An Evaluation Of Accounting Information System And Performance Of Small Scale Enterprises In Kwara State, Nigeria

Fagbemi, Temitope Olamide Ph.D., ACA¹ Olaoye, Joshua Adeyemi²

Prior traditional accounting method of manually inputting and recording daily transactions has become inefficient if small businesses want to remain competitive and survive. The objective of the study was to find out if accounting information system influences the performance of small and medium scale enterprise and whether it also aids access to finance. A survey design was used. A usable sample of one hundred and fifty three respondents out of a population of one hundred and fifty-four (154) was considered. The type of data used for this research was the primary data through the administration of questionnaire. Data was presented by the use of frequency tables and ordered logistic regressions. The findings from the study revealed that accounting information system significantly influences the performance of small and medium scale enterprises (LR statistics = 36.28, p < 0.05). Similarly, the study showed that the adoption of a computerized accounting information system improves the ability of small scale enterprises to secure funds from financial institutions (LR statistics = 31.12, p < 0.05). It was concluded that accounting information systems would significantly influence the performance of small and medium scale enterprises. Therefore, it was recommended that SMEs that adopt computerized accounting information system should ensure that the level of computerization improves in line with current level of advancement in technology.

Keywords: Information System, Performance, Small businesses, Technology, Funding

_

¹ Department of Accounting, University of Ilorin, Nigeria olamidefag@yahoo.com

² Department of Accounting, University of Ilorin, Nigeria

Introduction

Every business regardless of its size has to be effectively and successfully managed for it to survive, grow and remain sustainable. A lot of businesses are set up yearly around the globe and in a similar way; many are faced with different challenges which they are unable to surmount and thereby discontinued. Small and Medium Scale Enterprises (SMEs) are the building blocks of any growing economy. Some of the roles of small and medium scale enterprises employment generation, include development, youth empowerment, contribution to national income and growth, spread and development of adaptable technology and regional balanced growth channel. These enterprises are faced with diversity of problems in Nigeria due to numerous domestic and global economic problems and policy inconsistencies. The result is a high mortality rate (Dasanayaka, Kankanamge & Sardana, 2011; Hessels & Parker, 2013). Some of the problems are internal to the enterprise and they include inadequate working capital, stiff competition from larger companies, difficulties in sourcing raw materials, low capacity utilization, lack of management strategies, poor educational background of operators, huge financial problems and reluctance in embracing technology (see Igbinomwanhia, 2009; Inegbenebor, 2006; Osamwonyi, 2009; Tafamel & Idolor, 2008; Osamwonyi and Tafamel, 2010).

The growth of computer technology in 1950's had initiated increasing development in information storing and processing (Rashid, Hossain, & Patrick, 2001). Computer technologies increase the use of

information due to its capabilities of analyzing massive amount of data and in producing accurate and timely reports. unique features of computer These capabilities have led to the introduction of various information systems such as Accounting Information System (AIS), Manufacturing Resource Planning (MRP) system, Human Resource (HR) System. Information system technology definitely changed the way businesses are being operated (Elliot, 1992). This system has contributed to increases in business productions and transactions as firms are positioned to achieving objectives. Thus, this enhances business activities. More businesses and transactions implied that there will be more accounting data needed to be recorded and updated.

Prior traditional accounting method of manually inputting and recording daily transactions has become inefficient. Errors such as wrong data entry, inefficient tasks performance and massive utilization of paper product created many problems to business activities and organization's performance. These inadequacies have led to the emergence of accounting information system. A system that is able to gather, analyze and produce reports more efficiently (Saira, Zariyawati & Annuar, 2010).

Aremu and Adeyemi (2011) argued that except for statutory demands, Small and medium scale enterprises hardly give serious thoughts to the process of sound accounting, while also noting that the inadequacy and ineffectiveness of accounting processes have been responsible for untimely collapse of a host of them. The circumstances highlighted above have persisted due to poor generation

and use of accounting information in Nigeria. The absence of accounting information system in most small and medium enterprises in Nigeria tends to compound their challenges. The research question for consideration therefore was whether relationship exist between AIS and AIS and performance; size of the organization as well as whether AIS adoption influence SME's access to credit. More specifically, propositions were made in this direction.

Conceptual Review

The contribution of small businesses to the business environment is quite enormous (Holmes & Nicholls, 1988; Mitchell, Reid & Smith, 1998). In recent years, as part of the economic reforms in Nigeria, there has been increased support for small and medium scale enterprises which has the potential of reducing unemployment and a catalyst for rapid and substantial industrial development (Dasanayaka, 2009; Hyz, 2011). SMEs are heterogeneous in nature with countries not having the same definition for classifying their SME sector. The definition in use depend on the purpose those definitions are

<u>Size Category</u> <u>Employment</u> <u>building</u>)

Micro Enterprises Not more than 10

Small Enterprises 11-100 Medium Enterprises 101-300

Furthermore, agencies of government in Nigeria have also defined SMEs. For example, the Central Bank of Nigeria (CBN) and the Small and Medium Enterprises Equity Investment Scheme (SMEEIS) defined SMEs as any enterprise with a required to serve and the policies which govern the SME sector.

Three parameters generally applied for classifying SMEs by most countries, separately or in combination are: capital investment on plant and machinery, number of workers employed and volume of production or turnover of business (Aremu & Adeyemi, 2011). For example, in Ghana; Steel and Webster (1990), Osei Baah-Nuakah, Tutu and Sowa (1993) described SME in terms of employment cut off point of 30 employees. Osei et al. however made further divisions of SMEs into three categories: (i) micro -employing less than 6 people; (ii) very small, those employing 6-9 people; (iii) small -between 10 and 29 employees. Egypt defined SMEs as having more than 5 and fewer than 50 employees. Australian Bureau of Statistics (2001) defined SMEs as a business (excluding agriculture) that employs no more than 200 people.

In Nigeria, Adigwe (2012) also defined SMEs by employment and assets of the company (excluding land and buildings) as follows-

Assets (₦ million, excluding land and

Not more than 1.5

Not more than 50

Not more than 250.

maximum asset base of N200, 000,000 (200 million Naira) excluding land and working capital with the number of staff employed by the enterprise expected to be not less than 10 and not more than 300. National Association of Small and Medium Scale

Enterprises (NASME) defined a small scale enterprise as a business with less than 50 people employed by the enterprise and with an annual turnover of \(\mathbb{N}\)100,000,000 (100 million Naira). NASME further defined a medium scale enterprise as a business with less than 100 employees and with an annual turnover of N500, 000,000 (500 million Naira). National Council on Industry defined SMEs as follows: Small-Scale Industry is an industry with a labour size of 11-100 workers or a total cost of not more than \$\frac{1}{2}\$50 million, including working capital but excluding cost of land. The importance of having a working definition of SMEs in an economy is that it enables government agencies, banks and other organizations who relate with SMEs have a criteria for determining enterprises that fall under SMEs.

On the other hand, performance is often viewed as a measure of the success of an organization which could either be in quantitative or qualitative in nature. Pfeffer and Salancik (1978) defined performance as a company's ability to create action and acceptable results through variables that can be measured. Alasadi and Abdelrahim (2007) opined that the performance of SMEs is viewed from the satisfaction of the owner/manager in respect of variables such turnover and business profit, development. This also sheds light on both the qualitative and quantitative interest of managers/owners on two types performances - financial and non-financial measures of performance.

Financial performance is generally defined as the use of outcome-based financial indicators that are assumed to reflect the fulfillment of the economic goals of the firm (Murphy, Trailer & Hill, 1996). It has been widely used to measure business performance in both SMEs and larger firms. Kaplan & Atkinson (1998), Lau & Sholihin (2005) felt that a great deal of accounting literature recognizes the inherent advantages of financial measures. They argued that financial measures might be beneficial because they are objective and certain to provide a summary view of the success of organization's performance operating tactics. Bento and White (2001) argued that sales revenue, which is less subject to manipulation for tax reporting purposes and is not affected by the historical cost of input, is one of appropriate measures used to reflect financial performance of SMEs. As for return on investment (ROI). this is also a commonly used measure which effectively reflects the manager's ability to improve profit and increase sales from a given level of investment (Atkinson, Banker, Kaplan & Young, 2001).

Apart from financial measures, extant literature also suggest non-financial measures (also called operational performance measures), such as budgetary performance and managerial performance, which are defined as a broader conceptualization organizational of performance (see Kaplan, 1983; Hofer & Sandberg, 1987). Performance management literature (Lynch & Cross, 1991; Kaplan & Norton, 2001; Otley, 2003) suggests that, when monitoring their firm performance, managers tend to place relatively less emphasis on traditional financial measures of performance such as return on investment or net profit. This is usually explained in terms of traditional performance measures (the accounting-based measures or financial measures), which is unable to satisfactorily reflect firm performance affected by today's changing business environments (Hoque, 2004).

Similarly, McKiernan & Morris (1994) criticized the fact that the measures of financial performance cannot accurately measure organizational effectiveness or total performance. Stemming from these concerns, the academic literature (Otley, 1999; Van & Wijn, 2002) largely supports claims that since non-financial performance measures focus on a firm's long term success factors such customer as satisfaction, internal business process efficiency and innovation, they can best capture the overall performance organization. Therefore, a multi-dimension system of performance measures combining performance, financial non-financial performance and managerial performance is used in this study to reflect the overall performance of SMEs.

Accounting Information System

Accounting could be classified into three components namely information system, language of business and source of financial information (Wilkinson, 1993). Information is often described as valuable data processing that provides a basis for making decisions, taking actions and fulfilling legal obligations while "system" is an integrated entity, where the framework is focused on a set of objectives (Bhatt, 2001; Thomas and Klemer. 1995). Therefore, accounting information system (AIS) is described as a system used to record the financial

transactions of a business or organization. These systems combine the methodologies, controls and accounting techniques with the use of technology to track transactions, provide internal and external reporting data, financial statements and trend analysis capabilities to affect an organizational performance (Urquia, Perez & Munoz, 2011). Nicolau (2000) also described accounting information system as computer based system that increases control and enhances cooperation in the organization. Although information technology was within reach of only large companies a few years ago, SMEs are gradually taking the advantage that this portends given the need to improve on their competitive advantage.

Stefanou (2006) noted that the main reason for an accounting information system (AIS) is the collection and recording of data and information regarding events that have an economic impact upon organizations and the maintenance, processing and communication of such information to both internal and external stakeholders. When organizations adopt e-accounting, they usually discover that even though computerized accounting systems handle financial data efficiently, their true value is that they are able to generate immediate reports regarding the organization (Boame, Solace & Issaka, 2014).

Beke (2010) suggested that there is an improvement in accounting quality and decision making associated with using AIS. Quality decisions occur since AIS records ensure easy access to information records that are properly kept. Beke further argued that AIS tend to have standardized forms of

data analysis provided by information system which is in support of Pollock and Cornford (2004) who argued that AIS also provide an opportunity to update procedures and align them with perceived examples of best practice. Other benefits accruing from ofreal-time AIS include provision information for strategic decision making (Spathis & Constantinides, 2003), improve strategic effort of organizations (Salehi, Restami & Mogadum, 2010) and improve data sharing and integrity (Moscove, Simkin and Bagranott 1999).

Contingency Theory and the Design of Accounting Information System

Contingency theory suggests that accounting information system should be designed in a flexible manner so as to consider the environment and organizational structure of a business entity. Extant literature has examined different forms ofAIS combination with other variables such as technology, structure, and environment (Chenhall and Morris, 1986; Gordon and Narayanan, 1984; Kim, 1988; Mia and Chenhall, 1994). These various combinations of AIS have provided useful directions for AIS research, although such research directions have majorly not been directed towards SMEs. AIS also need to be adapting to the specific decisions being considered. In other words, AIS needs to be designed within an adaptive framework (Lawrence and Danny, 1978). Other early contingency research summarized by Otley (1980) found no universally appropriate management accounting system applicable to all organizations in all circumstances. The techniques or system is inherently dependent on specific circumstances. For example,

Chenhall & Morris (1986), Gul & Chia (1994) examined the contingent relationship between internal and external environmental such organizational factors as decentralization interdependence. perceived environmental uncertainty) and choice of an AIS (information scope, timeliness, aggregation and integration). The general conclusion from this is that greater organizational interdependence, decentralization and perceived environmental uncertainty are factors associated with either a greater perceived need for more sophisticated AIS or higher firm's performance with more sophisticated AIS. The present study adds to this body of literature by examining AIS within the context of SMEs.

Melanie, Steve and Chris (2011) examined the role of accounting information in the management of winery SMEs in Australia. The study concluded that accounting information play an important role in the management of SMEs with practical relevance to the Australian wine industry because industry level stakeholders are engaged in initiatives to support and develop the business management practices of SMEs.

Kwame, Emmanuel, Eric and Oduro (2014) explored the accounting practices of SMEs in Ghana using the Sunyani Municipality as a case study. The study uses stratified sampling and snowballing techniques to gather data from SME owner/managers of various sectors in the municipality. The research findings are based on a survey of the accounting record practices of one hundred and four SMEs in the Municipality. The study revealed that a majority of SMEs

do not keep complete accounting records as a result of numerous factors such as lack of book keeping skills on the part of owners/managers and the high cost involved in adopting a good accounting system.

Urquia *et al.* (2011) also investigated the impact of Accounting Information System (AIS) on performance measures in Spanish SMEs and found out that the use of AIS is crucial in order to broaden the market, enhance management of selling costs and improve firms' management of relations with customers and suppliers. However, to what extent is this investment in specific technology for the economic financial area related to performance and ease of access to finance is a question yet to be sufficiently explored.

Gwangwava, Faitaira & Mabvure (2012) investigated factors that influence adoption of accounting information system by small medium enterprises using and descriptive survey method. A sample size of 72 SMEs was chosen from a population of 100 SMEs using the stratified sampling followed and random sampling techniques with questionnaire and interview methods for data collection. The research findings indicated that cost benefit analysis, lack of government support, financial constraints, complexity of AISs as well as reluctance are weak predictors of non-adoption of AIS by SMEs. Findings also revealed that AISs is not associated with company size. The study recommended government intervention through provision of finance, subsidies as well as collateral security to SMEs for easy adoption.

Saira *et al.* (2010) examined information system and firm performance of Malaysian SMEs using panel data. Questionnaires were also sent out to various SMEs. Financial statement data for a five years period commencing from year 2004-2008 were gathered. Sample for the study comprised of 205 firm-years. Regression was used for data analysis. Results from the research revealed that SMEs adopting AIS improve significantly in performance compared to non adopters.

Ohachosim, Onwuchekwa and Ifeanyi (2012) evaluated the extent accounting information can be used to ameliorate the financial challenges of SMEs in Nigeria. Structured questionnaire was used to collect data from a sample of SMEs in Nigeria. Ordinary Least Square (OLS) was used to analyse the data collected. The result showed that SMEs in Nigeria have poor accounting system. It was also found that SMEs' access to finance depends largely on the quality of accounting information they can generate which is determined by their accounting practices.

Olatunji (2013) examined the impact of sound accounting system on corporate performance of small and medium scale enterprises using a survey research with analysis of variance (ANOVA) as the statistical tool. The results of the study showed that adoption of sound accounting system enhances performance of SMEs. The study recommended that accounting professionals should customize accounting systems and audits to the need and capacity of these categories of business, provide accountancy services for a fee, and

adherence of small business operators to internal controls.

Adebayo, Idowu, Yusuf & Bolarinwa (2013) also examined the impact of accounting information system as an aid to decision making in food and beverages companies in Nigeria. The major source of data for this research was primary data through administration of questionnaire. Regression analysis and Karl Pearson's correlation was used for data analysis. The findings showed that accounting information system is an indispensable tool in decision making in today's turbulent world. Organizations were however advised to invest on information technology tools so as to improve their efficiency and overall performance.

Methods

The research design employed for this research report is descriptive survey design. The choice of this design was made based on the fact that in this study, the researcher is interested in obtaining information from the respondents using questionnaire. The population of the study consisted of one hundred and fifty four (154) SMEs in Kwara State (as obtained from the Kwara State Ministry of Industry) from which sample is selected. This also formed the selected sample for the study. For the purpose of this study, data were gathered through the use of questionnaire and were analyzed using both descriptive and inferential statistics. However, only one hundred and fifty three copies of the questionnaire were usable. The descriptive statistics used in this study include the frequencies and percentage. The models constructed in equations 1 - 3 were estimated using Ordered Logistic Regression

Technique given the ordinal nature of the dataset that were collected.

In order to evaluate the influence of accounting information system on performance of SMEs, the study used the following model for estimation.

SMEPi = f (AIS1i, AIS2i) (1a)
SMEPi =
$$\alpha$$
 + β 1AIS1i + β 2AIS2i + ϵ i (1b)

where: SMEPi = SMEs performance,

AIS1i = Computerized accounting information systems,

AIS2i = Effective Inventory control system,

 $\varepsilon I = Random error terms$

 β 1- β 2 = Parameters to be estimated Similarly, in examining whether or not organizational size determine the adoption of accounting information, the model below was constructed for analysis.

$$AISi = f(SMESize1i, SMESize2i)$$
 (2a)

AISi =
$$\alpha$$
 + β 1SMESize1i + β 2

SMESize2
$$i + \epsilon i$$
 (2b)

where: AISi = Accounting information system

SMESize1i = Size of the SMEs based on employees

SMESize2i = Size of the SMEs in terms of capital base

 $\varepsilon i = Random error terms$

 β 1- β 2 = Parameters to be estimated Furthermore, to find out if adoption of accounting information system provides the SMEs with easy access to credit facilities, model 3 was constructed as follows.

$$EACFi = f(AIS1i, AIS2i)$$
 (3a)

EACFi =
$$\alpha$$
 + β 1AIS1i + β 2AIS2i + ϵ i (3b)

where: EACFi = Easy access to credit facilities

AIS1i = Computerised accounting information system

AIS2i = Efficient inventory control system

 $\varepsilon i = Random error terms$

 β_1 - β_2 = Parameters to be estimated The general probability function for the above model is expressed as follows:

above model is expressed as follows:

$$L_{i} = In \left(\frac{P_{i}}{1 - P_{i}} \right) = \alpha + \beta_{1} X_{1} + \beta_{2} X_{2} \Pr(Y = j | X_{1}, X_{2}) = \frac{1}{1 + e^{-\left(x + \beta_{2} X_{1} + \beta_{2} X_{2}\right)}}$$

$$\Pr(Y=j|X_1,X_2)=\alpha+\beta_1X_1+\beta_2X_2$$

where:

 L_i = Response variable, Logit, Log of the odds that the event occurs

Pr = Probability of event occurring,

j = Ordinal response ranging from 1, 2, ... j

e = exponential function

X1, X2 = Explanatory variables

Results

As shown in Table 1, the number of male and female that expressed their opinions on SMEs' performance and the adoption of accounting information are almost equal. Therefore, the study is not gender biased. Also, the Table reveals that in terms of education, the respondents that participated in the study have requisite qualifications thereby putting in a good position to provide appropriate responses needed for the study. Above all, people with vast years of work experience participated more in the study. This adds more confidence in the responses obtained for the research study.

Table 1: Demographic Variables

Variables	Frequency	Percent	Cum. Percent
Sex Distribution			
Female	81	52.9	52.9
Male	72	47.1	100.0
Total	153	100.0	
Edu. Qualification			
SSCE	21	13.7	13.7
SSCE/ND	33	21.6	35.3
BSc. /B.A.HND	60	39.2	74.5
MSc./Above	39	25.5	100.0
Total	153	100.0	
Work Experience			
1-5yrs	63	41.2	41.2
6-10yrs	60	39.2	80.4
11-20yrs	30	19.6	100.0
Total	153	100.0	
Cost of AIS Adoption			
Low	13	8.5	8.5
Average	42	27.5	36.0
Very High	98	64.0	100.0
Total	153	100.0	

Source: Field Survey, 2015

AIS Adoption and SMEs' Performance

The coefficient of AIS1 in Table 2 shows that there is a positive relationship between SMEs' performance and the adoption of computerized accounting information system. Similarly, it is revealed that there exists a positive relationship between SMEs' performance and effective inventory control system. Both coefficients are individually statistically significant at 1%. Overall, LR statistic of 36.27 suggests that accounting information system has significant effect on

the performance of small and medium enterprise in Ilorin Metropolis, Kwara State. This implies that as the extent to which SMEs adopt accounting information system increases, the higher the likelihood that SMEs' performance will improve. These findings are in agreement with the previous related studies conducted by Olatunji (2013), Urquia *et. al.* (2011) Adebayo, Idowu, Yusuf and Bolarinwa (2013) and Saira *et. al.* (2010).

Table 2: Influence of Accounting Information (AIS) on SMEs' Performance

Tuble 2. Influence of 11				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
AIS1	1.375134	0.505591	2.719853	0.0065
AIS2	1.249620	0.454326	2.750492	0.0060
	Limit Points			
LIMIT_2:C(3)	3.846397	1.308007	2.940656	0.0033
LIMIT_3:C(4)	6.193614	1.442028	4.295073	0.0000
LIMIT_4:C(5)	9.425577	1.852325	5.088510	0.0000
Pseudo R-squared	0.286409	Akaike info criterion		1.968257
Schwarz criterion	2.157652	Log likelihood		-45.19055
Hannan-Quinn criter.	2.040630	Restr. log likelihood		-63.32839
LR statistic	36.27568	Avg. log likelihood		-0.886089
Prob(LR statistic)	0.000000			

Source: Field Survey, 2015

AIS Adoption and SMEs' Size

In Table 3, the coefficient of SMESizel establishes that the SMEs size based on employees and adoption of accounting information system are positively correlated. Similarly, SMEs' size in terms of capital base has a direct association with the adoption of accounting information system. While that of employee is significant at 5%, the one in terms of capital base it is not statistically significant. Above, the null hypothesis that all the coefficients are

simultaneously equal to zero could not be rejected. Therefore, we can infer can that the size of small and medium sized enterprise determine to some extent the adoption of accounting information system. This is affirmed by log likelihood ratio statistic of 14.62. This is at variance with the related study finding reported by Gwangwava, Faitaira and Mabvure (2012). Perhaps, this is as a result of the multiplicity of capital base as criteria for classification of SMEs.

Table 3: SMEs' Size and Adoption of Accounting Information

Number of ordered indicator values: 4				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
SMESize1	1.088018	0.457624	2.377537	0.0174
SMESize2	0.298079	0.618525	0.481920	0.6299
	Limit Points	Limit Points		
LIMIT_2:C(3)	-0.042371	0.840358	-0.050420	0.9598
LIMIT_3:C(4)	2.084956	0.835572	2.495243	0.0126
LIMIT_4:C(5)	4.156969	0.991230	4.193750	0.0000
Pseudo R-squared	0.112932	Akaike info criterion		2.449307
Schwarz criterion	2.638701	Log likelihood		-57.45732
Hannan-Quinn criter.	2.521680	Restr. log likelihood		-64.77214
LR statistic	14.62964	Avg. log likelihood		-1.126614
Prob(LR statistic)	0.000666			

Source: Field Survey, 2015

AIS Adoption and SMEs' Access to Credit

Table 4 shows the estimated likelihood of SMEs that adopts accounting information system having easy access to credit facilities. The two coefficients individually suggest an increase in the odds in favour of easy access to credit if the SMEs adopt

accounting information system. Statistically, both values are highly significant at 5%. On the whole, since we could not reject the null hypothesis of all coefficients being equal to zero using LR statistics of 31. 12, we affirm that adoption of AIS by SMEs eases their access to credit facilities.

Table 4: SMEs' Access to Credit and Use of Accounting Information

Method: ML - Ordered Logit (Quadratic hill climbing) Number of ordered indicator values: 4				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
AIS1	1.156582	0.489148	2.364482	0.0181
AIS2	1.165931	0.463365	2.516223	0.0119
	Limit Points	Limit Points		
LIMIT_2:C(3)	2.325639	1.274781	1.824344	0.0681
LIMIT_3:C(4)	6.148678	1.438130	4.275469	0.0000
LIMIT_4:C(5)	8.364868	1.671848	5.003367	0.0000
Pseudo R-squared	0.250196	Akaike info criterion		2.024625
Schwarz criterion	2.214020	Log likelihood	Log likelihood	
Hannan-Quinn criter.	2.096998	Restr. log likel	Restr. log likelihood	

LR statistic	31.11775	Avg. log likelihood		-0.914273
Prob(LR statistic)	0.000000			
_				

Source: Field Survey, 2015

Conclusion

This study revealed that there is a positive relationship between SMEs' performance and the adoption of accounting information system. The implementation of accounting information system could lead to better decision making and effective inventory control system as shown in Table 2. It was also found that the size of the organisation to some extent, determines the adoption of accounting information system adopted by them (see Table 3). The study revealed a positive relationship between the adoption of accounting information system and easier access to credit, that is, the adoption of accounting information system by small and medium scale enterprises would ease their access to credit facilities (see Table 4). Furthermore it was found that the adoption of AIS is expensive and this may be the reason why some of the SMEs fail to adopt them as reflected in Table 1.

With reference to the result of the hypotheses stated in the earlier part of this research work, the null hypotheses were rejected while the alternate hypotheses were accepted. Thus it is crucial for SMEs to adopt information systems, specifically accounting information systems, for their business operations so as to be able to face competitive pressure not only within the SMEs industries but also from larger firms. It can be concluded that accounting information systems would significantly influence the performance of small and medium scale enterprises. Also, accounting information systems bear relevance to the size and need of small and medium scale enterprises. Lastly, it can as well be concluded that accounting information system would significantly influence the

performance of small and medium scale enterprises.

Based on the findings of this research, it is that recommended the level computerization of SMEs activities should be improved in line with the current level of advancement in technology for SMEs that already adopted accounting information system. Similarly, SMEs should ensure that the cost of acquiring AIS does not outweigh the benefits the company would gain from using them given the perceived cost of AIS adoption. Further research direction could be geared towards the analysis of effectiveness of accounting information system as a part of management information systems and other contingency factors that could affect AIS adoption competency of personnel and level of enterprise innovation.

Implications of the Study

The potency of the finding is premised on the research settings. On one hand, the findings of this study hold prospects of enhancing the performance of small and medium scale enterprises with additional frontiers for such businesses to expand their operation. On the other hand, by bringing to fore the need for small businesses to embrace technology, the study places the issue of performance and access to finance as a prime area in staying competitive among their peers.

The study also proves that though contingency factors; computerized accounting information systems and effective inventory control systems; the performance of small business entities are improved upon thereby surmounting the odds associated with obtaining funds needed

for expansion purpose. The study also has implications for prompting and sustaining a robust contingency based tradition in management accounting research in Nigeria and beyond. It may even stimulate the search into developing or including more contextual variables in understanding the relationship between AIS and performance of small scale enterprises.

References

- Adebayo, M., Idowu, K. A., Yusuf, B., & Bolarinwa, S. A. (2013). Accounting information system as an aid to decision making in food and beverages companies in Nigeria. *Australian Journal of Business and Management Research*, 3(9), 26 33.
- Adebayo, M., Idowu, K.A., Yusuf, B., & Bolarinwa, S.A. (2013). Accounting Information System as an aid to decision making in food and beverages companies in Nigeria. Australian Journal of Business and Management Research, 3(9), 26-33.
- Adigwe, P. K. (2012). Project financing for small and medium scale enterprises in Nigeria. *African Research Review: An international Journal*, 6(1), 99 100.
- Alasadi, R. & Abdelrahim, A. (2007). Critical analysis and modelling of small business performance (Case Study: Syria). *Journal of Asia Entrepreneurship and Sustainability* 3(2), 1–131.
- Aremu, M. A., & Adeyemi, S. L. (2011). Small and medium scale enterprises as a survival strategy for employment generation in Nigeria. *Journal of sustainable development*. 4(1), 200 206
- Atkinson, A.A., Banker, R.D., Kaplan, R.S., & Young, S.M. (2001). *Management Accounting*, Prentice-Hall, 3rd edition.
- Australian Bureau of Statistics (2001). Small Business In Australia, 2001. Available at

- http://www.abs.gov.au/ausstats/abs@.ns f/mf/1321.0
- Beke, J. (2010). Review of international accounting information systems. *Journal of Accounting and Taxation*. 2(2), 139 - 161.
- Bento, A. M., & White, L. F. (2001). Organizational form, performance and information cost in small business. *Journal of Applied Business Research*, 17(4)
- Bhatt, G. D. (2001). Knowledge management in organizations: Examining the interaction between technologies, techniques and people. *Journal of Knowledge Management*, 5 (1), 68 75.
- Boame, I., Solace, K. & Issaka, S. (2014). Adoption of accounting practices and its effects on SMEs: Financial perspective of sachet water producers in Northern Region of Ghana. *Research Journal of Finance and Accounting*, 5(17), 166 179.
- Central Bank of Nigeria (see http://www.cenbank.org/Out/2010/public ations/guidelines/dfd/ GUIDELINES%20ON%20N200%20BIL LION%20SME%20CREDIT%20GUAR ANTEE.pdf
- Chenhall, R. H., & Morris D. (1986). The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems. *Accounting Review*, 61, 16 35.
- Dasanayaka, S. (2009). The development of informal sector small and medium scale enterprises through formation of cluster and networking: A case study based on Sri Lanka and Pakistan. *Business Review Journal*, 4(2), 107 122.
- Dasanayaka, S., Kankanamge, R., & Sardana, G. (2011). Identification of barriers for development of the Sri Lankan small and medium scale furniture and wooden products manufacturing enterprises. *Euro Asia Journal of Management*, 21(40), 69 101.

- Elliot, R.K. (1992). The third waves breaks on the shores of accounting. *Accounting Horizons*, 6(2), 61 85.
- Gordon, L. A, & Narayanan, V. K. (1984).

 Management accounting systems, perceived environmental uncertainty and organization structure: An empirical investigation. *Accounting, Organisations & Society*, 9(1), 33 47.
- Gul, F. A., & Chia, Y. M. (1994). The effects of management accounting systems, perceived environmental uncertainty and decentralization on managerial performance: A test of a three-way interaction. *Accounting, Organisations & Society*, 19, 413 426.
- Gwangwava, E., Faitaira, J. & Mabvure, J. (2012). Evaluation of factors influencing adoption of accounting information system by SMEs in Chinhoyi. Interdisciplinary Journal of Contemporary Research in Business, 4(6), 1126 1141.
- Hessels, J., & Parker, S. (2013). Constraints, internationalization and growth: A cross-country analysis of European SMEs. *Journal of World Business*, 48(1), 137–148. http://dx.doi.org/10.1016/j.jwb.2012.06.0 14
- Hofer, C. W., & Sandberg, W. R. (1987). Improving new venture performance: Some guidelines for success. *American Journal of Small Business*, 12(1), 11 25.
- Holmes, S., & Nicholls, D. (1988). An analysis of the use of accounting information by Australian small business, *Journal of Small Business Management*, 2, 57 68.
- Hoque, Z. (2004). A Contingency Model of the Association between Strategy, Environmental Uncertainty and Performance Measurement: Impact on Organizational Performance.

 International Business Review, 13(4), 485 502.
- Hyz, A. B. (2011). Small and medium enterprises (SMEs) in Greece: Barriers in

- access to banking services: An empirical investigation. *International Journal of Business and Social Science*, 2(2), 161 165.
- Igbinomwanhia O. R. (2009). Causes of SMEs Failure in Nigeria in Osamwonyi I.O. (ed) *Training Manual For Participants of Graduate Entrepreneurial Scheme*. Osatech Group Consulting.
- Inegbenebor, A. U. (2006). *The Fundamentals of Entrepreneurship*. Lagos: Malthouse Press Limited.
- Kaplan, R. S. & Norton, D. P. (2001). The Strategy Focused Organization: How Balanced Scorecard Companies Thrive in the New Competitive Environment. Boston: HBS Press.
- Kaplan, R. S., & Atkinson. A. A. (1998).

 **Advanced Management Accounting.

 3rd ed.. Upper Saddle River, NJ:

 Prentice Hall.
- Kim, K. K. (1988). Organizational coordination and performance in hospital accounting information systems: An empirical investigation. *Accounting Review*, 63, 472 489.
- Kwame, O. A., Emmanuel, O. M, Eric, N. G. & Oduro, G. (2014). Accounting records keeping practices of SMEs in Ghana: Evidence from Sunyani Municipality. *British Journal of Economics, Finance and Management Sciences*. 9(1), 120-142.
- Lau, C. M., & Sholihin, M. (2005). Financial and nonfinancial performance measurement: How do they effect job satisfaction. *The British Accounting Review*, 37(4), 389 413.
- Lawrence, A. G., & Danny, M. (1976). A Contingency framework for the design of accounting information systems. *Accounting, Organisations & Society.* 1(1), 59 69.
- Lynch, R. L., & Cross, K. F. (1991). *Measure Up*. Cambridge, MA.: Blackwell Publishers

- McKiernan, P., & Morris, C. (1994). Strategic Planning and Financial Performance in UK SMEs: Does Formality Matter? *British Journal of Management*, 5(2), 31 41.
- Melanie, R., Steve, G., & Chris, G. (2011). The role of accounting information in the management of winery SMEs: A review of the broader existing literature and its implications for Australia's wine industry. 6th AWBRInternational Bordeaux Conference. Management School, 9 - 10 June, 2011. Available at http://academyofwinebusiness.com/wpcontent/uploads/2011/09/92-1-AWBR2011-Reddaway-Goodman-Graves.pdf
- Mia, L., & Chenhall, R. H. (1994). The usefulness of management accounting systems, functional differentiation and managerial effectiveness. *Accounting, Organisations & Society*, 19, 1–13.
- Mitchell, F., Reid, G., & Smith, J. (1998). A case for researching management accounting in small and medium scale enterprise's management accounting. *Magazine for chartered management*, 76, 30 33.
- Moscove, S., Simkin, M. & Bagranoff, N. (1999). *Core concepts of accounting information systems*. New York, NY: John Wiley & Sons, Inc.
- Murphy, G. B., Trailer, J. W., & Hill, R. C. (1996). Measuring performance in entrepreneurship research. *Journal of Business Research*, 36(1), 15 23.
- Nationl Council on Industry (see http://www.cenbank.org/OUT/PUBLICA TIONS/guidelines/dfd/2004/smieis.pdf)
- Nicolau, A. L. (2000). A contingency model of perceived effectiveness in accounting information systems: Organisational coordination and control effects.

 International Journal of Accounting Information Systems. 1(2), 91 105.
- Ohachosim, C. I., Onwuchekwa, F. C., & Ifeanyi, T. T. (2012). Financial

- challenges of small and medium scale enterprises in Nigeria: The relevance of accounting information. *Review of Public Administration and Management*, 1(9), 248 276.
- Olatunji, T. E. (2013). The impact of accounting system on the performance of small and medium scale Enterprise in Nigeria –A survey of small and medium enterprises in Oyo State Nigeria. *International Journal of Business and Management Invention*, 2(9), 13 17.
- Osamwonyi, I. O. (2009). The Nigerian Economy, Edo State Unemployment and the Role of Entrepreneurship in I. O. Osamwonyi (ed.) *Training Manual For Participants of Graduate Entrepreneurial Scheme*, Osatech Group Consulting.
- Osamwonyi, I. O., & Tafamel, A. E. (2010).
 Options for sustaining SMEs in Nigeria:
 Emphasis on Edo State. *African Research Review: An International Multi-disciplinary Journal*, Ethiopia. 4(3b), 192 211.
- Osei, B., Baah-Nuakoh, A., Tutu, K. A., & Sowa, N. K. (1993). Impact of Structural Adjustment on Small-Scale Enterprises in Ghana, in A. H. J. Helmsing & T. H. Kolstee (eds.). Structural Adjustment, Financial Policy and Assistance Programmes in Africa. IT Publications
- Otley, D. T. (1980). The contingency theory of management accounting: achievement and prognosis. *Accounting, Organization & Society*, 5(4), 413 428.
- Otley, D. T. (1999). Performance management: A framework for management control systems research. *Management Accounting Research*, 10(4), 363 382.
- Otley, D. T. (2003). Management control and performance management: whence and whither? *British Accounting Review*, 35(4), 309 326.

- Pfeffer, J. & Salancik, G. (1978). The external control of organizations: A resource dependency perspective. New York: Harper & Row
- Pollock, N., & Cornford, J. (2004). ERP systems and the university as a unique organization. *Information Technology and People*, 17(1), 31-52.
- Rashid, M., Hossain, L., & Patrick, J. (2001). *The evolution of ERP system: A historical perspective*. United State of America: Idea group.
- Saira, K., Zariyawah, M., & Annuar, M. (2010). Information system and firms performance. The case of Malaysian small and medium enterprise. *International Business Research*, 3(4), 28 35.
- Spathis, C., & Constantinides, S. (2003). The usefulness of ERP for effective management. *Industrial Management & Data Systems*, 103(9), 677 685.
- Steel, W. F. & Webster, L (1990). Ghana's small enterprise sector: Survey of adjustment response and constraints.

 Industry Series Paper 41, World Bank, Industry and Energy Dept, Washington D.C
- Stefanou, C. (2006). The Complexity and the Research Area of AIS, *Journal of Enterprise Information Management*, 19(1), 9 12.
- Tafamel, A. E. & Idolor, J. E. (2008). Discovery Business Opportunities, In F. C. Okafor, P.A. Isenmila and A. U. Inegbenebor. *Entrepreneurship: A Practical Approach.* Benin City: Mindex Publishing.
- Thomas, V. & Klemer, B. H. (1995). New development on computer software. *Industrial Management & Data System*, 95(6), 22 26.
- Urquia, G. E., Perez, E. R., & Munoz, C. C. (2011). The Impact of accounting Information System on performance measure: Empirical evidence in Spanish

- small and medium enterprise. *The International Journal of Digital Accounting Research*, 11(1), 25 43.
- Van, V. P., & Wijn, M. (2002). Strategic control: meshing critical success factors with the balanced scorecard. *Long Range Planning*, 35(4), 402 427.
- Wilkinson, J.W. (1993). *Accounting Information System*: Essential Concept and Application (2nd Ed.). New York: John Wiley & sons.
- World Bank (1995). Diagnostic review of SMEs in Nigeria, Washington D.C, World Bank Publication.