabled reporting and digital intensity. Descriptive statistics, correlation tests, and comparative ANOVA are used to evaluate differences between AI-adopting and non-adopting firms across industries. The findings demonstrate that investments are more efficient, profitability and returns on assets and equity are enhanced, and market value is greater in companies that use AI-enabled financial reporting. Such impacts are more acute in digitally intensive industries, indicating that AI supplements current digital frameworks to improve the quality of reports and the accuracy of decisions. The results indicate that AI enhances financial reporting by reducing information asymmetry and enabling future-oriented managerial judgments rather than serving as a valuation mechanism. This has repercussions to managers, investors and regulators who have been demanding higher levels of transparency and efficiency. The study makes a contribution to the accounting and finance literature by conceptualising AI as an information-advancement technology in financial reporting, thereby providing clearer differentiation from speculative asset valuation tactics.

KEYWORDS: Artificial Intelligence; Financial Reporting; Investment Efficiency; Firm Performance; Information Asymmetry; Digital Intensity

1. INTRODUCTION

The growing use of Artificial Intelligence (AI) in the corporate sector, especially in accounting, finance, and corporate reporting, has changed the way businesses handle and interpret their financial data (Hemanand et al., 2022; Mhlanga, 2021; Shiyab et al., 2023). Traditionally, financial reporting has been underpinned by well-set rules and frameworks that focus mainly on historical and retrospective data. These methods, although helpful for understanding past performance, often lack the insights needed to make forward-looking decisions. This limitation is especially problematic in an age where the quicker the changes in marketing conditions and business environments, the more dynamic and timelier the information required. In contrast, AI-enabled reporting systems offer a more agile approach that leverages advanced analytics to generate predictive insights, helping businesses navigate uncertainty and make more informed decisions (Mahalakshmi et al., 2021; Onalaja et al., 2025).

AI's usage in accounting and financial reporting has grown enormously over the past few years. Technologies like machine learning, natural language processing, and automated decision-making systems are increasingly used to improve the accuracy, speed, and relevance of financial information (Berdiyeva et al., 2021; Elahi et al., 2023). In accounting, new AI tools are now being utilised to identify anomalies, prevent fraud, and simplify standard processes such as reconciliation and reporting. In finance, AI helps forecast market trends, evaluate investment opportunities, and manage risks. AI, also within corporate reporting, has gone beyond compliance-based reporting to bring more strategic decision-making, thereby enabling businesses to predict trends, efficiently allocate resources, and achieve better financial performance (Berdiyeva et al., 2021; Hashem & Alqatamin, 2021). As businesses become more reliant on AI, the scope of its potential to revolutionise financial reporting and investment practices continues to expand.

Traditional financial reporting is backwards looking, providing information based on past financial transactions and producing static reports that often fail to account for future business trends. This impression of historical data makes it challenging for firms to adjust quickly to shifting economic conditions or to strategically invest in real time. The reliance on traditional accounting principles and reporting systems restricts organisations from leveraging opportunities and proactively managing risk. Furthermore, traditional methods of valuation may not always capture the complexity of intangible assets or potential for future

growth, and so may not be able to inform investment decisions and improve managerial planning. As such, there is a need for additional forward-looking financial reporting systems that can adapt to dynamic business environments.

There is a critical difference between AI's role in improving financial reporting information and its role in asset valuation. While AI significantly improves the quality, timeliness, and relevance of financial information by providing real-time analytics, it doesn't necessarily change the inherent value of the company's assets (Alimuddin et al., 2025; Fedyk et al., 2022). Traditional valuation models are usually concerned with calculating asset value based on historic cost or market value, but AI presents new opportunities to incorporate vast amounts of external and internal data into the calculation process, which then feeds into decision-making. This distinction is important because the value proposition of AI in financial reporting is largely about facilitating better information access while increasing the relevance of decisions, rather than necessarily reinterpreting the value of an asset (Atwal & Bryson, 2021; Seo et al., 2021). By understanding the difference between these two roles, businesses better able to use AI to support decision-making more quickly, rather than as a means of valuing traditional assets.

The motivation for using AI in financial reporting lies in its potential as a decision-support tool rather than as just another line item on the balance sheet. While traditional financial reporting focuses on static measurements such as revenues, profits, and liabilities, AI enables the analysis of dynamic, forward-looking data to inform strategic decisions (Mhlanga, 2022; Vasey et al., 2022). AI can analyse large amounts of information in multiple dimensions - market trends, operational performance, and even outside factors such as geopolitical happenings - and give predictions about what is in the future, something that traditional methods cannot provide. This makes AI especially valuable in the hands of decision-makers who must allocate resources, predict the future, or manage risks in a more complex, fast-paced business environment (Dong, 2025; Lestari & Andika, 2025).

The importance of this study is to explore how AI can change the way firms utilise financial information. By improving the quality and relevance of financial reporting, AI can enhance investment efficiency, reduce information asymmetry, and boost firm performance. As firms face increased pressure to adapt to rapid technological developments, managers and investors need to understand how AI affects financial reporting. This research seeks to fill existing gaps in the literature by investigating the role

of AI not just as a tool to enhance reporting quality, but also as an enabler of better managerial decisions and long-term firm success.

The novelty of this study is that it focuses not on AI as a speculative valuation mechanism, but on AI as an informational infrastructure. While much of the current literature focuses on the financial implications of AI asset valuation, this study delves into its role in improving decision-making and resource allocation. By discussing the information dimension of AI in financial reporting, the research offers a new perspective that has not yet been examined in depth by other research papers.

This study is a contribution to the literature by addressing AI as an informational infrastructure to boost financial reporting. It emphasises the potential of AI to improve the quality of reporting, decision-making, and resource allocation, thereby making investments more efficient and enabling better performance in firms. The findings offer a valuable understanding of AI's role in reducing information asymmetry and improving accounting and finance practices.

1.1. Research Objectives

- Investigate the impact of AI-enabled financial reporting on investment efficiency.
- Assess how AI-driven financial reporting affects managerial decision-making processes.
- Examine the effect of AI-enhanced financial reporting on firm performance, focusing on profitability and market valuation.

2. LITERATURE REVIEW

2.1. Artificial Intelligence in Financial Reporting

Financial reporting has seen significant improvement thanks to Artificial Intelligence (AI). Accounting systems, including automated bookkeeping, fraud detection, tax reporting, and others implemented using AI, have played a key role in enhancing operational efficiency (Sharbek, 2022; Wolff et al., 2021). AI can handle large amounts of information, discover patterns, and perform other tasks with the same accuracy and speed as is impossible with the traditional approach. Another field that AI is doing well in is forecasting. It is possible to use machine learning models to predict financial outcomes based on historical data, external economic factors, and market sentiment (Dong, 2025; Milana & Ashta, 2021). Such a forecast operation enables companies to stop doing a head-on analysis and consider progressive financial plans. Another important use of AI in financial reporting is professional anomaly detection. The application of AI

to detect inconsistencies, mistakes, or fraudulent actions in financial data increasingly involves analysing large volumes of data to identify outliers and other suspicious trends that bounded methods would not have detected (Alimuddin et al., 2025; Hashem & Alqatamin, 2021).

The incorporation of AI into financial reporting systems significantly enhances the quality, timeliness, and relevance of financial data. Traditional financial reporting, which relies on static historical data, is unable to support timely decision-making. Conversely, AI can offer dynamic reporting and real-time insights, enabling decision-makers to access the latest, most practically useful information (Odonkor et al., 2024; Wamba-Taguimdje et al., 2020). Moreover, AI also contributes to the relevance of decision-making by combining various data layers, i.e., operational, financial, and external market data, into a united reporting system in real-time (Mahalakshmi et al., 2021; Vasey et al., 2022). This would provide a more holistic picture, more applicable to decision-makers, particularly in a fast-paced business setting.

It should be mentioned that AI is used as an informational layer of financial reporting, not as a substitute for conventional valuation approaches. The purpose of AI use is to supplement, rather than replace, the current financial reporting system with enhanced, more timely data (Onalaja et al., 2025). This difference is essential to realising the true value of AI in financial reporting because it provides higher-quality information to support decision-making without substituting for conventional valuation methods.

2.2. Investment Efficiency and Information Quality

The quality of financial information is critical to decision-making in capital allocation. In terms of investment efficiency, timely and accurate financial reporting is also very important in helping investors and managers make sound decisions aligned with the firm's long-term goals (Fayyaz et al., 2025; Konasani, 2025). AI can make this process more efficient by making financial data more accessible and relevant, enabling stakeholders to better predict future performance. Information asymmetry is a major concern in financial markets, as some stakeholders (e.g., managers, investors) are better informed than others. AI is useful for counteracting such asymmetry, as it enables more transparent and accurate financial reporting, thereby minimising the risk of futile investment (Mailini et al., 2025; Trisnawati et al., 2025).

Furthermore, it can be induced by managerial discretion, in which managers sometimes misallocate

resources based on subjective decision-making, depending on the information available. This is especially a problem in companies with very poor financial reporting quality. In this regard, AI can alleviate the threat of misjudgement in management decision-making by providing more accurate, data-driven information on which decisions are made (Janas, 2025; Mogaji et al., 2020; Rangkuti & Sari, 2025). The effect of better reporting environments on investment efficiency has been demonstrated in numerous studies, particularly when AI tools are applied to the financial analysis process. Indicatively, companies that use AI in reporting have been shown to have better capital allocation, leading to higher returns on investment and improved long-term performance (Artene et al., 2024; Janas, 2025).

2.3. AI, Managerial Decision-Making, and Firm Performance

The use of AI-driven analytics has far-reaching consequences for managerial decision-making. AI can assist managers in making better-informed, timely decisions by analysing large amounts of data and improving the precision of internal planning. Artificial intelligence solutions can recognise trends, optimise resources, and even anticipate market changes, enabling managers to amend plans before they become problematic (Kumar et al., 2025; Nahar et al., 2025). The direct effect on firm-level performance is enhanced decision-making power, which affects productivity, profitability, and operational efficiency.

The implications of AI for firm performance have been a current research topic, with some reports establishing a positive correlation between AI implementation and business performance. It could be seen as an example when researchers determined that AI-based companies were 30% more productive and 20% more profitable in their financial processes (2020) (Odonkor et al., 2024; Shahzaib et al., 2025). In addition, AI has demonstrated the ability to improve operational efficiency through automation, error minimisation, and accelerated operations. Such benefits, in their turn, have a positive impact on the bottom line and market performance. Nevertheless, one should note that the overall effect of AI on firm performance depends on the successful implementation of AI technologies into current business operations (Pulino et al., 2022; Trisnawati et al., 2025). Companies that do not strategically integrate AI might not fully exploit its benefits.

2.4. Digitalisation, FinTech, and Reporting Infrastructure

Digitalisation has become one of the enabling resources of AI-based reporting systems. The

transformation of financial reporting through the application of AI has been made possible by the rise in the use of cloud computing, big data analytics, and an interconnected financial system (Ogundeji et al., 2025; Thakur & Sharma, 2024). Digital intensity, defined as the degree to which a firm penetrates digital technologies into its processes, has been suggested to have a positive relationship with the adoption of AI in financial reporting (Ramya & Nazneen, 2025; Trisnawati et al., 2025). Those industries that are more digital in nature, such as technology and financial services, are likely to have greater value when it comes to reporting changes resulting from AI adoption.

However, there is significant heterogeneity in AI adoption and success across industries. Although industries such as technology and financial reporting are rapid in embracing the AI-inspired financial reporting, other sectors, including manufacturing and healthcare, have been lagging in the adoption of the systems (Thakur & Sharma, 2024; Vinuesa et al., 2019). The industry regulation, availability of data, and general willingness of organisations to adopt new technologies can be cited as the factors in the differences in the rates of AI adoption. Companies in digitally intensive industries tend to embrace AI and enjoy the rewards of heightened reporting capacities, and are therefore likely to register improved financial performance and increased efficiency of investments (Maranga et al., 2025; Nwangele et al., 2021).

2.5. Research Gap and Conceptual Framework

Although the literature on AI in financial reporting is increasing, a significant gap in research on the specific effect of AI on improving the quality of information relative to its valuation of assets remains apparent (Nahar et al., 2025; Sawant et al., 2025). The fact that AI can enhance the quality of reporting has been conflated with its ability to change the value of firm assets in much of the existing research. Nonetheless, AI must be set as more of a method to make decisions supportable and information flowing more effectively, as opposed to the process of re-evaluating assets (Kulsum, 2025; Mailini et al., 2025).

The proposed research fills this gap by framing AI as a reporting and decision-support system. The research, with its informational focus, helps research on the application of AI to increase investment efficiency, make investment decisions more effectively, and improve firms' final performance. The conceptual framework of this study consists of the form of AI's informational accretion, distinct from the habitual procedures for asset valuation, which offers a more discriminating view of AI capabilities within a corporate financial report.

3. METHODOLOGY

3.1. Data Sources

The data employed in the current work are based on the secondary data, which are firm-level financial statements and AI-enabled reporting indicators. Key accounting information, including balance sheets, income statements, and cash flow statements, is incorporated into the firm-level financial statements, which provide information on a firm's financial performance and profitability and its capital structure. These are necessarily the publicly available or disclosed financial statements of firms and are important for assessing their performance and the efficiency of their investments. Such financial data are secondary data because they are existing records which are compiled by firms in their routine reporting.

Along with the financial statements, AI-enabled reporting or analytics indicators represent proxy-based measures that offer the estimation of the scope of AI adoption in financial reporting practices. Because direct, standardised information about the use of AI in financial reporting systems is not easily accessible, proxies are used to approximate AI integration. An AI reporting variable in the data indicates whether they have used AI-enabled reporting tools (with a binary value of 1 = adoption and 0 = no adoption). The digital intensity variable is an unscaled (0-1) variable that quantifies the degree of digital technology adoption in a firm's processes. These proxies are useful because they provide information on how well firms have adopted AI in their reports and decision-making systems.

3.2. Sample Construction

This study sample consists of 400 firm-year observations, each representing a firm's financial and reporting data for a given year. The sample covers all types of firms across various industries, meaning the analysis spans a wide range of areas and business contexts. The firm variable is a unique identifier for each firm, and the year variable indicates the year for each observation, ranging from 2018 to 2022. This longitudinal method enables the research to monitor the change in the firm's performance and AI reporting practices over time.

The sample of firms comprised therein has been selected based on the availability of uninterrupted, complete financial data and AI-powered reporting indicators. The companies with data gaps or insufficient AI adoption coverage were eliminated. The sample also includes firms from different industries, not limited to energy, healthcare, technology, and manufacturing, to compare

industries across the board. Firms are also categorised by digital intensity, a measure of the extent to which they are integrated into their digital technologies. It is anticipated that companies with greater digital intensity, regardless of whether this intensity is in the technology or financial services industries, have advanced AI use in financial reporting.

3.3. Variable Definitions

To investigate the correlation between AI-enabled reporting and a firm's performance, several important variables must be considered. The investment efficiency variable measures Investment Efficiency as the ratio of actual returns to expected returns, reflecting how efficiently firms allocate capital to the project. Firm Performance has been measured using Return on Assets (ROA), Return on Equity (ROE), and Profitability, which measure how effectively a firm generates profit from its assets, equity, and revenue, respectively. The market valuation is measured by market capitalisation, which reflects the market's perception of the firm's value.

Control variables are Firm Size, measured as the logarithm of total assets (firm size log assets), and Leverage, measured as the ratio of debt to equity, which reflects the financial condition of the firm. These variables allow for the regulation of size and capital structure in the analysis of the influence of AI adoption on performance.

3.4. Empirical Strategy

The paper uses various statistical methods to examine the relationships among AI-assisted financial reporting, company performance, investment efficiency, and digital intensity. A descriptive analysis that summarises key variables, including rates of AI adoption, investment efficiency, and digital readiness, provides an overview of the data. Correlation Analysis: The investigation of the connections between AI adoption and firm performance variables (ROA, ROE, profitability) evaluates AI adoption in relation to enhanced performance.

Comparative Analysis is applicable to examine the performance of firms with and without AI adoption using t-tests or (ANOVA), a statistical model developed by Sir Ronald A. Fisher for analyzing the differences among group means, is particularly suited for comparing more than two groups. Industry-Level Examination is a study that examines the effect of the adoption of AI concerning various industries, taking into account digital intensity and classification according to industry to identify industry-specific patterns and the difference in the success of AI adoption across industries.

4. RESULTS

4.1. Descriptive Statistics

Table 1 summarises the descriptive statistics of the major financial and reporting-related variables. The table summarises the mean, standard deviation, and

other statistical data for variables such as investment efficiency, ROA, ROE, profitability, market capitalisation, and digital intensity for the 400 firm-years.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	25%	50%	75%	Max
Investment Efficiency	0.145	0.244	-0.29	-0.070	0.020	0.150	0.500
Return on Assets (ROA)	6.88%	2.39%	2.02%	4.87%	5.30%	7.92%	18.20%
Return on Equity (ROE)	14.51%	5.19%	4.11%	10.17%	13.69%	18.20%	38.30%
Profitability (%)	9.65%	3.44%	2.43%	6.88%	7.78%	11.46%	26.90%
Market Cap (USD Million)	1023.90	409.69	212.07	675.29	942.33	1620.22	3500.00
Digital Intensity	0.66	0.15	0.40	0.55	0.57	0.89	1.00
Firm Size (Log Assets)	13.97	0.85	12.50	13.23	13.46	14.23	16.10
Leverage	0.42	0.10	0.25	0.34	0.40	0.50	0.80

4.2. AI-Enabled Reporting and Investment Efficiency

A comparative ANOVA analysis shows that the efficiency of investments made by AI-enabled reporting firms is higher than that of AI-free firms. The mean investment efficiency of firms that have

used AI in financial reporting is 0.17, whereas that of firms that have not adopted AI is 0.11. The ANOVA test results indicate a significant difference between the two groups (p-value < 0.05), suggesting that AI adoption correlates with effective resource allocation and efficient investment.

Table 1: Comparative Means of Investment Efficiency by AI Adoption (ANOVA)

AI Adoption	Mean Investment Efficiency	Std. Dev.	N
AI = 1	0.17	0.23	200
AI = 0	0.11	0.25	200

4.3. AI-Enabled Reporting and Firm Performance

Correlation analysis was performed to examine the relationships between firm performance indicators (ROA, ROE, and profitability) and AI adoption. The correlation coefficients indicate that AI adoption is

positively correlated with ROA (r = 0.22), ROE (r = 0.24), and profitability (r = 0.19). These positive associations indicate that AI-enabled reporting firms are likely to have higher profitability and returns on assets and equity than their non-adoption counterparts. The outcomes of the correlation analysis are presented in Table 3.

Table 3: Correlation Analysis Between AI Adoption and Firm Performance

Variable	ROA	ROE	Profitability
AI Adoption	0.22	0.24	0.19
Significance	<0.01	<0.01	<0.01

4.4. AI-Enabled Reporting and Market Valuation

The proxy of firm valuation was market capitalisation, which was compared between non-adopting and AI-adopting firms. The median market value of firms that have adopted AI is 1.08 billion, compared to 0.89 billion for those that have not

adopted AI. The difference in the mean values is statistically significant, as shown by the ANOVA results (p-value < 0.05), indicating that AI adoption increases market valuation. The surge in market cap can indicate investors' perceptions of transparency and decision-making capabilities in these companies, aided by AI.

Table 4: Comparative Means of Market Capitalisation by AI Adoption (ANOVA)

AI Adoption	Mean Market Cap (USD Million)	Std. Dev.	N
AI = 1	1080.22	432.15	200
AI = 0	894.72	371.61	200

4.5. Industry and Digital Intensity Effects

The effects at the industry level were considered to identify whether there are different impacts of AI adoption across sectors. The ANOVA findings indicate that in digitally intensive industries (e.g., technology and financial services), companies achieve greater positive effects of AI adoption on investment efficiency and ROA than companies in

less digitally intensive industries, such as energy and manufacturing. For example, in the technology industry, AI-adopting companies are recording an average ROA of 10.5 per cent, whereas non-adopters in the same industry are recording an average ROA of 4.1 per cent. These are statistically significant (p -value < 0.05), indicating that AI adoption has a greater influence in areas with the highest digital penetration.

Table 5: Industry-Level Effects of AI Adoption on Investment Efficiency and ROA

Industry	AI Adoption (Investment Efficiency)	Non-AI Adoption (Investment Efficiency)	AI Adoption (ROA %)	Non-AI Adoption (ROA %)	N
Technology	0.32	0.10	10.5	4.1	100
Energy	0.09	0.08	4.1	3.5	50
Healthcare	0.15	0.12	6.2	5.0	50
Manufacturing	0.11	0.07	5.8	4.3	100

These findings indicate that the adoption of AI has a stronger impact on companies operating in high-digital-intensity fields, where AI can be incorporated into existing technological frameworks to drive change in financial reporting and company performance.

To conclude, the findings indicate that adopting AIs has a significant positive effect on investment performance, company performance, and market valuation. The results of the ANOVA and correlation tests indicate that AI-empowered reporting is associated with superior capital utilisation, greater profitability, and higher returns on assets and equity. Moreover, digitally intensive firms enjoy greater returns when using AI, which further supports the issue of industry considerations when assessing the effect of AI on financial performance. Regression analysis shall be carried out at a more advanced level to test the cause-and-effect relationships among these variables.

5. DISCUSSION

The results of this paper support the radical position that Artificial Intelligence (AI) can improve the quality and credibility of financial reporting. With the ease with which businesses are adopting AI in their financial activities, there has been an enhanced capability to generate accurate, timely, and relevant data (Mishra et al., 2022; Verma & Singh, 2022). This research has revealed that reporting systems that integrate AI are associated with higher investment performance, profitability, and firm performance. These findings can be related to the increasing body of evidence, which suggests that AI not only automates financial operations but also gives them more insights, resulting in more informed decisions and more open reporting practices (Ogundeji et al.,

2025; Shahzad et al., 2019).

The research findings underline that AI can be an effective tool for enhancing the usefulness of financial reports. Traditional financial reporting, which is usually retrospective and relies on past data, has weaknesses in its ability to support future decision-making (Mhlanga, 2022; Ogundeji et al., 2025; Trisnawati et al., 2025). Conversely, AI-based financial reporting systems provide real-time data and predictive insights, which enhance decision-making. As companies implement AI in their reporting, they can provide more precise predictions, identify anomalies more effectively, and enhance financial reporting overall (Rohini et al., 2025; Trisnawati et al., 2025). The resulting shift helps decision-makers, including managers and investors, base their decisions on higher-quality, more predictive financial data that is also more up to date.

Additionally, AI leads to better and more organised reflection of financial information. Incorporating different streams of data, including operational, market, and external information, AI systems help to form a more holistic image of the performance of a firm (Nabeel, 2024; Rohini et al., 2025). It mitigates the risk of missing or incomplete financial information, which is often a cause of errors or incorrect judgments in the conventional reporting framework. The stakeholder trust increased with higher accuracy and promptness of AI-based reports that give an investor guaranteed reliability of financial information, as well as the accurate performance of a company and its prospects (Flavián et al., 2021; Kumar et al., 2022). Subsequently, this enhances the firm's reputation with external investors and internal stakeholders, thereby improving market sentiment and enabling better capital-formation decisions.

The main result of the research is the difference between the role of AI in enhancing the informational value of financial reports and its potential to participate in the valuation of intangible assets. Conventional valuation techniques, where the historical costs or market-based measures are used, do not tend to record the potential worth of intangible assets like intellectual property, brand equity or human capital (Maranga et al., 2025; Ramya & Nazneen, 2025). Conversely, AI-advanced reporting provides forward-looking information without necessarily relying on the estimated value of intangible assets. The power of AI is that it can handle and analyse data which is observable and measurable, including revenue trends, operational metrics and market movements, and not try to apply a value to more abstract ideas (Trisnawati et al., 2025; Zhou et al., 2022).

The distinct attempt to isolate AI-facilitated reporting and intangible asset valuation is significant, as it ensures that the financial statements do not become warped by intangible and verifiable data (Abdul, 2024; Adalakun et al., 2024). Although intangible assets are an important part of the modern economy, particularly in the knowledge-based industry, they are commonly characterised by a degree of subjectivity and valuation uncertainty. The AI can ensure the integrity of financial reports by increasing their accuracy without entering speculative fields (B & Pavithra, 2025; Elhabti & Assal, 2025). The separation prevents the financial ecosystem from over-inflating asset values based on unassessed or unassessed estimates that might lead to wrong investment choices. Consequently, the use of AI in financial reporting aligns with the underlying principle of accounting standards, which is to report validated facts and truths.

AI in financial reporting is of practical use to managers in several ways. To begin with, AI effective in making internal decisions more correctly, as it suggest real-time financial insights (D.S et al., 2025; Janas, 2025; Karademir, 2025). Managers have an opportunity to anticipate market changes more effectively, use resources more efficiently, and make more data-driven decisions. This may result in better operational efficiency, profitability, and a stronger market position. Automation of routine reporting also frees managers' time, allowing leaders to focus on strategic initiatives and no longer needing to spend time on manual data entry and reconciliation.

Moreover, AI allows managers to enhance the accuracy of internal planning. With the help of the AI-based analytics, managers able to create more accurate predictions and notice the new trends

sooner, which allow them to respond actively to the market alterations (Mailini et al., 2025; Peng et al., 2023). Such predictive power is of great value, especially in fast-paced industries, where swift changes in strategy can make or break success. In response to this, as AI keeps progressing, managers who consider AI tools in decision-making processes are likely to have a competitive advantage in the sense that they can make better and more timely decisions (Ogundeji et al., 2025; Shiyab et al., 2023).

To regulators, the results demonstrate that it is important to encourage the adoption of AI in financial reporting to increase transparency and minimise information asymmetry between firms and stakeholders (Odonkor et al., 2024; Shiyab et al., 2023; Trisnawati et al., 2025). Regulators ought to push the firms to use AI-enhanced reporting by giving guidelines on ways these technologies can successfully be used in the current financial frameworks (Vinuesa et al., 2019; Yiu & Cheung, 2025). This would have firms using AI to the firm's advantage, enhancing reports without interfering with accounting standards.

Nevertheless, regulators should also bear in mind the potential difficulties AI adoption can pose. Various issues related to data privacy, security, and algorithmic bias arising from the integration of AI into financial reporting have emerged. The regulators must develop transparent standards that ensure the responsible implementation of AI systems, with effective safeguards to prevent the abuse of confidential financial information. (Kulsum, 2025; Nahar et al., 2025). In addition, regulators need to ensure that AI systems do not conflict with established accounting principles and regulatory frameworks to maintain the consistency and reliability of AI systems in financial reporting practices (Bonetti et al., 2022; Janas, 2025). This prevents AI from becoming a means of controlling financial results or from building a false impression of a firm's financial well-being.

In general, AI implementation in financial reporting can bring significant value to both managers and regulators. To managers, AI would improve the efficiency of decision-making and operations, whereas to regulators, it would strengthen financial transparency and market confidence. Nevertheless, as AI continues to develop, managers and regulators should be aware to ensure its application is ethical and efficient, enabling maximum benefits from AI while reducing risks.

6. CONCLUSION

This paper discusses how Artificial Intelligence (AI) is used to improve financial reporting systems

and the effects on investment efficiency, firm performance, and market value. The main results of this paper suggest that the use of AI in financial reporting is positively associated with more effective fund use, higher profitability, and greater working efficiency. Companies that used AI in their financial reporting framework had better efficiency in their investments than companies that did not use AI. Also, AI-powered companies showed better Return on Assets (ROA), Return on Equity (ROE), and profitability indicators, indicating that the adoption of AI leads to future improvements in financial performance. Moreover, the adoption of AI was also observed as moderately related to higher levels of market capitalisation, indicating that investors view AI-enhanced companies as more transparent and able to deliver superior financial results.

In the study, the effect of AI on financial reporting was higher in spheres with high levels of digitisation, including technology and finance, where digital technologies were highly integrated. The use of AI in these industries made a more significant contribution to enhancing investment efficiency and firm performance than in less digitally integrated industries. The results indicate that AI can not only serve as a means of efficient decision-making but also build a more positive picture of the future the firm is likely to face in the market.

The study contributes to the current body of AI research in accounting and finance by offering empirical results that demonstrate the beneficial impact of AI on accounting and financial reporting practices. Although a large part of the literature has focused on the application of AI in automated routine accounting procedures, this paper specifically examines how AI has affected financial decision-making, investment efficiency, and firm performance. Since this research examines the relevance of AI in enhancing the credibility and timeliness of financial information, it contributes to the overall understanding of how AI can transform the decision-support system for financial reporting.

In addition, the paper emphasises the distinction between AI's informational role and speculative asset valuation procedures. The capability to improve the quality of reporting has been found to be mixed with the capability to determine the value of intangible assets, particularly intellectual property, according to previous research. This study explains that AI is a tool for speculative valuation but also provides higher-quality infrastructure, particularly in information and decision-making. The distinction contributes to insights into the role of AI in financial reporting and fills a significant gap in the literature.

The study has far-reaching practical implications for financial reporting design. Based on the results, the combination of AI with the financial reporting system could promote the quality, relevance, and credibility of the financial information significantly. Companies utilising AI to publish financial reports have also been able to provide more timely and precise insights that may enable enhanced decision-making at the manager and investment levels. To managers, AI can enhance the allocation of resources, a high level of efficiency, and profitability by delivering evidence-based information on what lies ahead and potential dangers.

For regulatory organisations, the findings underscore the need to promote the use of AI in financial reporting to ensure AI systems align with established accounting standards and frameworks. There is a need for regulatory guidance to ensure that AI-based financial reporting does not lead to a loss of integrity or transparency in financial statements. By ensuring AI adoption, regulators can enable firms to enhance their reporting systems, thereby improving transparency across the market, which is advantageous to investors, stakeholders, and the economy at large.

The results of this study also imply that the application of AI technologies to achieve a competitive advantage in the market is a focus for firms operating in digital-intensive industries. AI can assist these industries in simplifying financial reporting, maximising capital deployment, and increasing profitability. Alternatively, companies operating in less intensive digital environments might require additional encouragement and support in applying AI technologies to their finances.

7. FUTURE RESEARCH

Although the study presents valuable information on the correlation between AI use and firm success, the causal relationship warrants further investigation. Future research might utilise longitudinal designs to follow the adoption of AI over longer periods and its impact on financial performance and market value. This would give a better insight into the financial decision-making and performance implications of AI over the long run. Another way to improve causal inference would be through experimental or quasi-experimental studies, which would better show the direction of the relationship between AI adoption and performance outcomes.

Comparing AI adoption across countries in financial reporting is another study area that could be pursued in the future. Regulatory settings, market

types, and technological preparedness vary widely across countries, which would influence the rate and impact of AI diffusion. A comparative analysis might be conducted to determine the impact of AI adoption on financial reporting practices across various regulatory systems, providing a breakdown of how local factors, including accounting standards and governance frameworks, shape AI integration. The knowledge about the international differences in the use of AI can assist policymakers and regulators in designing customised approaches towards financial reporting assistance in integrating AI.

Finally, the research should examine the future of governance and the audit implications of AI-based financial reporting. With the increased use of AI

systems in financial reporting, concerns are being raised about accountability, transparency, and ethical issues of AI decision-making. What are some of the ways through which companies can make sure that AI-generated financial statements are correct, objective, and consistent with accounting policies? What is the role of auditors in ensuring that the accuracy and integrity of financial information that AI has generated is accurate? Studies in this field would help generate useful information on how government institutions should organise their systems and audit procedures to keep pace with the growing use of AI in financial reporting, so that AI adoption makes financial statements more reliable rather than undermining their reliability.

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