

**OWNERS' PERCEPTION ON ACCOUNTING INFORMATION SYSTEM
ADOPTION: A CASE OF SMALL AND MEDIUM ENTERPRISES IN NIGERIA**

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ABSTRACT: *Literature has revealed many works on the important of AIS to SMEs, most of the researchers' result have shown the relevant and the challenging SMEs face in AIS adoption. However, this study bridges the gap, in analyzing the important of AIS adoption to SMEs through the business owners' perception based on their; competitive strength, longer-term strategic goals and market expansion. This research was carried out in Ilorin, Kwara State. Primary data was used as a source of data. A well-structured questionnaire based on the research questions was used to establish the effect of AIS adoption on competitive strength, longer-term strategic goals and market expansion. 60 SMEs were randomly selected in Ilorin, Kwara State. Regression and correlation analysis was used analyzed the relationship between AIS and competitive strength, longer-term strategic goals and market expansion. The result obtained shows that AIS have a positive correlation with; longer-term strategic goals (.435) which is positively significant at $\alpha=0.05$, competitive strength (.272) which is positively significant at $\alpha=0.01$ and market expansion (.322) which is also significant positively at $\alpha=0.05$. The study concluded that the importance of AIS adoption cannot be over emphasized in any business setup and the study recommendation that: AIS could be adopted by SMEs to improve non-financial performance like longer-term strategic goals, market expansion and competitive strength.*

KEYWORD: Accounting Information System, SMES, Competitive Strength, Longer-Term Strategic Goals, Market Expansion.

INTRODUCTION

It has been identified in many studies that, accounting plays a critical role in the success or failure of contemporary business organizations. Similarly, according to Amidu et al., (2011), Accounting systems are responsible for recording, analyzing, monitoring and evaluating the financial condition of companies, preparation of documents necessary for tax purposes and providing information support to many other organizational functions. Accounting Information System (AIS) has been described by Urquia, Perez & Munoz, (2011) 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 a 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. According to Stefanou (2006) the main purpose of 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.

The definition of SMEs in Nigeria by Small and Medium Industries Equity Investment Scheme (SMIEIS) was adopted in this study. They defined SMEs as those enterprises with a total capital employed not less than N1.5million, but not exceeding N200million, including working capital, but exceeding cost of land and/or with a staff strength of not less than 10 and not more than 300 (Obamuyi, 2007). In the context of SMEs, accounting information is important as it can help the firms to manage their short-term and long-term problems in critical areas like expenditure, costing and cash flow, by providing relevance information to support monitoring and control (Mitchell et al., 2000; Son et al., 2006). Small business enterprises (SMEs) have an important role to play in development of developing countries such as Nigeria. The extents at which business contributes towards the growth and development of Nigeria is depend on the level of success attained by their operations. The fact is that, underlying the success of a business enterprise, is the establishment and application of controls by the owners or management in addition to the systematic record keeping of business transactions, which, at the end of the period, keeps the owner updated about the performance of the business (Mbroh et al., 2011). It has also been recognized that accounting information is important for a successful management of any business setup, whether large or small (European Commission (EC), 2008). Accounting information has been found to be very crucial for the purpose of financial management. Empirically, it has been demonstrated by a number of research that the accountant possesses the skill with which any meaningful financial management can be established in any organization (Brean, Sculli & Calvet: 2003). Studies have revealed that sound financial management is crucial to survival and growth of small business (Gorton: 1999). The fact is that high rate of small business failure is due to poor or careless financial management has lain itself to empirical evidence. Effective financial management can only be established in the presence of quality accounting information. According to Potts (1977), the clearest and most startling distinction between successful and discontinued small businesses lie in their approach to uses which can be made of accounting information. Accounting information is not a mere fabrication of the accountant; it is actually the results of business undertakings of the SMEs. This would mean that the accountant should be aware of the business activities and ensure that relevant ingredients are not dropped on the way. Having seen the crucial important of AIS to SMEs in both developed and developing world, much work has not been done on the important of AIS on competitive strength , longer-term strategic goals and market expansion of SMEs. Therefore, this research will bridge this identified gaps by analyzing the SMEs' owners perceptions based on competitive strength, longer-term strategic goals and market expansion. The following questions will be answered in this study:

- How SMEs' owners do perceived AIS adoption on competitive strength?
- What are the SMEs' owner perceptions of AIS adoption on longer-term strategic goals?
- What are the SMEs' owner perceptions of AIS adoption on market expansion?

Hypotheses of the study

This study will test the underlisted hypothesis:

H₀: There is no significant relationship between AIS adoption and longer-term strategic goals, customer satisfaction and market expansion.

LITERATURE REVIEW

Empirical Review of the importance of AIS to SMEs

As the importance of SMEs and AIS is been discovered all over the world, there are many research work on SME and AIS. Some of this work is been examine in this work. Dalğar, et al., (2014) work on the extent AIS is used in production companies and they carry out a questionnaire in production companies which are in West Mediterranean Region. In their study, it is seen that in production companies every data which is needed in AIS is recorded, their result shows that information technology is used effectively in the company they examined; stock companies use AIS more efficiently than other companies. According to Akgün and Kılıç (2013) where they expansion more on AIS and MIS in conceptual basis. Questionnaire was carried out to determine the efficiency of AIS in Salt Lake businesses. According to the result of their study, it was discovered that AIS provides information for internal and external users. Secondary, AIS has a positive effect on the efficiency of the business management. Also, Yazıcı (2010) research on the effect of AIS on SMEs' managerial decision in the Erzurum industrial zone shows that when businesses get larger, the number of personnel and the level of technology use increase and that AIS is used more efficiently in managerial decisions. According to the work of Gökdeniz (2005), AIS is the most important sub-system of MIS. The input of AIS is recorded more easily by computerized system and the output is reliable and certain. Also, AIS education provides many advantages to the businesses. Mizrahi (2011) focus on the effective use of AIS in SMEs. According to her study the SMEs in İzmir only use 35% of their AIS knowledge in their managerial studies. According to Allah, et al., (2013) which aim to show that to what extent small businesses use AIS and states that small businesses are unwilling to use new technology in their businesses. Gray (1991) in his study emphasizes on subjective preferences and states that in traditional IS/AIS selection approaches while they do not consider personal preferences. Fink (1996) also finds out that some enterprises use accounting software packages but they face difficulties during the installation of these packages because they are not well managed. This is due to the fact that they lack some important features and because of this they fail to function properly. Fink suggests that better documentation is needed and user education is important in order to solve the problems. The work of Ismail, et al. (2009) on the use of accounting information computerized AIS among non-manufacturing SMEs in Malaysia, it was discovered that AIS usage is minimal in these businesses. Some businesses use AIS but most small businesses encountered problems in understanding the importance of accounting information. According to Muhindo et al. (2014) which stated that AIS has an important role in business especially in its management. Thus, it was revealed that AIS is not used in small scale businesses. They state that AIS has an important role in economic and social system. Furthermore, Grande et al., (2011) carry out a survey among SMEs to find out to what extent the development and installation of AIS take place in these enterprises. It was also discovered that there is a positive relationship among the SMEs which use AIS for fiscal and bank management and better performance measures.

DeThomas and Fredenberger (1985) worked on a survey of some progressive 360 SMEs in Georgia, USA and find out that the SMEs have installed and used very effective accounting information systems. The survey also reveals that the SMEs have high standard of financial

recordkeeping. Around 92% of the respondents had some form of recordkeeping beyond check stub deposit receipts. According to their work, it was discovered that the success of the SMEs studied is attributed to their accounting systems which were very effective, this go along with the finding of D'Ambose and Gasse (1980) who worked on the utilization of formal management techniques in 25 small shoe manufacturers and 26 small manufacturers in plastics industry in Quebec, Canada and found that a cost accounting system was in operation in about 88% of businesses studied. Furthermore, Richard et al (1991) explained that the availability of affordable computers and suitable software has gone a long way in promoting a working accounting system.

It is briefly highlighted at the introductory part of this review that improved accounting information systems enhance the quality of financial reporting. Richard et al (1991), suggested that improved accounting systems due to uprising in computerising accounting systems following innovations in manufacturing affordable computers in recent times has elevated the standard of financial reporting in small businesses in North America. Consequent upon the installation and use of an accounting information system, satisfactory aggregation of the business activities is achieved in forms of records. This has enhanced financial reporting.

Theoretical Framework

Contingency Theory and the Design of Accounting Information System

Contingency theory suggests that AIS should be designed in a flexible manner so as to consider the environment and organizational structure of a business entity. Some contingency literatures are examined: Gordon and Narayanan, (1984); Chenhall and Morris, (1986); Kim, (1988) and Mia and Chenhall, (1994) researched on different forms of AIS combination with other variables such as technology, structure, and environment. 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. Furthermore, according to Lawrence and Danny, (1978), AIS needs to be designed within an adaptive framework. Other early contingency research as summarized by Otley (1980) has 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 instance, Chenhall & Morris (1986), Gul & Chia (1994) examined the contingent relationship between internal and external environmental factors e.g. organizational interdependence, decentralization and perceived environmental uncertainty and choice of AIS (information scope, aggregation, timeliness and integration). The conclusions 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. This study adds to this body of literature by examining AIS adoption within the setting of SMEs in Ilorin, Kwara State, Nigeria.

METHODOLOGY

This research was carried out in Ilorin, Kwara State. Primary data were used as a source of data. A well-structured questionnaire based on the research questions was used to establish the perception of SMEs owners' on AIS adoption on their longer-term strategic goals, competitive

strength and market expansion. Furthermore, in this study, the data is obtained from 60 SMEs in Ilorin. Companies are randomly selected and suited to the SME definition by SMIEIS (Obamuyi, 2007). Regression analysis was used to test each hypothesis of the study. The models adopted in this research for testing each hypothesis are as follows:

$$\log it(p) = \ln(p/(1-p)) = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k + \varepsilon$$

$$InCS = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k + \varepsilon \quad (1)$$

$$InLSG = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k + \varepsilon \quad (2)$$

$$InME = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \dots + b_kx_k + \varepsilon \quad (3)$$

Where:

CS = Competitive strength

LSG = Longer-term strategic goals

ME = Market Expansion

b_0 = constant

x = independent variables (i.e AIS adoption)

$b_0 - b_k$ = regression intercept and

ε_i = error terms

FINDINGS AND DISCUSSION

Table 1 below presents the Accounting practice in use by the selected SMEs as well as their level of satisfactory when using the system. It is important to present the AIS devices that were been use by this firms, this includes: Desktop computer, Laptop computer, printer, scanner point of sales (POS), currency counting machine, internet services and Microsoft Excel. The result revealed that all of the respondents possess one or more AIS device. Also, none of the respondents uses only one or two devices. 8% of the respondents possess 3 AIS devices and their level of satisfaction with this devices is high, likewise, 15% of the respondents possess 4 types of AIS devices and they are very satisfy with the usage of this devices. Furthermore, with a greater percentage of 47% of the respondents agreed that they make use of 5 different types of AIS devices with an average high satisfactory level. This is a welcome development among the studied enterprise, the SMEs have adopted AIS devices for a well reasonable performance. Moreover, 13% and 17% of the respondents make use of 6 and 7 different AIS devices with a very high satisfactory level. It can be deduced from the study that all of the selected SMEs are aware of the importance of AIS and are adequately making use of it to enhance their performance, satisfy their customer, improves market expansion and decision making. This result is in line with the work of DeThomas and Fredenberger (1985) on 360 SMEs in Georgia and found out that they all have installed Accounting Information System and also, Mizrahi (2011) works on the effective use of AIS in organization.

Table 1: Accounting Practice and level of satisfactory

No of AIS Adopted	Frequency of the firm	Level of satisfactory with the usage		
		Low	Moderate	High
0	None	-	-	
1	None			
2	None	-		
3	5(8)	-	-	5(8)
4	9(15)	-	-	9(15)
5	28(47)	-	8(14)	20(33)
6	8(13)	-	-	8(13)
7	10(17)	-	-	10(17)

Source: Authors compilation

Relationship between dependent variables (longer-term strategic goals, competitive strength and market expansion) and independent variables (AIS)

Determination of the correlation between the variables of the study is important, table 2 below revealed the relationship between each variable. AIS have a positive correlation with; longer-term strategic goals (.435) which is positively significant at $\alpha=0.05$, competitive strength (.272) which is positively significant at $\alpha=0.01$ and market expansion (.322) which is also significant positively at $\alpha=0.05$. It can be deduced from the study that there exist a statistical significant relationship between the dependent and independent variables, this depicted that since the SMEs have adopted AIS, they improved in terms of longer-term strategic goals i.e. they gathered relevant information from the customer, they haste their production, they considered time factor etc. in delivery service to their respective customers. Furthermore, since the SMEs adopted AIS, they positively improved on satisfying their customers, their customers are not complaining about their services, which follows with the longer-term strategic goals. Likewise, the adoption of AIS improves the market expansion, new machines for production are being discovered through AIS, improve competitive strengths, packaging is improve, technical know-how improve etc. This result collaborates with the findings of Muhindo et al. (2014).

Table 2: Presentation of the correlation between dependent and independent variables

		AIS	Longer-term strategic goals	Competitive strength	Market expansion
AIS	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	60			
Longer-term strategic goals	Pearson Correlation	.435(**)	1		
	Sig. (2-tailed)	.001			
	N	60	60		
Competitive strength	Pearson Correlation	.272(*)	.291(*)	1	
	Sig. (2-tailed)	.587	.024		
	N	60	60	60	
Market expansion	Pearson Correlation	.322(*)	-.309(*)	-.146	1
	Sig. (2-tailed)	.012	.016	.266	
	N	60	60	60	60

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Test of Hypothesis

H₀: There is no significant relationship between AIS adoption and longer-term strategic goals, competitive strength and market expansion.

The result on table 3 of Analysis of Variance (ANOVA) disclosed that accounting information system ($F(4, 51) = 5.664$; $P < .000$) contributed significantly in to SMEs longer-term strategic goals, competitive strength and market expansion.

Table 3: Presentation of ANOVA Result

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.916	3	6.305	5.664	.000
	Residual	62.334	56	1.113		
	Total	81.250	59			

a Predictors: (Constant), AIS adoption

b Dependent Variable: Market expansion, Competitive strength , Longer-term strategic goals

Table 4: Presentation of Variables Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	5.545	.772		7.187	.000
	AIS	.934	.305	.390	3.061	.000
R		= .695				
R Square		= .518				
Adjusted R Square		= .785				

a Dependent Variable: Market expansion, Competitive strength , Longer-term strategic goals

The result present on table 4 revealed that the summary statistics of the analysis of the accounting information system on accounting activities showed the correlation coefficient (R) = 0.695; the coefficient of determination (R^2) = 0.518; indicating accounting information system contributes about 51.8% in SMEs longer-term strategic goals, competitive strength and market expansion. The tested hypothesis of this study is measured at level of 95% confidence interval. Therefore, the hypothesis of this research is rejected. This shows that there is significant relationship between AIS adoption and longer-term strategic goals, competitive strength and market expansion. This result is in line with the work of Fink (1996), Muhindo et al. (2014) and Grande et al., (2011).

DECISION

This research is an evidence to the existing literatures, that the contribution of AIS adoption to SMEs is enormous (Isobe et al., 2008 and Tuanmat and Smith, 2011). However, there is death of research on AIS adoption effect to SMEs on non-financial performance like SMEs' longer-

term strategic goals, market expansion and competitive strength. This study has bridged this gap, the findings revealed that there is a significant relationship between AIS adoption and SMEs' longer-term strategic goals, market expansion and competitive strength. Therefore, this research suggest that an organization should adopt AIS in order to strengthen their competitive advantage, expand their market reach and improve their long-term strategic goals.

CONCLUSION AND RECOMMENDATIONS

Considering the previous works on the important of AIS to SMEs that were reviewed in this research such as DeThomas and Fredenberger (1985), Gordon and Narayanan, (1984), Chenhall and Morris, (1986) Kim, (1988), Mia and Chenhall, (1994), Fink (1996), Gökdeniz (2005), Ismail, et al. (2009), Gray (1991), Yazıcı (2010), Mizrahi (2011), Grande et al., (2011) Akgün and Kılıç (2013), Allah, et al., (2013) Muhindo et al. (2014) and Dağar, et al., (2014), some of their result shows the relevant and the challenging SMEs face in installing AIS. However, these results bridge the gaps, in analyzing the important of AIS adoption to SMEs longer-term strategic goals, competitive strength and market expansion. The result revealed that the selected SMEs are aware of AIS and they make use of more than one device with a high satisfactory level. Likewise, it was revealed that there exist a positive relationship between AIS and the dependent variables which are longer-term strategic goals, competitive strength and market expansion. The hypothesis was also tested and the result further revealed that their exist a statistical significant (.000) relationship between AIS and longer-term strategic goals, competitive strength and market expansion and this also collaborated with the findings of Fink (1996), Muhindo et al. (2014) and Grande et al., (2011) in expatiating the usefulness of AIS in SMEs development. Therefore, this study concluded that the importance of AIS adoption cannot be over emphasized in any business setup.

Sequel to the findings and conclusion of this study, the following recommendations were made: Other SMEs that are yet to adopt AIS,

- should find all possible means to adopt AIS in order to improve their longer-term strategic goals.
- should find all possible means to adopt AIS in order to satisfy their customer and
- should find all possible means to adopt AIS in order to improve quality of their services.

Future Research

This research is limited to Small and Medium Enterprises (SMEs), similarly, more research could be done on manufacturing industries and service rendering organization in both developed and developing countries.

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