

Digital Transformation of General Ledger and Financial Reporting Systems: Evidence from SMEs, Village Enterprises, and Public Sector Institutions

M Arief Rahman

Politeknik Negeri Sriwijaya

m.arief.rahman@polsri.ac.id

Abstract

Digital transformation in general ledger and financial reporting systems has become a strategic necessity for organizations to improve transparency, accuracy, and timeliness of financial information. This article aims to examine the implementation of digital accounting information systems in managing general ledger processes and financial reporting across small and medium-sized enterprises (SMEs), village-owned enterprises (BUMDes), and public sector institutions. The study employs a descriptive qualitative approach using document analysis, observation, and a review of accounting practices adopted by the selected entities. The findings indicate that the adoption of digital and web-based accounting systems significantly enhances the efficiency of transaction recording, reduces errors associated with manual bookkeeping, and strengthens internal control and organizational accountability. Furthermore, real-time access to financial data supports better managerial decision-making and improves reporting reliability for stakeholders. Despite these benefits, several challenges remain, including limited human resource competencies, inadequate technological infrastructure, and varying levels of digital accounting literacy. This study highlights the importance of capacity building, system adaptability, and institutional support to ensure the sustainable implementation of digital financial reporting systems. The results are expected to contribute to the development of effective digital accounting practices and provide empirical insights for policymakers, practitioners, and researchers concerned with financial reporting transformation across diverse organizational contexts.

Keywords: Accounting Information Systems; Digital Transformation; General Ledger; Financial Reporting; SMEs; Village Enterprises; Public Sector

1. INTRODUCTION

The rapid development of digital technology has significantly transformed accounting practices, particularly in general ledger management and financial reporting systems. Organizations are increasingly shifting from manual bookkeeping to digital accounting information systems to improve efficiency, transparency, and accuracy of financial information. This transformation is crucial in supporting timely decision-making and enhancing accountability across various organizational sectors. Small and medium-sized enterprises (SMEs), village-owned enterprises, and public sector institutions face similar challenges in financial reporting, including data inconsistency, limited internal control, and delays in reporting processes. The adoption of digital and web-based accounting systems offers solutions by enabling real-time transaction recording, standardized reporting, and better financial data integration. These systems play a vital role in strengthening governance and financial management practices.

Despite the potential benefits, the implementation of digital accounting systems is not without challenges. Limitations in human resource competencies, technological infrastructure, and digital literacy often hinder effective system utilization. In some cases, resistance to change and insufficient institutional support also affect the sustainability of digital transformation initiatives in accounting and financial reporting. Therefore, this article aims to examine the digital transformation of general ledger and financial reporting systems across SMEs, village enterprises, and public sector institutions. By reviewing existing practices and empirical evidence, this study seeks to highlight the benefits, challenges, and implications of adopting digital accounting information systems, as well as their importance in improving financial reporting quality and organizational accountability.

2. METHOD

The review of selected articles on general ledger systems and financial reporting reveals a consistent pattern across SMEs, village-owned enterprises, and public sector institutions. The findings indicate that the adoption of digital accounting information systems (AIS), particularly web-based platforms and accounting software, significantly improves the effectiveness of financial recording and reporting processes. Digital systems enhance transaction accuracy, reduce manual errors, and accelerate the preparation of financial statements. In organizational practice, digital general ledger systems enable more structured financial data management and facilitate real-time access to financial information. This capability supports timely reporting and monitoring, which are critical for managerial decision-making and accountability. The results also show that standardized digital reporting formats strengthen internal control mechanisms and reduce the risk of data inconsistency.

In the public sector and village administration context, digital accounting systems contribute to improved financial transparency and compliance with reporting standards. The integration of accounting information systems with budgeting and internal control processes enhances the quality of financial reports in terms of relevance, reliability, and comparability. These systems support good governance principles by improving traceability and documentation of financial transactions. Several studies highlight the emerging role of advanced technologies such as blockchain in financial reporting. The results suggest that blockchain-based reporting systems offer potential benefits, including real-time reporting, data immutability, and enhanced security. However, their implementation remains limited due to challenges related to regulatory frameworks, technological readiness, and human resource competencies.

3. RESULT & DISCUSSION

3.1 RESULTS

The results indicate that the adoption of digital accounting information systems significantly improves the efficiency of general ledger management and financial reporting processes. Organizations implementing web-based or application-based systems experience faster transaction recording, reduced data redundancy, and improved accuracy compared to manual bookkeeping systems. Digital systems also enable real-time access to financial data, supporting timely reporting and monitoring activities. Furthermore, the findings show that digital financial reporting enhances transparency and accountability, particularly in SMEs, village enterprises, and public sector institutions. Standardized reporting formats and automated processes help strengthen internal control mechanisms and reduce the risk of human error and data manipulation.

The literature review further reinforces these findings by demonstrating consistent evidence across multiple organizational contexts. Previous studies report that the implementation of accounting information systems contributes to higher financial reporting quality through improved accuracy, timeliness, and reliability of financial data. In SMEs and village-owned enterprises, digital systems facilitate structured transaction recording and general ledger management, enabling more transparent and accountable financial reporting. Similarly, studies in public sector institutions indicate that the integration of accounting information systems with internal control mechanisms and budgetary processes strengthens governance and enhances the quality of financial reports. The literature also highlights that web-based systems are particularly effective in standardizing reporting formats and supporting real-time monitoring. Nevertheless, recurring challenges identified in the reviewed studies include limitations in human resource competence, insufficient technological infrastructure, and the need for continuous training and organizational support to ensure sustainable system implementation.

Table 1. Article Summary of Studies on General Ledger and Financial Reporting Systems

Author	Article Title	Research Focus	Sector / Object	Key Findings
Ashari & Dewi (2025)	Analysis of Financial Reporting Quality Viewed from Accounting Information Systems, Internal Control Systems, and Human Resource Competence	Analysis of determinants of financial reporting quality	Organization / Institution	Financial reporting quality is significantly influenced by the implementation of AIS, the effectiveness of internal control, and human resource competence.
Chandra & Poerbo (2019)	Web-Based Accounting Information System in a Labor Service Company	Design and implementation of a web-based AIS	Labor service company	Web-based AIS improves transaction recording efficiency, general ledger management, and financial statement preparation.
Dharmawan (2023)	Implementation of a Website-Based Accounting Information System for Financial Management	Implementation of website-based AIS	Organization / SMEs	Website-based systems simplify financial management and enhance the accuracy of financial reports.
Faizal et al. (2021)	Development of a Financial Management Information System for Micro, Small, and Medium Enterprises (MSMEs)	Development of a digital financial management system	MSMEs	The system assists MSMEs in transaction recording, general ledger management, and integrated financial statement preparation.
Lesmana (2021)	The Effect of Accounting Information Systems and Internal Control on Financial Reporting Quality in Pasarbatang Subdistrict	Effect of AIS and internal control	Public sector (subdistrict government)	The application of AIS and internal control positively affects the quality of subdistrict financial reports.
Maharani et al. (2025)	Determinants of Accounting Information Systems, Financial Reporting, and Budget Targets on the Quality of Government Financial Reports	Determinants of financial reporting quality	Government institutions	Accounting information systems and clear budget targets contribute to improved financial reporting quality.
Nugraha (2023)	Web-Based Financial Reporting Recording System at Suarjaya Silver Company	Web-based financial reporting system	Manufacturing company	Web-based systems accelerate recording processes and improve the timeliness of financial reporting.
Nuraini & Paramitalaksi (2025)	Implementation of Accounting Information Systems to Enhance Financial Reporting Transparency at Panggung Lestari Village-Owned Enterprise, Panggungharjo Village	AIS implementation for financial transparency	Village-Owned Enterprise (BUMDes)	AIS implementation improves transparency, accountability, and the regularity of BUMDes financial reports.
Oktapania (2024)	The Effect of Accounting Information Systems (AIS) and Internal Control Systems (ICS) on Financial Reporting Quality at the Regional Financial and Asset Management Agency of South Sumatra Province	Effect of AIS and internal control systems	Provincial government (BPKAD)	AIS and internal control systems significantly affect the quality of regional government financial reports.
Rohmana & Hwihanus (2023)	The Role of Accounting Information Systems in the Utilization of Technology for Digital Bookkeeping in MSMEs	Role of AIS in digital bookkeeping	MSMEs	AIS supports the transition from manual to digital bookkeeping and improves MSME financial management efficiency.
Wulang et al. (2024)	Website-Based Financial Recording and Reporting Information System at GKS Makamenggit, East Sumba Regency	Website-based financial recording and reporting system	Religious / community organization	Website-based systems enhance recording orderliness and improve the reliability of organizational financial reports.

Source: Writer, 2025

Overall, the synthesized results presented in Table 1 confirm that the digital transformation of accounting information systems plays a critical role in strengthening general ledger management and financial reporting quality across diverse organizational settings. Regardless of sectoral differences, the adoption of web-based and application-based accounting systems consistently leads to improvements in efficiency, accuracy, transparency, and accountability of financial information. The convergence of findings from organizational, SME, village enterprise, and public sector contexts indicates that accounting information systems function not only as technical tools but also as governance instruments that support internal control, compliance, and managerial decision-making. However, the evidence also underscores that the sustainability of these improvements depends heavily on organizational readiness, human resource competence, and continuous institutional support, highlighting the need for integrated strategies that align technological adoption with capacity building and control mechanisms.

3.2 DISCUSSION

This study reinforces the view that digital transformation of accounting information systems constitutes a fundamental driver of improved financial reporting quality and strengthened organizational governance. Across organizational, SME, village-owned

enterprise, and public sector contexts, the adoption of accounting information systems consistently demonstrates positive impacts on efficiency, accuracy, timeliness, transparency, and accountability of financial reporting. These outcomes are closely aligned with the core objectives of accounting information systems, namely to provide reliable financial information that supports managerial decision-making, internal control, and accountability to stakeholders.

The evidence further suggests that digital accounting systems function not merely as operational tools for transaction processing and general ledger management, but also as strategic instruments that enhance financial governance. The integration of accounting information systems with internal control mechanisms and budgetary processes contributes to improved compliance, traceability of transactions, and overall reporting quality, particularly within public sector and village-level institutions. In the SME context, digital systems facilitate the transition from manual bookkeeping to structured and integrated financial management, enabling more informed business decisions and sustainable financial practices.

The discussion also highlights that technological adoption alone is insufficient to guarantee successful digital transformation. Recurrent challenges identified across the reviewed studies include limited human resource competence, inadequate technological infrastructure, and varying levels of organizational readiness. These constraints may reduce the effectiveness of accounting information systems and limit their contribution to financial reporting quality if not properly addressed. Consequently, the realization of full system benefits depends on continuous capacity building, targeted training programs, and strong institutional support.

Holistic approach to digital transformation is required, one that integrates technological implementation with human resource development and organizational process alignment. By synchronizing system adoption with competency enhancement and governance structures, organizations can ensure the sustainable implementation of digital general ledger and financial reporting systems and maximize their long-term value for financial management and accountability.

4. CONCLUSION

This article concludes that digital transformation of general ledger and financial reporting systems plays a significant role in improving efficiency, accuracy, transparency, and accountability across SMEs, village-owned enterprises, and public sector institutions. The adoption of digital accounting information systems reduces reliance on manual bookkeeping, minimizes recording errors, and enables real-time access to financial data for managerial and stakeholder needs. These improvements contribute to better financial governance and more informed decision-making processes. From a practical perspective, the findings highlight the importance of organizational readiness in supporting successful digital transformation. Investment in human resource capacity building, adequate technological infrastructure, and continuous system evaluation is essential to ensure sustainable implementation. Policymakers and organizational leaders are encouraged to promote standardized digital accounting practices and provide institutional support to maximize the benefits of digital financial reporting systems.

5. ACKNOWLEDGEMENTS

The authors would like to express their gratitude to all institutions and researchers whose publications and reports were utilized as references in this study. Appreciation is also extended to colleagues who provided valuable insights and feedback during the preparation of this article. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

- Ashari, N. W., & Dewi, M. W. (2025). Analisis kualitas pelaporan keuangan ditinjau dari sistem informasi akuntansi, sistem pengendalian internal, dan kompetensi sumber daya manusia. *Jurnal Ilmiah Keuangan Akuntansi Bisnis*, 4(2). <https://doi.org/10.53088/jikab.v4i2.136>
- Chandra, B., & Poerbo, H. (2019). Sistem informasi akuntansi berbasis web pada perusahaan jasa tenaga kerja. *Kurawal: Jurnal Teknologi, Informasi dan Industri*, 2(2), 139–156. <https://doi.org/10.33479/kurawal.v2i2.263>
- Dharmawan, W. (2023). Penerapan sistem informasi akuntansi pengelolaan keuangan berbasis website. *JUSTIAN: Jurnal Sistem Informasi Akuntansi*, 4(1). <https://doi.org/10.31294/justian.v4i1.1952>
- Faizal, I., Nanda, I., Ariestiandy, D., & Ernawati, T. (2021). Pengembangan sistem informasi pengelolaan keuangan bagi usaha mikro kecil dan menengah (UMKM). *Jurnal Sistem Komputer dan Informatika (JSON)*, 3(2), 81–86. <https://doi.org/10.30865/json.v3i2.3590>
- Gelinas, U. J., Dull, R. B., & Wheeler, P. R. (2018). *Accounting information systems* (10th ed.). Cengage Learning.
- Hall, J. A. (2016). *Accounting information systems* (9th ed.). Cengage Learning.
- Laudon, K. C., & Laudon, J. P. (2020). *Management information systems: Managing the digital firm* (16th ed.). Pearson Education.
- Lesmana, H. (2021). Pengaruh sistem informasi akuntansi dan pengendalian internal terhadap kualitas laporan keuangan di Kelurahan Pasarbatang. *JASIKA: Jurnal Akuntansi, Sistem Informasi, dan Auditing*, 1(1). <https://doi.org/10.31294/jasika.v1i1.342>
- Maharani, A., Pravasanti, Y. A., & Kristiyanti, L. (2025). Determinasi sistem informasi, pelaporan keuangan, dan sasaran anggaran terhadap kualitas laporan keuangan instansi pemerintah. *Jurnal Ilmiah Keuangan Akuntansi Bisnis*, 4(1), 668–676. <https://doi.org/10.53088/jikab.v4i1.115>
- Nugraha, I. M. D. (2023). Sistem informasi pencatatan laporan keuangan berbasis web pada perusahaan Suarjaya Silver. *Jurnal Ilmu Komputer dan Ekonomi*, 1(2). <https://doi.org/10.58982/jike.v1i2.563>
- Nuraini, R. I., & Paramitalaksmi, R. (2025). Implementasi sistem informasi akuntansi dalam meningkatkan transparansi pengelolaan laporan keuangan BUMDes Panggung Lestari di Desa Panggungharjo. *Jurnal Economic Resource*, 8(2), 667–678. <https://doi.org/10.57178/jer.v8i2.1558>
- Oktapania, A. (2024). Pengaruh sistem informasi akuntansi (SIA) dan sistem pengendalian internal (SPI) terhadap kualitas laporan keuangan pada BPKAD Provinsi Sumatera Selatan. *JASIKA: Jurnal Akuntansi, Sistem Informasi, dan Auditing*, 4(1). <https://doi.org/10.31294/jasika.v4i01.3026>
- Rohmana, A., & Hwihanus. (2023). Peran sistem informasi akuntansi dalam pemanfaatan teknologi terhadap pembukuan digital pada UMKM. *Jurnal Kajian Pengabdian Ilmiah Manajemen*, 1(1). <https://doi.org/10.59031/jkpim.v1i1.49>
- Romney, M. B., & Steinbart, P. J. (2021). *Accounting information systems* (15th ed.). Pearson Education.
- Susanto, A. (2017). *Sistem informasi akuntansi: Pemahaman konsep secara terintegrasi*. Lingga Jaya.
- Wulang, S. J. M. R. L., Pekuwali, A. A., & Sitaniapessy, D. A. (2024). Sistem informasi pencatatan dan pelaporan keuangan berbasis website di GKS Makamenggit Kabupaten Sumba Timur. *Router: Jurnal Teknik Informatika dan Terapan*, 2(4), 108–121. <https://doi.org/10.62951/router.v2i4.290>