



## COMPUTERIZED ACCOUNTING SYSTEM AND PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN BAUCHI METROPOLIS

**DAHIRU MUSA**

Department of Accounting Technology,  
Abubakar Tafawa Balewa University Bauchi  
[dahirimusa@gmail.com](mailto:dahirumusa@gmail.com)

**MAGAJI ABBA**

(Professor of Accounting)  
Department of Accounting,  
Federal University Dutse

**NAZIRU SULEIMAN, PhD**

Department of Accounting Technology,  
Abubakar Tafawa Balewa University Bauchi

### **ABSTRACT**

*This study examines the effect of computerized accounting systems (CAS) on the performance of small and medium enterprises (SMEs) in Bauchi metropolis, Nigeria, with particular focus on the roles of cost and technology. The increasing integration of digital technologies into accounting practices has transformed how businesses record, process, and report financial information, thereby improving efficiency and decision-making. Despite these advantages, many SMEs in developing economies continue to face challenges in adopting CAS due to financial and technological constraints. This study adopts a survey research design, with data collected from a sample of 339 SME operators selected from a population of 2,241 registered businesses using a simple random sampling technique. Structured questionnaires were employed to gather data, which were analyzed using descriptive statistics and Ordinary Least Squares (OLS) regression analysis. The findings reveal that both cost and technology have significant effects on SME performance. Similarly, technology demonstrates a positive and significant influence on performance, indicating that the use of advanced accounting systems enhances accuracy, reduces errors, and supports timely decision-making. The regression results further confirm that the independent variables jointly explain a substantial proportion of the variation in SME performance. It recommends that government and stakeholders provide financial support and promote capacity-building initiatives to enhance CAS adoption among SMEs. This will enable businesses to leverage digital accounting tools for improved productivity, sustainability, and competitiveness in a rapidly evolving business environment.*

**Keywords:** computerized accounting system, SMEs, Cost, Technology, Performance



## **INTRODUCTION**

The evolution of computer technology has significantly transformed accounting practices worldwide, shifting from manual record-keeping to automated and sophisticated systems that enhance efficiency, reliability, and strategic relevance (Pathiranage et al., 2025). In today's competitive business environment, firms are expected to adopt dynamic accounting systems that support organizational goals and improve performance outcomes. Digital accounting systems are now central to business sustainability, as they enhance operational efficiency and enable real-time financial monitoring (Darkwa et al., 2023). Consequently, the integration of computerized systems into accounting practices has become essential for organizational competitiveness and survival.

Accounting involves the systematic identification, recording, classification, and summarization of financial transactions in line with established standards. It provides a framework for measuring financial performance and ensuring accountability in resource utilization (Hai et al., 2023). Modern perspectives extend this role to include data analysis and interpretation for managerial decision-making, positioning accounting systems as strategic tools for planning and control (Binuyo et al., 2024). Additionally, accounting promotes accountability by ensuring transparency, ethical practices, and stakeholder confidence, with computerized systems enhancing this function through accurate and timely financial reporting (Joel et al., 2023; Elom & Atah, 2025).

An accounting system comprises mechanisms for collecting, processing, analyzing, and reporting financial data in accordance with organizational and regulatory requirements. The emergence of computerized accounting systems (CAS) has improved these processes by automating tasks, reducing human error, and enhancing the quality, consistency, and accessibility of financial information (Muhammad & Ismail, 2022). As noted by Daniel (2023), CAS enables faster transaction processing, real-time reporting, and efficient data management, thereby improving financial reporting and decision-making. Empirical evidence further indicates that CAS adoption has a positive and significant effect on SME performance (Elom & Atah, 2025).

Technological advancements, particularly cloud accounting, have accelerated CAS adoption by enabling remote access, real-time data processing, and improved collaboration. These innovations enhance financial reporting efficiency and organizational agility, allowing



firms to respond effectively to changing market conditions (Sarker, 2025). This underscores the increasing importance of digital transformation in accounting practices.

In developing countries such as Nigeria, SMEs play a vital role in economic development but often face challenges related to poor financial management and inadequate record-keeping. While CAS offers opportunities to improve financial control, transparency, and business growth, its adoption remains uneven due to structural and institutional constraints (Binuyo et al., 2024). Many SMEs continue to rely on manual accounting systems, which are prone to errors and inefficiencies, contributing to business failure and limiting access to credit (Zotorvie et al., 2025; Binuyo et al., 2024).

Furthermore, the adoption of CAS is hindered by factors such as high costs of acquisition and maintenance, technological challenges, cybersecurity risks, and lack of technical expertise (Kaur et al., 2025; Alsharari et al., 2024). Additionally, low levels of education and limited technological knowledge among SME operators lead to resistance, with some perceiving CAS as suitable only for large firms. However, studies emphasize that digital accounting systems are essential for all business sizes due to their role in enhancing efficiency, accuracy, and sustainability (Darkwa et al., 2023). Therefore, improving awareness, training, and accessibility is critical to enhancing SME performance and reducing failure rates. This study, therefore, examines the effect of computerized accounting systems (CAS) on the performance of SMEs in Bauchi metropolis, Nigeria.

### **Research Questions**

- i. What is the effect of cost incurred using CAS among SMEs operating within Bauchi metropolis?
- ii. How does technology affect SMEs that are using CAS among SMEs within Bauchi metropolis?

### **Research Hypotheses**

**H0<sub>1</sub>:** Cost has no significant effect on the performance of SMEs business operating within Bauchi metropolis.

**H0<sub>2</sub>:** Technology has no significant effect on the performance of SMEs business operating within Bauchi metropolis.

## **LITERATURE REVIEW**

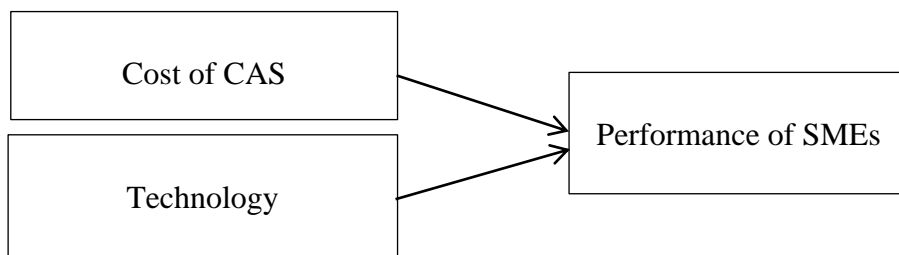
### **Concept of Computerized Accounting System (CAS)**

Computerized Accounting Systems (CAS) refer to the use of computer-based tools and software applications to record, process, store, and generate financial information in an organized and efficient manner. Imasuen, (2026) argued that unlike traditional manual



systems, CAS integrates various accounting functions such as ledger management, payroll, inventory, and financial reporting into a unified digital platform, thereby enhancing accuracy, speed, and reliability. The system minimizes human errors, ensures consistency in financial records, and allows for real-time access to financial data, which is essential for timely decision-making (Yusof, 2025). Furthermore, Apooyin, (2025) opined that CAS supports compliance with accounting standards and improves transparency in financial reporting, making it an indispensable tool for modern organizations. Studies have shown that organizations that adopt CAS experience improved financial control and reporting efficiency, which ultimately contributes to better performance outcomes (Amanamah et al., 2016; Turner et al., 2022).

### **Research Framework**



### **Empirical Review**

#### **CAS and SME Performance**

Binuyo et al. (2024) employed a survey research design to examine the adoption of computerized accounting systems (CAS) among SMEs in Southwestern Nigeria. Using a sample of 300 respondents (with 261 valid responses), data were analyzed through descriptive statistics. The findings showed that most SMEs (87.7%) adopted CAS, which significantly improved financial reporting quality, decision-making, and firm performance. However, many firms still relied on basic software like Excel and combined manual with computerized systems, reducing efficiency. The study recommended full adoption of computerized systems, migration to advanced accounting software, and increased investment in ICT infrastructure and staff training to enhance financial reporting effectiveness among SMEs.

Amosah et al. (2023) examined the effect of record keeping on the development of small-scale enterprises using a mixed research design. Data were collected from 95 small business owners through questionnaires and observations and analyzed using descriptive and inferential statistics. The findings showed that record-keeping



practices among small-scale enterprises are generally weak, with most businesses relying on manual methods and lacking proper financial records. Many owners also have limited knowledge and skills in accounting, which reduces their ability to utilize record keeping for business decision-making and performance improvement. The study recommended increased training, awareness, and institutional support. It emphasized the need for government and related agencies to promote proper record-keeping practices and for small businesses to adopt basic accounting systems or seek professional assistance.

Daniel Nkiru Patricia (2024) investigated the Effects of Computerized Accounting Systems on Organizational Performance: Insights from Oil and Gas Firms in Port Harcourt, Nigeria. The research adopted a descriptive survey design, focusing on oil and gas firms operating in Port Harcourt. Although the exact sample size is not explicitly stated in the provided section, the study targeted firms within the sector to assess the impact of computerized accounting systems (CAS) on accountability, productivity, and cost control. Data analysis was carried out using descriptive statistics, correlation, and regression techniques, consistent with similar empirical studies cited in the literature review. The findings revealed that the adoption of CAS significantly enhances organizational performance. Specifically, CAS improves accountability by ensuring accurate and transparent financial reporting, boosts productivity through efficiency in transaction processing, and strengthens cost control by reducing errors and facilitating better monitoring of expenses. The study further emphasized that CAS adoption is positively associated with profitability and overall organizational effectiveness. Based on these findings, the study recommended that oil and gas firms should intensify investment in computerized accounting systems to maximize accountability and cost efficiency. Additionally, policymakers were advised to encourage the wider adoption of CAS across industries to promote transparency and efficiency in financial management. The study also highlighted the importance of continuous training for staff to ensure ease of use and to fully harness the benefits of CAS in organizational operations.

Pathirana et al. (2024) examines the adoption of computerized accounting systems (CAS) in SMEs: A study of manufacturing firms in Sri Lanka. The study employed survey design method to collect primary data. The population consisted of manufacturing-oriented small and medium-sized enterprises in Sri Lanka, specifically targeting individuals responsible for the finance function within those firms. The sample size was 383 respondents, selected using a snowball sampling



technique. The method of data analysis included descriptive statistics as well as multiple regression analysis to test the hypotheses. The findings revealed that technological change had the strongest positive impact on CAS adoption, followed by accounting expertise, and cost. The study recommends that government bodies, financial institutions, and technology providers collaborate to ease CAS adoption among SMEs by providing financial support for setup costs, offering subsidies or tax incentives, and promoting affordable training programs and scalable software solutions. The study also emphasizes that targeted interventions such as subsidized training initiatives could play a pivotal role in enhancing decision-making efficiency within SMEs.

## **Theoretical Review**

### **Diffusion of Innovation Theory**

The Diffusion of Innovation Theory provides a useful framework for understanding the adoption of CAS among SMEs by explaining how new technologies spread within a social system over time. According to this theory, the adoption of an innovation is influenced by factors such as perceived usefulness, ease of use, cost, and compatibility with existing systems. SMEs are more likely to adopt CAS when they perceive that the benefits outweigh the associated costs and challenges. The theory also emphasizes the role of awareness, communication channels, and social influence in shaping adoption decisions. In the context of this study, the theory explains why some SMEs readily adopt CAS while others resist it due to financial constraints, lack of knowledge, or fear of change. Empirical studies support the relevance of this theory in explaining technology adoption behavior among SMEs in developing countries (Rogers, 2003; Binuyo et al., 2024).

The research framework recognizes that cost and technology interact in influencing SME performance. While technology has the potential to improve performance, high costs may limit its adoption. Therefore, SMEs must balance affordability with technological capability when selecting accounting systems.

## **METHODOLOGY**

The study examined the effect of computerized accounting systems on SME performance in Bauchi metropolis. Survey research design was employed, which is considered appropriate for collecting quantitative data on respondents' perceptions, experiences, and practices regarding computerized accounting systems. Data were gathered using structured questionnaires, allowing for standardized responses and facilitating statistical analysis. The target population comprised 2,241



registered SMEs, and a simple random sampling technique was used to ensure equal representation and minimize bias. The sample size of 339 respondents was determined using Taro Yamane’s formula, and respondents were selected from individuals directly involved in accounting-related activities, including business owners, accountants, and administrative staff, ensuring that responses reflected practical and informed perspectives.

The study utilized a structured questionnaire divided into two sections: demographic characteristics and research variables measured on a 5-point Likert scale ranging from strongly disagree to strongly agree. Data collection was conducted over a specified period with the assistance of trained personnel to ensure accuracy and completeness. For data analysis, the study employed both descriptive statistics (mean and standard deviation) to address the research questions and inferential statistics, reliability statistics (cronbach’s alpha) for each of the construct (Ordinary Least Squares regression) to test the hypotheses at a 5% level of significance. A regression model was specified to examine the relationship between the independent variables (cost and technology) and SME performance, providing a robust analytical framework for evaluating the study’s objectives and ensuring the reliability and validity of the findings.

## **RESULTS AND DISCUSSION**

### **Descriptive Statistics**

**Table 1: Descriptive Statistics**

<b>Variable</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	<b>Kurtosis</b>		
	<b>Statistic</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>	<b>Statistic</b>	<b>Std. Error</b>
Cost	3.182	1.0354	-0.333	0.135	-0.876	0.268
Technology	3.160	1.0778	-0.417	0.135	-0.801	0.268
Performance	2.987	1.0618	-0.224	0.135	-0.879	0.268

The descriptive statistics presented in Table1 provide insights into the distribution and central tendencies of the key study variables, cost of computerized accounting systems, technology, and SME performance. The mean values indicate that respondents moderately agreed with the statements relating to cost (Mean = 3.182) and technology (Mean = 3.160), while performance recorded a slightly lower mean score (Mean = 2.987), suggesting a relatively moderate perception of SME performance within the study area. The standard deviation values for cost (1.0354), technology (1.0778), and performance (1.0618) show a



reasonable spread around the mean, indicating some level of variability in respondents' opinions. In terms of distribution shape, the skewness values for all variables are negative (cost = -0.333, technology = -0.417, performance = -0.224), implying that the data are slightly left-skewed, meaning more responses are concentrated on the higher end of the scale. Additionally, the kurtosis values for cost (-0.876), technology (-0.801), and performance (-0.879) are all negative, indicating a platykurtic distribution, which suggests that the data are relatively flat with fewer extreme values compared to a normal distribution. Overall, the statistics suggest that the data are fairly normally distributed with slight deviations, making them suitable for further inferential analysis such as regression.

### Regression Results

**Table 2: OLS Regression Results**

Variable	Coef ( $\beta$ )	Std. Err	t	P	Decision
Cost	0.153	0.047	3.26	.001	Rejected
Technology	0.153	0.053	2.87	.004	Rejected
R <sup>2</sup>	0.617				
Adj. R <sup>2</sup>	0.612				
F- value	0.000				

The regression results presented in the Table 2 indicate that both cost and technology have statistically significant effects on SME performance. Specifically, the coefficient for cost ( $\beta = 0.153$ ) is positive, with a standard error of 0.047 and a t-value of 3.26, which is statistically significant at the 1% level ( $p = 0.001$ ). This suggests that changes in cost are associated with a meaningful impact on SME performance, and the null hypothesis for cost is therefore “rejected”. Similarly, technology also shows a positive coefficient ( $\beta = 0.153$ ) with a standard error of 0.053 and a t-value of 2.87, which is statistically significant at the 5% level ( $p = 0.004$ ). This indicates that improvements in technology significantly enhance SME performance, leading to the “rejection” of the corresponding null hypothesis. Overall, the findings demonstrate that both variables are important predictors of SME performance, with statistically reliable effects, implying that variations in cost and technological capability play a crucial role in influencing business outcomes.

### Discussion of Findings

The findings of this study from table Table 4.2 reveal that the cost of computerized accounting systems (CAS) has a statistically significant effect on the performance of SMEs, which aligns with existing literature emphasizing cost as a critical determinant in technology



adoption. Although the regression results indicate a positive relationship, this suggests that SMEs that are able to invest in CAS, despite the financial burden tend to experience improvements in their operational efficiency and financial management. This may be attributed to the long-term benefits associated with CAS, such as reduced errors, improved record-keeping, and better decision-making capabilities, which outweigh the initial costs of implementation. However, the significance of cost also highlights the financial constraints faced by many SMEs, as high acquisition, installation, and maintenance expenses can limit widespread adoption. This finding is consistent with prior studies which argue that cost remains a major barrier to CAS adoption, particularly in developing economies where SMEs operate with limited capital and resources (Maseko & Manyani, 2011; Alsharari et al., 2024). Therefore, while cost can enhance performance when investment is feasible, it simultaneously represents a structural challenge that must be addressed to improve adoption rates.

Similarly, the study establishes that technology has a positive and statistically significant effect on SME performance, reinforcing the argument that technological capability is a key driver of business efficiency and competitiveness. The positive coefficient suggests that SMEs utilizing advanced CAS technologies benefit from improved speed, accuracy, and reliability in financial reporting, which in turn enhances decision-making and overall performance. This supports the notion that digital transformation in accounting systems enables firms to respond more effectively to market demands and operational challenges. The finding is in agreement with previous empirical studies which demonstrate that the adoption of modern accounting technologies, including cloud-based systems, significantly improves organizational performance by providing real-time financial insights and enhancing internal control mechanisms (Taiwo & Edwin, 2016; Sarker, 2025). Consequently, the results underscore the importance of technological advancement in driving SME growth and sustainability, while also highlighting the need for increased investment in digital skills and infrastructure to maximize the benefits of CAS adoption.

## **CONCLUSION AND RECOMMENDATION**

### **Conclusion**

The study concludes that computerized accounting systems (CAS) play a significant role in enhancing the performance of small and medium enterprises (SMEs), particularly through the combined influence of cost and technology. While the findings indicate that



investment in CAS can lead to improved efficiency, accuracy, and better financial decision-making, the cost associated with acquiring and maintaining these systems remains a critical factor that determines the extent of adoption among SMEs. At the same time, the positive impact of technology underscores the importance of modern, reliable, and user-friendly accounting systems in driving business growth and competitiveness. Therefore, for SMEs in Bauchi metropolis to fully benefit from CAS, there is a need to strike a balance between affordability and technological capability, supported by policies that reduce financial barriers and promote digital capacity development, ultimately leading to improved organizational performance and sustainability.

### **Recommendations**

- i. Provision of Financial Support and Affordable CAS Solutions: Government agencies and financial institutions should provide subsidies, low-interest loans, or grants to SMEs to ease the financial burden associated with the acquisition and maintenance of computerized accounting systems. In addition, developers and service providers should design affordable, scalable, and SME-friendly accounting software to encourage wider adoption without imposing excessive financial strain on small businesses.
- ii. Capacity Building and Technological Training: SME owners and staff should be encouraged to participate in continuous training and capacity-building programs focused on digital accounting skills and the effective use of CAS. This can be facilitated through workshops, partnerships with educational institutions, and government-sponsored training initiatives, which will enhance users' competence, reduce resistance to technology, and enable SMEs to fully utilize CAS for improved performance and decision-making.
- iii. The study also recommended that software developers should design a low cost and offline-capable CAS for SMEs in arear with poor network.

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