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## **COMPTER HARDWARE AND SOFTWARE AN ACCOUNTANT MUST KNOW IN THIS ERA OF COMPUTER AGE**

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### **Abstract**

*The software and hardware components of a computer complement each other. The study looked into computer hardware and software skills an accountant must know in this era of technological influx. The population consisted of 35 respondents comprising accounting education lecturers in universities in Ekiti State. No sample was made. The questionnaire was the main instrument used for data collection. A survey research design was used for this study. The data generated were analysed using mean scores and standard deviation. The study revealed that all the hardware skills and some were experts of software skills were expected and utilized by accountants in modern business organizations located at Ado-Ekiti. Though some aspects of software skills were neither expected nor utilized by accountants in discharge their duties in business organizations in Ado-Ekiti. It was recommended that computer hardware and software made part of curriculum for training accounting students in Nigeria.*

**Keywords:** Computer hardware, Computer Software, Accountant, Computer Age.

## **Introduction**

Computer as an aspect of information technology is the order of the day; hence it serves as the moving train of the society in the labour market. According to Idih (2003), advancement in technology has resulted in a lot of emphasis being placed on computer and its related functions.

New ways of performing office has emerged with new technologies/computer related duties. Accountants of today need to be equipped with flexible skills that would enable them function effectively in their career and even advance in it. Ideh (2003) further affirms that there has to be certain new officially accepted components of the business curriculum that must be maintained in all tertiary institutions offering computer related studies. The implication of this assertion to business courses is that if these students were not properly exposed to ICT tools definitely their performance must be affected in the labour market. Oguoma (2003) attests that the absence of a curriculum on computer studies is affecting business organizations.

The experience today is that employers resort to training of staff to enable them be relevant to their purposes and functions effectively. In this case, the accountants who are not versed in the language of computer are not likely to take advantage of the opportunities present by 21<sup>st</sup> century.

Presently, most of our schools and teachers lack the language of computer and there is no hope of having credible computers and computer programmes in our schools. Computer schools and departments are just shadows of themselves (Oguoma, 2003). Even where there exist computers, it is put to limited use. With these conditions, how would accounting studies graduates (accountants) perform accounting jobs authoritatively using computer hardware and software applications in the labour market. Hence, they were introduced to only fewer aspects of computer applications in discharging their duties. This is why many organizations and their accountants are only sufficiently educated about computer appreciations such as Microsoft word, word processing, power point, etc, while critical operational information such as computer hardware and software cannot be digitalized and shared.

In most Nigerian offices, computers are not being used for hardware and software programmes. Thus, even where there are few computers, they are used for other purposes such as typing of letters, memos, reports etc. instead of using software such as accounting package and hardware installations. According to Umerah (2010), computer is applied almost in all aspects of life including banking system, education, medical services, advanced productivity, research, military and revenue allocation. To Ohakwe (2000), Computer can be used to control stock, inventory analysis, recording accounting information like sales, purchases, payroll accounting etc. Scientific process as seismic interpretations assorted design, and engineering complex designs. Computers are essential for their better service, efficient safety, greater efficiency and quick retrieval of information. Stating the benefits accruable from acquisition of computer skills and competencies, Nwogwugwu (2001) outlined the benefits thus;

- ✓ Computer ensures accuracy and efficiency
- ✓ Reduces drudgery
- ✓ Reduces the length of time required to do work
- ✓ Makes work easy
- ✓ Accelerate the speed and capacity of office work performed.

### **Statement of the Problem**

Information Technology (IT) introduced a new wave in the teaching of business subject including accounting added to the fact that most of business organizations required their accountants to produce credible financial reports with computersoftware (Packages) and some aspects of hardware installation. According to Oguana (2003), the computer is invading all professions and posing serious challenges to the use of non-computer skills.

In the labour market today, virtually all the sectors including accounting profession are daily being confronted by this challenge. Effective use of the computer hardware and software may be a problem, as they were not trained to use these computer elements. Accountants must show convincing evidence of working in the information technology office of today. The question now is what computer hardware and software are expected of them if they must be employed in the labour market of today's business environment?

The main objective of this study is to determine the hardware and software skills required of today's accounting education curriculum in Ekiti State. Specifically, the study intends to:

- Find out the hardware skills required by accountants in Ekiti State.
- Ascertain the software skills required by accountant in Ekiti State.
- Determine whether these skills (Hardware/software skills) are properly utilized by accountants in business organizations in Ekiti state.

### **Research Questions**

The following research questions guided the study;

- 1) What hardware working knowledge skills as perceived by Universities Lecturers in Ekiti State are expected from accountants in Ekiti State?
- 2) What software working knowledge skills as perceived by University Lecturers in Ekiti State are expected from accountants in Ekiti State?
- 3) To what extent do accountants utilize hardware and software working knowledge skills as perceived by Universities Lecturers in Ekiti State/

### **Research Procedure**

The population of the study consisted of 35 respondents. The distributions of the population showed that accounting studies lecturers thus; 15(42.8%) were in Ekiti State university Ado-Ekiti, 11(31.4) Afe Babalola University, Ado-Ekiti and 9(25.7%) Federal University, Oye-Ekiti. As the population is relatively small it constitutes the sample for the study. A survey research design was employed for this study. The main instrument was the questionnaire containing 35 items which was structured in such a way that the respondents were able to express their judgments using a five-point Likert type of scale. The data collected were analyzed using mean scores and standard deviation for each of the items of computer hardware and software skills. A mean score of 3.00 was considered significant.

Question 1 and 2 attracts the response rate of highly expected 5, often expected 4, expected 3, not expected and undecided 1, while question 3 on the other hand, and attracts the response rate of highly utilized, often utilized, utilized, not utilized and undecided. The entire questionnaire were properly filled and returned, this indicated 100% response rate.

**Table 1: Mean Scores of Accounting Education Lecturers on Computer Hardware Working Knowledge Skills expected of Accountants in Ekiti State.**

S/ No	Computer Hardware skills	Mean Scores( $\bar{X}$ )	SD	Remark
1	Ability to communicate with the computer's CPU by using various input devices to enter data, run programmes or give commands to the CPU.	4.51	0.55	Expected
2	Ability to utilize keyboard using some special function keys and numeric keypad.	4.80	0.40	Expected
3	Ability to use the computer mouse in moving the cursor around the screen with speed and simplicity.	4.60	0.58	Expected
4	Ability to use scanner in reading information from paper, and transfer this as text or graphics on to a PC where it is stored and can be edited.	4.07	0.89	Expected
5	Ability to use modem in sending information from one PC to another via the telephone cable.	4.25	1.03	Expected
6	Ability to use light pen in transferring graphics information from electronic pads into the computer	3.50	1.34	Expected
7	Ability to use joystick in translating physical motion into motion on a computer video display screen	3.50	1.34	Expected
8	Ability to display characters and graphics on a screen using monitor.	4.09	0.87	Expected
9	Ability to provide a paper copy of the PC's result using the computer printer	4.71	0.51	Expected
10	Ability to store information of data as long as the circuits receive a constant current flow using RAM (Random Access Memory) or DRAM (Dynamic Random Access Memory)	4.38	0.82	Expected
11	Ability to use the pattern on the ROM chips from commands, data or programmes that the computer needs to function correctly.	3.87	1.01	Expected
12	Ability to retrieve information from the hard or "fixed" disk	4.20	0.89	Expected
13	Ability to make a copy of information (back-up) or transfer information from one unit to another	4.16	0.76	Expected

14	Ability to create audio compact disk on a CD –ROM using a CD-ROM writer.	3.62	1.17	Expected
15	Ability to use magnetic tapes to copy data and information from the hard disk onto removable tapes (i.e backing-up)	3.71	1.08	Expected
16	Ability to enter information and commands into the computer using keyboard	4.48	0.63	Expected
17	Ability to use computer speakers	4.16	0.98	Expected
18	Ability to use floppy disk in storing information	4.27	0.83	Expected

Result in table 1 above showed that all the items have mean values of 3.00 and above which is the stipulated bench mark for decision rule. This implies that all the items are expected of accounting graduates (accountants) in discharging his/her duties in Ekiti State.

**Table 2: Mean Scores of Accounting Education Lecturers on Computer Software Working Knowledge Skills Expected of Accountants in Ekiti State**

S/N	Computer Software Skills	Means Scores (X)	SD	Remark
1	<b>A. Operating System</b> Ability to operate:			
1	MS.Dos	4.13	1.14	Expected
2	PC.DOS	3.54	1.24	Not Exp
3	UNIX	2.81	1.41	Not Exp
4	YENIX	2.90	1.40	Not Exp
5	NT	2.78	1.29	Not Exp
6	Windows 95,98,2000, XP, Windows 7	4.25	1.03	Expected
	<b>B. Language</b> Ability to Operate:			
7	Machine Language	3.63	1.06	Expected
8	Low-Level Language	3.66	1.02	Expected
9	High-Level Language	2.98	1.38	Not Exp
	<b>C. Language Translators</b>			
10	Ability to use interpreter to translates the sources programme into machine language statement by statement.	2.93	1.38	Not Exp
11	Ability to translate the whole source programme into machine code or language	2.98	1.38	Not Exp
12	Ability to use assembler to translate programmes written in assembly languages into machine code	2.80	1.40	Not Exp
13	Ability to use emulators to permits the	2.79	1.51	Not Exp

	object programme generated on one computer to be executed on an entirely different computer			
<b>14</b>	<b>D. Application Software</b> <b>Ability to prepare:</b> Memos, letters, documents using word processing such as Microsoft word.	4.46	0.60	Expected
<b>15</b>	financial statement using spreadsheets	4.00	1.03	Expected
<b>16</b>	such as Excel			
<b>17</b>	and display accounting information (Accounting Package) Using PowerPoint presentation. and use database in storing all accounting information and records	4.16	0.98	Expected

In table 2 above, the highest item scored the mean value of 4.46 and standard deviation of 0.60. While the least item scored 2.78 and SD of 1.49. In the other hand, some of the software skills were expected of an accountant while some were not.

**Table 3: Mean Scores of Accounting Education Lecturers on the Extent Accountants Utilize Hardware and software working Knowledge skills in Ekiti State**

S/N	Utilization of Hardware/Software	Mean Scores (X)	SD	Remark
	Hardware Skills			
1	Ability to communicate with the computer's CPU by using various input devices to enter data, run programmes, or give commands to the CPU.	4.20	0.89	Utilized
2	Ability to utilize keyboard using some special function keys and a numeric keypad.	4.36	0.61	Utilized
3	Ability to use the computer mouse in moving the cursor around the screen with speed and simplicity	4.16	0.76	Utilized
4	Ability to use scanner in reading information from paper, and transfer this as text or graphics onto a PC where it is stored and can be edited.	4.33	0.71	Utilized
5	Ability to use modem in sending information from PC to another via the telephone cable	4.09	0.87	Utilized
6	Ability to use light pen in transferring graphics information from electronic pads into the computer	3.97	0.94	Utilized
7	Ability to use joystick in translating physical motion into motion on a computer video display screen	3.86	1.23	Utilized

8	Ability to display characters and graphics on a screen using monitor.	3.90	1.19	Utilized
9	Ability to provide a paper copy of the PC's result using the computer printer	4.00	1.03	Utilized
10	Ability to store information of data as long as the circuits receive a constant current flow using RAM (Random Access Memory) or DRAM (Dynamic Random Access Memory)	3.87	1.01	Utilized
11	Ability to use the pattern on the ROM chips from commands, data or programmes that the computer needs to function correctly.	3.00	1.40	Utilized
12	Ability to retrieve/information from the hard or "fixed" disk	4.20	0.89	Utilized
13	Ability to make a copy of information (back-up) or transfer information from one unit to another	4.44	0.94	Utilized
14	Ability to create audio compact disk on a CD-ROM using a CD-ROM writer.	3.86	1.01	Utilized
15	Ability to use magnetic tapes to copy data and information from the hard disk onto removable tapes (i.e backing-up)	4.02	0.71	Utilized
16	Ability to enter information and commands into the computer using keyboard	4.60	0.58	Utilized
17	Ability to use computer speakers			Utilized
18	Ability to use floppy disk in storing information	4.48	0.63	Utilized
	<b>B. Software Skills</b>			
	Ability to Operate:			
19	MS.Dos	3.71	1.08	Utilized
20	PC.DOS	3.81	1.38	Utilized
21	UNIX	2.90	1.40	Utilized
22	YENIX	2.93	1.38	Utilized
23	NT	2.81	1.41	Utilized
24	Windows 95,98,2000, XP, Windows 7	4.00	1.03	Utilized
25	Machine Language	3.54	1.24	Utilized
26	Low-Level Language	3.98	1.40	Utilized
27	High-Level Language	2.98	1.38	Utilized
28	Ability to use interpreter to translates the sources programme into machine language statement by statement.	2.54	1.24	Utilized
29	Ability to translate the whole source programme into machine code or language	2.78	1.49	Utilized
30	Ability to use assembler to translate programmes written in assembly	2.98	1.38	Utilized
31		2.90	1.40	Utilized

32	languages into machine code. Ability to use emulators to permits the object programme generated on one computer to be executed on an entirely different computer	4.80	0.40	Utilized
33	Ability to prepare Memos, letters, documents using word processing such as Microsoft word.	4.38	0.82	Utilized
34	Ability to prepare Financial statement using spreadsheets such as Excel	4.27	0.83	Utilized
35	Ability to display accounting information (Accounting Package) Using PowerPoint presentation. Ability to use database in storing all accounting information and records	4.29	0.66	Utilized

In table III above, all the items in hardware skills and some aspects of software skills attracted the mean scores of 3.00 and above while eight items in software skills had mean scores below 3.00 point.

### **Discussion**

Accountants in Ekiti State are expected of virtually all the hardware skills and some aspects of software skills. These skills include: Ability to

- ❖ Utilize keyboarding using some special function keys and numeric keypad.
  - ❖ Provide a paper copy of the PC's result using the computer printer.
  - ❖ Use scanner in reading information from paper, and transfer this as text or graphics on to a PC where it is stored and can be edited.
  - ❖ Communicate with the computer's CPU by using various input devices to enter data run or programmes, or give commands to the CPU.
- Software skills on the other hand, include:
- ❖ Ability to prepare memos, letters, documents using word processing such as Microsoft word .
  - ❖ Prepare and use database in storing all accounting information and records.
  - ❖ Prepare financial statement using spread sheet.
  - ❖ Prepare and display accounting information (accounting packages) using PowerPoint presentation.

From the above findings, the same sets of hardware and software skills were utilized by the accountants in discharging their functions in the modern business organization located at Ado-Ekiti, Ekiti State. Buttressing the above view, Umerah (2010) attested that computer is applied almost in all aspects of life including banking system, education, medical services, advanced productivity, research, military and revenue allocation. Ohakwe (2000) supporting the above view added that computer can be used to control stock, monetary analysis, recording accounting information such as sales, purchases, payroll accounting etc.

Considering the findings made some aspect of software skills were neither expected nor utilized by the accountants in performing their duties in Ado-Ekiti, Ekiti State. This indicates that computer services were not enough provided to these graduates during the course of their study



in schools. With these conditions, how would accounting graduates (accountants) perform accounting jobs authoritatively in the labour market? No wonder Oguoma (2003) affirms that computer schools and departments are just shadows of themselves. Even where computer exists, it is not put to limited use.

### **Conclusion and Recommendations**

Computer is an indispensable tool in the labour market today in making the recipients to be gainfully employed. With computer, services are rendered fast hence, it saves time, and this will enable the employers of labour to employ those accountants who are capable of maximizing time in providing credible financial reports. Accountants who were not versed in computer usage in this era of technological influx will face a lot of challenges in the labour market. The software and hardware components of a computer complement each other, therefore the accounting education teachers should be exposed to these areas and they should impart the knowledge to their students.

### **Recommendations**

Based on the findings made, the following recommendations were made;

- The widespread usage of computer globally should serve as an eye opener to our tertiary institutions worldwide to make use of technology as a means of instructional methodology.
- More software skills instruction should be given to accounting graduates as to equip them ready to face the challenges in the labour market.
- Accounting educators should be trained and retrained in computer software and its application so that this knowledge acquired could be easily transferred to accounting students.
- There should be adequate curricula for trainers.
- Accounting educators should be encouraged to attend conferences, seminars and workshops in this area as to widen the horizon of their knowledge.
- Hardware and software skills should be made part of computer curriculum for training accounting students in Nigeria

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