ACCOUNTING INFORMATION SYSTEMS AND SMALL/MEDIUM SCALE ENTERPRISES (SMES) PERFORMANCE

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ABSTRACT: The importance of accounting information system in any organisation, especially the small and medium scale enterprises cannot be over emphasised. The accounting information systems employed by SMEs are very crucial to their performances. Due to lack of accounting information, SMEs however, make wrong decisions. In light of this problem, this study sought to determine the effect of accounting system on the performances of SMEs in Nigeria. The population of this study consists of the Small and Medium scale Enterprises (SMEs) in Festac - Town, Lagos. Data were extracted from 154 questionnaires administered with 80% retrieval success. The hypotheses were formulated and tested using regression analysis at 5 per cent level of significance (0.05). The data were analysed and interpreted using both descriptive and inferential statistics. The study found accounting information system having a significant positive effect on SMEs performance. In conclusion, accounting information systems employed by the managers/owners of SMEs were found to have contributed positively to their decisions and performances. We therefore recommended that users of accounting information should take cognizance of the quality of accounting information systems provided so as to aid their performance.

KEYWORDS: Accounting information system. Decision making, Performance, Small and Medium scale Enterprises.

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INTRODUCTION

Adoption of sound accounting system in addition to good internal control systems in any business, irrespective of its scale, is sine qua. Because of their (SMEs) inability to afford the complexity of a detailed accounting system, there abounds existence of single entries in their books resulting in incomplete records (Onaolapo, Fasina, Opoola & Olatunji, 2011). A system has been defined by Al-Kurdi and Al-Abed (2002) as a group of associated components, together making an entity. According to Morsi (2005) a system is made up of four components: inputs, processors, outputs, feedbacks and system boundaries.

To Romney and Steinbart (2012), Accounting Information System aims at collecting, recording, storing and processing data to generate information. But O’Brien and Maracas
Sustano (2004) had also earlier viewed it from the same perspective when he posited that accounting system is an integration of sub-systems, interconnected with each other to process data related to financial problem into financial information. To Abdallah (2013), a system does not exist on its own it must be interconnected.

There seems to be no uniformity in the definitions of Small and Medium scale Enterprises (SMEs) as the terms are relative, they differ from business to business and from one nation to another (PricewaterhouseCoopers, 2009). ILO, (1997) also confirmed this assertion as they posited that no single definition can capture all the dimensions of “micro”, “small”, “medium” or “large”. Nor can it expect to reflect the differences between firms, sectors or countries at different levels of development. This assertion was also supported by Holt (2009).

According to IFRS, Small and Medium Enterprises are entities without public accountability, as they are neither compelled to publish general purpose financial statements nor follow generally accepted accounting principles (GAAP). The fact that financial statements prepared by these entities are normally laced with personal judgement of the owners, make the entities to be vulnerable to non-compliance with a set of guideline as opposed to those prepared based on formalized conceptual framework.

SMEs in Nigeria pay less attention to sound accounting practice in their day to day transactions, on the premise that they owe no-one their financial statement as it is their entity and they run it as they like. Mukaila and Adeyemi (2011) attributed the untimely collapse of a host of SMEs in Nigeria to inadequacy and ineffectiveness of sound accounting practices. While some of the surviving entities engaged the services of practicing accountants to prepare their account, Holmes and Nicholls (1998); others tapped from the knowledge of their owners, (Ismail & King, 2007).

SMEs in Nigeria normally use external accountants as a source of professional advisory services in order to prepare their financials, but sometimes the owners or managers do not keep proper records neither do they understand the data and figure from the report and also not aware or convinced of the usefulness of accounting and financial reporting requirements for control and decision making purposes. That is why the SMEs are unable to carry out the accounting functions internally, (Marriott & Marriot, 2000).

To the best of our knowledge, there is no study focusing on the effect of Accounting Information System on SMEs decision making, performance, mode of accounting and the challenges face in adopting accounting practices in Nigeria, this study sought to fill this gap. Also most previous studies on the AIS and the performance focused on the data of large companies and banks. This study is one of the few that shed light on how SMEs use AIS and their attitude towards it.

It is because of the above problems that prompted the researchers of this study to write about the effect of accounting information system on SMEs performance in Nigeria.
Objective of the Study

The goal of this study was to determine the major accounting system used by SMEs in Nigeria. Specifically, the study sought to:

1. assess the effect of accounting practices on SMEs performance in Nigeria.
2. evaluate the mode of accounting on efficiency of SMEs performance.
3. ascertain the effect of accounting information system on SMEs performance.
4. determine the use of accounting information on SMEs performance.
5. investigate the effect of accounting practices, mode of accounting, accounting information system and the use of accounting information on SMEs performance.

Hypotheses

The following hypotheses for the study have been stated in null form:

H1: The current accounting practice does not significantly affect SMEs’ performance.

H2: There exists no significant effect of the mode of accounting on efficiency of SMEs performance.

H3: There is no significant effect of accounting information system on SMEs performance.

H4: The use of accounting information has no significant effect on SMEs performance.

H5: There is no significant effect of current accounting practices, mode of accounting, the accounting information system and use of accounting information on SMEs performance.

LITERATURE REVIEW

This section has been grouped into conceptual and empirical reviews:

Information System

This is a set of parts and procedures interacting with each other to collect; process and store the appropriate data; deliver them in the right time and place; to make informed decisions so as to contribute meaningfully to the objective of an organization (Aende & Agbo, 2016). Therefore for an information system to be useful it must be timely, accurate and suitable for the purpose it is meant to serve.

Accounting Information Systems (AIS)

Gel (2010) regarded AIS as a collection of parts and sub- systems connected with each other and surrounding environment operating as a single overlap relationship. Each part depends on the other to achieve the goals sought by the comprehensive system of accounting, with the goal of providing data and information to decision makers.
Quality of Accounting Information

For accounting information to achieve its desired goals, it should be appropriate, credible, timely, understandable, important, and possess financial data quality. Qualitative accounting information should generally be understandable, relevant, reliable, comparable, timely and faithfully represented (IASB, 2010). Success of businesses are better guaranteed by the quality of accounting information, and this is possibly because accounting can be viewed as an information measurement and communication system to serve macro and micro-economic activities. Sserwanga (2003), investment decisions made in a vacuum are gambles; useful decisions are made depending on useful information. Sometimes decision makers may be fed with irrelevant and useless information than they can use, they may overlook information on serious problems (Stoner, Freeman & Gilbert, 1995). A financial report that does not reflect economic reality will result in poor decision-making. Consequently, managers of SMEs and the supervisors are required to appreciate the need for quality accounting information so as to minimize fraud and manage cash.

Accounting Practice

Accounting practices are sets of rules business organizations must follow when reporting financial statements. The standard accounting practice guidelines allow business organizations to compare each other because they are guided by the same rules referred to as Generally Accepted Accounting Principles (GAAP). Accounting practices include cash management, accounts receivables, inventory, fixed assets, accounts payables, budgetary control, bill payables, notes payables, accruals and prepayments.

In the case of Small and Medium scale Enterprises, they would need the understanding of financial statements, such as the statement of financial position, statement of comprehensive income and the statement of cash flow. Notwithstanding the fact that they have professionals or employees who help them to prepare these financials, they must also be able to understand and interpret them. They should also have the ability to prepare their business budget and plan at the beginning and end of the business operational year.

Managers of SMEs should also be able to ascertain which method of accounting to employ; either cash basis method or accrual basis method. Ashe- Edmunds (2018) affirmed that using variety of basic accounting practices can decrease the chances of miscalculating financial positions and help identify problems before they get fatal.

In the current economy, establishing and maintaining accounting practices is an integral part of a business. This will help to ensure that solid financial data and information are kept. Accounting practices enable managers/owners of SMEs to manage their business and grow it. It helps them to stay organised when dealing with customers and suppliers. It facilitates the preparation of management accounts. Armed with a financial statement, they will find it easy to get bank loans or overdraft. It helps them to arrange their tax payments and other liabilities.
in stages. Finally, with the aid of sound accounting practices, they can keep records of their financial information in compliance with the law.

**Mode of Accounting**

This study sought to check on the mode of recording their transactions, hence questions were directed at the extent by which accounting records support business audit and research; the extent by which it assists in resource allocations and performance planning; the extent by which the accounting records require skilled personnel and finally, the extent by which the operations have to be paused to prepare accounting records. All information was required to ascertain if the mode of accounting used by the sampled entities was appropriate.

**Use of Accounting Information**

Conceptual framework for financial reporting grouped the users of accounting information into primary and other users (IASB, 2010). It also provided the guide as to the use of accounting information by those users. The framework went further by stating that information should be prepared based on the specific needs of those users. Consequently, the study sought relevant information on the use of financial information to make decisions; the interpretation of the information for budgeting and budgetary control as well as production and other planning purposes by SMEs.

**Effect of Accounting Information**

The effect of accounting information on the performance of SMEs was established by asking relevant questions on whether or not they use the information to measure performances of their entities; if or if not the performance indicators help to measure business progress towards goals; whether or not the information is used to check performance based on planning and control decisions and finally, if or if not the operators prepare budgets for performance appraisal.

**Sales Revenue Growth**

Common measure of SME performance, due to poor record keeping on the part of some of them, is Sales Revenue Growth. This is deduced from the fact that even though some records are not available, all sampled entities kept good records of their sales, hence the study adopted the track of their sales growth as a measure of their performance.

**Empirical Review**

Various extant literatures abound on the quality of accounting information system and how they affect accounting practices, mode of accounting, decision making and their impacts on SMEs have been studied by several researchers using different analytical methods.

Khaled and Abdulqawi (2015) in their study of the role of accounting information systems on business organizations value chain found a deficiency in the level of the availability of the basic components of accounting systems and the level of the quality of accounting information.
required to improve the value chain of business organizations, and recommended the need to work on improving the level of the basic components of accounting systems to enhance the quality of accounting information.

Hla and Teru (2015) investigated the efficiency of Accounting Information System on performance measurement using the secondary data. The study found a tremendous impact of the use of computerized systems to track and record financial transactions in facilitating management decision making, internal controls and quality of the financial report. The study therefore, recommended that businesses, firms, and organization should adopt the use of AIS as enablement for effective decision-making processes at all levels of management.

Al Smirat (2013) on the use of accounting information by Small and Medium Enterprises in South District of Jordan relying on both primary and secondary sources of data concluded that the level of awareness on the importance of financial management was still very low in small and medium firms and most of the managers were not aware of the importance of keeping good accounting records. Muhindo, Mzuza, and Zhou (2014) examined the impact of Accounting Information Systems on profitability level of small scale businesses in Kampala city, Uganda, using secondary data to analyze the problem of continuous low performance levels in small scale businesses that do not have accounting information systems. The study revealed a positive relationship between accounting information systems and profitability level of small scale businesses. This study therefore advised policy makers to come up with tax waivers or tax reductions on equipment to be used in these systems.

Ankrah, Mensah and Ofori-Atta (2015) examined the relevance of accounting information in the management of small scale businesses in the Yilo Kribo District in Ghana. Primary source was used to collect information from selected SMEs on how useful accounting information in the management of their businesses. The study revealed that, although there were some forms of accounting practices in the geographical location, there was still the need for more effective and efficient accounting practices and accounting information system alongside good internal and external control procedures. Ezeagba (2017) analyzed the financial reporting in Small and Medium Enterprises in Nigeria. Primary and secondary data were collected to identify the challenges and options SMEs face in financial reporting. The study recommended that the two major professional accounting bodies (ICAN & ANAN) should encourage their members to offer free professional services to SMEs in Nigeria.

Nwobu, Faboyede and Onwuelingo (2015) on the role of accounting services in small and medium scale businesses in Nigeria used a primary source of data to conduct their research and concluded that accounting services (practices) provide SMEs with relevant advisory, technical and professional support.
METHODOLOGY

This study was quantitative in nature. For the purpose of this study, the entire small and medium scale businesses in Festac – Town, Lagos served as the focus area of the study. The population of these businesses was estimated at 250, comprising of both small and medium scale businesses. The data for the study were extracted from primary sources through survey, observation and questionnaire. This enabled the researchers to have close contact with the respondents. The tool was administered by hand to the owner/manager of every small and medium scale businesses in Festac – Town, Lagos.
Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Practice</td>
<td>AP</td>
</tr>
<tr>
<td>Mode of Accounting</td>
<td>MOA</td>
</tr>
<tr>
<td>Impact of Accounting Information System</td>
<td>IAIS</td>
</tr>
<tr>
<td>Use of Accounting Information</td>
<td>UAI</td>
</tr>
<tr>
<td>Sales Revenue Growth</td>
<td>SRG</td>
</tr>
</tbody>
</table>

Model Specification

\[ \text{SRG}_{it} = \beta_0 + \beta_1 \text{AP}_{it} + \beta_2 \text{MOA}_{it} + \beta_3 \text{IAIS}_{it} + \beta_4 \text{UAI}_{it} + \mu_{it} \]

\( \mu_{it} \) is the error term which accounts for other possible factors that could influence \( \text{SRG}_{it} \) that are not captured in the model.

RESULTS AND DISCUSSION OF FINDINGS

The hypotheses were tested using regression analysis.

Hypothesis 1: The current accounting practice does not significantly affect SMEs’ performance.

Table 1: Effect of current accounting practice on SMEs’ performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Practice</td>
<td>58.632</td>
<td>0.529</td>
<td>0.280</td>
<td>0.275</td>
<td>0.000</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Dependent Variable: SRG

Research objective one sought to assess the challenges faced in accounting practices on SMEs performance in Nigeria. The results in table 1 shows that accounting practice has a significantly positive effect on SMEs performance as shown by the coefficient of accounting practices (0.541) and the significant p-value of 0.000 which is less than 0.05.

Also, the magnitude of effect stands at 54.1%, that is, a 1% increase in accounting practices availability and use will influence the performance of SMEs by 54.1%. Furthermore, the relationship between accounting practices and SMEs performance is positive but weak with a correlation coefficient of 0.529, while the \( R^2 \) value of 0.280 shows that only about 28% changes in performance of SMEs is explained by accounting practices, while 72% explained by other factors. Furthermore, the entire model is significant in explaining the challenges faced in accounting practices on SMEs performance as depicted by the F-Statistic of 58.632 and with a p-value of 0.000 (<0.05). From the results therefore, we reject the null hypothesis and conclude that there is a significant effect of the current accounting practice challenges on SMEs’ performance.
Hypothesis 2: There exists no significant effect of the mode of accounting on efficiency of SMEs performance.

Table 2: Effect of mode of accounting on efficiency of SMEs performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode of Accounting</td>
<td>84.107</td>
<td>0.598</td>
<td>0.358</td>
<td>0.353</td>
<td>0.000</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Dependent Variable: SRG

Research objective two sought to evaluate the mode of accounting on efficiency of SMEs operations. The results in table 2 shows that mode of accounting has a significant positive effect on SMEs operations as shown by the coefficient of mode of accounting (0.660) and the significant p-value of 0.000 which is less than 0.05.

Also, the magnitude of the effect stands at 66%, that is, a 1% increase in mode of accounting in use will influence the performance of SMEs by 66%. Furthermore, the relationship between mode of accounting and SMEs operations is positive but is mild with a correlation coefficient of 0.598, while the R² value of 0.358 shows that only about 35.8% changes in operations of SMEs is explained by their mode of accounting. Furthermore, the entire model is significant in explaining the mode of accounting on SMEs operations as depicted by the F-statistic of 84.107 and with a p-value of 0.000 (<0.05). From the results therefore, we reject the null hypothesis and conclude that there is a significant positive effect of the mode of accounting adopted on efficiency of SMEs operation.

Hypothesis 3: There is no significant effect of accounting information system on SMEs performance.

Table 3: Effect of accounting information system on SMEs performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Information System</td>
<td>113.231</td>
<td>0.655</td>
<td>0.429</td>
<td>0.425</td>
<td>0.000</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Dependent Variable: SRG

Research objective three sought to determine the effect of accounting information system on SMEs performance. The results in table 3 show that accounting information system has a significant positive effect on SMEs performance as shown by the coefficient of the effect of accounting information (0.718) and the significant p-value of 0.000 which is less than 0.05.

Also, the magnitude of the effect stands at 71.8%, that is, a 1% increase in accounting information systems in use will influence the performance of SMEs by 71.8%. Furthermore,
the relationship between accounting information and SMEs performance is positive but is moderate with a correlation coefficient of 0.655, while the $R^2$ value of 0.429 shows that only about 42.9% changes in performance of SMEs is explained by their accounting information. Furthermore, the entire model is significant in explaining the effect of accounting information on SMEs performance as depicted by the F-Statistic of 113.231 and with a p-value of 0.000 (<0.05). From the results therefore, we reject the null hypothesis and conclude there is a significant effect of accounting information system adopted on performance of SMEs.

Hypothesis 4: The use of accounting information has no significant effect on SMEs performance.

Table 4: Effect of the use of accounting information on SMEs performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>R</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Accounting Information</td>
<td>59.214</td>
<td>0.531</td>
<td>0.282</td>
<td>0.277</td>
<td>0.000</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Dependent Variable: SRG

Research objective four sought to determine how SMEs use accounting information to make efficient decisions. The results in table 4 reveal accounting information having a significant positive effect on SMEs efficient decisions as shown by the coefficient of accounting information (0.784) and the significant p-value of 0.000 which is less than 0.05.

Also, the magnitude of the effect stands at 78.4%, that is, a 1% increase in the use of accounting information will influence the performance of SMEs by 78.4%. Furthermore, the relationship between the use of accounting information and SMEs decision making is positive but is slight with a correlation coefficient of 0.531, while the $R^2$ value of 0.282 shows that only about 28.2% changes in decision making of SMEs is explained by their accounting information. Furthermore, the entire model is significant in explaining the accounting information on SMEs decision making as depicted by the F-statistic of 59.214 and with a p-value of 0.000 (<0.05). From the results therefore, we reject the null hypothesis and conclude that there is a significant effect of accounting information adopted on decision making of SMEs operation.
H3 The effect of accounting practices, mode of accounting, accounting information system and use of accounting information on SMEs performance.

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>R</th>
<th>R²</th>
<th>Adj R²</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Practice, Mode of Accounting, effect of Accounting Information system and the use of Accounting Information.</td>
<td>39.163</td>
<td>0.717</td>
<td>0.514</td>
<td>0.501</td>
<td>0.001</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Dependent variable: SRG

The results in the table show that there exists a positive effect of accounting information system on Small and Medium scale Enterprises and is significant at 5% level of significance as shown by the coefficient of the sub-independent variables.

The coefficient of accounting practice, mode of accounting, use of accounting information and impact of accounting information had the significant p-value of 0.001 which is less than 0.05.

**CONCLUSION AND RECOMMENDATIONS**

The study contributed to the body of research by investigating the effect of accounting information system on Small and Medium scale Enterprises’ performance. Several authors regularly discussed accounting information system as it relates to manufacturing and banking industries.

Findings showed that the current accounting practice has a significantly positive effect on SMEs performance. The positive correlation indicates that the higher the soundness of accounting practices deplored on the operations, the higher the performance of the business and vice versa. This is based on the premise that sound accounting practice will lead the firm to account accurately for all its incomes and expenditures as well as assets and liabilities from one period to the other. This result corroborates with the findings of Ankrah et al (2015) & Nwobu et al (2015);

The mode of accounting adopted, the accounting information system adopted and the use of accounting information were also found to have significant positive effects on SMEs performance. These positions were supported by the findings of Al Smirat (2013); Hla & Teru (2015); Khaled & Abdulqawi (2015); Muhindo et al (2014). However Naranjo (2004) found an indirect effect of sophisticated accounting information system on performance, acting through prospector strategy. Since most SMEs cannot afford to deplore sophisticated accounting information system on their operations, due to high cost of automation involved, there is every need for facility sharing by SMEs operating within the same locality.

From the general findings of the research, we can conclude that accounting information system coordinates the performance of SMEs, as most of them rely on accounting information for decisions making that affect their performance and operations.
The study recommended that management of SMEs should deplore sound accounting practices to their operations. Since sophisticated accounting systems may be out of reach by SME operators, resource sharing approach could be adopted by SMEs operating within the same locality as a cost-reduction device.

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