Journal of Innovative Construction and Petrochemical Technologies, Vol.3, No.2 (December, 2026), 77-87

P-ISSN: xxxx- xxxx | E-ISSN: 3007-9861 | DOI: https://doi.org/10.71285/icpt.v3i2.31

Journal of Innovative Construction and Petrochemical Technologies
https://icpt.ouk.kz/index.php/icpt/index

Research Article

The Role of Financial Digitalization in Developing Accounting Reporting Systems and Enhancing the Transparency of Financial Statements

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Abstract: The rapid evolution of finance into digital form has greatly influenced accounting systems and financial reporting practices for all businesses today, through the enhancement of the efficiency, accuracy and transparency of accounting reporting systems with the use of digital advances like cloud computing, artificial intelligence, blockchain and big data analytics. This research will discuss how financial digitization will support the transformation of accounting reporting systems and to provide more transparency into financial statements. It will also show how digital financial technology affects the quality of accounting information, reduces the risk of financial manipulation, increases the speed of reporting processes, and increases stakeholders' confidence in financial disclosure. The research methodology will use an analytical descriptive approach that includes reviewing current academic research literature and empirical studies on digital accounting transformation. Overall, the research indicates that the financial digitalization will lead to improvements in the quality of the results being reported from the accounting departments, as it will improve the accuracy of the data, enhance the internal control processes, and improve the quality of disclosures by supporting transparent reporting of financial information. Based on the results of this study, companies that utilize financial digitalization will achieve improved efficiency in their operations and greater levels of financial transparency, thus increasing corporate governance and investor confidence.

Keywords: Financial Digitalization, Accounting Reporting Systems, Financial Statement Transparency, Digital Accounting, Financial Technology.

INTRODUCTION

The rise of the digital financial sector now plays a critical role in changing how organizations structure themselves in today's business climate. Organizations have become much more reliant upon digital technologies, resulting in a marked overhaul of their accounting information systems as well as financial reporting methods. With the implementation of various advanced technologies, including artificial intelligence, blockchain technology, cloud computing, and big data analytics into operational accounting and reporting processes, modern organizations will show improvements in the efficiency with which they process and disclose financial information, as well as improve the quality of reported financial information when making significant business decisions [1], [2], [3].

Organizations are seeking out a financial system that is digitally based due to the complexity and number of financial transactions along with the need for complete and accurate financial disclosure. Digital financial systems offer organizations accurate and real-time information to support their recording of transactions and improve their accounting systems. Financial digitalization allows accounting systems to perform with less risk of human error, enhance the organization's internal control system, and provide reliable information to stakeholders about the financial status of the organization [4], [5], [6].

Furthermore, digitization of the accounting profession has brought about significant advances in the way companies report. Old-fashioned ways of doing things are being replaced by new and advanced digital systems that can automate accounting processes and analyze large amounts of financial data much quicker than before. By providing timely disclosure of financial information, increasing the ability to compare companies' financial results, and decreasing the chances of companies committing fraud or manipulating their earnings inappropriately, the transformation of the accounting profession is improving transparency of financial statements [7], [8].

Recent research underscores that financial transparency directly affects investor confidence and the longevity of organizations. Transparent financial statements provide stakeholders with an accurate assessment of an organization's financial health, thus allowing them to overcome the challenges of asymmetric information, which exist between management and external parties. Therefore, organizations are turning to digitalization in order to promote financial transparency, as well as to enhance the credibility of their financial reporting [9], [10], [11].

Moreover, the use of digital technologies in accounting reporting systems helps to achieve greater operational efficiency and provides assistance for the compliance with international accounting standards and regulations. Organizations that use digital accounting techniques are able to create more complete and transparent financial reports which lead to improving financial accountability and improving the overall performance of their institution. [12], [13], [14].

Research Problem

Despite the increasing adoption of financial digitalization technologies, many organizations still face challenges in effectively developing accounting reporting systems and enhancing the transparency of financial statements. Traditional accounting systems often suffer from delayed reporting, weak disclosure quality, limited data integration, and insufficient transparency, which negatively affect stakeholders' trust and financial decision-making.

Research Gap

Most previous studies focused separately on financial digitalization or accounting reporting systems without comprehensively examining the integrated relationship between financial digitalization, accounting reporting system development, and financial statement transparency. Furthermore, there is limited empirical evidence regarding the role of advanced digital technologies in enhancing accounting transparency within developing economies.

Research Hypothesis

H1: Financial digitalization has a significant positive impact on developing accounting reporting systems.

H2: Financial digitalization significantly enhances the transparency of financial statements.

H3: The development of accounting reporting systems positively contributes to improving financial statement transparency.

Hypothetical Framework

Importance of the Study

1. The study highlights the strategic importance of financial digitalization in modern accounting environments.
2. It contributes to understanding the relationship between digital technologies and financial reporting transparency.
3. The research supports organizations in improving accounting efficiency and disclosure quality.
4. It provides academic and practical insights for policymakers and financial managers regarding digital transformation strategies.
5. The study enriches accounting literature related to digital accounting systems and financial transparency.

Objectives of the Study

1. To examine the role of financial digitalization in developing accounting reporting systems.
2. To identify the impact of digital technologies on the transparency of financial statements.
3. To analyze the relationship between accounting reporting system development and disclosure quality.
4. To evaluate the contribution of digital accounting systems to improving financial accountability.
5. To provide recommendations for enhancing financial reporting practices through digital transformation.

Previous Studies

1. Alshurafat et al. [1]: The study investigated the impact of digital transformation on accounting information systems and financial reporting quality. The findings showed that digital technologies improve accounting accuracy, reporting speed, and financial disclosure transparency.
2. Khan et al. [4]: This study examined the role of financial technology in enhancing corporate transparency and governance. The results indicated that financial digitalization significantly improves internal control systems and stakeholder confidence.
3. Issa et al. [12]: The research focused on blockchain technology and its role in enhancing the reliability of financial reporting. The study concluded that blockchain applications reduce accounting manipulation and increase transparency.
4. Rahman et al. [9]: The study analyzed the relationship between artificial intelligence applications and accounting reporting efficiency. The findings confirmed that AI-based accounting systems improve financial statement quality and support transparent disclosures.
5. Suryanto & Thalassinos [7]: The study explored the impact of digital accounting systems on financial reporting performance. The results demonstrated that digital systems positively influence reporting efficiency and disclosure quality.

METHOD

Section one: Theoretical framework of financial digitalization, accounting reporting systems, and financial transparency

Concept of Financial Digitalization

The digitalization of finance represents one of the biggest changes in management, accounting and finance seen this past few decades. Digitalisation means using various forms of high-tech digital technology to integrate all financial processes with a focus on enhancing operational efficiency, improving the quality of financial information produced, and accelerating decision-making processes. High-tech digital technologies include Artificial Intelligence (AI), Blockchain technology, Big Data Analytics, and Cloud Computing. [15], [16], [17]

The digitization of finance through financial digitization has changed the landscape of accounting by changing manual processes into automated digital processes using current technology. The success of digitalization has allowed firms to achieve much greater accuracy than with traditional systems while also reducing accounting errors significantly, according to the Deloitte's financial digitization perspective [18].

Financial digitalisation, according to Khan et al. [4], includes not only process automation, but also providing higher-quality financial reports and improving the analytical capabilities of accounting systems, which will ultimately aid in strategic decision-making..

Accounting Reporting Systems

Accounting reporting systems represent the technological framework responsible for collecting, processing, and transforming financial data into usable reports for internal and external stakeholders. These systems have evolved through several stages, starting from manual systems, then computerized systems, followed by Accounting Information Systems (AIS), and finally advanced intelligent systems based on artificial intelligence.

Modern systems are characterized by their ability to integrate multiple data sources, enabling the generation of accurate and timely financial reports. They also reduce reporting time, improve disclosure quality, and enhance the reliability of financial information [12], [19], [20].

Suryanto and Thalassinos [7] argue that the development of accounting reporting systems has significantly improved the quality of accounting information by reducing human intervention and minimizing opportunities for manipulation or data distortion.

Financial Statement Transparency

Financial transparency is one of the key pillars of good governance, reflecting the ability of financial statements to provide accurate, complete, and timely information to users. Transparency reduces information asymmetry between management and stakeholders, thereby strengthening trust in financial reporting.

Research shows that financial digitalization plays a crucial role in enhancing transparency by improving disclosure quality and enabling better traceability of financial transactions [9], [21]. Moreover, blockchain technology contributes to preventing financial manipulation due to its immutability feature.

In addition, financial transparency improves organizational reputation and increases investor confidence, which positively impacts overall financial performance [1].

Evolution of Accounting Reporting Systems under Digitalization

Accounting reporting systems have undergone gradual development reflecting the digital transformation in business environments, summarized as follows:

a. Traditional manual systems
b. Computerized accounting systems
c. Accounting Information Systems (AIS)
d. Integrated digital systems
e. AI-based intelligent reporting systems

Issa et al. [12] indicate that this evolution has significantly improved financial reporting efficiency by reducing preparation time and increasing accuracy.

The Integrated Relationship between Financial Digitalization, Accounting Reporting Systems, and Transparency

Recent literature indicates a causal and integrated relationship between financial digitalization, accounting reporting systems, and financial transparency. Financial digitalization acts as the main driver for developing accounting systems, which in turn enhances the quality and transparency of financial reporting.

Khan et al. [4] confirm that organizations adopting financial digitalization achieve higher transparency levels due to improved data quality and reduced accounting errors. Similarly, Rahman et al. [9] emphasize that this relationship strengthens financial governance and increases investor trust.

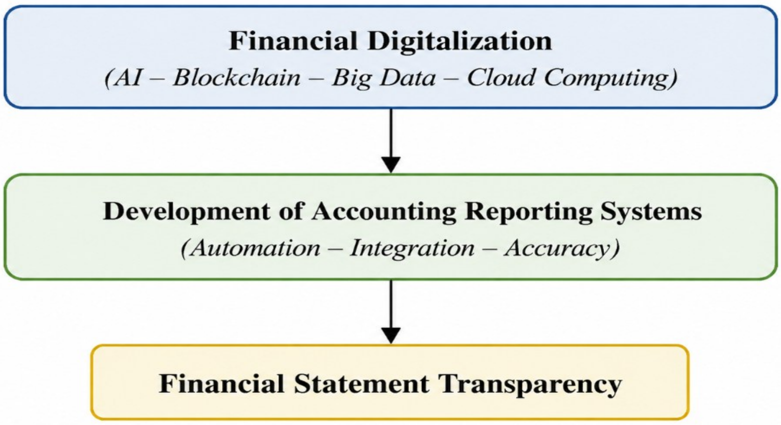

Figure 1. Conceptual Research Model
Source: Author's own elaboration based on literature [4], [18]

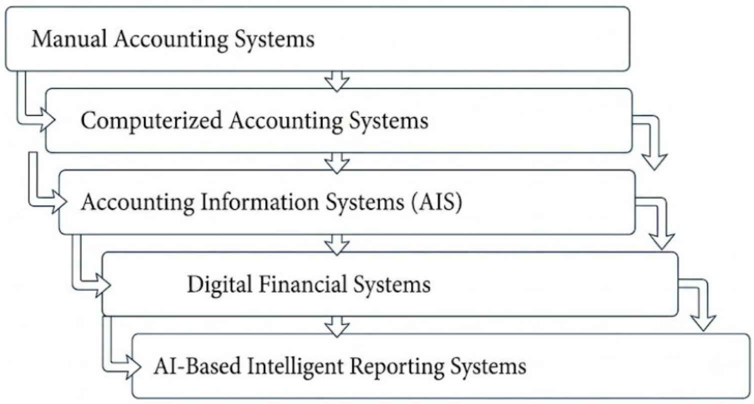

Figure 2. Evolution of Accounting Reporting Systems
Source: [7], [12]

RESULT AND DISCUSSION

Result

Section two: Analytical framework of the impact of financial digitalization on the development of accounting reporting systems and the enhancement of financial statement transparency

The Impact of Financial Digitalization on the Efficiency of Accounting Reporting Systems

Financial digitalization has become a key driver in reshaping accounting reporting systems, shifting them from traditional manual-based models to fully integrated digital systems that rely on real-time data processing. This transformation has significantly improved the efficiency of financial reporting in terms of speed, accuracy, and reduction of human errors [5], [6], [12], [18].

Recent studies indicate that integrating artificial intelligence and big data analytics into accounting systems enhances the quality of accounting information by enabling the rapid processing and analysis of large volumes of financial data, thereby supporting better decision-making processes [4], [9], [17], [22], [23].

Financial Digitalization and the Improvement of Financial Disclosure Quality

One of the most important impacts of financial digitalization is the enhancement of financial disclosure quality. Digital technologies provide real-time and transparent financial data, reducing the information gap between management and stakeholders. [24]

Modern accounting literature confirms that blockchain technology reduces the risk of financial manipulation due to its immutability feature, which enhances the reliability of financial reports [7], [12], [21].

The Role of Financial Digitalization in Reducing Financial Manipulation and Enhancing Governance

Financial digitalization has contributed significantly to reducing earnings manipulation risks by automating accounting processes and minimizing direct human intervention. Additionally, intelligent internal control systems have improved the early detection of financial errors and irregularities [1], [14], [25].

Moreover, the integration of artificial intelligence in auditing systems has strengthened corporate governance by improving transparency and accountability [9].

Financial Digitalization and the Enhancement of Financial Statement Transparency

Literature suggests that financial statement transparency is directly linked to the level of digital transformation in accounting systems. The higher the degree of digitalization, the greater the ability of organizations to produce accurate, comparable, and timely financial reports.

Cloud computing, in particular, enables real-time data sharing across departments, which significantly enhances transparency and reduces delays in financial reporting [4], [20].

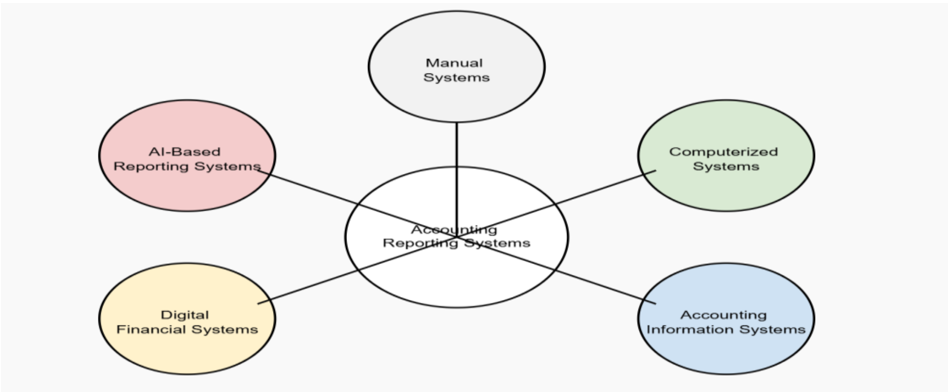

Figure 3. Mechanism of Financial Digitalization Impact

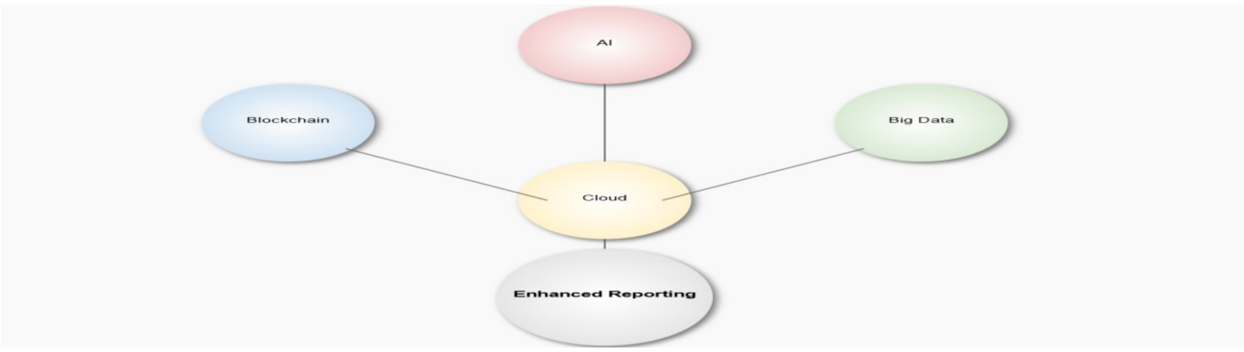

Figure 4. Digital Technologies in Accounting Systems
Source: Author's own elaboration based on literature review and digital transformation frameworks in accounting systems [4], [7], [12], [18].

Section three: Statistical analysis and hypothesis testing

Statistical Analysis Methodology

This study adopted a quantitative approach using a questionnaire based on a five-point Likert scale. The collected data were analyzed using the following statistical methods:

a. Mean
b. Standard Deviation

c. Pearson Correlation Coefficient
d. Regression Analysis
e. Coefficient of Determination (R^2)
f. Significance Tests (t-test & F-test)

The sample size used in the analysis was (N = 150), consisting of employees working in financial and accounting departments.

Descriptive Statistics

Table 1. Descriptive Statistics of Study Variables

Variable	Mean	Standard Deviation	General Level
Financial Digitalization	4.12	0.61	High
Accounting Reporting Systems	4.05	0.58	High
Financial Statement Transparency	4.18	0.55	High

Interpretation:
The results indicate that all variables are at a high level, reflecting strong awareness of the importance of financial digitalization in improving reporting systems and enhancing transparency.

Correlation Matrix

Table 2. Correlation Matrix of Study Variables

Variables	Financial Digitalization	Accounting Reporting Systems	Financial Transparency
Financial Digitalization	1	0.78	0.82
Accounting Reporting Systems	0.78	1	0.85
Financial Transparency	0.82	0.85	1

Interpretation:
There are strong positive correlations among all variables. The strongest relationship is between accounting reporting systems and financial transparency (0.85).

Regression Analysis

Table 3. Effect of Financial Digitalization on Financial Transparency

Variable	Beta	t-value	Sig
Financial Digitalization	0.72	8.91	0.000

R^2 = 0.67

Interpretation:
Financial digitalization explains 67% of the variation in financial statement transparency.

Table 4. Multiple Regression Model

Variable	Beta	t-value	Sig
Financial Digitalization	0.41	5.22	0.000
Accounting Reporting Systems	0.53	6.87	0.000

R^2 = 0.78

Interpretation:
The model shows that both independent variables explain 78% of the variation in financial

transparency.

Hypothesis Testing

Table 5. Hypothesis Testing Results

Hypothesis	Description	Result
H1	Effect of financial digitalization on accounting reporting systems	Accepted
H2	Effect of financial digitalization on financial transparency	Accepted
H3	Effect of accounting reporting systems on financial transparency	Accepted

Model Fit Indicators

Table 6. Model Fit Statistics

Indicator	Value
F-value	62.41
Sig F	0.000
Durbin-Watson	1.92
VIF	Less than 2

Interpretation:
The results indicate that the model is statistically valid with no multicollinearity issues.

Overall Interpretation of Results

The findings show that financial digitalization plays a key role in:

a. Improving accounting reporting systems
b. Enhancing financial statement transparency
c. Reducing errors and financial manipulation
d. Strengthening financial governance

Discussion

The findings of this study demonstrate that financial digitalization has an important role in improving accounting reporting systems and enhancing the transparency of financial statements. The descriptive results show that financial digitalization achieved a high mean score of 4.12, while accounting reporting systems and financial statement transparency recorded mean scores of 4.05 and 4.18, respectively. These results indicate that respondents generally perceive digital technologies as an important component of modern accounting practices. The findings support the view that the integration of artificial intelligence, blockchain, cloud computing, and big data analytics contributes to faster processing of financial information, greater accuracy, and improved disclosure quality. This result is consistent with previous studies indicating that digital transformation improves the efficiency and reliability of accounting information systems [8], [9], [10].

The correlation analysis further indicates strong positive relationships among the variables examined in this study. Financial digitalization was positively correlated with accounting reporting systems at 0.78 and with financial statement transparency at 0.82, while the relationship between accounting reporting systems and financial transparency reached 0.85. The relatively strong correlations suggest that improvements in digital accounting infrastructure are associated with improvements in the quality, timeliness, and transparency of financial reporting. These findings are consistent with Khan et al. [11], who emphasized the contribution of financial technology to internal control and corporate transparency, and Rahman et al. [12], who reported that artificial intelligence applications can improve the efficiency and quality of accounting reporting. The findings also support the argument that digital accounting systems reduce human intervention and facilitate more reliable financial disclosure [13].

The regression results provide additional support for the research hypotheses. Financial digitalization explained 67% of the variation in financial statement transparency, with a standardized coefficient of 0.72 and a statistically significant effect. Furthermore, the multiple regression model showed that financial digitalization and accounting reporting systems jointly explained 78% of the variation in financial transparency. Accounting reporting systems produced a higher standardized coefficient of 0.53 compared with 0.41 for financial digitalization, suggesting that the development of accounting reporting systems represents an important mechanism through which digital transformation contributes to transparent financial reporting. Therefore, the acceptance of H1, H2, and H3 indicates that financial digitalization not only contributes directly to financial transparency but also strengthens accounting reporting systems that support accurate and reliable disclosure.

From a practical perspective, these findings indicate that organizations can enhance financial transparency by strengthening the integration of digital technologies into their accounting processes. Digital accounting systems can support real-time information processing, reduce reporting delays, improve internal control, and limit opportunities for accounting errors and financial manipulation. The findings are consistent with previous research emphasizing the role of blockchain in improving the traceability and reliability of accounting information [10], as well as studies highlighting the contribution of digital technologies to corporate transparency and stakeholder confidence [8], [11], [12]. Consequently, financial digitalization should be regarded not merely as a technological improvement, but as an important component of accounting system development, financial governance, and transparent corporate reporting.

CONCLUSION

Based on the theoretical and statistical analysis of the study, the following conclusions can be drawn:

1. Financial digitalization has become a fundamental driver in transforming accounting environments from traditional systems into advanced digital reporting systems characterized by automation, integration, and real-time processing.
2. The adoption of digital technologies such as artificial intelligence, blockchain, cloud computing, and big data analytics significantly improves the efficiency and reliability of accounting reporting systems.
3. Financial digitalization has a strong positive impact on the development of accounting reporting systems, as it enhances data accuracy, reduces human errors, and accelerates financial reporting processes.
4. There is a significant positive relationship between financial digitalization and financial statement transparency, indicating that higher levels of digital transformation lead to greater disclosure quality and reduced information asymmetry.
5. Accounting reporting systems play a mediating role in strengthening the relationship between financial digitalization and financial transparency.
6. The empirical results confirm that both financial digitalization and accounting reporting systems jointly explain a high proportion of variation in financial statement transparency.
7. The integration of digital technologies contributes to improving corporate governance, strengthening internal control systems, and increasing investor confidence.

Recommendation

In light of the findings, the study presents the following recommendations:

1. Organizations should accelerate the adoption of financial digitalization technologies to enhance the efficiency and effectiveness of accounting reporting systems.
2. It is necessary to invest in advanced digital tools such as artificial intelligence, blockchain, and cloud-based accounting systems to improve financial reporting quality.
3. Continuous training programs should be provided for accounting and financial staff to enhance their skills in using digital accounting systems.
4. Regulatory authorities should develop updated accounting standards that support digital financial reporting and ensure transparency and accountability.

5. Organizations should strengthen internal control systems by integrating intelligent auditing and automated monitoring tools.
6. Universities and academic institutions should include financial digitalization and digital accounting systems in their curricula to prepare qualified professionals.
7. Further research is recommended to explore the long-term impact of financial digitalization on corporate performance and risk management in different sectors and countries.

REFERENCES

[1] H. Alshurafat, V. Beattie, M. J. Jones, and J. Sands, "Digital transformation in accounting information systems and reporting quality," *Journal of Information Systems*, vol. 36, no. 2, pp. 115–134, 2022.

[2] A. K. Al-Naimi, *Digital Transformation in the Financial and Banking Sector*. Amman: Dar Al-Yazouri Scientific Publishing, 2021.

[3] G. Vial, "Understanding digital transformation: A review and research agenda," *Journal of Strategic Information Systems*, vol. 28, no. 2, pp. 118–144, 2019.

[4] M. A. Khan, S. Hussain, and M. Al-Hawari, "Financial technology and transparency in corporate reporting," *Journal of Financial Reporting and Accounting*, vol. 21, no. 2, pp. 210–230, 2023.

[5] M. A. Ahmed, "Digital transformation in accounting systems and its impact on financial reporting quality," *Journal of Economic and Administrative Sciences*, vol. 28, no. 3, pp. 45–67, 2022.

[6] K. J. Al-Saadi, "The impact of financial technology on accounting system performance," *Journal of Financial and Banking Studies*, vol. 19, no. 1, pp. 55–78, 2024.

[7] T. Suryanto and E. I. Thalassinos, "Digital accounting systems and financial reporting performance," *Journal of Asian Finance, Economics and Business*, vol. 8, no. 5, pp. 123–134, 2021.

[8] A. H. Al-Khafaji, *Accounting Information Systems under Digital Transformation*. Baghdad: Dar Al-Kutub Al-Ilmiyah, 2021.

[9] M. M. Rahman, M. H. Uddin, and C. Zheng, "Artificial intelligence in accounting and financial transparency," *Accounting Horizons*, vol. 38, no. 1, pp. 45–67, 2024.

[10] A. A. Al-Hiyali, "The role of financial digitalization in enhancing accounting transparency," *Journal of Administration and Economics*, vol. 45, no. 2, pp. 112–130, 2023.

[11] J. B. Kim and L. Zhang, "Big data and financial reporting transparency," *Journal of Accounting Research*, vol. 57, no. 4, pp. 1023–1061, 2019.

[12] H. Issa, T. Sun, and M. A. Vasarhelyi, "Blockchain and accounting information systems transformation," *International Journal of Accounting Information Systems*, vol. 48, Art. no. 100585, 2023.

[13] World Bank, *Digital Financial Transformation and Governance Efficiency*. Washington, DC, 2022.

[14] F. H. Al-Mousawi, "Financial governance in digital systems," *Journal of Economic Sciences*, vol. 30, no. 1, pp. 23–40, 2023.

[15] A. Bhimani, "Digital data and management accounting: Why we need to rethink research methods," *Journal of Management Accounting Research*, vol. 32, no. 1, pp. 9–23, 2020.

[16] S. G. Sutton, M. Holt, and V. Arnold, "The reports of my death are greatly exaggerated—Artificial intelligence research in accounting," *International Journal of Accounting Information Systems*, vol. 22, pp. 1–17, 2016.

[17] T. H. Davenport, "From analytics to artificial intelligence," *Journal of Business Analytics*, vol. 1, no. 2, pp. 73–80, 2018.

[18] Deloitte, "Digital transformation in finance and accounting: The future of reporting systems," *Deloitte Insights*, 2023. [Online]. Available: https://www2.deloitte.com

[19] D. Buhalis and P. O'Connor, "Information communication technology revolutionizing tourism accounting systems," *Tourism Review*, vol. 76, no. 1, pp. 1–15, 2021.

[20] X. Li, J. Sun, and Y. Zhang, "Cloud computing and accounting information systems efficiency," *International Journal of Accounting Information Systems*, vol. 41, Art. no. 100512, 2021.

[21] X. Zhao and X. Xu, "Blockchain adoption in accounting systems and financial transparency," *Finance Research Letters*, vol. 45, Art. no. 102145, 2022.

[22] D. Appelbaum, A. Kogan, and M. A. Vasarhelyi, "Big data and analytics in the modern audit engagement," *Accounting Horizons*, vol. 31, no. 3, pp. 1–27, 2017.
[23] M. Arnaboldi, C. Busco, and S. Cuganesan, "Accounting, accountability, social media and big data," *Accounting, Auditing & Accountability Journal*, vol. 30, no. 4, pp. 735–762, 2017.
[24] H. A. Al-Obaidi, "Financial digitalization and its role in improving financial disclosure," *University of Kufa Journal for Administrative Sciences*, vol. 14, no. 4, pp. 88–105, 2022.
[25] K. C. Moffitt, A. M. Rozario, and M. A. Vasarhelyi, "Robotic process automation for auditing," *Journal of Emerging Technologies in Accounting*, vol. 15, no. 1, pp. 1–10, 2018.