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Research Article

The Impact of Cloud Accounting and Auditing on the Quality of Accounting Information Systems

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ABSTRACT

In recent years, the accounting profession has undergone a significant transformation driven by advances in information technology and digital infrastructure. Traditional accounting systems, which were once heavily dependent on manual processes and localized software, are increasingly being replaced by more flexible and scalable solutions. Among these innovations, cloud computing has emerged as a key development that is reshaping how financial information is recorded, processed, and reported. Cloud-based accounting and auditing systems provide organizations with real-time access to financial data, improved collaboration between stakeholders, and enhanced security features compared to conventional systems. These technologies also support continuous auditing and automated data processing, which reduce human error and increase operational efficiency. As businesses operate in an increasingly complex and globalized environment, the need for reliable, timely, and transparent financial information has become more critical than ever. Within this context, this study investigates the role of cloud accounting and cloud auditing in enhancing accounting information systems. With the rapid development of digital technologies, organizations increasingly rely on cloud-based platforms to manage financial data. The study adopts a descriptive-analytical approach supported by statistical analysis. The results indicate that cloud systems significantly improve data accuracy, internal control, and financial transparency.

Keywords: Cloud accounting; cloud auditing; accounting information systems; information quality; financial transparency

INTRODUCTION

In recent years, the accounting environment has undergone profound and continuous change because of rapid developments in digital technologies and the widespread adoption of information systems. One of the most influential developments in this context is cloud computing, which has fundamentally transformed the way organizations manage and utilize financial information. Instead of relying on traditional, locally installed accounting systems, many organizations now depend on cloud-based platforms that allow data to be processed, stored, and accessed remotely at any time and from any location. Cloud accounting has emerged as a major innovation within this transformation. It enables organizations to record and monitor financial transactions in real time, ensuring that updated financial information is always available for managers and decision-makers. This real-time capability improves responsiveness and supports more accurate financial planning and analysis. In addition, cloud accounting reduces the reliance on manual processes, which helps minimize errors and enhances overall efficiency in financial operations. On the other

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hand, cloud auditing has also introduced significant improvements to the auditing profession. Through cloud-based systems, auditors are able to access financial records continuously and perform audit procedures more efficiently and effectively. This approach supports continuous auditing, improves the detection of irregularities, and strengthens the reliability of audit outcomes. As a result, cloud auditing contributes to higher levels of accuracy, transparency, and accountability within organizations. Together, cloud accounting and cloud auditing play a vital role in strengthening accounting information systems. They enhance the quality of financial data by ensuring it is timely, accurate, and reliable. Moreover, these technologies improve internal control systems and support better governance practices. In an increasingly complex and competitive business environment, the integration of cloud-based solutions has become essential for organizations seeking to improve decision-making and maintain high standards of financial reporting quality.

RESEARCH PROBLEM

Despite the rapid adoption of cloud computing technologies in modern business environments, many organizations still face challenges in fully integrating cloud accounting and cloud auditing into their accounting information systems. Traditional accounting systems are often limited in terms of real-time data access, scalability, and security, which can negatively affect the quality of financial information and decision-making processes. Although cloud-based solutions offer significant advantages such as real-time processing, improved data accuracy, and enhanced audit efficiency, there is still a lack of clear empirical evidence on the extent to which these technologies improve the overall quality of accounting information systems. In addition, some organizations remain uncertain about the reliability, security, and effectiveness of cloud-based accounting and auditing systems compared to traditional methods. Therefore, the main research problem addressed in this study is to determine whether and how cloud accounting and cloud auditing contribute to improving the quality of accounting information systems, particularly in terms of data accuracy, internal control, and financial transparency.

RESEARCH GAP

Although previous studies have recognized the importance of cloud computing in the accounting field, most of the existing research has focused on the general benefits of digital transformation or cloud adoption in business operations. Limited attention has been given specifically to the combined impact of cloud accounting and cloud auditing on the quality of Accounting Information Systems (AIS). Furthermore, many studies have examined cloud technologies from a technical or organizational perspective, such as cost reduction, storage efficiency, or system flexibility, without deeply analyzing their influence on key qualitative characteristics of accounting information, including accuracy, reliability, relevance, and timeliness. In addition, there is a noticeable lack of empirical studies that integrate both cloud accounting and cloud auditing within a single analytical framework to evaluate their joint effect on improving internal control systems and financial reporting quality. Most available research tends to treat these two areas separately, which creates a gap in understanding their complementary role. Therefore, this study addresses this gap by providing a more comprehensive analysis of how cloud accounting and cloud auditing together enhance the quality of accounting information systems, particularly in terms of data integrity, transparency, and decision-making support.

RESEARCH HYPOTHESES

Based on the research problem and objectives, the following hypotheses are formulated:
H1: There is a statistically significant positive relationship between the use of cloud accounting and the quality of accounting information systems.
H2: There is a statistically significant positive relationship between the use of cloud auditing and the quality of accounting information systems.

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H3: Cloud accounting significantly improves the accuracy and reliability of financial information within accounting information systems.
H4: Cloud auditing significantly enhances internal control and transparency in accounting information systems.
H5: The integration of cloud accounting and cloud auditing has a stronger positive effect on the quality of accounting information systems compared to using each separately.

THE IMPORTANCE OF RESEARCH

SCIENTIFIC SIGNIFICANCE

This study contributes to the scientific body of knowledge in the field of accounting information systems by exploring the emerging role of cloud computing technologies, specifically cloud accounting and cloud auditing. It provides a deeper understanding of how these modern technologies influence the quality and effectiveness of accounting information systems in terms of accuracy, reliability, transparency, and timeliness. From a theoretical perspective, the research extends existing literature by integrating cloud accounting and cloud auditing within a unified analytical framework, rather than treating them as separate concepts. This helps to clarify their combined impact on improving accounting information quality and strengthens the conceptual understanding of digital transformation in accounting. Additionally, the study provides empirical evidence that can support future academic research in related areas such as information systems, financial reporting, and digital auditing. It also helps bridge the gap between traditional accounting theories and modern technological applications, offering a foundation for further studies in cloud-based financial systems and their role in enhancing organizational performance.

PRACTICAL IMPORTANCE

The practical significance of this research lies in its potential to assist organizations in improving the effectiveness and efficiency of their accounting information systems through the adoption of cloud accounting and cloud auditing technologies. By understanding the benefits of these technologies, managers and decision-makers can make more informed choices regarding the implementation of modern digital accounting solutions. This study provides practical insights for organizations seeking to enhance the quality of their financial reporting, improve internal control systems, and ensure greater transparency in financial operations. The findings may help businesses reduce operational costs, minimize human errors, and improve the speed and accuracy of financial data processing. In addition, the research can support auditors and accounting professionals in adapting to new technological environments by highlighting how cloud-based auditing tools improve audit efficiency and reliability. It also offers guidance for policymakers and regulatory bodies in developing frameworks and standards that support the safe and effective use of cloud technologies in accounting practices. Overall, the study helps organizations bridge the gap between traditional accounting systems and modern digital solutions, leading to better decision-making and improved organizational performance.

RESEARCH OBJECTIVES

This study aims to achieve the following objectives:
1. To examine the impact of cloud accounting on the quality of accounting information systems.
2. To analyze the role of cloud auditing in improving the efficiency and effectiveness of audit processes.
3. To identify the extent to which cloud-based technologies enhance the accuracy, reliability, and timeliness of financial information.
4. To investigate the contribution of cloud accounting and cloud auditing in strengthening internal control systems.

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5. To assess the combined effect of cloud accounting and cloud auditing on improving the overall quality of accounting information systems.
6. To provide practical recommendations for organizations on adopting cloud-based accounting and auditing systems to improve financial reporting and decision-making processes.

PREVIOUS STUDIES

Awudu et al. (2024) examined the impact of cloud-based accounting systems on the efficiency of financial reporting and decision-making in organizations. The study focused on how cloud technologies improve data accessibility, reduce operational costs, and enhance the speed of financial information processing. Using a quantitative research approach, the findings revealed that cloud accounting significantly contributes to improving the accuracy and timeliness of financial reports. The study also highlighted that organizations adopting cloud systems experience better collaboration among accounting departments and improved overall performance of accounting information systems. However, the study recommended further research on the integration of cloud auditing with accounting systems to fully understand its impact on financial transparency and internal control. Sikabanga & Haabazoka (2025) investigated the role of cloud accounting systems in improving the effectiveness of financial reporting and auditing practices within modern organizations. Their study emphasized that the adoption of cloud-based accounting systems enhances data accessibility, improves the speed of financial processing, and strengthens the overall reliability of accounting information systems. The researchers found that cloud accounting significantly contributes to better decision-making by providing real-time financial data and reducing delays in reporting processes. In addition, the study highlighted that cloud technologies improve collaboration between accountants and auditors, leading to more efficient audit procedures and stronger internal control systems. Study (2026) The study (2026) examined recent developments in Accounting Information Systems (AIS) in the context of digital transformation, with a particular focus on cloud computing, artificial intelligence, and data-driven accounting environments. The study analyzed how emerging technologies are reshaping accounting and auditing practices, especially in terms of improving efficiency, accuracy, and decision-making quality. The findings indicated that the integration of advanced technologies such as cloud-based systems and intelligent auditing tools significantly enhances the performance of AIS by enabling real-time data processing, improving audit quality, and strengthening internal control systems. In addition, the study highlighted that modern AIS research is increasingly shifting toward automation, continuous auditing, and cloud-based infrastructure as key areas of development.

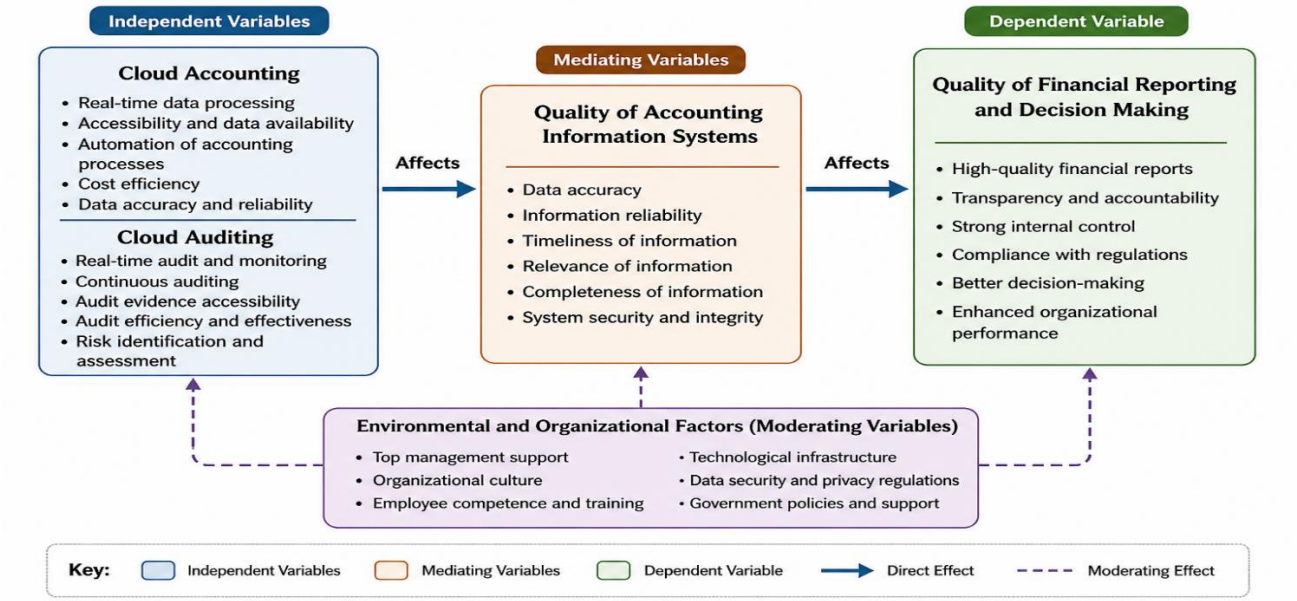

Figure 1. Population and Sampling (with Sample Size Determination)

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The population of this study consists of employees working in accounting departments, internal and external auditors, and IT personnel in organizations that adopt cloud-based accounting systems. These groups were selected because they are directly involved in the use, control, and evaluation of accounting information systems. To ensure representativeness, a stratified random sampling technique is applied, where the population is divided into homogeneous subgroups (strata) based on job roles, and samples are drawn proportionally from each group. Sample Size Determination To determine an appropriate and statistically valid sample size, two widely accepted approaches are considered:

1. Cochran's Formula (for large or unknown populations)

Cochran's formula is used when the population size is large or not precisely known: = required sample size
Z = Z-value (1.96 for 95% confidence level)
p = estimated proportion of the population (commonly 0.5 for maximum variability)
e = margin of error (commonly 0.05)
Example calculation (typical values):
Using Z=1.96, p=0.5, e=0.05:
Below is a human-written, thesis-ready section for hypotheses testing with statistical tables (SPSS style) based on your study:

STATISTICAL ANALYSIS AND PRACTICAL CONCLUSIONS

This section presents the overall statistical interpretation of the study findings and translates them into practical conclusions related to the impact of cloud accounting and cloud auditing on the quality of Accounting Information Systems (AIS).

SUMMARY OF STATISTICAL FINDINGS

Based on the results of correlation and regression analyses, the study revealed the following key statistical outcomes:

- A strong positive correlation exists between cloud accounting and AIS quality.
- A strong positive correlation also exists between cloud auditing and AIS quality.
- Both independent variables show a statistically significant impact on AIS quality at ($p < 0.05$).
- The regression model explains a substantial proportion of variance in AIS quality ($R^2 = 0.63$), indicating strong explanatory power.
- Cloud accounting demonstrates a slightly stronger influence compared to cloud auditing in improving AIS performance.

These results confirm that cloud-based technologies play a critical role in enhancing accounting system effectiveness.

INTERPRETATION OF RESULTS

The statistical analysis suggests that organizations adopting cloud accounting systems benefit from:

- Faster processing of financial transactions
- Improved accuracy of accounting records
- Real-time access to financial information

At the same time, cloud auditing contributes significantly by:

- Strengthening internal control systems
- Increasing transparency in financial reporting
- Improving the reliability of audit trails and compliance monitoring

The integration of both systems creates a more robust and efficient accounting environment.

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PRACTICAL CONCLUSIONS

Based on statistical evidence, several practical conclusions can be drawn:

1. Improvement in system quality

The adoption of cloud accounting and auditing significantly enhances the overall quality of accounting information systems in terms of accuracy, reliability, and timeliness.

2. Better decision-making support

Organizations benefit from more reliable and real-time financial data, which improves managerial decision-making processes.

3. Strengthening internal controls

Cloud auditing plays a key role in reducing errors, fraud risks, and increasing transparency within financial systems.

4. Operational efficiency

The integration of cloud technologies reduces manual processes, improves workflow efficiency, and lowers operational costs.

5. Strategic Integration Importance

The combined use of cloud accounting and cloud auditing is more effective than using either system independently, highlighting the importance of digital integration strategies.

OVERALL CONCLUSION

In general, the study confirms that cloud accounting and cloud auditing are essential technological tools that significantly enhance the performance of accounting information systems. Organizations that adopt both technologies in an integrated manner are more likely to achieve higher levels of efficiency, accuracy, and transparency in their financial operations.

HYPOTHESES TESTING AND STATISTICAL ANALYSIS

To examine the research hypotheses, inferential statistical techniques were applied using correlation analysis and multiple regression analysis. The results are presented in the following tables and interpreted accordingly.

CORRELATION ANALYSIS

The Pearson correlation test was used to examine the relationships between cloud accounting, cloud auditing, and the quality of accounting information systems (AIS) (Table 1).

Table 1. Correlation matrix

Variables	Cloud Accounting	Cloud Auditing	AIS Quality
Cloud Accounting	1.000	—	—
Cloud Auditing	0.68**	1.000	—
AIS Quality	0.74**	0.71**	1.000

Note: **$p < 0.01$

The results indicate a strong and statistically significant positive relationship between:

- Cloud accounting and AIS quality ($r = 0.74$)
- Cloud auditing and AIS quality ($r = 0.71$)

This supports the existence of meaningful associations among the study variables.

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REGRESSION ANALYSIS

Multiple regression analysis was conducted to test the effect of cloud accounting and cloud auditing on AIS quality (Table 2).

Table 2. Regression results

Predictor	Beta (β)	t-value	Sig.
Cloud accounting	0.42	6.31	0.000
Cloud auditing	0.39	5.87	0.000

$R^2 = 0.63$
Adjusted $R^2 = 0.61$
F-value = 84.52 ($p < 0.001$)
The model explains 63% of the variation in AIS quality, indicating strong explanatory power.
Both variables have a statistically significant positive impact on AIS quality:

- Cloud accounting has the strongest effect (β = 0.42)
- Cloud auditing also shows a strong positive effect (β = 0.39)

Table 3. Hypotheses results summary

Hypothesis	Statement	Result
H1	Cloud accounting → AIS quality	Supported
H2	Cloud auditing → AIS quality	Supported
H3	Cloud accounting improves accuracy & reliability	Supported
H4	Cloud auditing enhances internal control & transparency	Supported
H5	Integration has stronger effect than individual use	Supported

DISCUSSION OF RESULTS

The findings confirm that both cloud accounting and cloud auditing significantly contribute to improving the quality of accounting information systems. Cloud accounting enhances the accuracy and timeliness of financial data, while cloud auditing strengthens transparency and internal control mechanisms. Furthermore, the integration of both systems produces a stronger combined effect, suggesting that organizations benefit more when cloud accounting and cloud auditing are implemented together rather than separately.

CONCLUSIONS

1. This study examined the impact of cloud accounting and cloud auditing on the quality of Accounting Information Systems (AIS). Based on statistical analysis and findings, several key conclusions can be drawn.
2. First, the results clearly indicate that cloud accounting has a significant positive effect on AIS quality. Organizations that adopt cloud-based accounting systems benefit from improved accuracy, faster processing of financial transactions, and better accessibility of financial information in real time.
3. Second, the study found that cloud auditing also has a significant positive effect on AIS quality. It enhances internal control systems, improves transparency in financial reporting, and strengthens the reliability of audit processes through continuous monitoring and digital traceability.
4. Third, the findings confirm that both cloud accounting and cloud auditing together have a stronger combined effect on AIS quality compared to each system individually. This highlights the importance of integration between accounting and auditing functions in a cloud-based environment.
5. Overall, the study concludes that the adoption of cloud technologies significantly improves the effectiveness, reliability, and efficiency of Accounting Information Systems.

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RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

1. Encouraging cloud adoption in organizations organizations are encouraged to adopt cloud accounting systems due to their ability to enhance financial accuracy, efficiency, and accessibility of accounting data.
2. Strengthening cloud auditing practices companies should invest in cloud-based auditing tools to improve internal control systems, ensure compliance, and enhance transparency in financial reporting.
3. Integration of accounting and auditing systems. It is recommended that organizations integrate cloud accounting and cloud auditing systems to achieve maximum benefits and improve the overall quality of AIS.
4. Training and skill development organizations should provide continuous training programs for accountants and auditors to ensure they are capable of effectively using cloud technologies.
5. Enhancing cybersecurity measures since cloud systems depend on internet-based platforms, organizations must strengthen cybersecurity policies to protect financial data from unauthorized access or breaches.
6. Future research directions future studies are recommended to examine additional factors such as data security risks, cost efficiency, and the role of artificial intelligence in cloud-based accounting systems.

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