Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Cloud Accounting and Operational Efficiency of Tier 1 Banks in Nigeria: Leveraging on Technological Competence

Enaibre Felix Ighosewe[1], Edwin Aruobogha Onatuyeh[2], Dave Udo-Ezika[3], Oghenekparobo Ernest Agbogun[4], Samuel Ejiro Uwhejevwe-Togbolo[5]

Abstract

The integrative research examined the nexus between cloud accounting, technological competence, and operational efficiency, with a focus on the mediating role of bank staff's technologically competent. Data were collected from 341 staff members of selected banks through a questionnaire and was analyzed via partial least squares structural equation modeling (PLS-SEM). The findings reveal that technological competence enhances cloud accounting costs, interfaces, and delivery modes, thereby improving the operational efficiency of the banks studied. The study concludes that technological competence is crucial in optimizing the relationship between cloud accounting and operational efficiency. This underscores the importance of technological expertise in realizing the benefits of cloud-based technologies, particularly in achieving greater operational efficiency for banks. By concentrating on the Nigerian banking sector, the study offers context-specific insights into the interplay between cloud accounting, technological competence, and banks' operational performance. The study recommends that bank managers should compare their performance against industry average (benchmark), identify areas that need improvement, and institute corrective measures to drive operational excellence and achieve strategic objectives.

Keywords: *Cloud Accounting Costs, Cloud Accounting Customer Interface, Technological Competence, Banks' Operational Efficiency.*

Introduction

Globally, the rate at which firms integrate cloud accounting packages (CAP) into their business models is relatively high (Abidde, 2021). This is due to the drastic transformative changes in accounting practices resulting from high levels of dissatisfaction and the desire for firms to align their business models with global best practices (Yoshikuni et al., 2023). Cloud accounting packages involve using cloud accounting software hosted on remote servers to efficiently and effectively manage all banks' financial transactions (Duan et al., 2023). Various examples of cloud accounting include QuickBooks Online, FreshBooks, Xero, Zoho Books, Wave, Sage Business Cloud Accounting (formerly called Sage One), MYOB Essentials, Pinnacle, and Phoenix. As expected, cloud accounting helps to streamline their operations, enhance decision-making capabilities, and drive operational efficiency (Onyali, 2016). Major advantages recorded by firms include improved customer service delivery, geographic expansion, increased agility, process and market efficiency, cost savings, and organizational agility (Rawashdeh & Rawashdeh, 2023). Garrison, Wakefield, and Kim (2015) and Wisdom and Grace (2023) added that firms that do not integrate cloud accounting packages into their business models will be less competitive and may experience lower investor patronage in the near future. The COVID-19 outbreak underscored its relevance as many firms, especially in developed countries like the USA, the UK, and Canada, worked from home using cloud accounting software.

Popular measures of cloud accounting include cloud accounting costs and cloud accounting software features/characteristics (Akadi & Olaoye, 2024; Rawashdeh & Rawashdeh, 2023; Onifade et al., 2023; Akadi & Olaoye, 2024). Firstly, cloud accounting costs cover software acquisition costs, installation costs, maintenance costs, data security costs, and training costs. However, existing cloud accounting studies report conflicting findings. For example, Wisdom and Grace (2023) found that cloud accounting maintenance

[1] Dennis Osadebay University, Department of Accounting, Asaba, Nigeria, Email: felix.ighosewe@dou.edu.ng, (Corresponding Author)
[2] Delta State University of Science and Technology, Department of Accounting, Ozoro, Nigeria
[3] University of the Niger, Umunya, Anambra State, Nigeria
[4] Dennis Osadebay University, Department of Banking and Finance, Asaba, Nigeria.
[5] Dennis Osadebay University, Department of Accounting, Asaba, Nigeria

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

costs have a negligible impact on firm performance (FP). The inference is that cloud accounting costs outweigh the financial benefits, suggesting that the significant cost-benefit gaps must be addressed. Meanwhile, Katz, Jung, and Goldman (2023) found that cloud accounting improves FP. By implication, cloud accounting packages are a strategic management tool for achieving higher FP. Onifade et al. (2023) reported that while acquisition, installation costs, and risk-related costs improve FP (both ROE and market value), the rise in training costs reduced the FP of the 10 sampled food and beverage firms throughout the reviewed periods. This underscores that, while cloud accounting offers potential cost savings compared to traditional accounting systems, it may reduce banks' operational efficiency if such cost elements are not efficiently managed. Another possible reason is that training is often frequent, and the cost of such training is relatively high, thereby dampening the firm's operating efficiency. Additionally, Matarneh, Al-Tahat, Ali, and Jwaifel (2019); Effiong, Udoayang, and Davies (2020); Mugyenyi (2018) reported that cloud accounting maintenance and electricity costs (CACS) reduced firm operational efficiency (OPER). This is particularly true in the Nigerian context because foreign companies own most of the cloud accounting packages. Consequently, banks pay a significant amount to purchase and maintain this software. Therefore, the paper hypothesizes:

Hypothesis: H1: Cloud accounting costs (CACS) and banks' operational efficiency (OPER) are negatively and significantly related.

Another critical cloud accounting measure is the cloud accounting package customer interface. The cloud accounting package customer interface is a user-friendly and highly engaging customer-centered environment that allows users to operate the software with minimal effort or technological know-how. The Technology Acceptance Model (TAM) emphasizes that what influences users' acceptance and adoption of cloud accounting packages is their perceived usefulness and ease of use. This suggests that the more intuitive (user-friendly) banks' cloud accounting platforms are, the higher the operational efficiency reported by banks. However, while the usage of cloud accounting client interfaces presents opportunities for improved operational efficiency, integrating these interfaces with existing banking systems may be complex and resource-intensive. Nonetheless, we argue that an efficient cloud accounting customer interface is directly linked to banks' operational efficiency overall. Hence, we hypothesize:

Hypothesis: H2: Cloud Accounting Customer Interface (CACI) and banks' operational efficiency (OPER) are positively and significantly related.

Cloud accounting delivery mode constitutes either a major drawback or a facilitating factor in the integration of cloud accounting. Cloud accounting delivery mode encompasses the infrastructure, processes, and support mechanisms through which the cloud accounting software is deployed, maintained, and accessed by users (Garrison, Wakefield, & Kim, 2015). As such, a robust and efficient cloud accounting delivery mode is expected to improve banks' operational efficiency. However, if the cloud accounting delivery mode is not efficient, it would increase banks' operational costs, which would, in turn, reduce banks' operational efficiency (Rawashdeh & Rawashdeh, 2023). Nevertheless, we anticipate that an efficient cloud accounting delivery mode will improve banks' operational efficiency overall. Hence, we hypothesize:

Hypothesis: H3: Efficient cloud accounting delivery mode (CADM) and banks' operational efficiency (OPER) are positively and significantly related.

As cloud-based technology gains more prominence in the financial sector, there is a pressing need for firms to address the disruptions in the macroeconomic environment posed by globalization and digitalization. With greater technological capabilities, firms can respond positively to macroeconomic conditions (Rawashdeh & Rawashdeh, 2023). Drawing from the Resource-Based View, a firm's ability to combine physical and human capital resources to achieve higher operational efficiency (performance) depends on the firm's unique competence. Garrison et al. (2015) and Akadi and Olaoye (2024) emphasized that the more competent firms are, the better they can overcome the cloud accounting cost-benefit paradox. By implication, technological competence is expected to enable cloud accounting to improve banks' operational efficiency. Hence, we hypothesize:

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Hypothesis: H4: Technological competence (TCOP) positively and significantly mediates the relationship between cloud accounting (CA) and banks' operational efficiency (OPER).

In summary, the relationship among cloud accounting, technological competence, and operational efficiency remains unclear due to inconsistent results reported by empirical researchers (Akadi & Olaoye, 2024; Onifade et al., 2023; Katz et al., 2023). Therefore, contextual variables need to be included to elucidate this intricate relationship. This assertion is supported by recent studies conducted by Akadi and Olaoye (2024); Rawashdeh & Rawashdeh (2023); Onifade et al. (2023), which suggest that cloud accounting is a complex software that necessitates further study. Moreover, studies conducted in Nigeria (e.g., Onyali, 2016; Abidde, 2021) have produced conflicting results and did not focus on the contributions of cloud accounting to banks' operational efficiency. Other studies have mainly disaggregated cloud accounting into cloud accounting costs-CACS and delivery modes such as public, private, community, and hybrid cloud (see Effiong et al., 2020; Akai, Ibok, & Akinninyi, 2023; Gyau et al., 2023; Owolabi, Oyegoke, & Olalere, 2023). However, our study measures cloud accounting in terms of costs, cloud accounting customer interface, efficiency of the cloud accounting delivery mode, and technological competence. Lastly, this research is novel in that it accounted for the mediating influence of technological competence on cloud accounting and Nigerian banks' operational efficiency. Specifically, the study seeks to: (i) assess the linkages between CACS and operational efficiency; (ii) appraise the linkages between cloud accounting customer interface and operational efficiency; (iii) investigate the linkages between cloud accounting delivery mode and operational efficiency; and (iv) appraise the linkages among cloud accounting, technological competence, and operational efficiency.

The paper follows the following format: Section 1 provides a general background on the subject, identifies the gap, justifies the study, outlines contributions to knowledge, and states the research objectives. Section 2 covers the data source, method, and data analysis techniques. Section 3 presents the analytic findings and combined results. Section 4 includes the final conclusions, policy implications, limitations of the study, and suggestions for future research. The goal of this methodical organization is to provide a clear and comprehensive explanation of the subject.

Materials and Methods

The paper focused on Tier 1 banks (First Bank, UBA, GT Bank, Access Bank, and Zenith Bank) and their branches in Asaba, Agbor, Warri, and Abraka, all in Delta State, Nigeria. The survey was conducted from March 2024 to May 2024. The banks were chosen due to their significant investment in cutting-edge technology. Additionally, these banks serve as models for other banks. Given the relevance of cloud accounting packages in improving banks' operational resilience, the paper assumes that the instrument would provide a true picture of the relationships among the variables. Ekiyor and Gabriel (2021) conducted similar studies in the South-South geopolitical zone of Nigeria and found that operational sensitivity improves service innovation, focusing on the sampled banks.

Before administering the questionnaires, we included a covering letter that clearly stated the research's main and specific objectives. Respondents were assured that their identities would remain confidential to ensure objective participation in the survey. To increase response rates, reminders were sent out three times during the survey period. To assess participants' understanding of the subject, management staff who willingly participated was asked to complete a coded questionnaire on the subject and to distribute a similarly tagged structured questionnaire to the heads of their immediate units.

Once both surveys were completed, participants returned them in the researcher's envelope. Of the 358 sampled respondents, 341 questionnaires were returned, representing 95.25% of the total distributed. This indicates that the questionnaire distribution technique was effective. Hair et al. (2017) reported that the number of valid responses was higher than the minimum required to get reliable estimations in SEM. According to the survey, female respondents (n = 198, 58%) outnumbered male respondents (n = 143, 42%), with an average age of 40.5 years and an average tenure of 17.1 years. Three percent of respondents had earned a doctorate, 3% held a master's degree, and 94% were HND/BSc holders. Forty-four percent were at the lower cadre, 55% were at the middle level cadre, and 1% was at the upper level cadre.

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

The questionnaire used validated scales from previous studies on cloud accounting, technological competence, and operational efficiency, based on a 5-point Likert scale. Six measurement items were used to assess cloud accounting costs, drawn from Onifade et al. (2023). A sample cloud accounting cost measure is "my firm designates significant funds for the installation of cloud accounting software." This scale reported a Cronbach's alpha value of 0.801, indicating reliability. Cloud accounting customer interface was assessed with a 2-item scale from Ekiyor and Gabriel (2021). A sample item is "the cloud-accounting-based customer interface is fast and the features meet our customers' needs." This item recorded a Cronbach's alpha value of 0.862, suggesting reliability. Three items from Ekiyor and Gabriel (2021) were used to measure cloud accounting. A sample item is "hybrid cloud is an efficient cloud model." This item recorded a Cronbach's alpha value of 0.790, indicating reliability. Four items from Ekiyor and Gabriel (2021) were used to measure banks' operational efficiency. A sample item is "the more a bank deploys cloud-based platforms, the more employees will perform value-added services." The banks' operational efficiency scale achieved a Cronbach's alpha of 0.791. Another sample item is "the more we create a bank system that supports new IT innovations, the more our cloud accounting platform becomes cost-efficient." This scale achieved a Cronbach's alpha of 0.821.

The data were coded, analyzed, and interpreted using the PLS-SEM technique with the aid of SmartPLS 4.0 software. PLS-SEM is a variance-based analytical approach that combines factor analysis and latent variables to estimate complex causal relationships. This approach was deemed appropriate, especially given the relatively small sample size. Based on Anderson and Gerbing's (1988) guidelines, the PLS-SEM approach follows two analytical steps: measurement model (i.e., confirming the validity & reliability of each construct) and structural model (i.e., estimating the model parameters to identify the hypothesized correlations). Therefore, the PLS-SEM findings were interpreted using the general guidelines provided by Hair et al. (2017). The Sobel test was used to assess the mediating effect of technological competence (know-how), while the bootstrap approach with 5000 iterations tested the significance of both the factor loadings and the path coefficients. Cloud accounting costs, cloud accounting interface, cloud accounting delivery mode, and technological competence were mean-centered to reduce the possibility of multicollinearity, enhance comparisons across samples, and improve model stability and interpretation (Kline, 2016; Beaujean, 2014). Accordingly, the research hypotheses stated earlier were supported if both preliminary tests were fit.

Results and Discussions

Pre-test

Two pre-tests were conducted before applying the two-step analytical techniques. The first pre-test assessed the likelihood of bias from not responding to any item on the questionnaire. This test aimed to determine if the later responses differed significantly from the earlier responses. Consequently, the responses were divided into two groups based on the time they were returned: the first group contained the earlier responses, and the second group contained the later responses. The non-response bias (NBIA) test reported a p-value of 0.324, suggesting that the later responses did not differ significantly from the earlier responses. Therefore, no non-response bias was recorded, which is desirable. The second pre-test was the common method test. For this test, a new element termed "method" was added to the model, and its variances were compared with those of each indicator.

The findings demonstrated that the substantive variances of the indicators were significantly higher than their method variances and that the method loadings were not significant, indicating no common method bias. To further substantiate this, Harman's one-factor test was conducted to determine if a single factor explained most of the covariance between study variables, as recommended by Podsakoff et al. (2003). The authors found that the single indicators accounted for the highest covariance value of 20.34%, indicating the absence of common method bias. Consequently, the study confirmed that common method bias was not a major issue.

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Measurement Model (MEM) and Construct Validity (COV)

After confirming that the sample was free from possible non-response bias and that no common method bias was present, the next step was to conduct the outer (measurement) model analysis. This was to test for the psychometric properties of the outer model. Accordingly, we assessed composite reliability (COR), average variance extracted (AVE), Fornell-Larcker criterion (FLC), and cross-loading (CR) for all the measures: cloud accounting costs, cloud accounting customer interface, efficient cloud accounting delivery mode, and technological competence. Table 1 shows COR values above 0.707 (70.70%), suggesting that the constructs are reliable. Additionally, each construct's AVE exceeded 0.50 (50%), confirming adequate convergent validity among the constructs. Furthermore, the FLC demonstrates that each construct is satisfactorily distinct from the others in the model.

Table 2 indicates that all the indicator loadings were above 0.70, consistent with the findings of Hair et al. (2017), which confirms that all the items represent their respective constructs. Overall, the quality criteria results suggest that the measurement model is of high quality and fit.

Table 1. Cross Loadings

	CACS	CACI	CADM	TCOP	BOPE
CACS1	0.864	0.420	0.220	0.187	0.153
CACS2	0.975	0.325	-0.134	0.108	0.064
CACS3	0.753	-0.141	0.387	0.048	0.275
CACS4	0.866	0.123	0.334	-0.281	-0.104
CACS5	0.851	0.171	0.101	0.166	0.109
CACS6	0.810	0.312	0.253	0.225	-0.298
CACI1	0.324	0.870	0.114	0.186	0.112
CACI2	0.383	0.977	0.323	0.068	0.375
CADM1	0.319	0.301	0.878	0.268	0.198
CADM2	0.353	0.283	0.875	0.244	0.106
CADM3	0.323	0.263	0.909	0.136	-0.045
CADM4	0.365	0.360	0.846	-0.168	0.232
TCOP1	0.273	0.241	0.114	0.875	-0.081
TCOP2	0.212	0.154	0.075	0.890	0.131
BOPE1	0.220	0.234	0.134	-0.132	0.898
BOPE2	0.345	0.233	0.153	-0.291	0.866
BOPE2	0.303	0.189	0.232	0.166	0.820
BOPE4	0.270	0.287	0.275	0.114	0.795

Table 2. Measurement Model Results

	Constructs	COR (>0.707)	AVE (>0.50)	FLC				
				1	2	3	4	5
One	**CACS**	0.958	0.676	0.822				
Two	**CACI**	0.785	0.649	0.139	0.806			
Three	**CAMD**	0.854	0.599	0.092	0.085	0.774		
Four	**TCOP**	0.928	0.866	0.016	0.032	0.079	0.931	
Five	**BOPE**	0.953	0.835	0.130	0.252	0.049	0.050	0.914

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Structural Model and Discussions

This structural model emphasizes the Beta (β) coefficient (for testing the direction of relationships) and the p-value (for assessing the significance of each construct). Table 3 presents the results of the structural model (inner model), summarizing the analysis performed to test the hypotheses.

H1 predicts that cloud accounting costs negatively impact banks' operational efficiency. The results confirm that H1 is statistically significant (p-value = 0.0211; β = -0.2970), validating the hypothesis. Consequently, an increase in cloud accounting costs will lead to a 29.79% decrease in banks' operational efficiency (BOPE). This study highlights that cloud accounting costs pose obstacles to banks' operational efficiency. One reason for this is that cloud accounting packages are frequently outsourced from abroad at substantial costs. Additionally, the maintenance expenses for Pinnacle (PIN), QuickBooks, NetSuite, and Xero are relatively high. Thus, reducing the costs associated with purchasing, installing, and maintaining these software solutions could enhance the efficiency of Nigerian banks. This finding is consistent with previous research (Ofurum & Obi, 2024; Onifade et al., 2023; Wisdom & Grace, 2023), which reported that cloud accounting costs adversely affect financial performance (FP).

H2 posits that the relationship between the cloud accounting interface (CACI) and banks' operational efficiency (OPER) is positive and significant. The PLS results presented in Table 2 (β = 0.1539, p = 0.0422) support this hypothesis. Therefore, more intuitive cloud accounting platforms are associated with higher reported operational efficiency. This result corroborates technological advancement theory and aligns with findings from Alam (2020); Alam (2018); Akai, Ibok, & Akinninyi (2023); Gyau, Owiredu-Ghorman, Amaning, and Kpimekuu (2023); and Owolabi, Oyegoke, and Olalere (2023). Additionally, Nwankpa and Roumani (2016) demonstrated that cloud accounting enhances customer experience and financial performance.

As anticipated, the results confirm that an efficient cloud accounting delivery mode is positively and significantly related to banks' operational efficiency (β = 0.1539, p = 0.0422). This validates H3. A robust and efficient cloud accounting delivery mode is expected to improve banks' operational efficiency. Conversely, an inefficient cloud accounting delivery mode would increase operational costs and, consequently, reduce operational efficiency (Rawashdeh & Rawashdeh, 2023; Garrison et al., 2015).

The Sobel regression tested H4. As expected, the PLS results indicated that introducing technological competence transformed the previously negative impact of cloud accounting costs into a positive and statistically significant effect. Additionally, the coefficient values for CACI and CADM increased with the inclusion of technological competence (TCOP) in the model. The specific indirect results are as follows: CACS > TCOP > BOPE (β = 0.6204, p = 0.000); CACI > TCOP > BOPE (β = 0.8701, p = 0.000); and CADM > TCOP > BOPE (β = 0.6059, p = 0.0352). Overall, the study confirms that technological competence enhances the effectiveness of cloud accounting costs, customer interfaces, and delivery modes, thereby improving banks' operational performance. The inclusion of technological competence facilitates the relationships between cloud accounting costs, cloud accounting interfaces, and delivery modes. Consequently, the sampled banks can mitigate the adverse effects of increasing costs associated with cloud accounting software by leveraging technological competence. This knowledge helps banks reduce expenses related to software maintenance. This finding supports the work of Garrison et al. (2015) and Akadi Olaoye (2024), who argued that firms can overcome challenges related to internal assessments and vendor selection while developing corporate strategies for cloud resource deployment by emphasizing IT competence. The R^2 value of 0.7417 confirms that cloud accounting and technological competence account for 74.17% of the variation in banks' operational efficiency, suggesting that the model is highly predictive.

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Table 3: Structural Model Results

Hypotheses	Paths	Beta	P-value	Conclusion
One	CACS >BOPE	-0.2970	0.0211*	Supported
Two	CACI>BOPE	0.1539	0.0422*	Supported
Three	CADM>BOPE	0.5312	0.0417*	Supported
Four	CACS >TCOP>BOPE	0.6204	0.0000*	Supported
	CACI>TCOP>BOPE	0.8701	0.0000*	Supported
	CADM>TCOP>BOPE	0.6059	0.0352*	Supported

R^2 = 0.7417; *p-value<5%

Conclusion and Recommendations

The integrative research examined the nexus between cloud accounting, technological competence, and operational efficiency. The study purposively sampled 341 bank employees. Based on various findings, the research concludes that technological competence plays a crucial role in the relationship between cloud accounting and operational efficiency. It substantiates the relevance of technological competence in achieving the benefits of integrating cloud-based technology for improved operational efficiency in banks. Theoretically, the research extends existing studies by using both the RBV theory and the theory of technological innovation to clarify the complexity among cloud accounting, technological competence, and operational efficiency. Empirically, it advances the understanding of cloud accounting by introducing cloud accounting costs, the customer interface, and its delivery mode into a single model. The study provides context-specific insights into the relationship among cloud accounting, technological competence, and banks' operational performance. Likewise, this integrative research is the first to use the researcher's knowledge to assess cloud accounting, technological competence, and operational efficiency in Nigerian banks.

The study submits that bank managers are to train employees in software installation and maintenance. Additionally, regular forensic audits of the cost of installing accounting software are needed to help reduce income-smoothing tendencies among IT programmers and bank managers. Also, bank managers should compare their performance against industry average (benchmark), identify areas that need improvement, and institute corrective measures to drive operational excellence and achieve strategic objectives. Furthermore, investing in cloud accounting packages that are intuitive, user-friendly, and easy to navigate can improve operating costs and enhance the customer experience. Banks should update their cloud accounting packages while addressing environmental issues. Further, bank managers are invest more in hybrid cloud models, as these promote operational efficiency by optimizing workload placements, leveraging existing investments, and enjoying economies of scale. Additionally, bank management should train employees o how to address issues posed by cloud accounting programs, and at the same time equip them with the requisite skills needed to perform their roles effectively with less supervision.

Although the study is novel, it is not without limitations. First, the paper focuses only on banks within Delta State. Therefore, subsequent studies should cover more states and also focus on the entire financial services sector. To produce more robust results, future researchers should use longitudinal data to test the long-term effects of cloud accounting on banks' operational efficiency, considering Nigerian regulatory policies and industry uniqueness.

Since perceptions of corporate stakeholders affect the acceptability and use of cloud accounting packages, future studies should examine how user perceptions of cloud accounting impact corporate stakeholders. Given the universal relevance of accounting packages to firms, future researchers should conduct a cross-country analysis on the topic.

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Ethical Considerations

The authors sent a cover letter alongside the questionnaire, clearly stating the research objectives. They assured respondents that their identities would remain anonymous. Respondents were allowed to read through the entire questionnaire before completing it.

Conflict of Interest

The authors declare no conflict of interest**.**

References

Abidde, M.O. (2021). Cloud Computer based accounting and corporate financial performance: a study of some listed manufacturing companies in Nigeria. IOSR Journal of Business and Management, 12-19. https://doi.10.9790/487X-2303011219.

Adeleye, OD Edeh, N.I. Odunukwe, C.M, Ahmed, A Wale-Fadairo, T G Akah, M.N. & Atib, O.S.(2022). Evaluation of accounting competencies of business educators in Enugu state, Nigeria. AAU Journal of Business Educators, 2(1), 115-126. https://aaujbe.com.ng/index/index.php/aaujbe/article/view/13.

Ahannaya, CG Adegbie, FFAjibade & Ayodeji, T. (2022). Professional Accounting Institute: Disruptive Accounting Technology and Institutional Corporate Social Responsibility. Available at https://doi-ds.org/doilink/10.2020-51948721/ Accessed on 17th June, 2023.

Akadi O., & Olaoye F. (2024), The Impact of Cloud Based Accounting System on the Performance of Selected Deposit Money Banks in Nigeria. African Journal of Accounting and Financial Research 7(1), 164-186. DOI: 10.52b589/AJAFRT0W7QJPR.

Akai, N. D., Ibok, N., & Akinninyi, P. E. (2023). Cloud Accounting and the Quality of Financial Reports of Selected Banks in Nigeria. European Journal of Accounting, Auditing and Finance Research, 11(9), 18-42. https://tudr.org/id/eprint/2168/

Alam, T. (2018). A reliable framework for communication in internet of smart devices using IEEE 802.15.4. ARPN Journal of Engineering and Applied Sciences,13(10), 3378- 3387.

Alam, T. (2020). Cloud Computing and its role in the Information Technology. IAIC Transactions on Sustainable Digital Innovation (ITSDI), 1(2), 108-115. https://tudr.org/id/eprint/2168/

Al-Okaily, M. Alkhwaldi, A.F, Abdulmuhsin, A.A. Alqudah, H. & Al-Okaily, A. (2023). Cloud-based accounting information systems usage and its impact on Jordanian SMEs' performance: the post-COVID-19 perspective. Journal of Financial Reporting and Accounting, 21(1): 126-155.https://www.emerald.com/insight/content/doi/10.1108/JFRA-12-2021-0476/full/html.

Beaujean, A. A. (2014). Latent variable modeling using R: A step-by-step guide. Routledge. https://www.taylorfrancis.com/books/mono/10.4324/9781315869780/latent-variable-modeling-using-alexander-beaujean.

Duan, HK Vasarhelyi, MA Codesso, M. & Alzamil, Z. (2023). Enhancing the government accounting information systems using social media information: An application of text mining and machine learning. International Journal of Accounting Information Systems, 48, 100600. https://www.sciencedirect.com/science/article/abs/pii/S1467089522000525.

Effiong, S. A., Udoayang, J. O., & Davies, S. D. (2020). Cloud accounting costs and cost structure harmonization in manufacturing firms. Test Engineering and Management Journal, 83(1), 24307-24321.

Ekiyor, B. R., & Gabriel, J. M. (2021). Operations Sensitivity and Service Innovation of Tier-1 Commercial Banks in the South-South of Nigeria. RSU Journal of Strategic and Internet Busines, 6(1), 1450-1458. https://www.rsujsib.com/wp-content/uploads/2021/11/92.pdf

Garrison, G., Wakefield, R. L., & Kim, S. (2015). The effects of IT capabilities and delivery model on cloud computing success and firm performance for cloud supported processes and operations. International journal of information management, 35(4), 377-393. https://www.sciencedirect.com/science/article/abs/pii/S0268401215000250.

Gyau, E. K., Owiredu-Ghorman, K., Amaning, N., & Kpimekuu, P. B. (2023). Qualitative Analysis on Costs and Benefits of Adopting a Cloud-Based Accounting Information System: A Case Study of Rural Banks in Ghana. European Journal of Accounting, Auditing and Finance Research, 11(6), 70-91. https://tudr.org/id/eprint/1842/

Hafsari, A & Adli, A. (2023). Implementation of Accounting Information Systems, Management Information Systems and Performance Measurement Systems on Managerial Performance at Pt. Indonesia Nippon Steel PipeSaudi J Econ Fin, 7(1), 1-8.

Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. International Journal of Multivariate Data Analysis, 1(2), 107-123. https://www.inderscienceonline.com/doi/abs/10.1504/IJMDA.2017.087624

https://www.cell.com/heliyon/pdf/S2405-8440(23)04136-1.pdf.

Katz, R., Jung, J., & Goldman, M. (2024). Cloud Computing and firm performance: a SEM microdata analysis for Israeli firms. Digital Policy, Regulation and Governance, 26(3), 295-316.https://www.emerald.com/insight/content/doi/10.1108/DPRG-06-2023-0091/full/html

Kline, R. B. (2016). Principles and practice of structural equation modeling (4th ed.). Guilford Press. https://psycnet.apa.org/record/2015-56948-000

Journal of Ecohumanism
2024
Volume: 4, No: 1, pp. 166 – 174
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v4i1.4158

Mark, J.L. (2022). Impact of Information and Communication Technology on Accounting Procedure and Systems in Corporate Organizations. Department of Accounting (Bingham University)-2nd Departmental Seminar Series with the Theme–History of Accounting Thoughts: A Methodological Approachhttp://localhost:8080/xmlui/handle/123456789/803

Masdi, MAMM Hadanan, SW Zamain, NSA Hasnan, AH Julaihi, MHS Sani, BNQA .. Abdullah, N (2023) The role of disruptive technologies on accountingIn AIP Conference Proceedings. Available at https://doi.org/10.1063/5.0110329Accessed on 17th June, 2023.

Nwankpa, J. K., & Roumani, Y. (2016). IT capability and digital transformation: A firm performance perspective. https://www.researchgate.net/profile/Joseph-Nwankpa/publication/362751432_IT_Capability_and_Digital_Transformation_A_Firm_Performance_Perspective_Completed_Research_Paper/links/62fd3886ceb9764f72044c32/IT-Capability-and-Digital-Transformation-A-Firm-Performance-Perspective-Completed-Research-Paper.pdf

Ofurum, C. I., & Obi, H. K. (2024). Effect of cloud accounting costs on financial performance of deposit money banks in Nigeria. SADI International Journal of Management and Accounting (SIJMA), 11(2), 19-28.

Olaniyi, O., Olaoye, O. O., & Okunleye, O. J. (2023). Effects of Information Governance (IG) on profitability in the Nigerian banking sector. Asian Journal of Economics, Business and Accounting, 23(18), 22-35. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4526249

Onifade, H. O., Shittu, S. A., Aminu, A. O., Ajibola, K. T. (2023). Effect of cloud accounting characteristics on performance of listed food and beverages companies in Nigeria. Journal of Perspectives in Management – JPM, 7, e257284. https://doi.org.10.51359/2594-8040.2023.257284

Onyali, C(2016) The Use of cloud computing and accounting packages for corporate business transactions in Nigeria: An explorative study. IOSR Journal of Business and Management (IOSR-JBM), 18(7): 113-117.

Owolabi, S., Oyegoke, K. S., & Olalere, M.(2023). Cloud accounting and financial reporting quality of deposit money banks (DMBs) in Nigeria. International Journal of Management Studies and Social Science Research, 5(4), 98-110. https://doi.org/10.56293/IJMSSSR.2022.4666

Proaño-Rivera, B Feria-Dominguez, JM(2023) Are Ecuadorian banks enough technologically efficient for growth? A clinical study. Available at https://doiorg/101002/ijfe2775Accessed on 17th June, 2023.

Rawashdeh, A., & Rawashdeh, B. (2023). The effect cloud accounting adoption on organizational performance in SMEs. International Journal of Data and Network Science, 7(1), 411-424.http://m.growingscience.com/beta/ijds/5801-the-effect-cloud-accounting-adoption-on-organizational-performance-in-smes.html.

Valerie, O Abolade, F & Rowland, W(2019) Accounting software and resolution to financial insolvency in Nigeria: a meta analysis. Covenant Journal of Business and Social Sciences, 10(2) https://doi.org/10.20370/cjbss.v10i2.1801

Wisdom, O., & Grace, O. (2023). Cloud accounting cost and financial performance of manufacturing firms in Nigeria. Russian Law Journal, 11(3), 3060-3068. https://cyberleninka.ru/article/n/cloud-accounting-cost-and-financial-performance-of-manufacturing-firms-in-nigeria

Yoshikuni, AC Dwivedi, R. Dultra-de-Lima, R.G. Parisi, C. Oyadomari, J.C.T. (2023). Role of Emerging Technologies in Accounting Information Systems for Achieving Strategic Flexibility through Decision-Making Performance: An Exploratory Study Based on North American and South American Firms. Global Journal of Flexible Systems Management, 1-20. https://link.springer.com/article/10.1007/s40171-022-00334-9.