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Impact of Computerized Accounting System on Financial Reporting Accuracy. A Study of Access Bank PLC. (Jos Branch)

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ABSTRACT

This study examines the impact of computerized accounting systems on financial reporting accuracy, with emphasis on improvements in reliability, timeliness, and the quality of financial information. The increasing adoption of information technology in accounting practice has transformed traditional manual systems, enhanced efficiency, and reduced human error. A quantitative research design was employed, with primary data collected through structured questionnaires administered to selected accounting personnel at Access Bank PLC, Jos Branch. Data were analysed using descriptive statistics, Spearman rank order correlation, and ordinary least squares regression. Findings indicate that system quality ($r = 0.572$, $p < 0.01$) and information processing speed ($r = 0.214$, $p < 0.01$) have statistically significant positive effects on financial reporting accuracy, while user competence does not emerge as a significant predictor in the regression model. The overall model explains 32.7% of the variance in financial reporting accuracy ($R^2 = 0.327$; $F = 26.035$, $p < 0.001$). The study concludes that investing in high-quality accounting software and system infrastructure is the most effective lever for enhancing reporting accuracy in the Nigerian banking sector.

Keywords: *computerized accounting system; financial reporting accuracy; system quality; information processing speed; user competence.*

1. INTRODUCTION

The banking sector plays a vital role in economic development by mobilizing savings, allocating credit, and facilitating financial transactions. In developing economies like Nigeria, commercial banks are central to promoting financial inclusion and supporting economic growth, making the stability and transparency of the banking system a matter of national importance.

The credibility of banking institutions depends substantially on the accuracy and reliability of their financial reports, which inform the decisions of investors, regulators, and depositors alike. The International Accounting Standards Board mandates that financial reporting provide relevant, reliable, and timely information for decision-making purposes. Inaccurate reporting can precipitate poor investment decisions, erode public confidence, and contribute to financial instability. In Nigeria, regulatory bodies such as the Central Bank of Nigeria (CBN) and the Financial Reporting Council of Nigeria (FRCN) enforce compliance with International Financial Reporting Standards (IFRS) to ensure comparability and transparency across institutions.

Historically, accounting systems relied on manual processes involving paper-based records that were susceptible to clerical errors, processing delays, and fraudulent manipulation. Advances in information and communication technology have since transformed accounting practice, leading to the widespread adoption of computerized accounting systems that automate financial processes, improve accuracy, strengthen internal controls, and enable real-time

reporting (Hall, 2016). A computerized accounting system integrates hardware, software, and defined procedures to process financial data efficiently, supporting real-time transaction processing, automated reconciliation, and regulatory compliance.

Despite the recognized potential of computerized accounting systems, challenges such as poor implementation, inadequate personnel training, cybersecurity vulnerabilities, and weak technological infrastructure continue to constrain system effectiveness in the Nigerian context (Romney & Steinbart, 2021). These limitations raise substantive empirical questions about the actual impact of such systems on financial reporting accuracy at the operational level.

Accordingly, this study examines the impact of computerized accounting systems on financial reporting accuracy using Access Bank PLC, Jos Branch, as a case study. The study is grounded in Systems Theory and employs a quantitative survey design to provide branch-level empirical evidence and practical recommendations for enhancing financial reporting practices in the Nigerian banking sector. The remainder of the paper is organized as follows: Section 2 presents the statement of the problem and research objectives; Section 3 reviews relevant conceptual, theoretical, and empirical literature; Section 4 describes the research methodology; Section 5 presents and discusses the empirical findings; and Section 6 concludes with recommendations and implications.

2. STATEMENT OF THE PROBLEM AND RESEARCH OBJECTIVES

2.1 Statement of the Problem

Accurate financial reporting is foundational to banking stability, transparency, and stakeholder confidence. Nigerian commercial banks are required to comply with IFRS and adhere to regulations issued by the CBN and the FRCN. Nevertheless, incidents of financial misstatements and weaknesses in internal control systems persist, raising concerns about the reliability of reported financial information.

Although computerized accounting systems are theoretically positioned to improve reporting accuracy, their practical effectiveness depends on contextual factors such as system quality, processing speed, and the competence of end users. Moreover, existing literature is largely focused at the firm or national level, leaving a gap in branch-level evidence within the Nigerian banking sector. This study addresses that gap by examining the impact of computerized accounting systems on financial reporting accuracy at Access Bank PLC, Jos Branch.

2.2 Research Objectives

The overarching objective of this study is to examine the impact of computerized accounting systems on financial reporting accuracy in Access Bank PLC, Jos Branch. The specific objectives are:

- (i) To examine the effect of system quality on the accuracy of financial reports.
- (ii) To assess the effect of information processing speed on financial reporting accuracy.
- (iii) To evaluate the effect of user competence on financial reporting accuracy.

2.3 Research Hypotheses

The following null hypotheses were formulated for empirical testing:

H₀₁: System quality has no significant effect on financial reporting accuracy in Access Bank PLC, Jos Branch.

H₀₂: Information processing speed has no significant effect on financial reporting accuracy in Access Bank PLC, Jos Branch.

H₀₃: User competence has no significant effect on financial reporting accuracy in Access Bank PLC, Jos Branch.

3. LITERATURE REVIEW

3.1 Conceptual Framework

3.1.1 Computerized Accounting Systems

A computerized accounting system refers to the use of computer hardware, software, and digital tools to automate financial processes previously performed manually (Laudon & Laudon, 2020). In the banking context, computerization encompasses electronic transaction processing, automated reconciliation, digital storage, and real-time reporting. Hall (2016) observes that such systems substantially reduce clerical errors and improve the reliability of accounting outputs. For the purposes of this study, computerized accounting systems are operationalized along three dimensions: system quality, information processing speed, and user competence.

3.1.2 Financial Reporting Accuracy

Financial reporting accuracy refers to the faithful representation of economic events in financial statements, free from material misstatement or bias (IASB, 2018). Healy and Wahlen (1999) note that accuracy enhances investor confidence and reduces information asymmetry between firms and external stakeholders. In the banking sector, inaccurate reporting carries significant consequences, including regulatory penalties, misallocation of capital, and erosion of public trust. Accurate reporting requires correct recording, proper classification, sound calculation, and compliance with applicable accounting standards.

3.2 Theoretical Foundation: Systems Theory

This study is grounded in General Systems Theory (GST), originally formulated by Ludwig von Bertalanffy (1968) as a framework for understanding complex, interrelated phenomena. Katz and Kahn (1978) subsequently applied the theory to organizations, describing them as open systems that interact continuously with their environment through inputs, transformation processes, outputs, and feedback mechanisms.

Applied to computerized accounting systems, Systems Theory posits that financial reporting accuracy is an emergent property of the coordinated interaction among system inputs (transaction data, user commands, regulatory requirements), processing activities (data entry, classification, automated calculations), outputs (financial statements and reports), and feedback mechanisms (audits, reconciliation, error detection). The theory predicts that weaknesses in any system component whether hardware, software, personnel, or internal controls will propagate through the system and compromise the accuracy of reported outputs (Bodnar & Hopwood, 2013; DeLone & McLean, 2021).

Laudon and Laudon (2020) and DeLone and McLean (2021) provide empirical grounding for this theoretical position, demonstrating that system quality and information quality are significant determinants of reporting reliability and decision-making effectiveness. The “garbage in, garbage out” principle, derived from Systems Theory, captures the essential insight that the quality of inputs constrains the quality of outputs regardless of processing efficiency.

3.3 Empirical Review

A growing body of empirical literature supports the positive relationship between computerized accounting systems and financial reporting accuracy. Okekwu, Musa, and Abraham (2025) examined information and communication technology (ICT) adoption and financial reporting accuracy in public institutions using a descriptive survey design. Their findings revealed that ICT tools including accounting information systems (AIS) and electronic auditing platforms improved timeliness, accuracy, internal controls, and fraud detection, although challenges related to infrastructure and technical capacity were also identified.

Khan (2026) investigated AI-enabled financial accuracy models using a dataset of 48,620 accounting transactions. The study found that machine learning models substantially outperformed traditional systems in detecting accounting errors, with error-related transactions characterized by higher variances and delayed postings. The author concluded that AI-augmented computerized systems improve financial reporting integrity through enhanced error detection and predictive accuracy.

Abdelhaq and Salem (2026) explored digital accounting and innovation in relation to business sustainability, demonstrating that technologies including artificial intelligence,

blockchain, and big data analytics improve real-time reporting, support decision-making, and facilitate ESG compliance. The study cautioned, however, against over-digitization risks and emphasized the importance of ethical and proportionate adoption.

Kimani (2025) conducted a systematic desk-based review on AIS and financial reporting accuracy, concluding that accounting information systems significantly enhance the reliability and consistency of financial statements through error reduction, data integrity preservation, comprehensive audit trails, and timely reporting. Collectively, the empirical literature provides robust support for the hypothesized relationships examined in this study.

4. RESEARCH METHODOLOGY

4.1 Research Design

This study employs a quantitative cross-sectional survey design to examine the impact of computerized accounting systems on financial reporting accuracy. The quantitative approach is appropriate given the study's objective of testing pre-specified hypotheses using structured, numeric data (Saunders, Lewis, & Thornhill, 2007). The unit of analysis is individual accounting and finance staff at Access Bank PLC, Jos Branch.

4.2 Population and Sampling

The target population comprised 300 staff members drawn from the accounting and finance functions of Access Bank PLC, Jos Branch, as documented in the bank's human resources records. Using the Krejcie and Morgan (1970) sample size determination table, a minimum sample of 169 respondents was required for a population of 300 at the 95% confidence level. A target sample of 174 was adopted, selected through simple random sampling to ensure representativeness and eliminate selection bias.

4.3 Data Collection

Primary data were collected using a structured, self-administered questionnaire comprising two sections: (i) demographic characteristics (gender, age, educational qualification, and work experience) and (ii) Likert-scale items measuring system quality, information

processing speed, user competence, and financial reporting accuracy (10 items per construct, anchored on a five-point scale from 1 = Strongly Disagree to 5 = Strongly Agree). A total of 176 questionnaires were administered; 174 were returned and deemed usable for analysis (response rate = 98.9%).

4.4 Reliability Assessment

The internal consistency of the research instrument was assessed using Cronbach's alpha coefficients. Nunnally and Bernstein (1994) recommend a minimum threshold of 0.60 for exploratory research. As reported in Table 1, all four constructs met or exceeded this threshold, confirming adequate reliability.

Table 1

Cronbach's Alpha Reliability Coefficients

Variable	No. of Items	Cronbach's α
Financial Reporting Accuracy	10	0.78
System Quality	10	0.74
Information Processing Speed	10	0.65
User Competence	10	0.64

4.5 Data Analysis Techniques

Data were analysed using SPSS. Descriptive statistics characterized the sample. Spearman rank-order correlation was employed to assess bivariate associations between the independent variables and financial reporting accuracy, given the ordinal nature of Likert-scale data. Ordinary least squares multiple regressions were subsequently used to estimate the joint and individual effects of system quality, information processing speed, and user competence on financial reporting accuracy, with variance inflation factors (VIF) computed to assess multicollinearity.

5. FINDINGS AND DISCUSSION

5.1 Respondent Profile

Table 2 summarizes the demographic characteristics of the sample. The sample is broadly balanced by gender (56.3% female; 43.7% male). The majority of respondents (74.1%) fall within the 26–45 age range, consistent with active working professionals. Over 90% hold at least a bachelor’s degree, with 66.1% holding a master’s degree. A further 83.9% report more than six years of professional experience. The sample is therefore well-educated and experienced, lending credibility to self-reported assessments of computerized accounting system use and its effects on financial reporting accuracy.

Table 2

Demographic Characteristics of Respondents (N = 174)

Variable	Category	N	%
Gender	Male	76	43.7
	Female	98	56.3
Age	Below 25	23	13.3
	26–35 years	66	37.9
	36–45 years	63	36.2
	46 and above	22	12.6
Education	OND/NCE	11	6.3
	B.Sc.	43	24.7
	Masters	115	66.1
	Others	5	2.9
Work Experience	1–5 years	28	16.1

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Variable	Category	N	%
	6–10 years	100	57.5
	11–15 years	46	26.4

5.2 Correlation Analysis

Table 3 presents Spearman rank-order correlations among the study variables. System quality exhibits the strongest bivariate relationship with financial reporting accuracy ($r = 0.572$, $p < 0.01$), followed by user competence ($r = 0.393$, $p < 0.01$) and information processing speed ($r = 0.214$, $p < 0.01$). All three null hypotheses (H_{01} through H_{03}) are rejected at the bivariate level, indicating that each independent variable is positively and significantly associated with financial reporting accuracy.

Table 3

Spearman Rank-Order Correlation Matrix (N = 165)

Variable	1	2	3	4
1. Financial Reporting Accuracy	1.000			
2. System Quality	.572	1.000		
3. Information Processing Speed	.214	.400	1.000	
4. User Competence	.393	.529	.745	1.000

Note. ** $p < 0.01$ (two-tailed).

5.3 Regression Analysis

Tables 4 and 5 report the results of the ordinary least squares regression analysis. The overall model is statistically significant ($F(3, 161) = 26.035$, $p < 0.001$), with an R^2 of 0.327 and an adjusted R^2 of 0.314, indicating that system quality, information processing speed, and user

competence jointly explain approximately 32.7% of the variance in financial reporting accuracy. Variance inflation factors (ranging from 1.632 to 1.993) fall well below the conventional threshold of 10, confirming the absence of problematic multicollinearity.

Table 4

Model Summary and ANOVA

	R	R²	Adj. R²	F	df	p
Model	.572	.327	.314	26.035	3, 161	< .001

Table 5

Regression Coefficients and Collinearity Statistics

Predictor	B	SE	β	t	p	VIF
Constant	1.303	.374	—	3.480	.001	—
System Quality	.449	.087	.426	5.151	< .001	1.632
Information Processing Speed	.203	.093	.182	2.196	.030	1.649
User Competence	.042	.081	.047	.518	.605	1.993

Note. Dependent variable: Financial reporting accuracy.

5.4 Discussion

The regression results indicate that system quality ($B = 0.449$, $\beta = 0.426$, $p < 0.001$) is the most influential determinant of financial reporting accuracy, consistent with DeLone and McLean's (2021) information systems success model and with earlier findings by Grande, Estébanez, and Colomina (2020). High-quality systems reduce processing errors, enforce procedural controls, and produce outputs that faithfully represent underlying transactions, directly improving the accuracy of financial reports.

Information processing speed also exerts a significant positive effect ($B = 0.203$, $\beta = 0.182$, $p = .030$), supporting the argument that faster data processing reduces the window for data degradation, manual intervention, and transcription errors. This finding aligns with Hall (2016) and Romney and Steinbart (2021), who identify processing efficiency as a key performance attribute of effective accounting information systems.

Contrary to the bivariate correlation result, user competence does not emerge as a statistically significant predictor in the multivariate regression model ($B = 0.042$, $p = .605$). This result suggests that the observed bivariate association between user competence and financial reporting accuracy is largely attributable to the strong inter-correlation between user competence and both system quality ($r = 0.529$) and information processing speed ($r = 0.745$). Once these technological factors are controlled, user competence does not account for additional unique variance in reporting accuracy. This finding has practical implications: it implies that investments in system quality and processing infrastructure yield greater returns for financial reporting accuracy than equivalent investments in user training alone—at least within the current study context.

Overall, the findings affirm the utility of Systems Theory as a theoretical lens for understanding financial reporting accuracy, confirming that the quality of technological inputs and processing infrastructure are primary determinants of reporting output quality in the Nigerian banking sector.

6. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study set out to examine the impact of computerized accounting systems on financial reporting accuracy at Access Bank PLC, Jos Branch, Nigeria. Drawing on a quantitative survey of 174 accounting and finance professionals and grounded in Systems Theory, the study finds that system quality and information processing speed are significant positive predictors of financial reporting accuracy, while user competence does not make a statistically significant independent contribution in the multivariate model. The overall model explains 32.7% of the variance in financial reporting accuracy, with the remaining variance attributable to factors outside the scope of this study.

These findings contribute to the empirical literature by providing branch-level evidence from the Nigerian banking sector a context that has received limited attention in prior research and by demonstrating that technological infrastructure factors outweigh human capital factors as determinants of reporting accuracy within this setting.

6.2 Recommendations

On the basis of these findings, the following recommendations are advanced:

- (i) Banking institutions should prioritize investment in high-quality accounting software platforms that incorporate robust data validation, automated reconciliation, and real-time error detection capabilities.
- (ii) Processing infrastructure should be maintained and upgraded regularly to sustain system speed and minimize processing latency, particularly as transaction volumes grow.
- (iii) Although user competence is not a significant predictor in this model, the moderate bivariate correlation suggests that training programmes may complement technological investments; institutions should nonetheless direct primary resources toward system quality improvements.
- (iv) Regulatory authorities such as the CBN and FRCN should incorporate minimum system quality standards into their supervisory frameworks to establish a consistent baseline for financial reporting accuracy across Nigerian banks.

6.3 Limitations and Future Research

This study is subject to several limitations. First, the cross-sectional design precludes causal inference; future research employing longitudinal or quasi-experimental designs would strengthen causal claims. Second, the study is limited to a single branch of one bank, constraining generalizability. Third, the 32.7% explanatory power of the model suggests that additional determinants of financial reporting accuracy such as organizational culture, audit quality, regulatory pressure, and leadership style warrant future investigation. Researchers are also encouraged to explore the moderating role of firm-level characteristics (e.g., bank size, ownership structure) on the system quality reporting accuracy relationship.

REFERENCES

- Abdelhaq, A., & Salem, A. (2026). Digital accounting and innovation: Implications for business sustainability. Unpublished manuscript.
- Al-Dmour, R., Al-Dmour, H., & Rababah, B. (2022). The impact of information systems quality on organizational performance. *International Journal of Information Management*, 62, 102433. <https://doi.org/10.1016/j.ijinfomgt.2021.102433>
- Al-Okaily, M., Al-Okaily, A., Shiyyab, F., & Masadah, W. (2020). Accounting information system effectiveness from an organizational perspective. *Management Science Letters*, 10(16), 3991–4000.
- Bertalanffy, L. von (1968). *General system theory: Foundations, development, applications*. George Braziller.
- Bodnar, G. H., & Hopwood, W. S. (2013). *Accounting information systems* (11th ed.). Pearson.
- Brigham, E. F., & Ehrhardt, M. C. (2017). *Financial management: Theory and practice* (15th ed.). Cengage Learning.
- Central Bank of Nigeria. (2023). Annual report. CBN.
- DeLone, W. H., & McLean, E. R. (2021). Information systems success measurement. *Foundations and Trends in Information Systems*, 2(1), 1–116. <https://doi.org/10.1561/29000000005>
- Grande, E. U., Estébanez, R. P., & Colomina, C. M. (2020). The impact of accounting information systems on performance measures. *Journal of Business Research*, 123, 445–455.
- Hall, J. A. (2016). *Accounting information systems* (9th ed.). Cengage Learning.
- Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4), 365–383.
- International Accounting Standards Board. (2018). *Conceptual framework for financial reporting*. IFRS Foundation.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2nd ed.). Wiley.
- Khan, F. (2026). AI-enabled financial accuracy models: Evidence from large-scale accounting transaction data. Unpublished manuscript.
- Kimani, D. (2025). Accounting information systems and financial reporting accuracy: A systematic review. *Journal of Accounting and Finance Research*, 14(2), 55–72.

- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Laudon, K. C., & Laudon, J. P. (2020). *Management information systems: Managing the digital firm* (16th ed.). Pearson.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- O'Brien, J. A., & Marakas, G. M. (2011). *Management information systems* (10th ed.). McGraw-Hill.
- Okekwu, A., Musa, A., & Abraham, M. (2025). ICT adoption and financial reporting accuracy in public institutions. *Journal of Public Finance and Accountability*, 9(1), 12–28.
- Olowookere, J. K., & Adebisi, W. K. (2022). Electronic accounting system and financial reporting quality in Nigerian banks. *Asian Journal of Economics, Business and Accounting*, 22(5), 45–58.
- Romney, M. B., & Steinbart, P. J. (2021). *Accounting information systems* (15th ed.). Pearson.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business students* (4th ed.). Pearson Education.