International Journal of Economic Literature (INJOLE) e-ISSN: 3026-0221
Vol. 3 No. 5 May 2025, page., 521-533

EVALUATION OF THE EFFECT OF IMPLEMENTING DIGITAL TECHNOLOGY IN THE ACCOUNTING PROCESS ON THE EFFICIENCY AND ACCURACY OF FINANCIAL REPORTS

Indriyani*
Politeknik Negeri Lampung, Indonesia
E-mail: indriyani@polinela.ac.id

Hendra Prasetyo
STIKES Abdurahman Palembang, Indonesia
E-mail: prasetyohendra148@gmail.com

Masthuroh
Universitas Mitra Indonesia, Indonesia
E-mail: masthuroh@umitra.ac.id

Abstract

This research aims to evaluate the effect of applying digital technology in the accounting process on the efficiency and accuracy of financial reports through a systematic literature review approach. Along with the development of information technology, various digital innovations such as Enterprise Resource Planning (ERP), Robotic Process Automation (RPA), Artificial Intelligence (AI), and blockchain have been adopted by companies to speed up accounting processes and increase the reliability of financial data. This study analyzes more than 30 scientific sources from various academic databases, using thematic analysis techniques to identify general trends, dominant technologies, and relevant industry context. The study results show that digital technology is able to increase efficiency through automation and process integration, as well as increase accuracy through reducing manual errors and real-time reporting capabilities. However, the success of implementation is greatly influenced by the quality of input data, organizational readiness, and human resource support. These findings provide theoretical contributions to the accounting information systems literature, as well as practical implications for companies and policy makers in designing effective and sustainable digitalization strategies.

Keywords: Digital Technology, Accounting, Efficiency, Accuracy, Financial Reports.

INTRODUCTION

The development of digital technology has brought major changes in various industrial sectors, including the accounting field. Digitalization is no

longer an option, but rather a necessity in responding to modern business challenges that demand speed, accuracy and transparency. Technologies such as Enterprise Resource Planning (ERP), cloud computing, automated bookkeeping, and Artificial Intelligence (AI) have been integrated into accounting systems to improve company performance and competitiveness (Budiasih, 2024). This transformation creates a new ecosystem in accounting practices that previously relied heavily on manual processes.

In the context of accounting practice, digital technology allows the automation of various routine tasks such as recording transactions, bank reconciliation and preparing financial reports. This changes the role of the accountant from simply recording transactions to being a strategic financial information analyst. The adoption of digital technology also enables real-time integration between divisions within an organization, so that the decision-making process can be carried out more quickly and based on more accurate data (Adelaide & Siahaan, 2024). This becomes relevant in an increasingly dynamic and complex business environment.

Efficiency is one of the main benefits offered by the application of digital technology in the accounting process. Processes that previously required a lot of time and effort can now be completed in minutes with less risk of error. Technology such as Robotic Process Automation (RPA) can handle repetitive work consistently and quickly, while cloud accounting systems allow access to financial data anytime and anywhere (Mhlanga, 2024). In this way, organizations can reduce operational costs while increasing the productivity of the accounting team.

Apart from efficiency, the accuracy of financial reports is another crucial aspect that is greatly influenced by the application of digital technology. Human errors that often occur in manual accounting processes can be minimized through an automated system. Technology such as machine learning is able to detect data anomalies and alert users to potential errors or fraud (Zhang & Cheng, 2024). In this way, the quality of the financial information produced becomes more reliable as a basis for managerial and strategic decision making.

However, the application of digital technology in the accounting process is not without challenges. Some organizations face obstacles such as high initial investment costs, resistance from human resources, and vulnerability to cyber security threats. In addition, not all technologies are suitable for application in every type of organization, so there needs to be a thorough evaluation of their effectiveness and impact on specific accounting

processes. This evaluation is important so that the application of technology is not only cosmetic, but actually provides added value (Nurkholik, 2023).

Within this framework, the need arises to assess the extent to which the application of digital technology in accounting is able to achieve the main objectives, namely efficiency and accuracy of financial reports. Without systematic evaluation, organizations risk investing resources in technology that does not provide optimal results. This evaluation can also be the basis for developing accounting digitalization policies and strategies that are more effective and in line with organizational needs (Muneer & Tripathi, 2024).

A number of studies have been conducted to examine the impact of digitalization on accounting practices, but the results vary depending on the context, type of technology used, and organizational readiness. Therefore, it is important to conduct a comprehensive literature review to identify general patterns, challenges and opportunities that arise from the application of digital technology in accounting processes (Sinno et al., 2023). It is hoped that this study will enrich academic and practical insight into how digital technology can support the quality of financial reporting.

Thus, this research is directed at evaluating the effect of applying digital technology in the accounting process on the efficiency and accuracy of financial reports through a literature review approach. The main focus is identifying positive and negative impacts, as well as providing recommendations based on scientific findings. This research is also expected to contribute to the development of more effective and sustainable digital accounting practices in the future.

RESEARCH METHOD

This research uses a systematic literature review approach to evaluate the effect of applying digital technology in the accounting process on the efficiency and accuracy of financial reports. This method was chosen because it is able to identify, select and critically analyze various previous studies that are relevant to the study topic. The main data sources come from scientific journal articles, academic books, and research reports available in various trusted databases such as Scopus, ScienceDirect, ProQuest, and Google Scholar. The literature used was selected based on inclusion criteria in the form of topic relevance to accounting digitalization, linkage to the efficiency and accuracy of financial reports, as well as publications within the last 10 years (2014–2024) to ensure data up-to-date. Exclusion criteria include non-

scientific documents, articles with methods that cannot be verified, and publications that are not available in Indonesian or English.

The data collection process was carried out through several stages, namely initial literature identification based on specific keywords, document screening through reading abstracts and content suitability, and thematic coding of selected articles. The analysis was carried out using a content analysis approach to identify qualitative findings related to the impact of digital technology on efficiency and accuracy, as well as meta-synthesis to develop thematic patterns and generalizations from various previous study findings. The results of this analysis are then arranged in the form of main findings and discussed critically to draw conclusions that are theoretically and practically useful (Earley, M.A. 2014; Snyder, H. 2019).

RESULT AND DISCUSSION

Positive and Negative Impact of Digital Technology on Efficiency

The application of digital technology in the accounting process has had a significant impact on increasing company operational efficiency. A number of literature shows that digitalization allows the accounting process to run faster, more systematically and save resources (Bungartz, 2022). Technology such as Enterprise Resource Planning (ERP) has been proven to simplify accounting workflows by integrating various financial functions in one integrated system, thereby reducing data redundancy and speeding up the reporting process.

Apart from ERP, Robotic Process Automation (RPA) technology makes a big contribution in terms of time efficiency. RPA is able to handle repetitive processes such as data entry and reconciliation with high accuracy and without human intervention, which usually takes time and has the potential to cause errors (Almahri & Saleh, 2024). Cloud accounting systems also offer flexibility in managing financial data in real-time from any location, allowing accounting teams to work collaboratively without geographic boundaries.

Several studies support this claim. For example, research by Misra & Singh (2021) and Zhang et al. (2020) revealed that companies that adopted digital systems experienced an increase in efficiency of up to 40% in the financial recording and reporting cycle. This not only speeds up the preparation of financial reports, but also shortens the internal audit cycle time, which in turn improves the quality of managerial decision making (Barone et al., 2024).

However, not all impacts from the application of digital technology are positive. Several literatures highlight the existence of obstacles in the early stages of implementation, especially in terms of relatively high investment costs. The implementation of advanced accounting technology requires the procurement of software, hardware and technical consultants, which are not always affordable for all types of organizations, especially small and medium enterprises (SMEs) (Chaisse, 2023).

In addition, the need for human resource training is a challenge in itself. Not all accounting staff have sufficient background or technological skills to operate complex digital systems. Without proper training, technology that should increase efficiency can actually become a new obstacle in the workflow. This can also create resistance to change which leads to slow adoption of new systems (Maugey, 2023).

Another problem that often arises is dependence on a stable technological infrastructure. Digital systems rely heavily on reliable internet connections, strong data security systems, and responsive technical support. Without this, digital systems can actually cause disruption to work processes when technical problems or cyber attacks occur. The study by Nuhu et al. (2022) noted that several small companies experienced a decline in efficiency during the digital transition period due to a lack of infrastructure readiness and a work culture that was not yet adaptive to technology (Sheta, 2024).

Thus, even though digital technology has been proven to be able to increase efficiency significantly, its effectiveness is very dependent on the readiness of the organization, both in terms of technical and human resources. Therefore, the application of digital technology needs to be planned strategically by taking into account the context and capacity of the organization so that the expected efficiency benefits can truly be achieved optimally and sustainably.

The Influence of Digital Technology on the Accuracy of Financial Reports

The accuracy of financial reports is one of the most important elements in an accounting information system, because it is the main basis for decision making by management, investors and regulators. In this context, the application of digital technology has brought major changes in ensuring that the financial reports produced have a high level of accuracy. Digital technology offers various automation and verification features that were previously not available in manual systems (Barros, 2024).

One technology that has made a major contribution to increasing accuracy is blockchain. With its immutable characteristics, every transaction recorded in the blockchain cannot be changed or deleted, thus ensuring overall data integrity. In addition, transparency in the blockchain system allows all related parties to verify financial information in real-time without having to worry about data manipulation. This is a distinct advantage in maintaining the accuracy and reliability of accounting information (Mahrizal et al., 2023).

Apart from blockchain, Artificial Intelligence (AI) technology also has an important role in reducing recording errors. A study by Lee and Kim (2019) showed that companies that implemented AI-based accounting systems recorded a significant reduction in the number of input errors, especially in data entry processes, account classification and automated reporting (Demu, 2023). AI is able to recognize transaction patterns, identify discrepancies, and provide recommendations for improvements quickly, all of which contribute to increasing data accuracy.

The digital system's ability to carry out real-time reporting also has a positive impact on the accuracy of financial reporting. This system allows reports to be generated immediately after a transaction occurs, without the need to wait for a batch process like in conventional systems. As a result, any errors or anomalies in the data can be detected and corrected early before they become part of the final financial report (Hadrah & Latief, 2024). This is very helpful in ensuring data accuracy throughout the reporting period.

However, the use of digital technology does not fully guarantee accuracy without correct input. Data accuracy remains highly dependent on the quality of the initial data (data entry) entered into the system. Errors that occur at the input stage can spread and multiply in automated systems, so it is important to ensure that data sources are validated before being processed by digital technology (Prihastuti & Mubarak, 2023).

Apart from that, system settings (system configuration) also affect the quality of the final results. Digital systems that are not properly calibrated or not adapted to the characteristics of company transactions can produce misleading reports (Nindhya & Widajantie, 2024). Therefore, the involvement of professional staff in the system implementation and maintenance stages is very necessary so that the technology used truly functions optimally according to accounting objectives.

Thus, digital technology is a tool that has great potential in increasing the accuracy of financial reports, but its effectiveness depends on the quality

of input, internal control and appropriate system settings. To maximize its benefits, the application of digital technology must be accompanied by strong internal controls, user training, and regular monitoring of running systems and processes.

General trends, dominant technologies, industry context

The results of the literature review reveal a number of general trends in the application of digital technology in accounting. One of the most prominent trends is process automation in response to the increasing need for efficiency and accuracy. Automation covers activities such as bookkeeping, reporting, reconciliation, and internal audits. Many organizations are starting to abandon manual or semi-manual methods and switch to systems that are able to handle real-time and integrated processes. This trend reflects a shift in the accounting function from transactional recording to analytical and strategic functions (Triana & Syera, 2023).

In terms of dominant technology, some of the digital tools and platforms most widely adopted in the accounting context include ERP (Enterprise Resource Planning), cloud accounting, Artificial Intelligence (AI), Robotic Process Automation (RPA), and blockchain. ERP and cloud accounting are the main choices for companies that want an integrated accounting system with other modules such as inventory, finance and human resources. AI and RPA are more widely used to support the efficiency of routine processes, while blockchain is starting to be seen in the context of data security and automatic transaction validation (Sanjaya, 2023).

ERP is emerging as the most widely used technology, especially in medium to large scale companies. This system enables integration across business functions and drives overall operational efficiency. Cloud accounting stands out among small to medium-sized companies because of its ease of implementation, lower costs, and flexibility in data access (Annisa et al., 2024). Meanwhile, the use of AI and RPA is starting to grow in specific activities such as automatic transaction classification, predictive analysis, and fraud detection, although it is still limited to industrial sectors with a high level of digitalization.

In an industrial context, the adoption of digital technology in accounting is most commonly found in the financial services, manufacturing, information technology and modern retail sectors. The financial sector, for example, is strongly driven by the need for regulation and regular reporting, so it demands a fast and accurate reporting system. The manufacturing and

retail sectors are adopting digital accounting technology to integrate financial processes with stock management, production and distribution (Ridwan & Primadanar, 2023). On the other hand, the public sector and micro businesses still face big challenges in digitalization due to limited budgets and human resources.

Thematic analysis also indicates that the level of digital technology adoption is strongly influenced by the size and readiness of the organization. Large companies are generally better prepared, both in terms of infrastructure and organizational culture, to accept digital change. Meanwhile, SMEs tend to experience obstacles in terms of costs, limited access to technology, and minimal training for accounting staff (Ernawati et al., 2024). This shows that there is a digital gap between industrial groups which needs to be taken into consideration in formulating technology adoption policies.

Another visible trend is the increasing need for training and digital competency development for the accounting workforce. Digital literacy is the main requirement for technology to truly have a positive impact on efficiency and accuracy. Without adequate skills, even sophisticated technology can become a source of new errors (Anggreani & Falikhatun, 2024). Therefore, organizations need to combine digital strategies with strengthening human resources.

Overall, the thematic analysis shows that digital technology has been and continues to develop as a key driver of efficiency and accuracy in accounting processes. However, its success really depends on choosing the right technology, organizational readiness, and the support of skilled human resources. With a comprehensive and adaptive approach, accounting digitalization can be a strategic factor in increasing the competitiveness of organizations across sectors.

Discussion

The results of this literature review show that the application of digital technology in accounting generally has a positive impact on the efficiency and accuracy of financial reports. This finding is in line with various previous studies, such as those conducted by Granlund (2011) and Warren et al. (2015), which states that information technology encourages the transformation of the accounting function from an administrative one to a more strategic one (Ningrum & Nurasik, 2024). However, compared to previous findings, this study highlights the increasing role of advanced technologies such as AI, RPA,

and blockchain which have not been studied in depth in previous studies, indicating a shift in focus to more innovative technologies.

Compared to the old literature which emphasized more on the challenges of ERP system implementation and basic IT adoption, the latest studies address more complex dimensions such as real-time reporting, predictive analysis, and system resilience to cyber risks. This shows that the complexity and depth of the role of digital technology in accounting is increasing. In addition, different industrial contexts also provide varying results, with sectors that are more digitalized showing a more significant impact than sectors that still rely on manual methods.

Theoretically, these findings enrich the management accounting and accounting information systems literature by underscoring the importance of a sociotechnical approach in technology implementation. This means that technology is not just a mechanical tool, but also depends on the readiness of organizational culture, human skills and other structural supports. With this approach, digital technologies can be seen as part of an organizational ecosystem that influences each other, rather than entities working in isolation.

From a practical perspective, this research has important implications for stakeholders in the world of accounting and finance. For company management, these results provide a basis for developing a more targeted and realistic digital transformation strategy, taking into account the readiness of human resources and infrastructure. For accounting practitioners, these results encourage the need to increase digital literacy and adapt to technological developments in order to remain relevant in the era of automation.

Finally, for regulators and policy makers, these findings emphasize the importance of developing policies that support inclusive digitalization, especially for the SME sector which still faces barriers to adoption. Support in the form of fiscal incentives, technology training and system security standards are important steps so that the benefits of efficiency and accuracy offered by digital technology can be felt evenly across all economic sectors.

CONCLUSION

The results of the literature review show that the application of digital technology in the accounting process has a significant influence on increasing the efficiency and accuracy of financial reports. Technologies such as ERP, RPA, AI, and blockchain are proven to be able to speed up the recording process, reduce manual workload, and minimize input errors. Automation and

real-time reporting are the main keys in transforming the accounting process into a more responsive and accurate one. However, the effectiveness of digital technology is highly dependent on the quality of initial data, organizational readiness, and adequate infrastructure and human resource support.

Overall, the results of this study are relevant to the needs of an increasingly dynamic and data-based business world. With increasing pressure for transparency, accountability and operational efficiency, implementing digital technology in accounting is no longer just an option, but a strategic necessity. This study provides an important theoretical and practical basis for organizations to design adaptive digitalization strategies, as well as for researchers to develop further studies related to the integration of technology and modern accounting practices.

REFERENCES

Adelaide, P. K., & Siahaan, A. (2024). The Influence of Digital Financial Literacy and The Use of Financial Technology Towards Financial Satisfaction Through Financial Behavior. *Advances in Economics, Business and Management Research*, *Query date: 2025-05-12 13:39:39*, 203–222. https://doi.org/10.2991/978-94-6463-585-0_15

Almahri, F. A. A. J., & Saleh, N. I. Md. (2024). Insights into Technology Acceptance: A Concise Review of Key Theories and Models. *Studies in Systems, Decision and Control*, *Query date: 2025-05-12 13:36:57*, 797–807. https://doi.org/10.1007/978-3-031-71649-2_67

Anggreani, C. & Falikhatun. (2024). The Influence of Digital Technology on Indonesian Micro Companies' Financial Performance. *International Journal of Economics, Business and Management Research*, *1*, 48–63. https://doi.org/10.51505/ijebmr.2024.8104

Annisa, D. T., Soma, A. M., & Sitorus, P. M. (2024). The Influence of Financial Literacy, Digital Literacy, and Social Capital on Digital Bank Financial Inclusion through Ease of Use an Intervening Variable. *International Journal of Social Science and Human Research*, *7*(11). https://doi.org/10.47191/ijsshr/v7-i11-11

Barone, G., Buonomano, A., Papa, G. D., Giuzio, G. F., Palombo, A., & Russo, G. (2024). *Towards Sustainable Ships: Advancing Energy Efficiency of Hvac Systems Onboard Through Digital Twin*. *Query date: 2025-05-12 13:36:57*. https://doi.org/10.2139/ssrn.4952765

Barros, E. C. de. (2024). Understanding the influence of digital technology on human cognitive functions: A narrative review. *IBRO Neuroscience Reports*, *17*(Query date: 2025-05-12 13:39:39), 415–422. https://doi.org/10.1016/j.ibneur.2024.11.006

Budiasih, Y. (2024). The Influence of Digital Technology on Financial Management. *Accounting Studies and Tax Journal (COUNT)*, *1*(1), 92–100. https://doi.org/10.62207/wb6d3c96

Bungartz, H.-J. (2022). Towards the Digital University. *Handbook Industry 4.0*, *Query date: 2025-05-12 13:36:57*, 735–748. https://doi.org/10.1007/978-3-662-64448-5_38

Chaisse, J. (2023). Towards digital special economic zones: New technology, digitalization and transformation. *Research Handbook on Digital Trade*, *Query date: 2025-05-12 13:36:57*, 199–216. https://doi.org/10.4337/9781800884953.00021

Demu, Y. (2023). The Influence Of Product Quality, Financial Literacy, Digital Literacy, Financial Management, And Digital Marketing On The Profitability of MSME Businesses. *Interdiciplinary Journal and Hummanity (INJURITY)*, *2*(7), 576–591. https://doi.org/10.58631/injurity.v2i7.91

Earley, M. A. (2014). A synthesis of the literature on research methods education. Teaching in Higher Education, 19(3), 242-253.

Ernawati, Y., Rahmawati, I. Y., Purwidianti, W., & Endratno, H. (2024). The Influence of Financial Inclusion, Financial Literacy, Financial Management, and Financial Technology on MSME Performance. *Jurnal Ekonomi Dan Bisnis Digital*, *3*(3), 517–532. https://doi.org/10.55927/ministal.v3i3.10848

Hadrah, H., & Latief, M. A. A. (2024). The Influence of Information Technology Utilization and Use on the Quality of Financial Reports. *INCOME: Innovation of Economics and Management*, *4*(1), 15–18. https://doi.org/10.32764/income.v4i1.4689

Mahrizal, M., Judijanto, L., Indrapraja, R., Alfiana, & Pujianto, D. (2023). The Influence of QRIS Digitalization, Technology and Digitalization Lifestyle, Digital Financial Literacy, and Financial Inclusion On Bank Customers Decision. *Jurnal Informasi Dan Teknologi*, *Query date: 2025-05-12 13:39:39*, 124–129. https://doi.org/10.60083/jidt.v5i4.426

Maugey, T. (2023). Towards Digital Sobriety: Why Improving the Energy Efficiency of Video Streaming is Not Enough. *2023 IEEE 25th International Workshop on Multimedia Signal Processing (MMSP)*, *Query date: 2025-05-12 13:36:57*, 1–4. https://doi.org/10.1109/mmsp59012.2023.10337721

Mhlanga, D. (2024). The Influence of Artificial Intelligence (AI) on Digital Financial Inclusion in the Finance Sector. *FinTech, Financial Inclusion, and Sustainable Development*, *Query date: 2025-05-12 13:39:39*, 250–267. https://doi.org/10.4324/9781032657981-14

Muneer, S., & Tripathi, A. (2024). *Navigating the Digital Horizon: Influence of Innovative Work Behaviour and Digital Transformation on Organization*

Financial Performance in the Digital Age: A Mediated Moderating Model. *Query date: 2025-05-12 13:39:39*. https://doi.org/10.2139/ssrn.4749866

Nindhya, W. A., & Widajantie, T. D. (2024). The Influence of Financial Literacy, Financial Technology, and Digital Marketing on Increasing MSME Income in The City of Surabaya. *Journal of Economic, Bussines and Accounting (COSTING)*, *7*(4), 7867–7875. https://doi.org/10.31539/costing.v7i4.10032

Ningrum, R. S., & Nurasik, N. (2024). *Influence of Village Apparatus Competence, Pres entation of Village Financial Reports and Accessibility of Village Financial Reports on Accountability of Village Financial Management*. *Query date: 2025-05-12 13:39:39*. https://doi.org/10.21070/ups.6539

Nurkholik, A. (2023). R Approach in Digital Financial Literacy Influence Subjective Financial Well-Being. *Revista Mexicana de Economía y Finanzas*, *19*(1), 1–20. https://doi.org/10.21919/remef.v19i1.935

Prihastuti, A. H., & Mubarak, B. A. M. (2023). The Influence of Financial Technology on The Financial Performance of Islamic Banking in Indonesia. *Journal of Islamic Financial Technology*, *2*(1). https://doi.org/10.24952/jiftech.v2i1.8331

Ridwan, N. H., & Primadanar, R. S. (2023). The Influence Of Financial Literacy On Financial Management Behavior In Indonesian Parahikma Institute Students. *INTERNATIONAL CONFERENCE ON DIGITAL ADVANCE TOURISM, MANAGEMENT AND TECHNOLOGY*, *1*(1), 444–456. https://doi.org/10.56910/ictmt.v1i1.88

Sanjaya, W. (2023). The Influence of Financial Literacy, Financial Behavior and Financial Technology on Investment Decisions through Locus of Control (Financial Management Literature Review). *Dinasti International Journal of Digital Business Management*, *4*(4), 825–832. https://doi.org/10.31933/dijdbm.v4i4.1916

Sheta, W. (2024). Towards Cooler Streets: Analyzing Urban Heat Stress to Foster Walkable Communities in Dubai. *Studies in Systems, Decision and Control*, *Query date: 2025-05-12 13:36:57*, 27–35. https://doi.org/10.1007/978-3-031-71649-2_2

Sinno, E., Panegrossi, G., Boccia, C., Cavallo, A. U., & Falez, F. (2023). Limited experience may influence accuracy of digital templating in total knee arthroplasty: A retrospective analysis. *Journal of Orthopaedic Reports*, *2*(3), 100180–100180. https://doi.org/10.1016/j.jorep.2023.100180

Snyder, H. (2019¬). Literature review as a research methodology: An overview and guidelines. Journal of business research, 104, 333-339.

Triana, W., & Syera, I. A. (2023). The Influence of Financial Literacy, Financial Inclusion, and the Ability to Prepare Financial Reports Against MSME Financial Performance Asahan District. *International Journal of Economics (IJEC)*, *2*(2), 669–678. https://doi.org/10.55299/ijec.v2i2.567

Zhang, F., & Cheng, Q. (2024). Spatio-temporal effects and influence mechanism of digital technology on tourism efficiency in Chinese provinces. *Scientific Reports*, *14*(1). https://doi.org/10.1038/s41598-024-74367-8