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Influence of digital accounting system on small and medium scale enterprise performance in Plateau state, Nigeria

Kankimes Alghazali Mohammed, Umar Inuwa & Victoria A. Enemali

Department of Vocational and Technology Education, Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi, Nigeria.

Corresponding Email: alummari@gmail.com

Abstract

A digital accounting system serves as an essential tool for organizations, aiding in the meticulous management of business finances. By simplifying data recording, storage, and analysis, it minimizes the potential for human error. Furthermore, it streamlines administrative tasks through automation, liberating valuable time for firms to allocate resources to other operational facets. This study investigated the influence of digital accounting system on small and medium scale enterprise performance in Plateau State, Nigeria. Employing a survey research design, 500 SMEs were randomly selected across Plateau and administered structured questionnaires. The data obtained underwent analysis via simple linear regression. The findings of the study revealed that digital accounting system had significantly influenced the performance of small and medium enterprises in Plateau state. Therefore, poor performance of SMEs in Plateau state which increases the rate of unemployment in the state can be addressed and thereby boosting the contribution of SMEs in the state to employment through proper orientation of digital accounting system to owner/managers of SMEs operating in the state. This study recommends that Plateau state government through the appropriate regulatory agency such SMEDAN should organize a seminars and workshop on regular basis to registered SMEs operating in the state on adoption of digital accounting system in financial records.

Keywords: Digital accounting system, Performance, Small and medium scale enterprises

1. Introduction

Small and Medium Enterprises (SMEs) hold a pivotal position in numerous economies, particularly in developing nations, constituting the backbone of business activity. Globally, SMEs represent the majority of enterprises and play a vital role in job creation and overall economic progress, contributing approximately 90% of businesses and over 50% of employment opportunities worldwide. In today's economic landscape, it is increasingly evident that SMEs, rather than large corporations, drive leading economies. The growing recognition of SMEs' significance stems from their substantial contributions to economic growth and development, as highlighted by scholars such as Robu (2013) and Suraj (2011). SMEs are instrumental in various aspects, including poverty alleviation, employment generation, and fostering economic resilience. They serve as catalysts for enhancing income levels, bolstering raw material supply chains, amplifying export earnings, and optimizing capacity utilization across key industries. Consequently, SMEs are acknowledged as primary drivers of economic advancement in many nations.

Policy formulation and academic research emphasize SMEs and entrepreneurs due to their numerical dominance among enterprises. SMEs are renowned as primary engines of employment, major exporters,

and significant contributors to overall business activity. In developed economies, they typically account for 55%-65% of Gross Domestic Product (GDP) and employment, whereas in middle-income and low-income countries, their contributions are even more substantial, often exceeding 70% of GDP and 95% of total employment. In Nigeria, SMEs significantly bolster the economy, constituting 46.31% of the GDP and 28% of employment, as reported by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and the National Bureau of Statistics (NBS). Despite their pivotal role, Nigerian SMEs face challenges, with a considerable percentage failing within the initial five years of operation.

Concerns regarding SME performance are particularly pronounced in Plateau State, where many enterprises operate below expectations, threatening their viability and impeding economic growth. Scholars such as Barde and Ogidi (2022) have underscored the poor performance of SMEs in Plateau State, attributing it to low employment contributions and exacerbating unemployment rates annually. Given the critical role of SMEs in economic development and the challenges they face, the adoption of digital accounting and record-keeping systems emerges as a potential solution. Scholars like Lutfi et al. (2022) advocate for the implementation of digital accounting systems, citing their ability to enhance transaction accuracy and positively impact firm performance. Thus, this study aims to investigate the influence of digital accounting systems on the performance of small and medium enterprises in Plateau State, Nigeria, recognizing the imperative need for effective financial management tools to bolster SME resilience and contribution to economic growth.

2. Literature Review

Small and Medium Scale Enterprise Performance

Contemporary literature defines performance as the culmination of an organization's or investment's endeavors over a specified duration. It encompasses the achievement of specific business objectives measured against established standards of completeness and cost (Rahmayanti & Rahmawati, 2018; Pulakanam, 2015). Performance evaluation in business can be categorized into financial and non-financial perspectives. Financial performance measures gauge the monetary outcomes of an entity's operational activities, derived from financial statements such as income statements or balance sheets (Saira, Zariyawati, & Annuar, 2012). Conversely, non-financial performance indicators are not discernible through financial accounts but rather relate to aspects such as customer satisfaction, competitor analysis, or other non-financial objectives critical for achieving profitability (Ravichandran & Rai, 2016).

Perera (2014) conducted research on SMEs' business performance, incorporating financial metrics such as return on assets, return on equity, sales growth, and profitability growth, alongside non-financial indicators like employee growth and customer satisfaction. Neely et al. (2005) emphasizes that firm performance, though frequently discussed, lacks a singular definition. It denotes the quantification of a business's actions toward realizing its goals, particularly in surpassing stakeholders' and customers' expectations compared to competitors. Efficiency and effectiveness are paramount in achieving superior performance, where efficiency pertains to the optimal utilization of financial resources, while effectiveness concerns meeting stakeholder and customer needs (Neely, Adams, & Crowe, 2011).

Penrose (1959) defines firm performance as the attainment of its goals and objectives, reflecting the effectiveness of managing

and delivering value to customers and stakeholders (Moullin, 2007). From an entrepreneurial standpoint, SME performance signifies the ability to survive, grow, create employment, and alleviate poverty (Sandberg, 2013). Measurement of firm performance encompasses diverse economic and non-economic variables, which can be quantitatively or qualitatively assessed (Leitao & Franco, 2008; Augustine, Bhasi, & Madhu, 2012).

While quantitative measures predominate in large firms' performance assessments, SME studies often employ qualitative measures due to data accessibility and record-keeping challenges (Wiklund & Shepherd, 2005). Subjective measures, though reliant on individual experiences, are essential for SMEs, considering their unique operational contexts (Leitao & Franco, 2008). These measures encompass production costs, inventory levels, delivery speed, customer and employee satisfaction, among others (Augustine et al., 2012). Objective measures include market share, profitability, and return on investments (Augustine et al., 2012).

Owners and managers of SMEs evaluate performance holistically, considering economic and non-economic aspects to gauge effectiveness, competitiveness, and resource utilization (Chong, 2008). Key dimensions of firm performance include quality, human resources, delivery speed, reliability, price, customer satisfaction, and flexibility (Neely, 2005). Finance-related factors such as costs and prices, along with customer satisfaction and human resources, are vital indicators (Otley, 2012; Clark, 2012). A balanced approach encompassing these dimensions ensures a comprehensive evaluation of performance that aligns with stakeholders' interests (Neely, 2005).

Concept of Digital Accounting System

A digital accounting system is a method in which financial information of business transactions are recorded, organized, summarized, analyzed, interpreted, and communicated to stakeholders through the use of computers and computer-based systems such as accounting packages (Oladipupo, & Ajape, 2013; Salim, Pratiwi, Yeni, & Melmusi, 2016). It emphasizes that a mechanized process of facilitating financial information inflows as well as the automation of accounting tasks such as database recording and report generation. Many scholars add that keeping accurate accounting records is a vital part of any organization (Akotia, 2016). Apart from helping it to keep its float financially and legal, it is a requirement of funding bodies or donors. However digital accounting system involves the use of computers to handle large volume of data with speed, efficiency and accuracy aimed at overcoming fundamental challenges which do not change the principle. The principle of accounting remains the limitations of many accountings and hence producing quality and reliable work.

The digital accounting system adheres to the generation of financial reports in line with accounting standards, ensuring efficiency, reliability, ease of use, data quality, and accuracy. This guarantees the timely provision of accurate and reliable information essential for effective decision-making. By facilitating systematic business operations, the digital accounting system plays a pivotal role in optimizing business performance (Perera, 2014).

Features of Digital Accounting System

Perera (2014) identified the following features digital accounting system

Efficiency

There are some factors that affect the efficiency and effectiveness of accounting information systems. The digital accounting system combined the factors qualified in human resources, best software and hardware and data base quality to be effective. Maines and Wahlen (2016) examined that the effect of implementation of accounting information system and revealed that the effective implementation of accounting information system in SMEs

is positively associated with performance, productivity, and profitability.

Reliability

As emphasized by Maines and Wahlen (2016), accounting software produce reliable data that are critically used to plan, identify, and control business operations. Further they state that value of internal control effect operational performance through information reliability. As an essential characteristic for accounting information, reliability represents the extent to which the information is unbiased, free from error, and representationally faithful making it useful for decision making. Bias and Mayhew (2015) suggested that the reliability of the generated information through systems is a key feature guaranteeing, convincible accounting reports and encourage adherence to organization policies.

Ease of Use

Nizam (2018) emphasized that the success of the use of an accounting system depends on the level of ease of use of the system. An increase in ease of use positively influences several aspects of a company's output quality such as increased sales and revenues, productivity and customer satisfaction, reduced training and support cost, development time and costs and maintenance costs. Parallel, it was noted that perceived ease of use for programming configuration is more essential. Usually recognized great programming requires computerized accounting system verifying three viewpoints, ease to find, ease to learn, and ease to use.

Data Quality

According to Xu (2019) the competitiveness of firms would be damaged by incomplete and inaccurate data as input control and employee competencies are important to data quality of accounting information system. To achieve high data quality, the process of data production such as: data collection, data utilization, and data storage must work satisfactorily (Lim, 2013). Emeka-Nwokeji (2012) shows data quality is significantly affect to the success of AIS and data quality enhance the business performance. Also, Norwahida and Shuker (2014) found the strong positive relationship of CAS data and quality of the data for success of the business. Data quality is often explained by the existence of data that are fit for use by data consumers.

Accuracy

In the entire accounting process of a firm, the Accountants can process data accurately using accounting software to provide complete, accurate and timely information outputs for decision making in driving business efficiency and growth (Norwahida & Shuker, 2014). Accuracy of financial data is a consistent and efficient driver across the entire organization enhancing the business performance and the achievement of key business goals operationally and financially (Nizam, 2018).

Factors to be Considered in Adopting Digital Accounting System

There are several important factors that should be considered when selecting an accounting system to create financial statements (Ghasemi, Shafeiepour, Aslani, & Barvayeh, 2017).

Levels of functionality

The accounting application requires a high level of functionality with which it can produce financial statements in compliance with the generally accepted account principles. The software should be able to produce statements of financial position, income statements, statements of change in equity, and cash flow statements. However, at a minimum the application is required to present a financial report that consists of a statement of financial position and an income statement that users can access easily. In addition, mobile applications must be able to save data to the cloud or be able to convert data into a spreadsheet or word processing application (Ghasemi, et al., 2017).

Level of accuracy

The digital accounting system should be highly accurate before the financial statements can be prepared. The computerized system should post the journal entries and ensure that every transaction is recorded correctly. This accuracy reduces the number of accountants needed to process financial statements. However, qualified supervisors are required to analyze the financial reports that are compiled by the mobile apps (Ghasemi, et al., 2017).

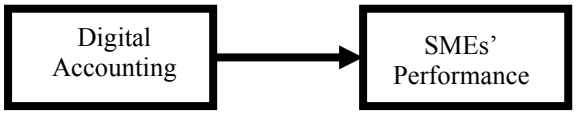
Processing speed

Timeliness of the app is of importance when presenting financial statements for the decision-making process of its users. By using mobile accounting applications, accountants can quickly process financial information. The faster the processing of financial statements for overall transactions or for individual transactions occurs, the more the time required to close the accounting period is reduced. This saves work hours and labor costs. This can shorten the monthly or yearly accounting period closing processes, especially when preparing taxes. This can help companies control cost, thereby improving efficiency as a whole (Ghasemi, et al., 2017).

External reporting

The financial reports generated for both investors and stakeholders can be enhanced by using a computerized accounting system. Mobile accounting applications are especially advantageous in that they can be used anytime and anywhere. Improving the level of reporting quality allows users of financial statements to make faster decisions about whether a company is financially stable, whether it has opportunities for company growth, and whether the company has the potential to become a high-value company (Ghasemi, et al., 2017).

Research Framework



The study's framework, delineating the correlation between digital accounting systems and the performance of small and medium-scale enterprises (SMEs), is constructed upon the Technology-Organization-Environment Framework (TOE) (Tornatzky & Fleisher, 1990). Initially proposed by Tornatzky and Fleisher in 1990, TOE elucidates how technology, organization, and environment collectively influence a firm's adoption and integration of technology (Tornatzky & Fleisher, 1990). Within the TOE framework, these three components technology, organization, and environment interact to shape a firm's stance toward embracing new technology (Tornatzky & Fleisher, 1990). They afford avenues for technological advancement and impact the firm's recognition of the necessity for, quest for, and adoption of novel technology to augment performance, thus contributing to economic progress and job creation.Therefore, the TOE framework serves as a pertinent basis for comprehending the nexus between digital accounting systems and SME performance, as it encompasses the technological, organizational, and environmental facets influencing the adoption and utilization of such systems within SMEs. Formulated within this framework, the following hypothesis guides the study:

Ha: Digital accounting system has significant influence on small and medium scale enterprise performance.

3. Methodology

This study adopted a survey research design. A survey method is adopted when a study is trying to assess thoughts, feelings, and opinions about a given situation by collecting primary data from the respondents (Fisher, 2016). The survey method allows the researcher to gather quantitative data and analyze it using descriptive and inferential statistics. Then, possible reasons for particular relationships between variables can be

suggested and models of these relationships can be produced (Saunders, Lewis, & Thornhill, 2017). The present study is interested in studying the opinions of owners/managers of registered SMEs in Plateau State regarding digital accounting system and SME performance. Hence, the survey design was appropriate in achieving the objectives of this study. The population of the study comprised 1,468 registered small-scale business operating in Plateau state (SMEDAN, 2020). The sample of this study consisted of 500 SMEs operating in Plateau states of Nigeria. The sample was statistically determined using GPower which is statistical software for power analysis and sample size calculation (Faul, Erdfelder, Lang, & Buchner, 2007). This statistical test commonly used in the social and behavioral sciences (Faul et al., 2017). Simple random sampling technique was used in this study, because this sampling technique is believed to produce samples which are free from bias (Sekaran & Bougie, 2016). Following this argument, the study randomly selected 500 SMEs using the list of registered SMEs (sampling frame) that were provided by SMEDAN.

The study adapted measurements from the existing studies related to this study, this was done because Sekaran and Bougie (2016) recommended that a researcher can adopt or adapt measurement from the existing studies relevant to the current research. The study has two (2) constructs; performance has 6 items adapted from Aziz, Mahmood, Tajudin, and Abdullah (2020), and digital accounting system has 10 items adapted from Itang (2020). In this study, Likert scale was adopted for all the items, the respondents were asked to indicate their responses to each question on a five-point scale. To ensure the reliability of instrument of the present study, the pilot test was conducted with 60 SMEs in Bauchi state. The state is outside the study area but the respondents have similar characteristics with the sample of this study. The 60 SMEs satisfied the recommended pilot test range from 25-75 (Hair et al., 2017). The data generated from the pilot test was subjected to statistics analysis using Cronbach Alpha. The Cronbach alpha coefficients of the three variables are SMEs' performance (0.79) and digital accounting system (0.83). The results suggested that the instrument is reliable based on the recommendation given by Hair et al. (2017). According to Hair et al. Cronbach alpha coefficient of at least .70 is considered satisfactory and acceptable.

Finally, data analysis, SPSS 23 was used throughout the process. The influence of digital accounting system (i.e., independent variable) on SMEs' performance (i.e., dependent variable) was determined using simple linear regression. A simple linear regression is a statistical technique for testing the influence of one independent variable on one continuous dependent variable (Tabachnick & Fidell, 2013).

4. Results and Discussion

Table 1: Regression analysis on the influence of digital accounting system on small and medium scale enterprise performance.

Variable	Standardized Coefficients Beta	t-value	p-value	Decision
Digital Accounting System	0.247	4.972	0.000	Supported

After ensuring that the requisite assumptions of regression analysis were met, a simple linear regression was conducted to assess the study's hypothesis. The statistical analysis demonstrated that the model was statistically significant, as evidenced by the F ratio of 24.716, with a p-value of .000 (Murphy et al., 2014). Additionally, the R2 value of .247 indicated a moderate fit for the model. Furthermore,

the examination of the relationship between digital accounting systems and SMEs' performance revealed a beta value of .247, with a p-value of .000. This finding suggests a positive and significant influence of digital accounting systems on SMEs' performance. Consequently, the hypothesis was supported based on the statistical evidence.

Discussion

The findings of this study revealed that revealed that digital accounting system significantly influenced small and medium scale enterprise performance Plateau State, Nigeria. The finding is consistent with Esmeray (2016) in the context of Turkey. Esmeray found a positive and statistically significant relation between the use of accounting information systems and firm performance. Similar finding was reported in the study of Trabulsi (2018) in Saudi Arabia that accounting information systems has a significant impact on organizational performance generally and on all its dimensions including cost reduction, improving quality and effective decision making. The finding is also concurred Rawashdeh and Rawashdeh (2023) in Jordan that cloud accounting adoption impacted the organization's performance.

5. Conclusion and Recommendations

This study investigated the influence of digital accounting system on small and medium scale enterprise performance in Plateau State, Nigeria. The study empirically proved that digital accounting system had significantly influenced the performance of small and medium enterprises in Plateau state. Therefore, mortality rate and poor performance of in Plateau state which increases the rate of unemployment in the state can be addressed and thereby boosting the contribution of SMEs in the state to employment through proper orientation of digital accounting system to owner/managers of SMEs operating in the state. The study recommended that Plateau state government through the appropriate regulatory agency such as small and medium enterprises development agency of Nigeria (SMEDAN) should organize a seminars and workshop on regular basis to registered SMEs operating in the state on adoption of digital accounting system in financial records. For the sake of generalization, empirical studies of this type are needed to cover all the 36 states of Nigeria.

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