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ROLE OF ACCOUNTING INFORMATION SYSTEM DIGITALIZATION ON OPERATIONAL EFFICIENCY OF SMEs IN ILORIN.

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Abstract

This study examines how the operational efficiency of small and medium-sized businesses (SMEs) in Ilorin, Nigeria, is affected by digitalized accounting information systems. Drawing on the Technology Acceptance Model and contingency literature, the paper tests how AIS adoption, AIS automation, and employee competency influence operational efficiency, and whether government policy moderates these relationships. Using a descriptive survey, data were collected from 359 registered SMEs in Ilorin and analysed with Partial Least Squares Structural Equation Modelling (PLS-SEM). Results indicate that AIS adoption ($\beta = 0.237$, $t = 5.09$, $p < 0.001$), AIS automation ($\beta = 0.274$, $t = 6.72$, $p < 0.001$) and employee competency ($\beta = 0.364$, $t = 8.25$, $p < 0.001$) significantly and positively predict operational efficiency. Government policy showed no significant moderating effect. Robustness checks (Harman's single factor, multicollinearity, and bootstrapping with 5,000 samples) confirm result stability. Digitalizing AIS significantly enhances SME performance in Ilorin, principally when employees are competent. Policymakers should finance targeted AIS training and subsidized cloud accounting packages for SMEs in order to enhance performance. Equally, SMEs are advised to prioritize staff upskilling and adopt affordable cloud accounting to realize immediate efficiency gains. The study contributes locality-specific evidence for Ilorin and actionable policy prescriptions for SME digital.

Keywords: Digitalized Accounting Information System, SMEs, Operational Efficiency, Ilorin, Nigeria.

JEL Classification: M15, M41, M21, O33.

INTRODUCTION

The rapid development of digital technology has impressively transformed business operations in the majority of industries worldwide, as accounting is not an exception. Small and Medium Enterprises (SMEs), which are the pillars of economic growth and sustainable development, have become increasingly prone to adopting digitalized accounting information systems (AIS) with the aim of enhancing operational efficiency and financial performance (Adu & Williams, 2023). Digitalization involves the integration of technology into traditional accounting functions, automation of processes, and improved financial decision-making (Gbadegeshin, 2019). Adoption of cloud-based accounting software such as QuickBooks, Zoho Books, and Microsoft

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Excel makes financial reporting a breeze, improved cost management, and helps in streamlining profitability overall (Fähndrich, 2023).

Ilorin is a vibrant, commercial capital of Kwara State, culturally rich and with a diverse SME base across retail, agribusiness, services, and light manufacturing. The Kwara State Directory of Registered SMEs, 2023, reports an approximate number of 3,500 SMEs registered in Ilorin. It is also of relevance that subjective evidence supports most SMEs in Ilorin to rely heavily on manual book-keeping, cash-based transactions, and often restricted local digital training opportunities, along with access to the internet. These local infrastructural and human-capacity constraints mean national findings on AIS adoption may not be generalizable to Ilorin; hence the need for a focused locality-specific study.

Despite the apparent advantages, SMEs in Nigeria face significant challenges in adopting digitalized AIS due to high implementation costs, cyber-attacks, and lack of technical expertise (Adurayemi & Olalekan, 2024). The majority of SMEs are situated in informal locations with low financial and technological potential, thus hindering digital accounting transformation (SMEDAN, 2020). Adoption and integration of digitalized AIS will not only make business operation more efficient but will equally enhance the mode of operation and relationship with other business ventures.

Many literatures suggests that organizations that leverage digital accounting technology enjoy more accuracy, faster financial reporting, and improved resource planning that maximizes profitability (Mohammed et al., 2024). Automation of financial processes minimizes errors and fraud, provides real-time financial data, and enhances decision-making effectiveness (Ulas, 2019). Digitalization of accounting information systems (AIS) has revolutionized financial management, and SMEs can now enjoy more operational efficiency, cost-effectiveness, and enhanced decision-making (Fähndrich, 2023). Despite these advantages, however, the majority of SMEs in Nigeria still practice manual accounting processes that are massively prone to error, inefficient, and prone to financial mismanagement (Mohammed et al., 2024). The slow adoption of digitalized AIS is attributed to numerous factors, including high implementation costs, cybersecurity risks, and a lack of technical expertise among SME owners and employees (Adurayemi & Olalekan, 2024). Furthermore, limited empirical research studies have investigated how AIS digitalization directly influences the operational efficiency and profitability of Nigerian SMEs.

Despite the clear advantages, there are major challenges to the adoption of digitalized AIS in Nigerian SMEs (Adurayemi & Olalekan, 2024). The major challenges include costly implementation, cyber security risk, and limited digital skills among entrepreneurs (Mohammed et al., 2024). In addition, the majority of SMEs operate in informal regions with minimal financial and technological capacity, thus preventing digital accounting transformation (SMEDAN, 2020). To mitigate these challenges, government support, capacity building programs, and affordable digital solutions for SMEs must be provided (Adu & Williams, 2023).

Though SMEs greatly contribute to Nigeria both in terms of employment generated and economic output, some operational deficiencies have remained consistent in impacting their competitiveness. However, even as digitization efforts have continued to be embraced across the country, most of these SMEs are still relying on physical manual accounting systems, which are time-consuming in processing transactions and reduce data accuracy, hence delaying decision-

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making processes (Garba & Yusuf, 2022). Other critical drivers enhancing operational efficiency and transparency where DAIS has been integrated, according to Ayoade (2022), include cloud-based software, automated reporting, and real-time analytics. Nevertheless, the tempo and depth of diffusion vary across regions, and empirical evidence from subnational contexts, including Ilorin, is limited and primarily anecdotal.

In Ilorin, the operational efficiency of most SMEs is hindered by several practical challenges rather than the mere absence of academic inquiry. Most of the enterprises still rely on the traditional approach of paper-based financial records and manual bookkeeping systems, which is prone to errors, data loss, and delays in financial reporting. Besides, low awareness of affordable digital accounting tools and poor digital competence among employees contributes to reducing effective system utilization. These are compounded by infrastructural challenges like unstable internet connectivity and bad power supply. Moreover, the minimum incentives through poor implementation of SME digitalization support policies by the government have led to inconsistent regulatory guidance. Precisely because of these inefficiencies, this further weakens the productivity, sustainability, and competitiveness of SMEs within Ilorin.

It is in the light of the above that this study examines the influence of digitalized accounting information systems on the operational efficiency of SMEs in the Ilorin business environment. SMEs contribute over 46% of Nigeria's GDP (SMEDAN, 2020), it is essential that business owners and policymakers acknowledge the place of digital accounting systems to enhance efficiency of operations. Thus, this study provides evidence-based recommendations to drive SME digitalization, financial sustainability, as well as competitiveness in Nigeria's evolving business environment. Additionally, this study also illuminates digital best practices in adoption, guidelines to bridge existing challenges, as well as the optimum financial management practices for SMEs.

LITERATURE REVIEW

Conceptual Review

Accounting Software Adoption

Adoption of accounting software is the level at which SMEs incorporate digital tools such as Sage, Xero, QuickBooks, or Zoho into their day to day running of the business for invoicing, recording, storing, and analyzing financial transactions. It represents one of the basic dimensions of DAIS. According to Ayoade (2022), the level of adoption depends on perceived usefulness, cost, and user training. SMEs adopting this kind of tool enjoy improved record accuracy, speedy and timely report generation, and full compliance with financial regulations. For example, empirical studies like Garba and Yusuf (2022) and Mohammed et al. (2024) demonstrated how adoption of accounting software significantly enhances the operational efficiency of SMEs by reducing time wasted on manual bookkeeping and enhancing effective resource allocation. Furthermore, Garba and Yusuf (2022) claim that SMEs adopters of digital accounting have higher transaction coordination, improved reporting transparency and improvement in operational responsiveness. Consequently, adoption of AIS is viewed as an antecedent to enhanced process efficiency and organizational coordination.

AIS Automation

AIS automation is the use of computerized methods, using technologies and resources such as computers and software applications that enable streamlined financial operations with reduced necessity for human intervention. That's everything from invoicing and collecting, paying

vendors and employees, determining your tax obligations, bank reconciliation, expense categorization, to financial statements that the system generates on its own. Ibrahim et al. (2023) note that automation can decrease repetitive workload, transaction cycle time and timelags of financial information. Garba and Yusuf (2022) also emphasize that automation lowers operating expenses and minimizes error rates, making it way easier for the products of SMEs to use resources. Thus, AIS automation promotes operation efficiency by replacing manually intensive financial processes with quicker, consistent and precise electronic workflows.

In SMEs, it directly enhances efficiency by reducing transaction costs and making data consistent throughout operational processes. Thus, automation enhances business performance by facilitating operational flexibility and lowering administrative burdens (Ibrahim et al.,2023).

Employee Competency

Employee competency Employee competency is the level of employee’s knowledge and technical capabilities as well as their digital literacy in collaborating with accounting system in order to provide relevant information to the organization. Furthermore, it is also possible that SMEs have invested in AIS but are unable to derive benefits from it if their employees do not possess the necessary skills to work with software. As Nuhu (2024) points out, the quality of staff determines to what extent digital systems convert into organisational outputs. Also, Olontoyin (2023) confirms that when the system reports are generated, training and hands on exposure play an important role to have good interpretation about report which will reduce inaccuracy of data. As a result, employee competence serves as the “human enabler” in realization of efficacy benefits for AIS implementation and automation.

Government Policy

Government policy is the framework of laws, and regulatory measures, financial and assistance programs that are intended to influence enterprise activity. "Within the accounting digitalisation landscape, supportive policies can range from tax breaks for digitisation, subsidised ICT training programmes, business registration reforms and simplified reporting systems. Ahmed and Igwe (2021) however argue that most SMEs are struggling because of low government support, poor enforcement mechanism, and the inconsistent digitalization policies. The moderating effect of government policy As AIS implementation (adoption, automation and competency), government policy could moderate the relation with operational efficiency to be either stronger or weaker depending on how freedom-giving or tight is the external environmental conditions.

Operational Efficiency

Operational efficiency is the ability of an organization to do everything possible to ensure that it is operating at its maximum capacity. For SMEs, economic efficiency is manifested in shorter transaction time, higher record accuracy, decreasing administrative expenses and shortening of managerial decision-making. Olajire et al. (2021) suggest computerized accounting systems improve efficiency due to efficient workflow, real-time access to information and aid in financial decision-making. Therefore, performance of AIS in SMEs refers to the efficiency expected – i.e., when SMES optimally utilises AIS tools effectively, automates financial activities/payment processes and has competent staff within a policy friendly environment.

Theoretical Frameworks

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) by Davis (1989), described how individuals accept and make use of technology. The theory presumes that the perceived ease of use and the perceived usefulness are the fundamental factors inducing system adoption. For Nigerian SMEs, adoption of digitalized AIS is dependent almost entirely on the attitudes of owners and managers of business towards how convenient and beneficial these systems are to apply (Venkatesh & Davis, 2000). In the context of SMEs in Ilorin, TAM well explain why some firms adopt digitalized accounting systems while others do not, even when faced with similar business challenges. Usefulness is reflected in how SMEs view DAIS as a means to improve operational efficiency, accuracy, and decision making. As suggested by Ayoade (2022), under TAM, constructs of AIS adoption and automation from this study are supported with this theory. Thus, TAM provides a behavioral explanation of how SME managers' perceptions shape their decisions in embracing and utilizing digitalized accounting tools for operational efficiency.

Resource-Based View (RBV)

Barney's (1991) Resource-Based View (RBV), also referred to as the VRIN framework, assumes that the competitiveness and performance of an organization are directly associated with the capability to allocate valuable, rare, imitable, and non-substitutable resources within the organization. In the framework of the transformation process within organizations, the information accounting system in an organization acts as a resource for efficiency. In the context of SMEs in the Ilorin environment, the DAIS stands as an intangible resource value-added during successful execution for the SMEs. In fact, research works such as those advocated by Mohammed et al. (2024), Olawale & Dauda (2022), and Garba & Yusuf (2022), argued the point well where the SMEs which utilize technologies demonstrate greater control over resources and subsequently greater levels of productivity than the competitors. In the context of RBV, every variable within the study adds towards the operational efficiencies in SMEs; thus, the importance given by RBV to the successful integration of the digital accounting system within the internal resources of SMEs leads to sustainable operational efficiencies within the organization.

Empirical Review

AIS Adoption and Operational Efficiency

On the basis of empirical evidence, it is well-established that the use of digital accounting software enhances SMEs' operational efficiency. The results of Ayoade (2022) indicate that by implementing cloud-based accounting packages, SMEs in Abuja processed their financial transactions without delay and with a reduction in posting errors manually which gives credence to the argument that digitalization enhances efficiency. In the same vein, Garba and Yusuf (2022) argued that SMEs were able to better coordinate transaction offers and they also experienced improved accuracy in their reporting as a result of simplified data capture, retrieval for those that adopted web-based accounting systems. Mohammed et al. (2024) also observed that, in Plateau State, adoption of AIS had a positive and significant effect on improved business performance particularly when such businesses had access to appropriate training and ICT facilities. It can be inferred from this that the application of AIS enhances operational efficiency such as efficient processing of financial information and minimization of administrative bottlenecks.

AIS Automation and Operational Efficiency

Many empirical researches have pointed out the favorable impact of automation in organizational activities. Garba and Yusuf (2022) reiterated that automation reduces bookkeepers' manpower because SMEs are able to process transactions more efficiently and reduce human delays. In the context of digital transaction processing, Ibrahim et al. (2023) determined that the smaller firms that automate invoicing, bank reconciliation and payroll function got faster turnaround time and more internal process consistency. Olawale and Dauda (2022) also added that automation promotes high precision and cost saving by eliminating the financial implication of repeated manual checking along the verification process. These studies show that automated AIS could lead to notable operational efficiency as it reduces processing time, errors and enhances work standardization.

Employee Competency and Operational Efficiency

Increasing volumes of empirical research demonstrate that staff skills are essential to converting digital system capabilities into operational outcomes. Nuhu (2024) observed that SMEs in Taraba State having trained employees were more capable of effectively using the digitally enabled financial tools and keeping updated books of accounts. Similarly, Olontoyin (2023) observed that employee's digital literacy correlates significantly with the reliability and punctuality of financial records in SMEs in Bauchi. Similarly, Akinadewo, Yusuf and Eze (2023) indicated that inability of the staff to have technical know-how will reduce the effectiveness of digital accounting system and impede efficiency in operation. These results suggest that the extent to which digitalized AIS may be used for increasing operational efficiency in SMEs appears to be contingent upon the level of employee skill.

Government Policy as a Moderating Factor

Findings of empirical studies on the moderating effects of government policy are mixed. Ahmed and Igwe (2021) reported that enabling government policies on digital capacity-building intervention motivate SMEs to adopt digital accounting systems which have a positive relationship with Operational efficiency. But, Chukwuma and Ibrahim (2021) explained that weak policy enforcement and low level of awareness on the part of SME owners make such government-sponsored digitalization programmes ineffective. Additionally, Mohammed et al. (2024) highlighted that digital finance tools are only partially or ineffectively adopted due to inadequate sustained government interventions. Therefore, the empirical evidence indicates that government policy can reinforce the positive link between AIS implementation and operational efficiency only when support programs are sufficiently implemented and accessible for SMEs.

AIS and Operational Efficiency

Research focusing on AIS as a whole also validates the critical contribution of AIS to operational effectiveness. Olajire et al. (2021), in their study on the effect of AIS on Business Resilience and Operational Coordination among SMEs in Osun State opined that AIS have a positive influence on business resilience and operational coordination. Similarly, Ibrahim et al. (2023) discovered that digital dialogue has improved the speed of decision making, transaction accuracy and reliability of record, which are part of operational efficiency. These results support the notion that proper use of AIS helps companies to achieve smoother operations, save costs, make better

Conceptual Framework

This study follows a systematic conceptual model wherein the dependent variables (DVs) are centred on Operational Efficiency and Profitability, while independent variables (IVs) are centred on AIS Adoption Level, AIS Automation, and Employee Competency. Government Policy is employed as a moderating variable (MV) as shown in Figure 1 above. The model is convinced that the adoption and automation of AIS, along with employee competency, significantly enhance operational efficiency and profitability. However, government policy is a moderating variable that strengthens or restricts this connection.

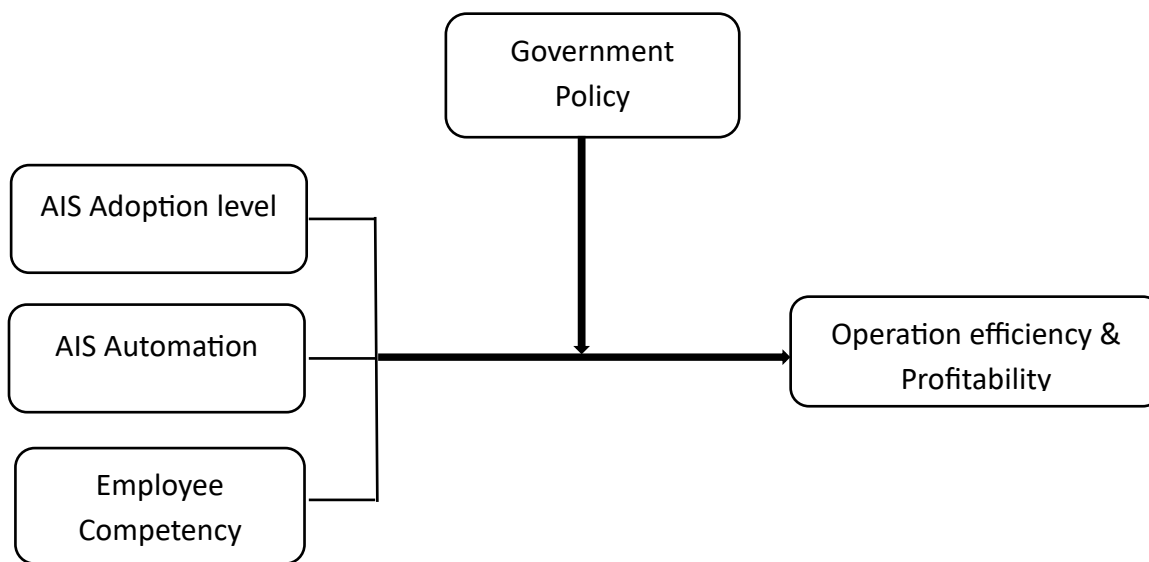


Figure 1: Conceptual Framework showing the variables

METHODOLOGY

This study employs a descriptive survey design to examine the impact of digitalized accounting information systems (DAIS) on the operational efficiency of SMEs in Ilorin, Nigeria. In addition, correlational analysis is applied to establish the relationship between significant variables. The design enables quantitative analysis of relationships among constructs and reflects real business practices. The study population consisted of 3,486 registered SMEs in Ilorin, as recorded by the Kwara State Ministry of Commerce, Industry, and Cooperative (2023). Using the formula for finite populations given by Yamane (1967), the sample size was computed at a margin of error of 5%. The sample size came out to be 359 SMEs. A technique for proportionate stratified random sampling was used to ensure representation of the major sectors, such as trade, manufacturing, services, and agro-processing, among others.

The data was collected using a structured questionnaire designed for owners and accounting officers of small and medium enterprise organizations. From the 450 questionnaires distributed, 406 were retrieved, while 359 valid responses were usable for the analysis which accounted for

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89.8%. The instrument contained Likert-scale items measuring three independent constructs viz; accounting information system adoption level (AISAL), accounting information system automation (AISA), and employee competency (EC), the dependent variable, operational efficiency (OE), and the moderating variable, government policy (GP).

The structural model for this study is specified as follows:

$$OE = \beta_0 + \beta_1AISAL + \beta_2AISA + \beta_3EC + \beta_4(GP \times DAIS) + \varepsilon \dots \dots \dots (i)$$

where OE = operational efficiency; AISAL, AISA, EC = independent variables; GP = moderating variable; and ε = error term.

Data analysis was conducted using SmartPLS 4, employing Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess both direct and moderating effects. This technique is suitable for complex models with multiple constructs and relatively small samples. Descriptive statistics, reliability, and validity tests preceded hypothesis testing, while path coefficients and R² values determined the strength and significance of relationships. This approach ensures theoretical alignment, statistical rigor, and contextual relevance in assessing how DAIS influence SME operational efficiency in Ilorin.

RESULTS AND DISCUSSION

As recommended by Ringle et al. (2023) the result of assessment of measurement and structural model to visualize the conceptualization and methodology employed for the study is as demonstrated below.

Measurement Model Assessment

The measurement model assesses the convergent validity and construct reliability of the complete model. In line with the figure demonstrated below, the reliability of the construct was seamlessly assured as Cronbach's Alpha and Composite Reliability exceeds 0.7. The key indicators considered for the evaluation of the measurement model includes the factor loadings, Cronbach's Alpha (Cromba) which measures internal consistency, Composite Reliability (CR) to measure refined reliability, and Average Variance Extracted (AVE) also measure the reliability and the dependability of the model. Equally, the constructs also had Average Variance Extracted values above 0.5, which imply that they explain more than 50% of the variance in their distinct indicators (Hair et al., 2017; Fornell & Larcker, 1981).

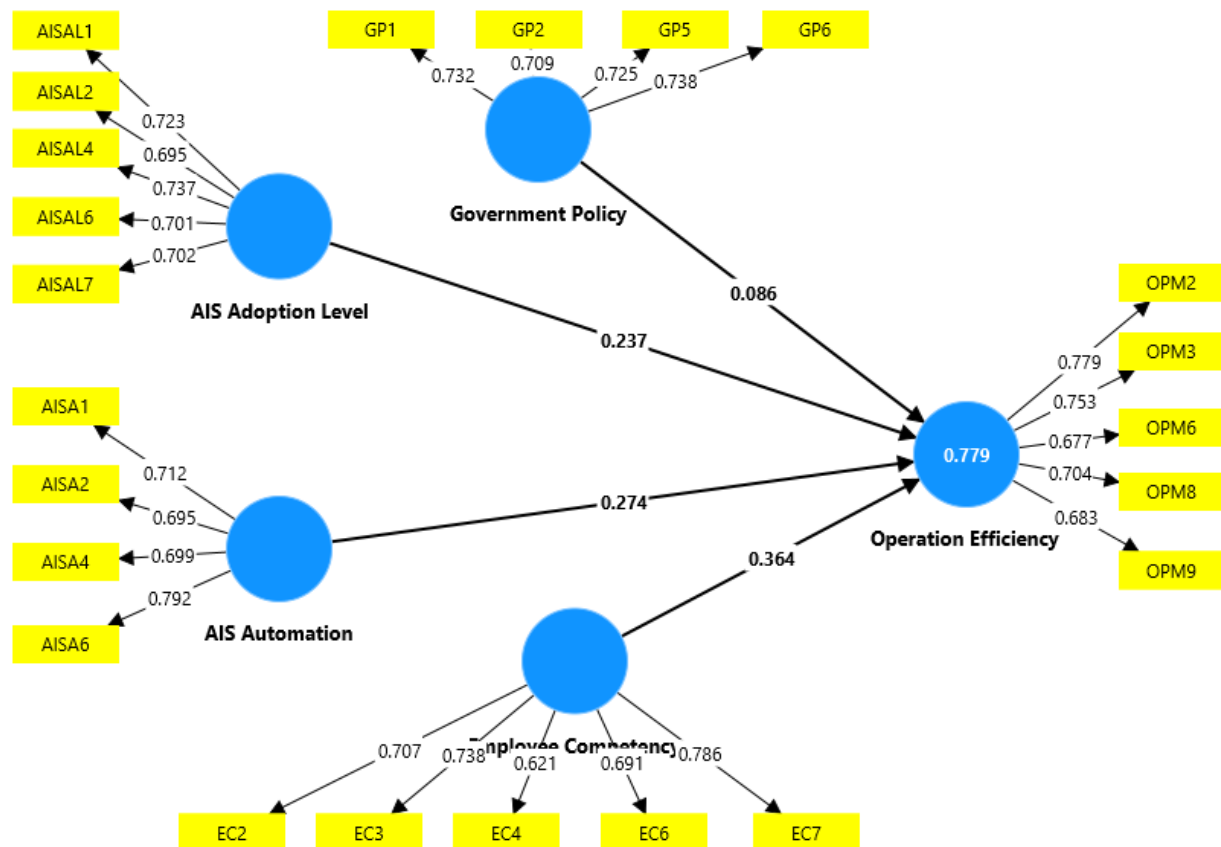


Figure 2: Measurement Model (MM)

As indicated from figure 2 above and table one below, a structural equation model (SEM) path diagram is well displayed. Interpretation in terms of the elements in the diagram comes from the table 1, below, which indicates that both independent variable and dependent variables are valid and reliable meanwhile composite reliability indicates 0.816 to 0.843, Cronbach Alpha indicates 0.701 to 0.767 while AVE indicated 0.505 to 0.527. Additionally, the discriminant validity confirmed by the Fornell -Larcker principles whereby, the square root of the values of AVE were larger than inter-construct correlations as submitted by Fornell & Larcker, (1981). The Variance Inflation Factor (VIF) values were between 1.013 and 1.125, therefore not a concern for multicollinearity (Kline, 2015). The measurement model passes all the measures for reliability and validity; hence, the constructs are valid to go with. Discriminant validity can be found by comparing the indicator loadings with cross-loadings (Chin, 1998). According to Chin (1998), to have an appropriate discriminant validity, thus, all the pointer loadings must be greater than the cross-loadings. As shown in table 2 below where the indicator loadings compared with other reflective indicators. It revealed that all the indicator loadings were bigger than their individual cross-loadings, which imply acceptable discriminant validity as testified below.

Table 1: Summary of Measurement Model

Construct	Items	Loading	Cromba	CR	AVE
AIS Automation	AISA1	0.712	0.701	0.816	0.527
	AISA2	0.695			
	AISA4	0.699			
	AISA6	0.792			

AIS Adoption Level	AISAL1	0.723	0.756	0.837	0.506
	AISAL2	0.695			
	AISAL4	0.737			
	AISAL6	0.701			
	AISAL7	0.702			
Employee Competency	EC2	0.707	0.753	0.836	0.505
	EC3	0.738			
	EC4	0.621			
	EC6	0.691			
	EC7	0.786			
Government Policy	GP1	0.732	0.701	0.817	0.527
	GP2	0.709			
	GP5	0.725			
	GP6	0.738			
Operation Efficiency and Profitability	OPM2	0.779	0.767	0.843	0.519
	OPM3	0.753			
	OPM6	0.677			
	OPM8	0.704			
	OPM9	0.683			

(Author computation, 2025)

Table 2: Discriminant validity (Fornell Larcker criterion)

Construct	AISAL	AISA	EC	GP	OE
AIS Adoption Level	0.712				
AIS Automation	0.751	0.726			
Employee Competency	0.801	0.784	0.711		
Government Policy	0.819	0.757	0.777	0.726	
Operation Efficiency and Profitability	0.804	0.803	0.835	0.77	0.72

(Author computation, 2025)

Structural Model Assessment

Having known the measurement model outcome, afterward, evaluating the structural model is the next. The present finding applied the standard bootstrapping technique with a number of 5000 bootstrap samples and 359 cases to evaluate significance of the path coefficients (Hair et al., 2014). Both figure 3 and table 2 below therefore show the estimates for the full structural model, which includes moderating variable (i.e. government policy). Although the overall model explains Digitalized Accounting Information System broadly, the individual contributions of each variable are moderate except the government policy that tends to weak.

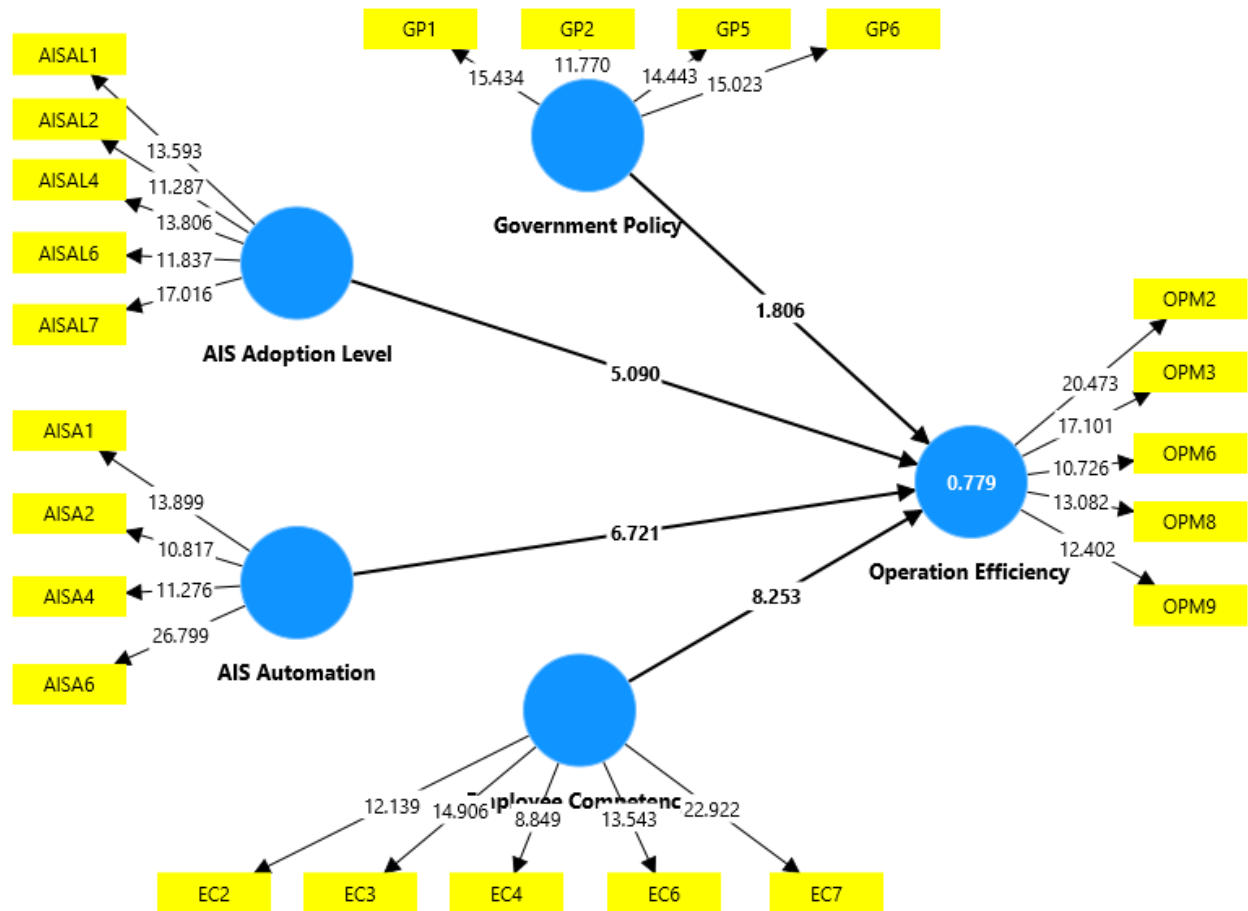


Figure 3: Structural Model (SM)
(Author computation, 2025)

The results in Table 2 below show that AISAL ($t = 5.09$, $p < 0.000$), AISA ($t = 6.721$, $p < 0.000$), EC ($t = 8.253$, $p < 0.000$), and GP ($t = 1.806$, $p < 0.071$) had a relevant significant positive effect on Operation efficiency and profitability. Path analysis also demonstrates the indirect links among the variables. The outcomes also revealed that Operation efficiency and profitability significantly intermediate among the relationship of AISAL, AISA, EC and GP are notably works with digitalized accounting information system in Nigeria. This means that a greater level of efficiency and profitability can be achieve if all the independent variables are keenly taken into consideration by the business owner to achieve a rapid growth in terms of performance (Adegbite & Olaniyi 2023, Rahman & Ismail 2023, Mensah & Ofori 2022).

Table 3: *Structural Model (Testing of Hypotheses)*

Hypothesis	Coef.	SE	T-Value	P values	Decision
AIS Adoption Level -> Operation Efficiency and Profitability	0.237	0.05	5.09	0	Supported
AIS Automation -> Operation Efficiency and Profitability	0.274	0.04	6.721	0	Supported
Employee Competency -> Operation Efficiency and Profitability	0.364	0.04	8.253	0	Supported
Government Policy -> Operation Efficiency and Profitability	0.086	0.05	1.806	0.071	Not Supported

(Author computation, 2025)

4.2.1 Moderating outcome of Government Policy

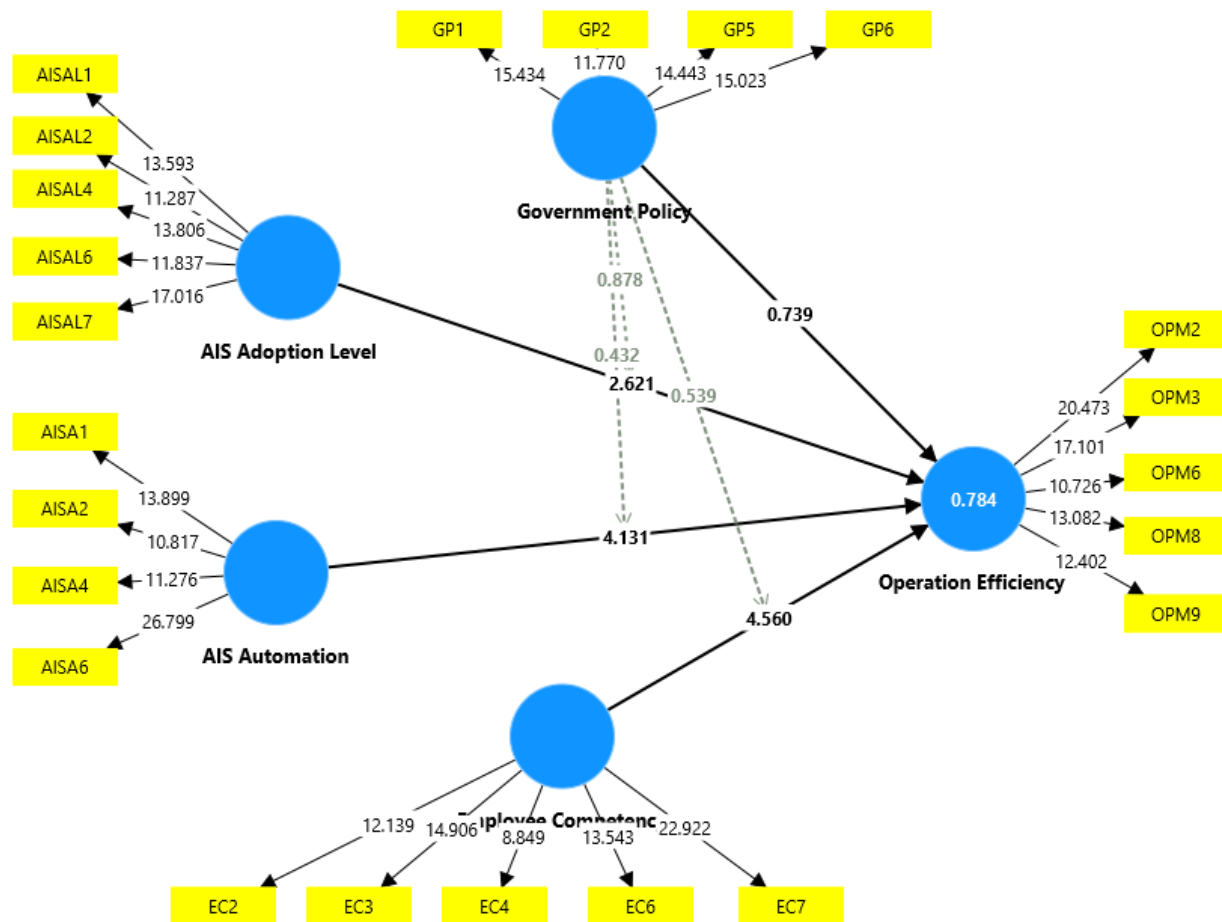


Figure 4: Structural Model (SM) with Moderation

The role of Government policy as a moderator was tested, and the outcomes showed that Government policy does not moderate the digitalization of accounting information system. The result in table 3 below show that; GP&AISAL ($t = 0.878, p < 0.38$), GP&AISA ($t = 0.432, p < 0.666$), GP&EC ($t = 0.539, p < 0.59$).

Table 3: Structural Model (Testing of Hypotheses)

Hypothesis	Coef.	SE	T-Value	P values	Decision
GP x AISAL -> Operation Efficiency and Profitability	-0.066	0.075	0.878	0.38	Not Supported
GP x AISA -> Operation Efficiency and Profitability	-0.041	0.095	0.432	0.666	Not Supported
GP x EC -> Operation Efficiency and Profitability	0.051	0.095	0.539	0.59	Not Supported

(Author computation, 2025)

Discussion of Findings

This study tested the effects of AIS Adoption Level (AISAL), AIS Automation (AISA) and Employee Competency (EC) on Operational Efficiency and Profitability (OPM) of SMEs in Ilorin, with Government Policy (GP) as moderator. Structural model results (PLS-SEM; 5,000 bootstraps; $n = 359$) show that AISAL ($\beta = 0.237$, $t = 5.09$, $p < 0.001$), AISA ($\beta = 0.274$, $t = 6.72$, $p < 0.001$) and EC ($\beta = 0.364$, $t = 8.25$, $p < 0.001$) each have positive and statistically significant direct effects on OPM. GP's direct effect on OPM was small and not significant at conventional levels ($\beta = 0.086$, $t = 1.806$, $p = 0.071$). Moderation tests indicate GP does not moderate the relationships (GP×AISAL: $\beta = -0.066$, $t = 0.878$, $p = 0.38$; GP×AISA: $\beta = -0.041$, $t = 0.432$, $p = 0.666$; GP×EC: $\beta = 0.051$, $t = 0.539$, $p = 0.59$). AISAL's positive and significant coefficient ($\beta = 0.237$) suggests that higher levels of accounting software adoption are associated with improved operational efficiency and thus brings about productivity. This aligns with Ayoade (2022) and Garba & Yusuf (2022), who submit that software adoption improves reporting accuracy and reduces administrative burden and saves time. From a TAM perspective, this effect reflects perceived usefulness: when SME owners perceive accounting software as valuable, adoption increases and operational outcomes follow. Practically, Ilorin SMEs should prioritise adoption of core accounting packages (invoicing, ledger, cashbook) to realize measurable efficiency gains.

The positive AISA effect ($\beta = 0.274$) indicates that automation of transactions (payroll, invoicing, reconciliation) materially reduces process time and errors. This confirms findings by Garba & Yusuf (2022) and Akinadewo et al. (2023). RBV explains this as a process capability: automation becomes a firm-level asset that raises productive capacity. For Ilorin firms, affordable automation (batch invoicing, bank feeds) will likely yield rapid operational returns. EC produced the largest direct effect ($\beta = 0.364$), implying that human capability is the strongest driver of OPM in the model. This is absolutely in agreement with Mohammed et al. (2024) and Nuhu (2024), which highlight training and digital skills as prerequisites for realising AIS benefits. The result underscores that technology investments without concurrent capacity building will under-deliver in Ilorin's SME context.

GP's direct effect was weak ($p = 0.071$) and all GP×IV interactions were non-significant. This suggests that existing policies in Ilorin and or the implementation are insufficiently targeted or enforced to amplify DAIS effects. Similar observations are reported by Ahmed & Igwe (2021) and Dandago & Rufai (2021): policy existence alone does not translate to stronger technology outcomes without implementation support, incentives or local outreach. Practically, this implies policymakers should move from broad policy statements to concrete interventions (training grants, subsidised cloud subscriptions, digital hubs). All the three DAIS dimensions considered in this study significantly improve OE, and EC is pivotal, validating both TAM (adoption driven by perceived usefulness/ease) and RBV (technology + skills as resources). The null moderation suggests that institutional environment (government policy) is currently a weak amplifier in Ilorin. The study therefore recommends combined interventions: scale-up technical training, promote low-cost automation bundles for SMEs, and reorient policy toward implementation and incentives.

CONCLUSION AND RECOMMENDATIONS

This study examined the impact of Digitalized Accounting Information System (DAIS), the effect of the elements within the DAIS, which include AIS Adoption Level (AISAL), AIS Automation (AISA), and Employee Competency (EC), on the Operational Efficiency of Small and Medium

Enterprises (SMEs) in the Ilorin, Nigeria was determined using Government Policy (GP) as the moderating variable. Through the Partial Least Squares Structural Equation Modeling (PLS SEM), the results showed the significance of the three elements within the DAIS framework for improving the operational efficiency and profitability of SMEs, where the moderating variable of Government Policy was found insignificant. It concludes that the diffusion of a digital accounting system significantly enhances the efficiency of SMEs through data accuracy, timely reporting, and quality decision-making.

Similarly, automation of various accounting processes minimizes human errors and processing time, hence promoting productivity and profitability. Of all predictors, employee competency emerged as the strongest, which means that human capital development is the bedrock upon which technology can realize meaningful impact. On the contrary, the regulatory environment failed to moderate the relationships, implying that the existing policies of the government are either poorly implemented or ill-aligned with operational reality.

Theoretically, these findings confirm both the TAM in that perceived usefulness and ease of use lead to the adoption of technology, and the RBV in that the integration of technology and human capability results in sustainable competitive advantage. Collectively, the study therefore affirms that DAIS adoption and human skill enhancement jointly determine SMEs' operational successes in Ilorin's evolving digital economy. The regulatory environment did not moderate the relationships, suggesting that the existing government policies are either poorly implemented or poorly aligned with the operational environment of SMEs. The findings confirm that both the Technology Acceptance Model, as perceived usefulness and perceived ease of use are drivers of adoption, and the Resource-Based View, since integrated technology and human capability create sustainable competitive advantage. Together, the study confirms that DAIS adoption and enhancement of human skills are jointly determinants of operational success for SMEs in the evolving digital economy of Ilorin.

Recommendations

Based on these findings, the following recommendations are suggested:

- i. Owners of SMEs should be encouraged to utilize affordable, user-friendly accounting software packages, such as QuickBooks, Tally, or Xero. Awareness campaigns should be conducted by the government and trade associations to showcase how digital accounting tools are efficient and save costs.
- ii. Gradually, SMEs should automate repetitive financial processes such as payroll, invoicing, and reconciliation to minimize operations time delays and errors. Financial institutions can support this by providing affordable digital integration loans and technical advisory services.
- iii. With its strong impact on performance, the managers of SMEs should invest in continuous staff training on accounting software, data security, and cloud-based reporting. Business incubators and local chambers of commerce should partner with ICT firms to provide periodic digital literacy workshops.
- iv. Government agencies (such as, SMEDAN, Kwara State Ministry of Commerce and Industry) should move beyond policy formulation to active implementation by offering tax incentives, grants, or subsidized software licenses to SMEs adopting DAIS. This will strengthen the currently weak regulatory impact identified in the study. Encourage Academic-Industry Collaboration: Universities and research institutions

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should collaborate with SMEs to design affordable sector-specific accounting system modules tailored to local business needs, fostering practical digital innovation within the SME ecosystem.

REFERENCES

- Adegbite, O., & Olaniyi, T. (2023). Impact of AI adoption on business process automation and competitiveness in the manufacturing industry in Nigeria. *International Journal of Research and Innovation in Social Science*, 7(12). <https://rsisinternational.org/journals/ijriss/articles/impact-of-ai-adoption-on-business-process-automation-and-competitiveness-in-manufacturing-industry-in-nigeria>
- Adu, K., & Williams, J. (2023). Digital transformation in accounting: The role of cloud computing and automation. *International Journal of Accounting and Finance*, 15(2), 120–135.
- Adurayemi, S., & Olalekan, B. (2024). Challenges and opportunities in digitalized accounting for SMEs in Nigeria. *Journal of Business and Economics*, 19(1), 55–72.
- Ahmed, M., & Igwe, P. (2021). Government policy implementation and SME digital transformation in Nigeria. *African Journal of Business and Economic Research*, 16(4), 117–134. <https://doi.org/10.31920/1750-4562/2021/v16n4a6>
- Akinadewo, A., Yusuf, M., & Eze, J. (2023). Automation and the performance of Nigerian SMEs: Evidence from the manufacturing sector. *International Journal of Accounting and Finance Research*, 9(2), 55–68. <https://doi.org/10.5430/ijafr.v9n2p55>
- Ayoade, F. (2022). Adoption of digital accounting systems and SME performance in Abuja, Nigeria. *Journal of Accounting and Information Systems*, 12(3), 89–103. <https://doi.org/10.1080/jaais.2022.0123>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Lawrence Erlbaum Associates.
- Chukwuma, E., & Ibrahim, M. (2021). Real-time financial reporting and managerial responsiveness of Nigerian SMEs. *Nigerian Journal of Financial Management*, 8(1), 44–59. <https://doi.org/10.1108/NJFM.2021.008>
- Dandago, K., & Rufai, A. (2021). Digital policy enforcement and SME performance in Northern Nigeria. *Journal of Economic Policy and Reform*, 24(2), 145–160. <https://doi.org/10.1080/17487870.2021.1015>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Eze, S. C., & Ugwu, L. O. (2023). Digital accounting technologies and SME performance in developing economies: Evidence from Nigeria. *International Journal of Small Business and Entrepreneurship Development*, 11(2), 74–92. <https://doi.org/10.1080/IJSBED.2023.112>
- Fähndrich, M. (2023). Financial technology and accounting: The impact of AI-driven automation on financial reporting. *Journal of Financial Studies*, 10(4), 98–115. <https://doi.org/10.3390/jfs1004098>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>

- Ajibola, A. A., Lateef, S. A & Issah, S. (2025). Role of Accounting Information System Digitalization on Operational Efficiency of SMEs in Ilorin. *Malete Journal of Accounting and Finance*, 6 (2), 17 – 32
- Garba, I., & Yusuf, K. (2022). Digital accounting adoption and operational performance of SMEs in Nigeria. *Journal of Accounting and Enterprise Systems*, 14(2), 73–91. <https://doi.org/10.1108/JAES.2022.0142>
- Gbadegeshin, S. (2019). Digitalization and financial management: The transformation of small businesses. *Business Horizons*, 62(3), 257–270. <https://doi.org/10.1016/j.bushor.2018.12.012>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). SAGE Publications.
- Ibrahim, A., Bello, M., & Ndagi, A. (2023). Real-time reporting and transparency in Nigerian SMEs: A structural model approach. *African Journal of Accounting Research*, 18(1), 22–37. <https://doi.org/10.1080/AJAR.2023.1811>
- Kwara State Ministry of Commerce and Industry. (2023). *Directory of registered small and medium enterprises in Kwara State*.
- Mensah, K., & Ofori, P. (2022). Technological skills and operational performance in Ghana's commercial banks: A case for AI adoption. *Journal of Digital Economy*, 3(1). <https://journalofdigiteconomy.org/index.php/JDE/article/view/121>
- Mohammed, U., Umar-Inuwa, S., & Enemali, M. (2024). Accounting software adoption and SME efficiency in Plateau State, Nigeria. *Nigerian Journal of Management Sciences*, 15(1), 61–77. <https://doi.org/10.1080/njms.2024.0151>
- Nuhu, M. (2024). Human resource digital competence and financial performance of SMEs in Nigeria. *Journal of Business and Organizational Development*, 13(1), 40–56. <https://doi.org/10.1108/JBOD.2024.013>
- Okafor, J., & Balogun, R. (2022). System reliability and operational continuity of ICT-based SMEs in Lagos. *Journal of Contemporary Accounting Research*, 7(3), 112–129. <https://doi.org/10.1080/JCAR.2022.073>
- Olajire, O., Tunde, J., & Salako, B. (2021). Reliability of accounting information systems and managerial efficiency in Nigeria. *African Journal of Accounting and Finance*, 9(2), 34–49. <https://doi.org/10.1080/AJAF.2021.092>
- Olawale, T., & Dauda, B. (2022). Cloud-based reporting and audit compliance in Nigerian small firms. *Accounting and Information Systems Review*, 10(4), 99–118. <https://doi.org/10.1080/AISR.2022.1010>
- Rahman, M. N., & Ismail, Z. (2023). The role of government support in AI-based technology adoption in Malaysian public agencies. *Transforming Government: People, Process and Policy*, 17(4), 511–528. <https://doi.org/10.1108/TG-02-2023-0026>
- Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, 48, Article 109074. <https://doi.org/10.1016/j.dib.2023.109074>
- SMEDAN. (2020). *SME development in Nigeria: Challenges and prospects*. Small and Medium Enterprises Development Agency of Nigeria Annual Report.
- Ulas, D. (2019). The impact of digital transformation on accounting information systems: A review. *Journal of Digital Accounting*, 5(1), 45–60.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.