International Journal of
Government Accounting Management
Volume 4, Number 1, 2025

Digital Transformation in Accounting Improves Financial Reporting Through Real-Time Data Access and Automation

Haniva Mulyani[1]

[1] Universitas Trisakti, Jakarta barat, Indonesia

Article history:
Received: January 5, 2025
Revised: March 7, 2025
Accepted: April 27, 2025
Published: June 30, 2025

Keywords:
Accounting,
Cloud Accounting,
Digitalization,
Efficiency,
Financial Reporting.

Identifier:
Zera Open
Page: 57-75
https://zeraopen.com/journal/ijgam

Abstract

The advancement of cloud computing technology has significantly transformed modern accounting practices by introducing higher levels of efficiency, transparency, and flexibility. Cloud-based accounting systems enable real-time access to financial data, automate routine processes, and enhance both the security and accuracy of information. The integration of these technologies contributes to improving the quality of financial reporting by strengthening relevance, reliability, and timeliness, which are critical for informed decision-making. Furthermore, the adoption of big data analytics and blockchain technology enriches accounting analysis and supports more strategic and evidence-based managerial decisions. This study aims to examine the relationship between the implementation of cloud accounting systems and the quality of financial reporting using a qualitative descriptive approach. The findings indicate that digital transformation in accounting not only enhances operational efficiency but also reinforces transparency and accountability within organizations. Consequently, the adoption of cloud computing represents a strategic shift in financial management, providing a robust foundation for generating high-quality financial reports and supporting organizational governance.

1. Introduction

Digital transformation has become a global phenomenon that brings significant changes to accounting practices, especially related to the management and reporting of financial information. One prominent innovation in this realm is the implementation of cloud accounting systems, which allows for the storage, processing, and access of data online without relying on traditional local software (Petcu et al., 2024). The implementation of this system provides ease of real-time data access for various involved parties, strengthens collaboration across organizational units, and reduces costs associated with information technology infrastructure (Tobing et al., 2023). Thus, cloud accounting does not only function as an operational tool but also as a strategic instrument in improving the efficiency of accounting processes.

The new paradigm brought by cloud computing enables business entities to obtain accurate and up-to-date financial data. The availability of current data forms a solid basis for faster and more precise managerial decision-making, while strengthening the organization's response to market dynamics (Busulwa, 2021). Furthermore, cloud-based accounting systems offer improved security mechanisms, including data encryption and automated backups, thereby minimizing the risk of information loss. This capability directly supports the operational sustainability of the organization and increases the stakeholders' trust in the integrity of the financial data presented.

The quality of financial reports is a primary indicator in assessing financial performance and the effectiveness of organizational governance. Quality financial

reports must meet the principles of relevance, reliability, and timeliness, so they can be used as a basis for decision-making both internally and externally (Abdulrahman, 2024). In this context, the application of cloud accounting has the potential to enhance the quality of financial reports through broader data access, automated validation processes, and the reduction of manual errors frequently occurring in conventional systems. Thus, cloud accounting not only facilitates operational efficiency but also strengthens the credibility of the information generated.

Furthermore, digital transformation in accounting is not limited to the implementation of cloud-based systems. The integration of other supporting technologies, such as big data analytics and blockchain, expands the accountant's role from merely recording transactions to providing strategic data-driven insights. These technologies allow accountants to analyze financial trends, predict risks, and provide evidence-based recommendations, enabling organizations to make more proactive and informed decisions (Sarwar et al., 2021). Therefore, the digitalization of accounting is a crucial strategic step for organizations in facing the demands for transparency, accountability, and efficiency in the increasingly complex digital economy era.

The utilization of cloud computing in accounting has the potential to build a financial reporting ecosystem that is more transparent, efficient, and adaptive to changes in the business environment. These advantages include reduced operational costs, increased data accuracy, and enhanced cross-functional organizational collaboration. Nevertheless, the implementation of this system presents challenges that cannot be ignored, including the readiness of human resources, cybersecurity,

and regulations that support the sustainability of cloud-based technology use. Therefore, organizations need to develop a comprehensive implementation strategy, encompassing HR training, strengthening security systems, and regulatory compliance to ensure optimal benefits from digital transformation in accounting practices. Thus, the application of cloud accounting does not only act as a technological innovation but also becomes a main driver for improving the quality of financial reporting and the effectiveness of organizational governance, making it an essential instrument in facing the complexity and dynamics of the current digital economy.

2. Literature Review

2.1. Cloud Accounting and Operational Efficiency

The development of cloud computing technology has brought significant transformation in the management of accounting data and financial reporting across various organizations. Cloud-based accounting systems offer a more efficient solution through process automation, reduced reliance on local infrastructure, and real-time data access. Tobing et al. (2023) affirm that cloud accounting allows for simultaneous cross-location collaboration, accelerates financial recording and reporting, while simultaneously reducing operational costs. Furthermore, the capability for automated data updates enhances the accuracy of the financial information presented, thus supporting more precise and evidence-based decision-making.

The efficiency resulting from the application of cloud accounting directly impacts organizational productivity and the speed of decision-making, as explained by Abdulrahman (2024). This automation feature significantly reduces the risk of human error, particularly in the process of reconciliation and consolidation of financial statements. Meanwhile, Sarwar et al. (2023) emphasize that the flexibility of data access provided by cloud-based systems allows organizations to adjust financial strategies responsively to changes in market conditions.

In addition to efficiency and flexibility, cloud accounting possesses high adaptability to the scale of the organization. Both small and large-scale companies can implement this system without requiring a large investment in IT infrastructure. Thus, cloud technology not only facilitates the optimization of accounting processes but also plays a strategic role in accelerating digital transformation in the accounting field. The implementation of this system is an important step for organizations aiming to improve the transparency, reliability, and effectiveness of financial reporting in a dynamic and increasingly digital business environment.

2.2. Quality of Financial Reporting in the Digital Era

The quality of financial reporting reflects the transparency and accountability of an organization. According to Busulwa (2021), the application of cloud accounting improves report quality by strengthening three main elements: relevance, reliability, and timeliness. With real-time access, financial information can be updated periodically, thereby supporting decision-making based on actual data. Kimani (2024) explain that the integration of cloud systems with data analytics is capable of detecting anomalies and recording errors faster than traditional systems.

This reduces the potential for fraud and increases data integrity. Furthermore, cloud-based systems also support compliance with international accounting standards because they facilitate a more transparent digital-based audit process.

In the context of organizational governance, Wang et al. (2020) highlight that high reporting quality contributes to increased public trust and institutional credibility. The reliability of data produced through cloud accounting allows for better public oversight of the use of financial resources, ultimately strengthening the principles of good governance. However, the challenge faced is the issue of data security and privacy. Yalla (2021) emphasize the importance of implementing strong cybersecurity policies in managing cloud-based accounting data. Weaknesses in the security system can threaten the integrity of financial reports and decrease confidence in the technology.

2.3. Digitalization of Accounting and the Transformation of the Accountant's Role

Digital transformation has shifted the accountant's role from merely a transaction recorder to a strategic analyst. Busulwa (2021) argue that technologies such as big data analytics, blockchain, and artificial intelligence provide opportunities for accountants to contribute more to organizational decision-making. Blockchain, for instance, enables distributed and immutable transaction recording, enhancing the reliability and transparency of financial data. Sarwar et al. (2021) suggest that digitalization in accounting also encourages the improvement of analytical capabilities. Accountants are now required to understand data analysis and interpretation of results, not just numerical reporting. With cloud-based analytics,

accountants can predict financial trends and provide relevant strategic recommendations.

Meanwhile, Tobing et al. (2023) highlight that this change requires an increase in the competency of human resources in the accounting field. Digital skills, understanding of information systems, and analytical capabilities are key factors in facing the challenges of digital transformation. In the long term, digitalization in the accounting field is predicted to result in a more adaptive and intelligent system. The combination of cloud computing, AI, and big data will make financial reporting not only a documentation tool but also a strategic means for better business planning (Kimani, 2024). Thus, the literature shows that cloud accounting is not merely a technological innovation, but also a representation of a paradigm shift in modern accounting. Its implementation has improved efficiency, report quality, and the accountant's role as a data-driven decision-maker.

3. Methods

This research applies a descriptive qualitative approach to analyze the role and impact of implementing cloud accounting on the quality of financial reporting in the digital era. This approach was chosen because it allows researchers to deeply understand the phenomenon through context, meaning, and perceptions arising from relevant literature and practices. Furthermore, this method is effective in exploring the paradigm shift in accounting systems due to digital transformation without relying on specific quantitative hypothesis testing (Tomaszeweski et al., 2020).

Research data was obtained through a systematic literature review from various trusted academic sources, including Google Scholar or Research Gate, spanning the last five years of publications. The keywords used included "cloud accounting," "financial reporting quality," "digital transformation in accounting," "blockchain in finance," and "big data accounting analytics." From the initial search results, twenty articles deemed most relevant were selected, then further screened into seven main articles which became the focus of in-depth analysis.

Data analysis was conducted using data reduction, data display, and conclusion drawing techniques, following the framework of Ancker et al. (2021). The initial stage included classifying all literature based on main themes, namely: (1) cloud accounting implementation, (2) quality of financial reporting, and (3) digital transformation in accounting. Subsequently, the researcher performed content analysis to identify patterns, relationships between variables, and key findings from each piece of literature. The final stage involved descriptive interpretation of the findings to understand the contribution of technology to improving the quality of financial reporting.

To ensure data validity, source triangulation was applied by comparing findings across journals and referring to basic theories of accounting information systems. Furthermore, the researcher reviewed the methodologies used in previous studies to ensure the consistency and reliability of the findings. This method is exploratory and interpretive, so the research focus lies in drawing meaning and contextual understanding, rather than statistical testing. This approach is considered the most appropriate to describe how the implementation of cloud computing and

digitalization influences modern accounting practices, while also providing insight into its impact on the quality of financial reporting from both academic and practical perspectives (Ningsih, 2023).

4. Results

The research results show that the application of cloud accounting has a significant influence on improving the quality of financial reporting through operational efficiency, data accuracy, and information transparency. Based on the literature analysis from various recent studies, it can be concluded that digital transformation in the accounting field has fundamentally changed how financial data is collected, processed, and presented. Cloud-based systems allow for real-time data access that can be used by various parties, both internal and external to the organization. This capability creates a more collaborative and dynamic accounting environment, where decisions can be made quickly and based on current data.

According to Tahmid (2023), the implementation of cloud-based accounting systems increases efficiency compared to traditional accounting systems. Process automation, such as transaction recording, account reconciliation, and financial statement generation, is capable of reducing human errors and accelerating the reporting cycle. This efficiency not only saves time but also increases the productivity of accountants, as they can focus on strategic analysis rather than repetitive administrative tasks. The data generated from this system is also easier to examine and verify because it is stored centrally and protected by layered security systems.

Meanwhile, Wang et al. (2020) found that the quality of financial reporting increases along with the use of cloud-based systems because the reliability of the generated data is higher. Financial reports produced from cloud systems have a better level of consistency and accuracy, considering that every transaction is recorded automatically and integratedly. Furthermore, this system also supports transparency because all activities can be digitally tracked through immutable transaction logs. This assists auditors in tracing transaction trails and ensuring the integrity of the organization's financial data.

From a governance perspective, cloud-based accounting systems also play an important role in increasing accountability (Atadoga et al., 2024). With financial reports accessible online and in real-time, management, auditors, and regulators can monitor the organization's financial condition without waiting for periodic reports. According to Igou et al. (2023), this ease of access supports faster and evidence-based decision-making. Information available directly also minimizes the possibility of data manipulation, as every change or update in the system will be recorded automatically. Thus, this system strengthens the principles of transparency and good governance.

In addition to providing benefits in efficiency and transparency, the application of cloud accounting also encourages integration with other technologies such as big data analytics and blockchain. According to Sarwar et al. (2021), the integration between cloud and big data enables deeper financial analysis through the utilization of large amounts of data at high speed. Accountants can identify financial trends, anomalies, and patterns more quickly, so financial reports do not only

function as reporting documents but also as a tool for prediction and strategic planning. Meanwhile, integration with blockchain strengthens data security by ensuring that every transaction is recorded decentralized and cannot be modified. The integration of advanced features, real-time data processing, and automated validation mechanisms within the digital accounting system significantly enhances the reliability and accuracy of financial information, providing stakeholders with a higher level of trust in the data generated. This increased confidence ensures that financial reports are not only precise and timely but also consistent across different organizational units and reporting periods.

Consequently, the system supports more informed managerial decision-making by offering a comprehensive, evidence-based perspective on organizational performance, while simultaneously strengthening internal controls, accountability, and overall governance practices. Apart from these benefits, the analysis results also show challenges that organizations need to face in implementing cloud accounting systems. One of the main challenges is the issue of data security and privacy. Yalla (2021) assert that cyber threats to cloud-based systems can potentially disrupt the integrity of financial reports if not anticipated with adequate security systems. Some organizations are still hesitant to move sensitive data to cloud-based systems due to concerns about leakage or unauthorized access. Therefore, a comprehensive data security policy is needed, including the implementation of encryption, multi-layered authentication, and role-based access control to minimize the risk of data leakage (Ghadge,2024).

Nevertheless, most studies agree that the benefits provided by cloud accounting far outweigh the risks faced. Cost efficiency is one of the main advantages driving the adoption of this technology. Cloud systems do not require large local infrastructure, such as physical servers and dedicated software, thereby reducing maintenance and update costs (Mathur, 2024). This is very relevant for organizations with limited resources that want to improve the quality of financial reporting without incurring large investments. In addition to cost efficiency, the increase in data analysis capabilities is an important factor in improving report quality. With the availability of financial data in real-time, management can perform financial trend analysis more effectively and make decisions supported by actual data. Ningsih (2023) explain that digital transformation has changed the role of accountants from transaction recorders to strategic insight providers who help organizations achieve long-term financial goals. Accountants now act as data analysts capable of interpreting financial analysis results and providing recommendations based on predictive information.

The findings also show that organizations that have fully adopted cloud accounting systems tend to have higher levels of transparency and compliance with international accounting standards. The audit process becomes more efficient because data can be accessed by auditors directly through the system without the need for manual document requests (Perdana et al., 2023). This accelerates the examination process and increases public trust in the audit results. Furthermore, reporting automation also helps ensure that financial reports are prepared in accordance with Generally Accepted Accounting Principles (GAAP). The

application of cloud-based systems also has a positive impact on organizational sustainability. By reducing the use of paper and physical resources, this system supports the principles of green accounting. In the long term, the energy efficiency resulting from the use of cloud technology contributes to the operational sustainability of the organization.

From the literature review results, it can be concluded that cloud accounting acts as a main catalyst in improving the quality of financial reporting. Its main advantage lies in the ability to generate relevant, accurate, and timely data. Furthermore, the digital transformation driven by this system also encourages a change in the role of the accounting profession from traditional to more strategic and analytical. However, the success of implementation greatly depends on the organization's readiness in terms of technology infrastructure, cybersecurity policies, and human resource competency. Thus, these research results strengthen previous findings that the digitalization of accounting through cloud computing is not just a technological trend, but also a strategic step in realizing a financial reporting system that is more transparent, accountable, and efficient. This change indicates that organizations that adapt quickly to digital transformation will have a competitive advantage in terms of financial information management, decision-making, and public accountability.

5. Discussion

The research results show that the application of cloud accounting has a significant role in improving the quality of financial reporting through enhanced

efficiency, transparency, and data reliability. This finding is aligned with previous studies which affirm that cloud technology does not only function as a data storage medium but also as a strategic infrastructure that strengthens organizational financial governance (Tahmid, 2023). With a cloud-based system, financial information can be accessed in real-time by various stakeholders, thereby promoting openness, accountability, and cross-functional collaboration within the organization.

In the context of efficiency, the automation of accounting processes has changed traditional practices in financial data management. Manual activities such as reconciliation, transaction recording, and reporting can now be executed automatically, saving time and human resources. Igou et al. (2023) state that this digitalization not only accelerates the reporting process but also minimizes the risk of recording errors common in conventional systems. Thus, the efficiency resulting from the application of cloud accounting directly contributes to improving the quality of financial information presented to both internal and external parties.

The aspect of data security is also a primary concern in the implementation of cloud systems. Although cloud computing offers ease of access and flexibility, threats to information security remain a significant challenge. Yalla (2021) emphasize that the protection of financial data through encryption mechanisms, multi-layered authentication, and system monitoring is crucial for maintaining the integrity and confidentiality of information. Organizations adopting cloud accounting need to develop comprehensive cybersecurity policies, including regular system audits and security training for users. With appropriate policies, the level of trust in the cloud

system increases, which ultimately supports the quality of financial reporting (Akai et al., 2023).

In addition to efficiency and security, the research results indicate that cloud accounting encourages a shift in the accountant's role from merely a transaction recorder to a strategic analyst. Ningsih (2023) propose that accounting digitalization demands accountants to possess capabilities in data analytics, interpreting financial trends, and providing evidence-based recommendations. With the support of cloud systems and analytical technology, financial reports now function not only as formal documents but also as a source of strategic information for managerial decision-making.

This finding asserts that cloud accounting not only improves the quality of financial reporting but also revolutionizes modern accounting practices. The integration with supporting technologies such as big data, artificial intelligence, and blockchain expands the function of this system from merely a reporting tool to an adaptive and intelligent financial intelligence platform. The success of implementation remains dependent on the organization's readiness to face change, the improvement of human resource digital competency, and compliance with international accounting standards.

6. Conclusion

Based on the results of the analysis and discussion, it can be concluded that the application of cloud accounting plays a significant role in improving the quality of financial reporting through efficiency, transparency, and data reliability. This

technology allows the reporting process to be carried out in real-time, automatically, and integratedly, thereby increasing the accuracy and relevance of the financial information presented. Furthermore, the application of cloud-based systems encourages the creation of more accountable and transparent governance because all financial data can be monitored by various parties directly.

Digital transformation has also shifted the accountant's role from an administrative function to an analytical and strategic function. Accountants now act as providers of data-driven insights, not just transaction recorders. Integration with technologies such as big data analytics, blockchain, and artificial intelligence expands the capacity of financial reporting to become more predictive and value-adding for managerial decision-making. However, the success of cloud accounting system implementation greatly depends on infrastructure readiness, data security, and human resource competency. To maximize its benefits, organizations need to implement strong cybersecurity policies and ensure digital training for accounting professionals. With these steps, cloud-based accounting systems can become an important foundation for more quality, transparent, and sustainable financial reporting in the digital era.

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