Accounting Information Digitalization and Nigerian Firms’ Financial Performance

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ABSTRACT

The study focused on the effect of digitalization of accounting information on firms’ financial performance in Nigeria. The study employed correlation matrix to determine the effect of information technology of accounting information on the financial performance of selected banking firms and least square regression to test the hypothesis using Statistical Package for Social Sciences (SPSS 20). From the analysis the study revealed that there is a significant relationship between Information technology on accounting system; there is a significant effect of large data in the function of accounting system, there is a significant impact of Artificial intelligence on how an organization processes its accounting information. The researcher therefore recommended that Digitalization of accounting information should be implemented in most firms as it reduces the weakness of loss of data. Accounting staffs should improve their capabilities in the use of digitalized accounting information systems and applied systems as it enables faster creation of financial report of business organizations in Nigeria.
INTRODUCTION

All facets of human life today are influenced by information technology which has advanced so rapidly. Majorly, all activities have essentially become difficult to carry out without it. The analog era saw a less daring intrusion into human activity compared to digital era. Digitization has made man to question several previously accepted natural principles, and even previously unthinkable things are suddenly becoming realities (Adu and Williams, 2023). Accounting has changed from the prehistoric era to digital era which has replaced manual accounting.

Comparably to other activities globally, technological interruptions have fairly been experienced by accounting (Ogaluzor, 2019). The increased degree of complexity has contributed to the rapid evolvement of business environment due to introduction to new markets, and escalated competition. As a result, modern firms must pay close attention to the various data that emerge from the internal and external environment and take benefit from the advantages provided by modern technologies in gathering various data so they can identify strengths, take advantage of opportunities, address weaknesses, and minimize threats (Smith, 2018).

Statement of the Problem

The use of advanced innovation is challenging as discovered by most clients and organizations. Most plans of action have been impacted by the shift to a computerized environment, which has also had a significant impact on company organizations' accounting information. Language proficiency is a test since, in particular, parts of this program are written in languages that users must work hard to understand and that contain characteristics like codes and other coding computer languages (Muhammed and Seif, 2019). In this area, workers must go through some training before the use of any accounting software to experience the advantages it gives. The difficulty of adjusting to such frequent changes is also another challenge (Suri, Elia, Arora and Hillergesberg, 2019).

Others may view it as a responsibility to keep relevance and offer them a job focus, however, some employees may lose interest and this may reduce job morale (Gbadegesin, 2019). The benefits and costs of digitalized accounting on business performance are typically difficult to assess since they involve a wide range of subjective factors that are difficult to quantify (Adu, 2024).

Research Objective

The main focus of this study is to examine the effect of accounting information digitalization on business organizations financial performance while other specific objective is to: Determine the effect of information technology on accounting systems organization.

Research Question

To what extent does information technology (I.T) have effect on the accounting system?
Research Hypothesis
Ho: There is no significant relationship between information technology and accounting system in an organization.

LITERATURE REVIEW

Concept of Digitalization
Various academic scholars and some professional bodies use digitalization interchangeably; there is a trivial dissimilarity between the two ideas despite their correlation. The word "digital transformation" asserted that there is no conformity about the definition. Each profession/field has different meanings into which they are employed (Gurlin, Hladika and Valenta, 2019).

Information Technology
The gathering, structuring, processing, storing, and transferring of data is commonly referred to as Information technology. It is the application of personal computers and information communication technology in information management, data, and data stream from the development stage to the consumption stage (Cockroft, 2018). It is a process for managing information systems through hardware and software. Information technology (I.T.) refers to gathering, handling, and disseminating information through a group of tools, procedures, and approaches (Duong and Fledsberg, 2019).

Accounting System
It is a method of recording and reporting of business financial data; it comprises of procedures, guidelines, and policies used by a corporation to track and report its financial activity in a given period (Rachunger, Rauter, Muller, Vorraber and Schirgi, 2018). The accomplishment of goals and objectives are done by a system that is made up of people or groups of machines that work together. The accounting system has been characterized by skill of maintaining and managing accurate records in an organization (Taiwo 2016).

METHODOLOGY
The population of the study comprised of all the accounting staff members of Zenith bank, Ecobank, GTBank, Unity bank and Globus bank, Ogun State which has a total of eighty-two (82) drawn from the Accounting Department in each organization. Out of the total population, 20(24%) accountants were from Zenith bank, 16(20%) accountants were from Ecobank, 20(24%) accountants were from GTbank, 14(17%) accountants were from Unity bank, while 12(15%) were from Globus bank. This is shown in the population distribution in table 3.1 below.
Sampling Technique and Sample Size

The sample size was determined using a Taro Yamane’s (1967) formula which was 68.

Table 1. Accounting System

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA %</th>
<th>A %</th>
<th>U %</th>
<th>D %</th>
<th>SD %</th>
<th>mean</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Digitalization has had a positive impact on the efficiency of business organizations.</td>
<td>31.7</td>
<td>43.3</td>
<td>21.7</td>
<td>3.3</td>
<td>0</td>
<td>1.97</td>
<td>0.82</td>
</tr>
<tr>
<td>2.</td>
<td>Digitalization has increased the accuracy of accounting systems and positively impacted business</td>
<td>31.7</td>
<td>40.0</td>
<td>18.3</td>
<td>10.0</td>
<td>0</td>
<td>2.07</td>
<td>0.95</td>
</tr>
<tr>
<td>3.</td>
<td>Digitalization has positively impacted the decision-making within a business organization</td>
<td>40.0</td>
<td>41.7</td>
<td>10.0</td>
<td>8.3</td>
<td>0</td>
<td>1.87</td>
<td>0.91</td>
</tr>
<tr>
<td>4.</td>
<td>Digitalization has improved the ability of your organization to manage financial resources</td>
<td>43.3</td>
<td>41.7</td>
<td>15.0</td>
<td>0</td>
<td>0</td>
<td>1.72</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Source: Author’s Computation (2023) using IBM SPSS 20 Statistical Software

Table 1 above presents information or opinion of respondents as regards Digitalization has had a positive impact on the efficiency of business organizations. 31.7% of respondents strongly agree, 43.3% agree that Digitalization has had a positive impact on the efficiency of business organizations, 21.7% of respondents are undecided about this while 3.3% disagree and none strongly disagree to this.

Table 1 also indicates that 31.7% of respondents strongly agree, 40.0% of respondents agree, 18.3% of them are undecided while 10.0% disagree and none strongly disagree that Digitalization has increased the accuracy of accounting systems and positively impacted business. 40.0% of respondents strongly agree that Digitalization has positively impacted the decision-making within a business organization, 41.7% of them agree to this, 10.0% are undecided, 8.3% disagree and none strongly disagree to this.

Table 1 above shows that Digitalization has improved the ability of your organization to manage financial resources. 43.3% of respondents strongly agree, 41.7% agreed that Digitalization has improved the ability of your organization to manage financial resources, 15.0% of respondents are undecided about this while none disagree and strongly disagree to this.

Research question one: To what extent does information technology (I.T) have an effect on the accounting system?

In reference to table 4.3.1, the mean scores of the items were 1.97, 2.07, 1.87, 1.72 respectively, since none of the mean scores were more than 3.0(≥3.0→agreed), this implies that majority of respondents agreed with the
items answering the research question one. The extent information technology (I.T) have an effect on the accounting system. However, the standard deviation of items shows that respondents answers varied most in item 2, ‘Digitalization has increased the accuracy of accounting systems and positively impacted businesses’ with a standard deviation value of 0.95.

Table 2. Information Technology

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA%</th>
<th>A%</th>
<th>U%</th>
<th>D%</th>
<th>SD%</th>
<th>mean</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The use of information technology has increased the speed of our accounting systems organization.</td>
<td>53.3</td>
<td>46.7</td>
<td>0</td>
<td>0</td>
<td>1.47</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>The use of information has reduced the workload of accounting professionals in our organization</td>
<td>50.0</td>
<td>35.0</td>
<td>15.0</td>
<td>0</td>
<td>0</td>
<td>1.65</td>
<td>0.73</td>
</tr>
<tr>
<td>3.</td>
<td>The use of information technology has improved the organization’s ability to meet regulatory requirements.</td>
<td>50.0</td>
<td>45.0</td>
<td>5.0</td>
<td>0</td>
<td>0</td>
<td>1.55</td>
<td>0.59</td>
</tr>
<tr>
<td>4.</td>
<td>The use of information technology has increased the organization’s ability to innovate</td>
<td>40.0</td>
<td>45.0</td>
<td>15.0</td>
<td>0</td>
<td>0</td>
<td>1.75</td>
<td>0.70</td>
</tr>
<tr>
<td>5.</td>
<td>The use of information technology has improved the accuracy and completeness of financial data in our organization.</td>
<td>40.0</td>
<td>50.0</td>
<td>10.0</td>
<td>0</td>
<td>0</td>
<td>1.70</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Source: Author’s Computation (2023) using IBM SPSS 20 Statistical Software

Table 2 above presents information or opinion of respondents as regards that the use of information technology has increased the speed of our accounting systems organization, 53.3% of respondents strongly agree, 46.7% agree while none are undecided, disagreed and strongly disagree to this. Table 2 also indicates that 50.0% of respondents strongly agree, 35.0% of respondents agree, 15.0% of them are undecided, while none disagrees and strongly disagree that the use of information has reduced the workload of accounting professionals in our organization. 50.0% of respondents strongly agree, 45.0% of respondents agree, 5.0% of them are undecided, while none disagrees and strongly disagree that the use of information technology has improved the organization’s ability to meet regulatory requirements.

Table 2 above shows that there is improved accuracy of information between departments with no human interference, 52.0% of respondents strongly agree, 30.0% agree Improved accuracy of information between
departments with no human interference, 10.0% of respondents are undecided, 6.0% of the respondent disagree while 2.0% strongly disagree to this.

**Research question three: What are the real time communication feature of ERP on the role of internal auditors?**

In reference to table 2, the mean scores of the items were 1.72, 1.66, 1.76 respectively, since none of the mean scores were more than 3.0 ($x \geq 3.0 \Rightarrow \text{agreed}$), this implies that majority of respondents agreed with the items answering the research question three.

The implication of this is that the respondent agreed to all the question asked concerning the real time communication feature of ERP on the role of internal auditors. However, the standard deviation of items shows that respondents answers varied most in item 3, ‘Improved accuracy of information between departments with no human interference’ with a standard deviation value of 1.00.

**Test of Hypothesis**

**Restatement of Hypothesis One**
- Hypothesis 1

$H_0$: There is no significant relationship between information technology and accounting system in an organization.

**Model Specification**

Dependent Variable: Accounting system (AS)
Independent Variable: Information technology (IT)

$AS = a + f(\text{IT}) + e$ OR $Y = a + f(X_1) + e$

Where $a = \text{Constant}, \ AI = X_1, e = \text{error term and } f = \text{beta (B) value}$

**Correlation Result showing in ascertaining the relationship between information technology and accounting system in an organization.**

Table 3. Model Summary of Information Technology on Accounting System

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.514$^{a}$</td>
<td>.264</td>
<td>.249</td>
<td>.8116</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Information technology
b. Source: Author’s Computation (2023) using IBM SPSS 20 Statistical Software

Table 3a above, showed $R$ square= 0.26 ($P<0.05$) indicating that Information technology had a 26% relationship with accounting system. This shows a fair relationship of Information technology and the accounting system of the organization.
Therefore, the null hypothesis is rejected and alternate hypothesis is accepted that the perceived Information technology in the organization has a significant effect on accounting system.

Table 4. ANOVA Table of Information technology on accounting system

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>11.361</td>
<td>1</td>
<td>11.361</td>
<td>17.247</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>31.619</td>
<td>48</td>
<td>.659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42.980</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Accounting system

b. Predictors: (Constant), Information technology

Source: Author’s Computation (2023) using IBM SPSS 20 Statistical Software

Table 5. Coefficients of the Model of Information technology on accounting system

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.241</td>
<td>.443</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information technology</td>
<td>1.011</td>
<td>.243</td>
<td>.514</td>
<td>4.153 .000</td>
</tr>
</tbody>
</table>

Dependent Variable: Accounting system

Source: Author’s Computation (2023) using IBM SPSS 20 Statistical Software

Results of the correlation result summarized on the table above shows that Information technology has proportionate relationship with accounting system as the coefficient of the independent variable (1.011) is positive. This implies that an increase in Information technology will bring about the improvement of accounting system.

The coefficient in Table above, showed that the relationship between Information technology on accounting system was very significant with beta $\beta = 1.011$ reinforced by a P-value of 0.51 (<0.05). Hence, the Model or linear equation becomes:
\[ Y = A + (X1) \]
\[ Y = (0.241) + (1.011 \times X1) \]
\[ Y = 0.241 + 1.011 \times X1 \]

Therefore, a rejection of the null hypothesis; and acceptance of the alternate, that, there is a significant relationship between Information technology on accounting system in the organization.

RESULT AND DISCUSSION

From information elicited from respondents, it could be noted that there is significant relationship between information technology and accounting system in an organization, this was shown in the study as majority of respondents agreed that Digitalization has had a positive impact on the efficiency of business organizations, Digitalization has increased the accuracy of accounting systems and positively impacted business, Digitalization has positively impacted the decision-making within a business organization and digitalization has improved the ability of your organization to manage financial resources.

The first objective was to determine the effect of information technology on accounting systems organization. This was ascertained via analysis in the preceding chapter where it was revealed that majority of respondents, (Accounting staffs of the banks) were well acquainted with the accounting systems and how it has fostered their activities through Reliable and quality information that are provided using digitalization of accounting information.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that, the digitalization of accounting information has positively impacted the job of accounting staffs in the selected banks in Nigeria. With the positive impact that has been made by digitalization of accounting information in organizations, all companies are adopting this system. This is an opportunity to renovate, re-engineer and radically improves the quality of business and investment decisions which is the ultimate purpose of the profession. It is, therefore, a veritable time for accounting professionals to be intrigued as the profession will become more interesting due to close extinction of tedious and repetitive task of getting information which will be shifted to into a major and digitalization for effective and efficient accounting operations.

Digitalization of accounting information should be implemented in most firms as it reduces the weakness of loss of data; Accounting staffs should improve their capabilities in the use of digitalized accounting information systems and applied systems as it enables faster creation of financial report.
FURTHER RESEARCH
This research still has limitations so further research needs to be done on this topic “Accounting Information Digitalization and Nigerian Firms’ Financial Performance”.

REFERENCES


