

Innovative Approaches to Combating Fraud: A Comparative Analysis of Cloud-Based Audit Solutions of Deposit Money Banks in Nigeria

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Abstract

This study investigates innovative approaches to combating fraud: a comparative analysis of cloud-based audit solutions of deposit money banks in Nigeria." The research focuses on evaluating the effectiveness, technological features and implementation challenges associated with cloud-based audit solutions in Nigerian deposit money banks compared to traditional audit methods. Using a mixed-methods approach, data was collected through structured questionnaires and semi-structured interviews with audit professionals, IT personnel, and risk managers from selected Nigerian deposit money banks. Quantitative analysis involved the utilization of regression techniques to examine the relationships between cloud-based audit effectiveness, technological capabilities, and implementation challenges. Findings indicate that cloud-based audit solutions significantly enhance fraud detection and prevention compared to traditional methods. However, technological features did not significantly influence their effectiveness. Significant implementation challenges include regulatory compliance, data security concerns, and organizational resistance to technological change. Therefore, the study recommends enhancing staff training, developing adaptable regulatory frameworks and investing in robust technological infrastructure to optimize the integration and effectiveness of cloud-based audit solutions. These measures are crucial for advancing audit capabilities, ensuring compliance with evolving regulatory requirements, and leveraging technological advancements to achieve operational efficiencies and enhanced audit outcomes. By implementing these recommendations, organizations can strengthen their audit processes, mitigate risks more effectively, and adapt to the dynamic landscape of modern auditing practices.

Keywords: *Financial fraud, Cloud-based audit solutions, Fraud detection, Prevention, Innovative & Financial risk*

1. Introduction

Fraudulent activities within the banking sector pose a significant threat to financial stability, customer trust, and regulatory compliance. In Nigeria, Deposit Money Banks (DMBs) encounter various forms of fraud, including but not limited to identity theft, account takeover, loan fraud, and payment fraud. These fraudulent schemes not only result in financial losses for banks but also undermine the integrity of the entire banking system, thereby necessitating robust preventive measures and detection mechanisms (Rajpoot & Pandey, 2022).

Traditional audit processes have proven inadequate in combating the increasingly sophisticated nature of financial fraud (Egiyi & Udeh, 2020). As a result, there has been a growing interest in leveraging technology, particularly cloud-based solutions, to enhance fraud management capabilities within the banking sector. Cloud-based audit solutions offer several advantages, including real-time data monitoring, advanced analytics, scalability, and cost-effectiveness (Okoye, 2021). By shifting from conventional on-premises systems to cloud-based platforms, DMBs can potentially improve their ability to detect, investigate, and prevent fraudulent activities more effectively.

However, despite the potential benefits of cloud-based audit solutions, their adoption and implementation in the Nigerian banking landscape are still in the nascent stages. There is a lack of comprehensive research and empirical evidence regarding the efficacy and suitability of these solutions within the context of Nigerian DMBs. Understanding the challenges, opportunities, and best practices associated with the deployment of cloud-based audit solutions is essential for optimizing fraud management strategies and safeguarding the interests of banks, customers, and stakeholders (Gherman et al., 2021).

Therefore, this research aims to fill this gap by conducting a comparative analysis of cloud-based audit solutions deployed by DMBs in Nigeria. By examining the features, functionalities, and performance metrics of these solutions, this study seeks to evaluate their effectiveness in combating fraudulent activities within the Nigerian banking sector.

Statement of the Problem

The ideal scenario in combating fraud within Nigerian Deposit Money Banks (DMBs) involves the seamless integration of advanced technological solutions, particularly cloud-based audit platforms, to effectively detect, prevent, and mitigate fraudulent activities. In an ideal situation, these cloud-based solutions would provide real-time monitoring, predictive analytics, and

comprehensive fraud detection capabilities, enabling DMBs to proactively address emerging threats and safeguard the integrity of the banking system.

However, the reality within Nigerian DMBs presents several challenges hindering the attainment of this ideal scenario. One primary problem is the limited adoption and utilization of cloud-based audit solutions within the banking sector. Many DMBs still rely on traditional audit processes that are often manual, time-consuming, and reactive in nature, thereby exposing them to higher risks of fraud. Additionally, concerns regarding data security, regulatory compliance, and cost-effectiveness act as significant barriers to the widespread implementation of cloud-based audit platforms.

If these problems persist and remain unresolved, Nigerian DMBs will continue to face heightened vulnerabilities to fraudulent activities, leading to detrimental consequences for multiple stakeholders. Without the integration of effective fraud management solutions, DMBs risk suffering financial losses, reputational damage, and erosion of customer trust. Furthermore, the broader banking ecosystem may experience systemic shocks, as fraudulent incidents undermine confidence in the stability and reliability of financial institutions. Failure to address these challenges could also result in regulatory sanctions, legal liabilities, and diminished investor confidence, exacerbating the overall fragility of the Nigerian banking sector. There is an inadequacy of literature in this area of study. Therefore, this contemporary study is essential for addressing these issues, which are crucial for mitigating risks and promoting a more resilient and secure banking environment in Nigeria.

Objectives of the Study

The main objective of the study is to evaluate innovative approaches to combating fraud: a comparative analysis of cloud-based audit solutions of Deposit Money Banks in Nigeria, while the specific objectives of the study are:

- i. Evaluate the effectiveness of cloud-based audit solutions in detecting and preventing fraud in Nigerian deposit money banks.
- ii. Compare the features and capabilities of different cloud-based audit solutions deployed by Nigerian deposit money banks.
- iii. Identify challenges and limitations associated with the implementation of cloud-based audit solutions in Nigerian deposit money banks.

Research Questions

The study provided answers to the research questions:

- i. How effective are cloud-based audit solutions in detecting and preventing fraud within Nigerian deposit money banks?
- ii. What are the specific features and technological capabilities of different cloud-based audit solutions used by Nigerian deposit money banks, and how do they compare in terms of fraud detection and prevention?
- iii. What are the main challenges and limitations faced by Nigerian deposit money banks when implementing cloud-based audit solutions for combating fraud?

Statement of Hypotheses

The following hypotheses in null form guided the study

- i. There is no significant difference in the effectiveness of cloud-based audit solutions compared to traditional audit methods in detecting and preventing fraud within Nigerian deposit money banks.
- ii. There is no significant difference in the features and technological capabilities of various cloud-based audit solutions used by Nigerian deposit money banks regarding their effectiveness in fraud detection and prevention.
- iii. There are no significant challenges or limitations associated with the implementation of cloud-based audit solutions in Nigerian deposit money banks for combating fraud.

Significance of the Study

The significance of the study lies in its potential benefits to various individuals and institutions:

- i. **Deposit Money Banks (DMBs) in Nigeria:** This study provide valuable insights into enhancing fraud detection and prevention mechanisms through the adoption of cloud-based audit solutions. DMBs can leverage the findings to optimize their operational efficiency and strengthen their risk management frameworks.
- ii. **Regulatory Authorities:** Regulatory bodies overseeing the banking sector in Nigeria can use the study's findings to better understand the effectiveness of cloud-based audit solutions in compliance monitoring and fraud prevention. It can inform regulatory policies aimed at enhancing the security and stability of the banking system.
- iii. **Technology Providers and Innovators:** Companies offering cloud-based audit solutions and technology firms specializing in financial services can benefit by understanding the specific needs and challenges faced by Nigerian DMBs. They can tailor their offerings and innovate new solutions that address these challenges more effectively.
- iv. **Academic Community:** Researchers and scholars in the fields of accounting, auditing, and financial technology can use the study as a foundation for further research. It contributes to the body of knowledge on innovative audit methodologies and their application in combating fraud in emerging market contexts like Nigeria.
- v. **Investors and Stakeholders:** Investors and stakeholders in Nigerian DMBs can gain confidence from improved fraud prevention measures highlighted in the study. This could potentially enhance trust and investment in the banking sector, leading to broader economic benefits.

- vi. **General Public and Consumers:** Improved fraud prevention measures can ultimately benefit consumers by fostering a more secure banking environment, reducing the likelihood of financial losses due to fraudulent activities.

2. Review of Related Literature

Conceptual Review

Concept of Cloud-based Audit Solutions

Cloud-based audit solutions refer to software platforms or systems that leverage cloud computing technology to conduct auditing processes remotely over the internet. These solutions offer a range of features and functionalities tailored to the needs of auditing activities, including data analysis, risk assessment, compliance monitoring, and fraud detection (Ezuwore-Obodoekwe et al., 2020). By utilizing cloud infrastructure, these solutions can access and process vast amounts of data from disparate sources in real-time, enabling auditors to identify irregularities, anomalies, or suspicious patterns more effectively. Additionally, cloud-based audit solutions often provide scalability, flexibility, and accessibility advantages, allowing auditors to perform their tasks from anywhere with an internet connection, collaborate seamlessly with team members, and adapt to evolving audit requirements (Hamundu et al., 2020). Key components of cloud-based audit solutions may include data visualization tools, advanced analytics capabilities, machine learning algorithms, and integration with other enterprise systems such as accounting software and customer relationship management (CRM) platforms. Hence, cloud-based audit solutions represent a modern and efficient approach to conducting audits, offering enhanced speed, accuracy, and insight into organizational performance and integrity (Marsintauli et al., 2021).

Effectiveness of Cloud-Based Audit Solutions in Detecting and Preventing Fraud

i. Improved Fraud Detection Capabilities

One of the key advantages of cloud-based audit solutions is their enhanced ability to detect fraudulent activities compared to traditional on-premise audit systems. These solutions leverage advanced data analytics, machine learning, and artificial intelligence algorithms to identify suspicious transactions, patterns, and anomalies in real-time.

Cloud-based platforms have access to large datasets from multiple sources, allowing them to cross-reference and analyze information more comprehensively (Mugenyi, 2018). This enables the detection of complex fraud schemes that may have gone unnoticed using manual audit processes or siloed data sources.

ii. Proactive Fraud Prevention

In addition to improved detection, cloud-based audit solutions also offer proactive fraud prevention capabilities. These systems can be configured to automatically trigger alerts and flags based on predefined risk indicators, enabling banks to take immediate action to mitigate potential threats (Johnson & Adeyemi, 2011). The integration of these solutions with other banking systems, such as core banking platforms and customer relationship management (CRM) tools, allows for the

implementation of robust fraud prevention controls (Gupta & Gaur, 2018). This includes features like:

Real-Time Monitoring: Cloud-based audit tools continuously monitor transactions, account activities, and user behaviors, enabling the swift identification and mitigation of suspicious activities (Jones et al., 2017).

Predictive Analytics: Machine learning algorithms analyze historical data to predict and preempt emerging fraud patterns, allowing banks to stay ahead of fraudsters (Mohammadi & Mohammadi, 2014).

Automated Workflows: Seamless integration with existing systems enables the automation of fraud investigation and resolution processes, improving efficiency and response times (Akanbi & Adewoye, 2018).

iii. **Enhanced Visibility and Reporting**

Cloud-based audit solutions provide banking institutions with enhanced visibility into their fraud detection and prevention efforts. These platforms offer comprehensive reporting and analytics capabilities, allowing for the tracking of key performance indicators (KPIs) and the identification of trends and patterns (Akanbi & Adewoye, 2018).

The centralized and easily accessible nature of cloud-based systems enables bank management and auditors to generate detailed reports on fraud incidents, losses, and the effectiveness of mitigation strategies (Al-zoubi, 2017). This data-driven approach supports informed decision-making, the optimization of fraud management processes, and the continuous improvement of the bank's overall fraud resilience.

iv. **Collaboration and Information Sharing**

The cloud-based nature of these audit solutions also facilitates collaboration and information sharing among banks and regulatory authorities. By leveraging shared threat intelligence and best practices, financial institutions can collectively strengthen their defenses against evolving fraud threats (Oji & Ofoegbu, 2017).

This collaborative approach, enabled by the cloud infrastructure, helps banks stay informed about emerging fraud schemes, share learnings, and implement coordinated countermeasures more effectively (Usdi, 2018). Hence, by leveraging advanced analytics, automation, and collaborative features, these innovative tools can play a crucial role in safeguarding the integrity and stability of the financial system.

Evaluating Cloud-based Audit Solutions from the perspective of enhancing Operational Efficiency and Scalability within Deposit Money Banks (DMBs) in Nigeria

In the dynamic landscape of Nigerian Deposit Money Banks (DMBs), combating fraud remains a critical imperative, driving the adoption of innovative audit solutions (Ningrum & Wedari, 2017). While the effectiveness of cloud-based audit systems in detecting and preventing fraud has been extensively studied, a nuanced evaluation focusing on their broader impact on operational efficiency and scalability within DMBs is essential. This alternative perspective explores how cloud-based audit solutions streamline audit processes, optimize resource utilization, and enhance scalability to meet the evolving demands of banking operations. Beyond their role in fraud mitigation, these solutions are increasingly recognized for their potential to transform operational dynamics, support strategic initiatives, and foster sustainable growth in the banking sector (Moses et al., 2016). This evaluation seeks to illuminate the multifaceted benefits that cloud-based audit solutions bring to DMBs, shaping not only their ability to combat fraud effectively but also their overall operational agility and long-term viability in a competitive financial environment.

i. Operational Efficiency: Assessing how cloud-based audit solutions contribute to streamlining audit processes and reducing operational costs within Deposit Money Banks (DMBs). This evaluation can include metrics such as time savings in audit activities, reduction in manual effort, and automation of routine tasks (Okere et al., 2019).

ii. Scalability: Evaluating the scalability of cloud-based audit solutions to handle increasing volumes of banking data and transactional complexities. This aspect considers how well these solutions can expand or contract based on the bank's operational needs and transaction volumes without compromising on performance (Owolabi & Izang, 2020).

iii. Resource Optimization: Analyzing how cloud-based solutions optimize resource allocation within DMBs, such as IT infrastructure, human resources, and budgetary allocations. This evaluation can highlight efficiencies gained through resource consolidation, improved utilization rates, and overall cost savings (Agu et al., 2024).

iv. Agility in Response: Examining the agility of cloud-based audit solutions in responding to regulatory changes and compliance requirements. This perspective focuses on how quickly and effectively these solutions can adapt audit procedures and controls to meet new regulatory standards and emerging fraud threats (Osama, 2018).

v. Support for Strategic Initiatives: Assessing the contribution of cloud-based audit solutions to supporting strategic initiatives within DMBs, such as digital transformation, customer experience enhancement, and competitive positioning. This evaluation considers how these solutions align with broader organizational goals beyond fraud detection and prevention (Wicaksono et al., 2020).

vi. Sustainability and Long-term Viability: Evaluating the sustainability and long-term viability of cloud-based audit solutions in terms of their environmental impact, scalability, and resilience to technological advancements. This perspective explores how these solutions contribute to sustainable business practices and future-proofing the bank's audit capabilities (Effiong et al., 2020).

vii. Change Management and Adoption: Assessing the effectiveness of change management strategies in implementing cloud-based audit solutions. This evaluation focuses on how well DMBs manage organizational change, user adoption, and stakeholder engagement to maximize the benefits of these solutions while minimizing disruptions (Kariyawasam, 2019).

Challenges and Opportunities in Implementing Cloud-Based Audit Solutions

The challenges and opportunities in implementing cloud-based audit solutions involves considering various factors that can influence their adoption, integration, and effectiveness within the operational framework of Deposit Money Banks (DMBs) in Nigeria:

Challenges:

- i. **Data Security and Privacy Concerns:** DMBs handle sensitive financial data, and storing this information in the cloud raises concerns about data security and privacy. Ensuring compliance with regulatory requirements and safeguarding customer information against unauthorized access, data breaches, or cyber-attacks is a significant challenge in implementing cloud-based audit solutions (Mell & Grance, 2019).
- ii. **Integration with Legacy Systems:** Many DMBs rely on legacy IT infrastructure and systems that may not be compatible with cloud-based solutions. Integrating cloud-based audit systems with existing platforms, databases, and applications poses technical challenges and requires careful planning to ensure seamless data flow and interoperability (Supriati et al., 2017).
- iii. **Reliability and Uptime:** DMBs operate in a highly regulated and time-sensitive environment where downtime or system outages can have significant financial implications. Ensuring the reliability, availability, and uptime of cloud-based audit solutions is critical to maintaining continuous monitoring and timely detection of fraudulent activities (Alaa & Osama, 2020).
- iv. **Skills and Expertise Gap:** Implementing and managing cloud-based audit solutions requires specialized skills and expertise in cloud computing, data analytics, cybersecurity, and auditing practices. Bridging the skills gap and providing adequate training for auditors and IT personnel to effectively utilize these solutions is a challenge for many DMBs (Odo & Ugwu, 2020).

Opportunities:

- i. **Scalability and Flexibility:** Cloud-based audit solutions offer scalability and flexibility, allowing DMBs to scale their audit capabilities up or down according to fluctuating demand, business growth, or regulatory requirements. Leveraging cloud infrastructure enables DMBs to access additional computing resources and storage capacity as needed without significant upfront investment (Suryana et al., 2017).
- ii. **Real-time Monitoring and Analytics:** Cloud-based audit solutions provide real-time monitoring and analytics capabilities, enabling DMBs to detect fraudulent activities as they occur or shortly thereafter. Leveraging advanced data analytics, machine learning, and AI algorithms, these solutions can analyze large volumes of transactional data to identify anomalies, patterns, or suspicious behavior indicative of fraud (Akesinro & Adetoso, 2016).
- iii. **Cost Savings and Efficiency:** Adopting cloud-based audit solutions can lead to cost savings and operational efficiencies for DMBs by reducing infrastructure costs, hardware investments, and

- maintenance expenses associated with traditional on-premises solutions. Cloud-based deployment models also offer pay-as-you-go pricing structures, allowing DMBs to pay only for the resources and services they use (Martono & Maesaroh, 2017).
- iv. **Regulatory Compliance and Reporting:** Cloud-based audit solutions facilitate regulatory compliance and reporting requirements by providing centralized data storage, audit trails, and customizable reporting capabilities. Automating compliance processes and streamlining reporting tasks help DMBs demonstrate adherence to regulatory standards and facilitate regulatory audits and inspections (Manurung et al., 2017).
 - v. **Enhanced Collaboration and Accessibility:** Cloud-based audit solutions promote collaboration and accessibility by enabling auditors to access audit data, reports, and analytics from anywhere with an internet connection. Remote access capabilities facilitate collaboration among geographically dispersed audit teams, external auditors, and regulatory authorities, enhancing communication and knowledge sharing (Tahmina, 2017).

Theoretical Review

This study is theoretically underpinned on Technology Acceptance Model.

Technology Acceptance Model (TAM).

Technology Acceptance Model (TAM) provides a robust theoretical framework to investigate the adoption and effectiveness of cloud-based audit solutions within Nigerian deposit money banks. According to TAM, the acceptance of new technologies hinges on two main factors: perceived usefulness (PU) and perceived ease of use (PEOU). In this context, the perceived usefulness of cloud-based audit solutions lies in their ability to enhance fraud detection and prevention capabilities compared to traditional audit methods. The model also emphasizes the importance of perceived ease of use, highlighting the need for these solutions to be user-friendly and accessible to auditors and bank personnel across different technological proficiencies. By applying TAM, the study aims to systematically evaluate stakeholders' perceptions and attitudes towards these technologies, identifying barriers to adoption and opportunities for optimizing their implementation. This theoretical lens not only informs the assessment of technological efficacy but also guides recommendations for enhancing operational efficiency and regulatory compliance within Nigerian deposit money banks, thereby contributing to broader advancements in financial technology and risk management practices.

3. Methodology

Design

This study employs a comparative research design to analyze and compare the effectiveness of cloud-based audit solutions in combating fraud among deposit money banks (DMBs) in Nigeria. The comparative approach allows for a structured comparison between different cloud-based audit solutions and traditional audit methods currently utilized by DMBs.

Setting

The study was conducted within the operational settings of selected deposit money banks in Nigeria. These banks were chosen based on their size, geographical spread, and willingness to participate in the study, ensuring a representative sample across the industry.

Target Population

The target population comprises all quoted Deposit Money Banks in Nigeria, totaling twenty-two (22) banks that form the study's population. The population size consists of 14,200 audit professionals, IT personnel, and risk management staff directly engaged in implementing and utilizing audit solutions within Nigerian Deposit Money Banks.

Sample Size

The sample size of fourteen (14) Deposit Money Banks, comprising 389 personnel, was determined using the Taro Yamani formula from the population. These fourteen banks were selected based on their implementation of cloud-based audit solutions. Convenience sampling was employed to identify and select participants from key departments such as audit, IT, and risk management, ensuring representation across various levels of expertise and responsibilities.

Instrument for Data Collection

The primary instrument for data collection will be structured questionnaires. The questionnaire was designed based on established constructs from relevant literature and included items related to perceived effectiveness of audit solutions, challenges encountered, and suggestions for improvement. The questionnaire underwent pilot testing to ensure clarity and reliability of responses.

Method of Data Collection

Data collection will primarily be conducted through online surveys distributed to selected participants within the deposit money banks. Additionally, semi-structured interviews were conducted with key stakeholders to gather in-depth insights into specific issues and experiences related to cloud-based audit solutions.

Method of Data Analysis

Quantitative data from the questionnaires will be analyzed using Regression Analysis.

4. Results and Discussions

Table 1: Regression Results on Effectiveness, Features, and Challenges of Cloud-Based Audit Solutions in Nigerian Deposit Money Banks

Hypothesis	Variable	Coefficient (β)	Standard Error (SE)	t-value	p-value
i. Effectiveness of Cloud-Based vs. Traditional Audit Methods	Cloud-Based Audit (X1)	0.034	0.012	2.833	0.005
ii. Features and Technological Capabilities of Cloud-Based Solutions	Technological Features (X2)	-0.019	0.015	-1.267	0.208
iii. Challenges of Implementing Cloud-Based Audit Solutions	Implementation Challenges (X3)	0.025	0.009	2.778	0.006

Sources: SPSS Output of Field Survey, 2024.

Interpretations:

Restatement of the Hypothesis 1 in Null form: There is no significant difference in the effectiveness of cloud-based audit solutions compared to traditional audit methods in detecting and preventing fraud within Nigerian deposit money banks.

Result: The coefficient for cloud-based audit solutions (X1) is 0.034, with a standard error of 0.012. The t-value is 2.833, and the associated p-value is 0.005, which is less than the conventional significance level of 0.05. Therefore, we reject the null hypothesis. There is a significant difference, indicating that cloud-based audit solutions are more effective than traditional methods in detecting and preventing fraud.

Restatement of the Hypothesis 2 in Null form: There is no significant difference in the features and technological capabilities of various cloud-based audit solutions used by Nigerian deposit money banks regarding their effectiveness in fraud detection and prevention.

Result: The coefficient for technological features of cloud-based solutions (X2) is -0.019, with a standard error of 0.015. The t-value is -1.267, and the associated p-value is 0.208, which is greater than 0.05. Therefore, we fail to reject the null hypothesis. There is no significant difference, suggesting that the effectiveness in fraud detection and prevention is not significantly influenced by the technological features of cloud-based audit solutions.

Restatement of the Hypothesis 3 in Null form: There are no significant challenges or limitations associated with the implementation of cloud-based audit solutions in Nigerian deposit money banks for combating fraud.

Result: The coefficient for implementation challenges of cloud-based solutions (X3) is 0.025, with a standard error of 0.009. The t-value is 2.778, and the associated p-value is 0.006, which is less than 0.05. Therefore, we reject the null hypothesis. There are significant challenges associated with the implementation of cloud-based audit solutions in combating fraud within Nigerian deposit money banks.

5. Summary of Findings, Conclusion and Recommendations

Summary of Findings

Based on the results of the analysis conducted on the effectiveness, features, and challenges of cloud-based audit solutions within Nigerian deposit money banks, the following summary of findings can be highlighted:

- i. The analysis revealed a statistically significant difference in the effectiveness of cloud-based audit solutions compared to traditional audit methods in detecting and preventing fraud within Nigerian deposit money banks. Cloud-based audit solutions were found to be more effective, with a coefficient of 0.034 (t-value = 2.833, $p < 0.05$). This suggests that Nigerian deposit money banks implementing cloud-based audit solutions experience improved capabilities in fraud detection and prevention compared to those relying on traditional audit methods.
- ii. There was no statistically significant difference in the features and technological capabilities of various cloud-based audit solutions used by Nigerian deposit money banks regarding their effectiveness in fraud detection and prevention. The coefficient for technological features was -0.019 (t-value = -1.267, $p > 0.05$), indicating that the technological attributes of these solutions did not significantly influence their effectiveness in combating fraud. This suggests that while

technological features are important, they do not singularly determine the effectiveness of fraud prevention efforts.

- iii. The analysis identified significant challenges associated with the implementation of cloud-based audit solutions in Nigerian deposit money banks for combating fraud. The coefficient for implementation challenges was 0.025 (t-value = 2.778, $p < 0.05$), indicating that Nigerian banks face notable obstacles when deploying these solutions. These challenges may include regulatory compliance, data security concerns, infrastructure readiness, and organizational resistance to technological change.

Conclusion

In conclusion, this study provides comprehensive insights into the adoption and efficacy of cloud-based audit solutions within Nigerian deposit money banks for combating fraud. The findings highlight a significant advantage of cloud-based solutions over traditional audit methods in detecting and preventing fraudulent activities. This underscores the transformative potential of cloud technology in enhancing operational efficiency and mitigating financial risks within the banking sector.

Moreover, while technological features of cloud-based audit solutions were found not to significantly influence their effectiveness in fraud prevention, this does not diminish the critical role of technological innovation in modern audit practices. Future advancements in these technologies could further refine their capabilities and potentially amplify their impact on fraud prevention efforts.

The study also identifies substantial challenges associated with implementing cloud-based audit solutions in Nigerian deposit money banks, including regulatory compliance complexities, data security concerns, infrastructure readiness, and organizational resistance to change. Addressing these challenges proactively is imperative for maximizing the benefits of cloud-based audit solutions and ensuring their successful integration into banking operations.

Hence, this research contributes valuable insights for policymakers, regulators, banking professionals, and technology providers seeking to optimize fraud prevention strategies through innovative audit approaches in Nigerian deposit money banks. By leveraging cloud-based solutions effectively and addressing implementation challenges, banks can strengthen their resilience against fraudulent activities, foster trust among stakeholders, and contribute to a more secure financial environment.

Recommendations

Based on the findings of the study on cloud-based audit solutions in Nigerian deposit money banks, the following recommendations are proposed:

- i. Nigerian deposit money banks should prioritize comprehensive training programs for audit, IT, and risk management teams to ensure they fully understand and effectively utilize cloud-based audit solutions. Training should encompass both technical aspects of the technology and practical application in fraud detection and prevention strategies. By enhancing skills and knowledge among staff, banks can maximize the effectiveness of these solutions and mitigate implementation challenges.

- ii. Regulatory authorities and industry stakeholders should collaborate to develop clear and adaptable regulatory frameworks specifically tailored to cloud-based audit solutions. These frameworks should address data security standards, compliance requirements, and guidelines for integrating new technologies into existing banking operations. Clarity in regulations will provide banks with a roadmap for compliance and mitigate uncertainties that could hinder adoption and implementation.
- iii. Nigerian deposit money banks should prioritize investments in robust technological infrastructure to support the seamless integration and operation of cloud-based audit solutions. This includes ensuring sufficient bandwidth, data storage capabilities, and cybersecurity measures to safeguard sensitive financial information. By investing in reliable infrastructure, banks can enhance the efficiency, reliability, and security of their audit processes, thereby strengthening overall fraud prevention efforts.

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