

Research

## **Effect of Accounting Information System (AIS) Adoption on the Operational Performance of Small and Medium Enterprises (SMEs) In Nigeria's Service Sector**

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**Abstract:** The business environment is increasingly characterized by intense competition, compelling organizations, including Small and Medium Enterprises (SMEs), to adopt strategies that enhance productivity, efficiency, and customer satisfaction. This study examines the effect of Accounting Information System (AIS) adoption on the operational performance of SMEs in Nigeria's service sector, using employee productivity as a proxy. Specifically, the study evaluates the effects of AIS quality and AIS efficiency on employee productivity. A survey research design was adopted, with primary data collected through structured questionnaires administered to 394 SME operators in Lagos State and the Federal Capital Territory (Abuja). Data were analyzed using descriptive statistics and multiple regression analysis. The findings are expected to provide empirical evidence on the relevance of AIS in improving operational performance among service-sector SMEs. The study contributes to existing literature by focusing on operational performance rather than financial performance and by examining the service sector, which has received limited scholarly attention. The study is anchored on Task-Technology Fit (TTF) Theory and Resource-Based View (RBV) Theory, providing a theoretical basis for understanding the relationship between AIS adoption and organizational performance.

**Keywords:** Accounting Information System, SMEs, Operational Performance, Employee Productivity, Nigeria, Service Sector.

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### **1. Introduction**

The contemporary business environment is increasingly characterized by intense competition among organizations striving to attract and retain customers. This competitive pressure compels organizations, including Small and Medium Enterprises (SMEs), to adopt

strategies that enhance productivity, profitability, efficiency, and overall effectiveness while delivering superior value to customers. Information technology adoption in the workplace remains a central concern in achieving these objectives (Viswanath & Davis, 2000).

SMEs, like larger organizations, continuously integrate Accounting Information Systems (AIS) into their business processes with the aim of improving operational efficiency and service delivery. This integration enhances customer satisfaction and contributes to improved profitability, market share, and service quality. In business parlance, the customer is often described as “king,” emphasizing the critical role customers play in sustaining and growing businesses. Consequently, customer satisfaction in terms of quality, price, and service delivery must be prioritized.

The adoption of AIS enables organizations to optimize business processes, improve record-keeping, and respond swiftly to customer demands. According to Leslie et al. (2017), the use of information technology in business processes increases efficiency, reduces operational costs, and improves data accuracy. Similarly, Hadi and Bhavani (2014) assert that AIS provides essential information for managerial decision-making across planning, control, and performance evaluation functions.

AIS also plays a critical role in financial decision-making. Nor et al. (2022) argue that AIS adoption equips SMEs with capabilities necessary to achieve organizational goals, while Syammi et al. (2022) emphasize that the quality and accuracy of AIS-generated information directly influence managerial decisions. Homood et al. (2021) further describe AIS as a computerized system for processing financial information and strengthening decision-making functions.

Over time, AIS has evolved significantly. James (2011) identifies several models, including manual systems, flat-file systems, database systems, Resource-Event-Agent (REA) models, and Enterprise Resource Planning (ERP) systems. Each model emerged to address limitations of earlier systems, although multiple models may coexist within organizations.

SMEs are defined differently across countries. In Nigeria, the SMEDAN (2017) classification uses employment and asset criteria. Micro enterprises employ fewer than 10 persons with assets below ₦5 million, small enterprises employ 10–49 persons with assets between ₦5 million and ₦50 million, while medium enterprises employ 50–199 persons with assets between ₦50 million and ₦500 million.

As of December 2021, Nigeria had approximately 39.6 million MSMEs, accounting for 96% of businesses and 84% of employment (Moniepoint, 2023). Despite their importance, SMEs face high failure rates. Samuel (2020) reports that 50% fail within the first year and 95% within five years due to factors such as poor planning, inadequate funding, and unfavorable business environments.

SMEs contribute significantly to economic development through employment generation, innovation, and income distribution (Fagbemi & Olaoye, 2016). However, challenges such as regulatory constraints, poor infrastructure, and limited access to technology persist (SMEDAN, 2017).

### **1.2 Statement of the Problem**

The rate at which SMEs fail in Nigeria is alarming. Between 2017 and 2021, approximately 2 million SMEs collapsed, reducing the total number from 39 million to 31.2 million (Kingsley, 2023). More recent reports indicate that about 10 million SMEs have shut down within two years due to inflation, high operational costs, and poor infrastructure (Tobi, 2024).

Despite extensive research on AIS and financial performance, most studies focus on manufacturing firms, leaving a gap in the service sector. Moreover, limited attention has been given to operational performance, particularly employee productivity, as a measure of performance.

This study addresses this gap by examining the effect of AIS adoption—specifically AIS quality and efficiency—on employee productivity in Nigeria’s service-sector SMEs.

### **1.3 Objectives of the Study**

The main objective is to examine the relationship between AIS adoption and operational performance of SMEs in Nigeria’s service sector.

Specific objectives are to:

1. Determine the effect of AIS quality on employee productivity.
2. Examine the effect of AIS efficiency on employee productivity.

### **1.4 Hypotheses**

H<sub>01</sub>: AIS quality has no significant effect on employee productivity.

H<sub>02</sub>: AIS efficiency has no significant effect on employee productivity.

## **2. Literature Review**

This chapter reviews relevant and existing literature on Accounting Information Systems (AIS), Small and Medium Enterprises (SMEs), and operational performance. It

presents prior studies, scholarly opinions, empirical findings, and theoretical foundations that relate to the subject matter. The review is structured into conceptual, empirical, and theoretical perspectives to provide a comprehensive understanding of the study variables and their relationships.

## **2.1 Conceptual Review**

### **Accounting Information Systems**

Ologhodo et al. (2020) report that accounting information technology is a man-made system that utilizes computer and related resources to collect data, process the data into information, and make such information available for decision-making. In a similar vein, Amy (2024) defines an Accounting Information System (AIS) as a system used by businesses to collect, store, manage, process, retrieve, and report financial data for use by accountants, consultants, business analysts, managers, chief financial officers, auditors, regulators, and tax agencies. She further posits that AIS tracks all accounting and business activities within an organization and consists of six components: people, procedures/instructions, data, software, information technology infrastructure, and internal controls.

Adel and Ayman (2020) describe AIS as systems that collect and store financial and accounting data, process and present such data to internal users, and report relevant information to investors, creditors, and tax authorities. They emphasize that AIS serves as a method for tracking accounting activities through information technology resources, thereby enhancing the quality of accounting information.

Leslie et al. (2017) assert that AIS comprises processes, procedures, and systems that capture accounting data from business transactions, record such data appropriately, process it through classification and summarization, and report it to both internal and external users. The system captures financial transactions occurring within the organization or between the organization and its external stakeholders such as customers and vendors.

Romney and Steinbart (2011) further elaborate that AIS consists of six major components: people who use the system, procedures and instructions for data collection and processing, data related to business activities, software used for data processing, information technology infrastructure, including computers and communication networks, and internal control and security measures that safeguard system data. These components collectively perform three major functions: first, collecting and storing data about organizational activities and resources; second, transforming data into useful information

for decision-making; and third, providing adequate controls to ensure data accuracy, reliability, and security.

### **Small and Medium Enterprises (SMEs)**

Small and Medium Enterprises (SMEs) are businesses that maintain revenue, assets, or employee numbers below a specified threshold (Daniel, 2024). The definition of SMEs varies across countries. In Nigeria, the Central Bank of Nigeria defines SMEs as enterprises with a maximum asset base of ₦500 million, excluding land and working capital.

The SMEDAN National Policy on MSMEs adopts a dual-criteria classification based on employment and assets (excluding land and buildings). Where discrepancies occur, employment criteria take precedence. Accordingly:

- Micro enterprises employ fewer than 10 persons and have assets below ₦5 million.
- Small enterprises employ 10–49 persons with assets between ₦5 million and ₦50 million.
- Medium enterprises employ 50–199 persons with assets between ₦50 million and ₦500 million.

SMEs play a crucial role in economic development due to their capacity for employment generation, technological development, and income distribution. However, SMEs in Nigeria face challenges such as unfavorable business environments, inadequate funding, low managerial capacity, and limited access to modern technology (Daniel, 2024).

According to Moniepoint (2023), Nigeria had approximately 39,654,385 MSMEs as of December 2021 across various sectors, including wholesale and retail trade, agriculture, manufacturing, services, and information and communication. Similarly, reports indicate that micro enterprises account for the majority, while small and medium enterprises constitute a smaller proportion of total businesses.

Thomas (2023) notes that sectoral contributions of MSMEs include agriculture (38.4%), wholesale/retail (33.3%), services (9.8%), and marketing (4.2%). The NBS-SMEDAN survey (2017) further highlights that the accommodation and food services subsector alone accounts for 8.4% of MSMEs.

### **Operational Performance**

Operational performance is a critical aspect of business management, encompassing employees, processes, and technology within an organization. Alexandria (2023) defines operational performance as a measure of how effectively a workforce performs tasks in

terms of efficiency and productivity. It helps organizations determine whether employees are contributing positively or require improvement through training or restructuring.

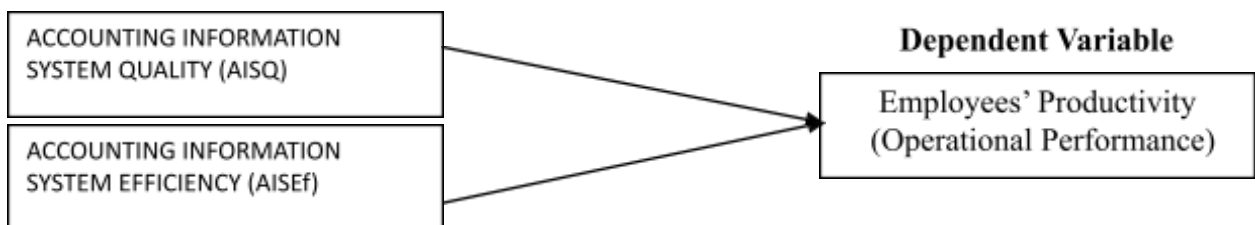
Measuring operational performance yields several benefits, including cost reduction, revenue growth, and enhanced customer satisfaction. Key performance indicators include speed of task completion, quality of output, cost efficiency, flexibility in responding to market changes, and reliability in service delivery.

Benjamin (2023) further explains that operational performance measures how efficiently and effectively an organization executes its internal processes to achieve its objectives. It involves monitoring productivity, quality, customer satisfaction, and cost efficiency. Improved operational performance enhances competitiveness, reduces operational costs, and improves customer satisfaction.

### Framework of the Study

The study framework is based on the relationship between Accounting Information System (AIS) and operational performance. AIS is conceptualized through its dimensions that is its quality and efficiency, while operational performance is measured using employee productivity. Thus, AIS quality and AIS efficiency serve as independent variables, while employee productivity serves as the dependent variable.

### Independent Variables



### 2.2 Empirical Review

Empirical studies on AIS and organizational performance reveal consistent evidence of positive relationships, though methodological and theoretical limitations are often observed.

El-Maude and Danbeki (2021) examined the effect of AIS on SME financial performance in Taraba State, Nigeria. Using a survey design and regression analysis, they found that AIS components significantly improve sales growth. However, the study lacked a proper sample size determination method.

Rehab (2018) investigated AIS and organizational performance in Saudi Arabia, finding that AIS significantly improves cost reduction, quality, and decision-making.

However, the study did not clearly distinguish between independent and dependent variables.

Muhannad and Seif (2019) studied AIS in Jordanian SMEs and found a significant positive relationship between AIS and performance, with knowledge management as a mediator. The study lacked a clearly defined research design and theoretical foundation.

Fagbemi and Olaoye (2016) found that AIS significantly influences SME performance and access to finance. However, the application of contingency theory in the study was insufficiently explained.

Siyabola et al. (2019) reported that AIS positively affects SME performance in Nigeria. However, the study lacked theoretical underpinning, limiting its generalizability.

Yousaf et al. (2022) found that AIS improves quality, cost efficiency, and management productivity in Pakistani SMEs. However, the study failed to define its population and lacked theoretical grounding.

Nicholas et al. (2021) found AIS positively affects MSME performance but did not adequately define population or sample size.

Confidence Joel et al. (2023) found AIS significantly influences firm performance, profitability, and managerial competence. However, the theoretical frameworks used were not adequately justified.

Alnajjar (2017) found that AIS and management support significantly influence organizational performance but lacked clarity in population definition and sampling procedures.

Azize (2016) found a positive relationship between AIS and firm performance in Turkey but lacked proper methodological rigor and theoretical support.

Overall, while empirical studies confirm the importance of AIS, many suffer from methodological weaknesses and lack strong theoretical grounding.

### **2.3 Theoretical Review**

This study is anchored on two key theories: Task-Technology Fit (TTF) Theory and Resource-Based View (RBV) Theory.

#### **Task-Technology Fit (TTF) Theory**

Task-Technology Fit Theory was developed by Goodhue and Thompson (1995). The theory posits that technology improves performance when it aligns with the tasks it is intended to support. When there is a good fit between task requirements and technological

capabilities, performance, utilization, and user satisfaction increase. Conversely, poor fit leads to reduced performance and inefficiency.

Key components of the theory include task characteristics, technology characteristics, and the degree of fit between them. The theory emphasizes that organizations can enhance productivity, reduce errors, and improve efficiency by ensuring proper alignment between technology and tasks.

Despite its usefulness, the TTF theory has been criticized for oversimplifying task-technology interactions and ignoring contextual and social factors (Johnson; Ginzberg; D'Ambra; Schermann).

### **Resource-Based View (RBV) Theory**

The Resource-Based View (RBV) Theory, proposed by Barney (1991), focuses on internal organizational resources as sources of competitive advantage. Resources include physical assets, human capital, and organizational capabilities.

For resources to provide sustained competitive advantage, they must be valuable, rare, inimitable, and non-substitutable. AIS can be viewed as a strategic resource that enhances efficiency and effectiveness.

However, RBV has been criticized for its vague concepts and difficulty in empirical testing. Foss and Knudsen (2000) argue that RBV suffers from unclear distinctions between necessary and additional conditions for competitive advantage and relies on implicit assumptions.

### **3. Research Methodology**

This study adopts a structured methodological approach designed to ensure the validity, reliability, and generalizability of findings. The methodology encompasses the research design, population, sampling procedures, data collection methods, research instrument, validity and reliability assessment, data analysis techniques, model specification, and ethical considerations.

A survey research design was employed, given its suitability for collecting primary data from a defined population through structured questionnaires and for examining relationships between variables. As noted by Kothari (2004), survey designs are appropriate for studies aimed at describing population characteristics and testing hypothesized relationships using quantitative data. This approach enables the application of statistical techniques for robust analysis.

The choice of survey design is consistent with prior empirical studies on accounting information systems (AIS) and organizational performance, including El-Maude and Danbeki (2021), Fagbemi and Olaoye (2016), and Siyanbola et al. (2019), thereby ensuring methodological alignment with established research in the field.

The study focuses on Small and Medium Enterprises (SMEs) in Nigeria's service sector, which forms a significant portion of the country's MSMEs. As of December 2021, Nigeria had approximately 39.65 million MSMEs, with about 9.8% roughly 3.89 million operating within the service sector (Moniepoint MFB Report, 2023; Thomas, 2023).

For practical and empirical purposes, the study narrows its population to registered service-sector SMEs in Lagos State and the Federal Capital Territory (Abuja), selected due to their high concentration of business activities. The combined population of SMEs in these two locations is estimated at 25,000 as of December 2023, forming the basis for sampling in the study.

The sample size for this study was determined using the Taro Yamane formula, which is widely accepted for determining sample sizes in research studies. The Taro Yamane formula is expressed as:

$$n = N / (1 + N(e)^2)$$

Where:

n = sample size

N = population size

e = margin of error (assumed to 0.05 or 5 percent)

Given the population of 25,000 registered service sector SMEs in Lagos and Abuja, the sample size was calculated as follows:

$$n = 25,000 / (1 + 25,000(0.05)^2)$$

$$n = 25,000 / (1 + 25,000(0.0025))$$

$$n = 25,000 / (1 + 62.5)$$

$$n = 25,000 / 63.5$$

$$n = 393.7 \text{ (approximately 394 respondents)}$$

The calculated sample size was therefore approximately 394 respondents. This sample size was considered adequate for meaningful statistical analysis.

The study employed a stratified random sampling technique, where the service sector was divided into four subsectors—accommodation and food services, information and communication, professional scientific and technical services, and other personal

services. Samples were then proportionately selected from Lagos State and the Federal Capital Territory (Abuja) to ensure balanced representation.

Data for the study were obtained from primary sources, specifically from owners and managers of selected SMEs in Lagos and Abuja. Structured questionnaires were used to collect first-hand information on respondents' demographics, as well as key variables including accounting information system quality, system efficiency, and employee productivity.

Data were collected using a structured questionnaire divided into four sections. Section A captured respondents' demographic characteristics, while Sections B, C, and D measured Accounting Information System Quality (AISQ), Accounting Information System Efficiency (AISEf), and Employees' Productivity (operational performance), respectively.

All items were rated on a five-point Likert scale ranging from strongly disagree to strongly agree. The instrument was adapted from established studies, ensuring relevance and consistency with prior research.

The instrument's validity was ensured through content and construct validity. Content validity was established via expert review by three specialists, while construct validity was confirmed through factor analysis. Reliability was assessed using Cronbach's Alpha after a pilot study with 50 respondents, yielding high internal consistency (AIS Quality = 0.874, AIS Efficiency = 0.862, Employees' Productivity = 0.891), all exceeding the 0.70 threshold recommended by Nunnally (1978).

Data analysis was conducted using SPSS version 26, employing descriptive statistics (frequencies, percentages, means, and standard deviations) to summarize responses. Multiple regression analysis was used as the inferential technique to examine the effect of AIS Quality and AIS Efficiency on Employees' Productivity at a 5% significance level.

The regression model specified for the study was:

$$EP = \beta_0 + \beta_1 AISQ + \beta_2 AISEf + \varepsilon$$

Where:

- **EP** = Employees' Productivity
- **$\beta_0$**  = Constant
- **$\beta_1$**  = Coefficient of AIS Quality
- **$\beta_2$**  = Coefficient of AIS Efficiency

- **AISQ** = Accounting Information System Quality
- **AISEf** = Accounting Information System Efficiency
- $\epsilon$  = Error term

The model was used to determine the effect of AIS Quality and AIS Efficiency on Employees' Productivity. The significance of the overall model was tested using the F-statistic, while the significance of individual variables was tested using the t-statistic.

The study adhered to ethical standards in research. Permission was obtained from relevant authorities before data collection. Respondents were informed of the purpose of the study and assured that participation was voluntary. Informed consent was obtained from all participants. Confidentiality and anonymity of responses were maintained, and all data collected were used strictly for academic purposes. The researcher ensured that no physical, psychological or emotional harm was caused to respondents during the course of the study.

#### **4.0 Data Analysis and Results**

This chapter presents the analysis of data collected from SMEs in the service sector and reports the empirical findings of the study. A total of 394 questionnaires were administered across Lagos State and Abuja (FCT), out of which 372 were retrieved (94.4%), and 358 were valid for analysis, representing a high response rate of 90.9%, adequate for statistical inference.

The demographic profile of respondents indicates a male majority (58.1%), with most participants within the economically active age group of 31–40 years (40.2%). The respondents were largely well-educated, with over half (50.3%) holding HND or Bachelor's degrees, and possessed considerable work experience, predominantly between 5–10 years (31.6%). In terms of organizational roles, a significant proportion were owners/proprietors (34.9%) and managers (25.1%), suggesting informed responses regarding firm operations and accounting systems.

Additionally, the sample maintained equal representation from Lagos and Abuja (50% each), enhancing the balance and generalizability of the findings. Overall, the demographic characteristics confirm that the respondents were suitably qualified and experienced to provide reliable data for analyzing Accounting Information System Quality, Efficiency, and Employees' Productivity.

#### 4.1 Descriptive Statistics

Descriptive statistics were used to assess respondents' perceptions of Accounting Information System Quality (AISQ), Accounting Information System Efficiency (AISEf), and Employee Productivity (EP), with mean values above 3.0 indicating agreement.

For AIS Quality, the results show a high level of perceived quality with an aggregate mean of 3.97. Reliability and accuracy recorded the highest ratings, indicating that respondents believe AIS enhances decision-making effectiveness, consistent with prior studies such as Romney and Steinbart (2011).

For AIS Efficiency, the aggregate mean of 3.96 indicates that respondents view AIS as efficient. Key strengths include faster processing and improved access to financial information, supporting the view that information systems improve operational efficiency (Leslie et al., 2017).

For Employee Productivity, the aggregate mean of 3.91 suggests that respondents perceive improved performance levels. Timeliness of task completion and overall productivity were most highly rated, reinforcing the role of AIS in enhancing operational efficiency in organizations (Benjamin, 2023).

Overall, the results indicate positive perceptions of AIS Quality, AIS Efficiency, and Employee Productivity across the sampled respondents.

#### 4.2 Hypothesis Testing

Multiple regression analysis was used to examine the effect of AIS quality and efficiency on employee productivity at a 5% significance level.

##### 4.2.1 Effect of AIS Quality on Employee Productivity

*Table 4.6: Regression Results for Hypothesis One (AIS Quality and Employees Productivity)*

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta		
(Constant)	1.245	0.214		5.817	0.000
AIS Quality	0.567	0.058	0.524	9.776	0.000

*Source: Extract from SPSS output 2026*

R = 0.524; R<sup>2</sup> = 0.275; Adjusted R<sup>2</sup> = 0.273; F = 95.58; p = 0.000

The results show a significant positive relationship ( $\beta = 0.567$ ,  $p < 0.05$ ). AIS quality explains 27.5% of the variation in employee productivity ( $R^2 = 0.275$ ). Thus, the null hypothesis is rejected.

#### 4.2.2 Effect of AIS Efficiency on Employee Productivity

Table 4.7: Regression Results for Hypothesis Two (AIS Efficiency and Employees Productivity)

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta		
(Constant)	1.189	0.221		5.380	0.000
AIS Efficiency	0.598	0.061	0.538	9.803	0.000

Source: Extract from SPSS output 2026

$R = 0.538$ ;  $R^2 = 0.289$ ; Adjusted  $R^2 = 0.287$ ;  $F = 96.09$ ;  $p = 0.000$

AIS efficiency also shows a significant positive effect ( $\beta = 0.598$ ,  $p < 0.05$ ), explaining 28.9% of the variation in productivity ( $R^2 = 0.289$ ). The null hypothesis is rejected.

#### 4.2.3 Combined Effect of AIS Quality and Efficiency

Table 4.8: Multiple Regression Results for Combined Effect of AIS Quality and AIS Efficiency on Employees Productivity

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta		
(Constant)	0.987	0.198		4.985	0.000
AIS Quality	0.312	0.062	0.288	5.032	0.000
AIS Efficiency	0.398	0.064	0.358	6.219	0.000

Source: Extract from SPSS output 2026

$R = 0.612$ ;  $R^2 = 0.375$ ; Adjusted  $R^2 = 0.371$ ;  $F = 106.42$ ;  $p = 0.000$

When both variables are included, they jointly explain 37.5% of the variation in productivity ( $R^2 = 0.375$ ). AIS efficiency ( $\beta = 0.358$ ) has a stronger effect than AIS quality ( $\beta = 0.288$ ).

### **4.3 Summary of Findings**

The analysis reveals that AIS quality significantly enhances employee productivity also AIS efficiency has a slightly stronger impact on productivity. Both variables jointly contribute meaningfully to operational performance.

### **5.0 Discussion of Findings**

The findings of this study reveal that Accounting Information System (AIS) quality has a significant positive effect on employee productivity. This supports the Task-Technology Fit (TTF) theory, which emphasizes that performance improves when technology aligns with task requirements (Goodhue & Thompson, 1995). High-quality AIS enhances reliability, accuracy, and timeliness, thereby enabling employees to perform their duties more efficiently. This result is consistent with prior studies that established a positive relationship between AIS and organizational performance (El-Maude & Danbeki, 2021; Ologhodo et al., 2020; Confidence Joel et al., 2023).

Furthermore, AIS efficiency was found to exert an even stronger influence on employee productivity than AIS quality. This finding aligns with both TTF and Resource-Based View (RBV) theory, which identifies technology as a critical strategic resource for improving performance (Barney, 1991). Efficient AIS enhances productivity by reducing processing time, minimizing errors, and lowering operational costs. This is in line with existing empirical evidence (Yousaf et al., 2022; Nicholas et al., 2021).

Overall, the combined analysis indicates that AIS significantly contributes to employee productivity, although other organizational factors such as leadership and culture also play a role. This underscores the multidimensional nature of operational performance.

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### **5.1 Implication of Finding:**

#### **Theoretical Implications**

This study provides empirical support for the Task-Technology Fit (TTF) and Resource-Based View (RBV) theories within the context of Nigerian SMEs. It demonstrates that Accounting Information Systems (AIS) should be viewed as a multidimensional construct, comprising distinct elements such as quality and efficiency, rather than as a single monolithic concept. Furthermore, the study extends existing AIS research into the service sector, which has received relatively limited scholarly attention.

## **Managerial Implications**

SMEs should prioritize both quality and efficiency in AIS adoption. Efficiency (speed, cost reduction) is slightly more impactful. Also, training and system integration are critical for maximizing benefits.

## **5.2 Conclusion**

The study concludes that AIS adoption significantly enhances operational performance in Nigerian SMEs. Both AIS quality and efficiency positively influence employee productivity, with efficiency having a stronger effect.

These findings suggest that AIS adoption can serve as a strategic tool for improving SME competitiveness, especially in challenging economic environments.

## **5.3 Contributions to Knowledge**

This study contributes by providing empirical evidence from Nigeria's service sector and by disaggregating AIS into quality and efficiency dimensions. It also Support TTF and RBV theories in developing economies

## **5.4 Limitations**

This study is limited by its focus on SMEs located only in Lagos and Abuja, which may restrict the generalization of the findings to other regions. In addition, the use of a cross-sectional research design limits the ability to establish causal relationships over time. Furthermore, the study relies on self-reported data, which may be subject to response bias.

## **5.5 Recommendations**

SMEs should invest in high-quality and efficient AIS, train employees, and ensure proper system integration to improve performance. Policymakers should promote AIS adoption through incentives, better digital infrastructure, and capacity-building initiatives. Future research should use longitudinal approaches, examine moderating variables like firm size, and extend studies to other sectors and regions.

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