Influence of Information and Communication Technology on Accountants in Business Operation in Bayelsa State

Obele Blessing Michael, Onoja Barine Lesi & Okagbare Esther Avurakoghene

Department of Business Education
Rivers State University, Port Harcourt, Nigeria

ABSTRACT
The study investigated influence of information and communication technology on accountants in business operation in Bayelsa State. Two research questions and hypothesis was used in the study. The researchers adopted Survey design. Simple random sampling technique was used to sample out a total of 200 accountants in the state. This study covers all accountants working in different organization Bayelsa State. Questionnaire was the instrument used for the collection of data. The instrument was titled ‘ICT and Productivity of Accountants’ (ICT PA). The instrument was validated by the thesis supervisor and some experts in the Department of Business Education in the Rivers State University of Science and Technology. Test-retest technique was adopted by this method, 75 of the questionnaires were administered to 75 accountants in Port Harcourt in River State. The reliability co-efficient was computed and the result obtained from the test re-test method was 0.75%. Research questions were analyzed with simple percentages and weighted mean averages. The mean rating for each statement was calculated and presented for analysis. While the hypotheses was analyzed using the chi-square contingency table. The chisq was used since the distributions are multinomial and the sample size is large (180), 0.05 significance level was chosen, and the degree of freedom (df) for each hypothesis was computed. The findings of the study revealed that accountants use accounting software and database management system to a very large extent, accountants also use the internet to a large extent and there is a significant increase in use of these ICTs between 2000 and 2010. Finally it was recommended among others that department and Institutes of business Education should equip their studios/ICT centers adequately with ICT facilities.

Keywords: ICT, Accountants and Business Operation

INTRODUCTION
The development potential of information and communication Technology has been widely discussed in communication literature, pointing to the growing evidence of the role that ICT can play in enhancing transformation (Madon, 2006). ICT is an enabler of transformation as well as an enhancer of capacity development at the individual, community, organizational, systemic and societal levels. In recognition of this, the united nations millennium declaration outlines a focus on partnership with the private sector and civil society to ensure that the benefits of the new technologies, especially information and communication technologies are available to all (Matsuura, 2003).

The information and Communication components involve the identification, capture and exchange of information in a form and frame that enables organization personnel to carry out their responsibilities. An organization’s information system includes its accounting system and consists of the methods and records established to identify, assemble, analyze, and classify records and exchange transactions and reliability for the related assets and liabilities.
For financial reporting purposes, the accounting system is the most significant aspect of the information and communication component. According to King, Lembkes and Smith (2001) an effective accounting system gives appropriate consideration to establishing records and methods that will:

i. Identify and record all vital transactions
ii. Describe on a timely basis the transaction in sufficient detail to permit proper classification of transactions for financial reporting
iii. Measure the value of transaction in a manner that permits recording their proper monetary value in the financial statements.
iv. Determine the time period in which transactions occurred to permit recording of transaction in the proper accounting period
v. Present properly the transactions and related disclosures in the financial statements.

Thus the accounting system consists of all the functions and procedures for recognizing transactions and processing and reporting the data representing them. It also involves the accumulation, classification, analysis, measurement, summarization, and interpretation of the results of each of the numerous business transactions that affects the business during a given period of time. Therefore, this study intends to find out the influence of information and communication technology on accountants in business operation in Bayelsa State.

**Statement of the Problem**

Business owners need to harm their selves with necessary tools to encourage high level of productivity. Observation shows that SMEs operators often lament of poor profits and high operational cost. These traditional means of operations very often has resulted in the collapse of these SMEs within the first 2-6 years of existence. Rouf, K. A. (2012), argued that advancing SMEs are the sole way in the attainment of the M DGs and in structuring an international financial approach which rally the wants of the deprived people.

Again, most of these SMEs do not integrate ICT tools in their operations because of reasons such as inadequate finances, lack of technical knowledge, seeming lack of applicability of ICT to the business that the SMEs are engaged, rate allusion with ICT and deprived infrastructural growth among others (Kwaku, Martin, and Florence, 2017). There is therefore the need to introduce ICT into business operation to see if response from users would be better.

**Purpose of the Study**

The study looked at the influence of information and communication technology on Accountants in business operation in Bayelsa State. Specifically, the sought to:

1. Determine the extent to which accountants utilize ICT in operating their businesses.
2. Determine the extent to which the use of ICTs (accounting software, internet and data base management system) has increased between the years 2010 – 2017.

**Research Questions**

The researchers adopted the following research questions for the study:

1. What is the extent to which accountants utilize ICT in operating their businesses?
2. What is the extent to which the use of ICTs (accounting software, internet and data base management system) has increased between the years 2010 – 2017?

**Hypothesis**

The null hypothesis was formulated and tested at 0.05 level of significance.

\( H_0 \): There is no significant difference in use of accounting software/packages, database management system, and internet for accounting functions between 2010 and 2017.

**METHODOLOGY**

The researchers adopted Survey design. The population consists of all accountants in different firms both public and private in Bayelsa State. Simple random sampling technique was used to sample out a total of 200 accountants in the state. This study covers all accountants working in different organization Bayelsa State.
Questionnaire was the instrument used for the collection of data. The instrument was titled ‘ICT and Productivity of Accountants’ (ICT PA). The instrument constructed consists of items that are related to ICT and productivity of accountants. The instrument that was used to elicit responses was a five-point Likert scale.

ICT PA was validated by the thesis supervisor and some experts in the Department of Business Education in the Rivers State University of Science and Technology. The suggestions of the supervisor and the experts were used to improve the instrument prior to its administration.

Test-retest technique was adopted by this method, 75 of the questionnaires were administered to 75 accountants in Port Harcourt in River State. After two weeks, the instrument was re-administered to them. From the responses obtained from the respondents, the reliability co-efficient was computed and the result obtained from the test re-test method was 0.75%. The result shows the reliability of the instrument.

A total number of 200 copies of the questionnaire were administered on the subject, the researcher and some of her friends administered the questionnaires and collected them from the accountants on the agreed date. Out of which 180 were retrieved and used for analysis.

Research questions were analyzed with simple percentages and weighted mean averages. The mean rating for each statement was calculated and presented for analysis. For each variable investigated, the mean data was used to describe the issue investigated. Group mean was used to analyze data, research question by research question. Decisions were based on the weighted mean score obtained. Below is the table that was used for analysis.

<table>
<thead>
<tr>
<th>Ranges of Score</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1-5.0</td>
<td>Very large Extent</td>
</tr>
<tr>
<td>3.1-4.0</td>
<td>Large Extent</td>
</tr>
<tr>
<td>2.1-3.0</td>
<td>Fairly large Extent</td>
</tr>
<tr>
<td>1.1-2.0</td>
<td>Small Extent</td>
</tr>
<tr>
<td>0.1-1.0</td>
<td>No Extent</td>
</tr>
</tbody>
</table>

While the hypotheses was analyzed using the chi-square contingency table. The chi-sq was used since the distributions are multinomial and the sample size is large (180), 0.05 significance level was chosen, and the degree of freedom (df) for each hypothesis was computed. The chi-square is represented by the Greek symbol “x²”.

The computation of the expected scores (e) from the observation frequencies (o) is shown in the appendix D. Also in the appendix D is the table of values of chi-square (x²) for 0.05 significant levels.

**Hypotheses Testing**

To test the hypothesis of the study, Chi-square was used, since the distributions are multinomial and the sample size is large (180), 0.05 significance level was chosen, and the degree of freedom (df) for each hypothesis was computed.

**Decision Rule**:

If the calculated chi-square is less than the tabulated chi-square, the null hypothesis is accepted and the alternative hypothesis is rejected while if the calculated chi-square is greater than the tabulated chi-square, the null hypothesis is rejected.
RESULTS

Research Question 1
What is the extent to which accountants utilize ICT in operating their businesses?

Table 1: Accountants Utilize ICT in operating their businesses

<table>
<thead>
<tr>
<th>S/NO</th>
<th>Response</th>
<th>W</th>
<th>X</th>
<th>%</th>
<th>Wx</th>
<th>– x</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Very Large extent</td>
<td>5</td>
<td>82</td>
<td>44</td>
<td>410</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Large Extent</td>
<td>4</td>
<td>64</td>
<td>35</td>
<td>256</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Fairly Large Extent</td>
<td>2</td>
<td>29</td>
<td>16</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Small Extent</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>No Extent</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>180</td>
<td>100</td>
<td>763</td>
<td>4.34</td>
<td>VLE</td>
</tr>
</tbody>
</table>

Source: Survey data 2017

The table above shows that 82 of the respondents (44%) believe that accountants use ICT to a very large extent; 64 of the respondents who believe that accountants use ICT to a fairly large extent was 29 (16%); only 5 of the respondents (3%) say that accountants use ICT to a small extent. It is Interesting to note that none of the respondents said that accountants do not use ICT for accounting functions. The weighed mean score was 4.24. Based on the decision rule, accountants use ICT for accounting functions to a very large extent.

Research Question 2
What is the extent to which the use of ICTs (accounting software, internet and data base management system) has increased between the years 2010 – 2017?

Table 2: Use of ICTs (accounting software, internet and data base management system) has increased between the years 2010 – 2017.

<table>
<thead>
<tr>
<th>S/N O</th>
<th>Response</th>
<th>w</th>
<th>x</th>
<th>%</th>
<th>Wx</th>
<th>– x</th>
<th>Rmk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Very Large extent</td>
<td>5</td>
<td>81</td>
<td>41</td>
<td>405</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Large Extent</td>
<td>4</td>
<td>61</td>
<td>34</td>
<td>244</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Fairly Large Extent</td>
<td>3</td>
<td>21</td>
<td>12</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Small Extent</td>
<td>2</td>
<td>10</td>
<td>6</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>No Extent</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>15</td>
<td>180</td>
<td>100</td>
<td>739</td>
<td>3.62</td>
<td>LE</td>
</tr>
</tbody>
</table>

Source: Survey data 2010

The table above shows that 44% of the respondents believe that there is increase in use of ICT by accountants between the years 2010-2017 is to a very large extent; (17%) believe that the increase is to a large extent, the percentage of the respondents who believe that the increase is to a fairly large extent is 13% while 11% say is to a small extent and 16% of the respondents say that there is no increase in use of ICT by accountants. The weighed mean score is 3.62, so the increase in use of ICT by accountants is to a very large extent.

Hypothesis
There is no significant difference in use of accounting software/packages, database management system, and internet for accounting functions between 2010 and 2017.
Table 3: Chi-square Table on use of accounting software/packages, database management system, and internet for accounting functions between 2010 and 2017

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>81</td>
<td>23</td>
<td>58</td>
<td>3364</td>
<td>146</td>
</tr>
<tr>
<td>Large extent</td>
<td>61</td>
<td>24</td>
<td>37</td>
<td>1369</td>
<td>57</td>
</tr>
<tr>
<td>Fairly large extent</td>
<td>21</td>
<td>29</td>
<td>-8</td>
<td>64</td>
<td>2.2</td>
</tr>
<tr>
<td>Small extent</td>
<td>10</td>
<td>42</td>
<td>-32</td>
<td>1024</td>
<td>24.4</td>
</tr>
<tr>
<td>No extent</td>
<td>7</td>
<td>62</td>
<td>-55</td>
<td>3025</td>
<td>48.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>278.4</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data 2017

\[ X^2 = \sum (o-e)^2 = 278.4 \]

Calculated value of \( X^2 = 278.4 \)

Tabulated Value of \( X^2 = 9.488 \) since df is 4 (see appendix D)

**Decision:**

Since the calculated \( X^2 \) is greater than the tabulated \( X^2 \), the null hypothesis is rejected. Hence there is a significant difference in the use of accounting software/packages, internet and database management system in organizations for accounting purposes between 2010 and 2017.

**Summary of the Findings**

The following are the summary of the findings:

1. Accountants use accounting software and database management system to a very large extent.
2. Accountants use the internet to a large extent.
3. Also, there is a significant increase in use of these ICTs between 2010 and 2017.

**DISCUSSION OF FINDINGS**

The findings of the study showed that accountants of organization use ICT in performing their functions to a very large extent and use the internet to large extent and that there is a significant increase in use of ICT by accountants while performing their functions. The result of the study is in accordance with the works of Ezechukwu, (2001), Forrester (2003) Salawu and Salawu (2007) and Oruame (2008). They all affirmed that accountants use these ICTs in their day to day accounting functions to a very large extent and that there is a significant increase in use of these ICTs by accountants within the past ten years.

**RECOMMENDATIONS**

Based on the findings, the following recommendations were made:

1. Accountants should make less use of the internet in their day to day activities and should use more of the accounting software and the database in order to protect their financial documents.
2. Department and Institutes of business Education should equip their studios/ICT centers adequately with ICT facilities.

**REFERENCES**


Forrester Research (2003). The Business case for right channeling.[www.lsb.dk/]artikel


