COMPUTER NETWORK CONCEPTS AND BENEFITS DERIVED BY ACCOUNTANTS IN MODERN BUSINESS ORGANIZATIONS IN AKURE

DR (MRS) EZEANI NNEKA SALEME (FABEN)
E-mail: salonneka@yahoo.com, nnekachuka@gmail.com
Accounts/Business Education unit
Department of Educational Foundations and Management,
Ekiti State University, Ado-Ekiti, Ekiti State.
08035726241

Abstract
This study was designed to identify the benefits the accountants derived in computer networking towards a sustainable economy. Four purpose and four research questions were developed for the study. A survey research design was employed for the study. The population for the study consists of 180 accountants working in business organizations located at Akure and who are registered and up-to-date members of the state Chamber of Commerce, Industry, Mines and Agriculture and have worked for ten years and above. No sampling was made hence the population was very few the population remains the sample. The major instrument for this study was a questionnaire constructed by the researcher, the mean scores and standard deviation was used for data analysis. Data analyzed revealed that accounting education and computer networking contributed a lot towards a sustainable economy hence there are many benefits derived from the usage of computer networking including internet e.g. instant global banking transaction. These gave rise to problem of resource management towards operational competency. Information and data are electronically stored for almost instant access was identified as impact while easy access for transaction reflected as prospects. Implications of the findings demand a suitable curriculum towards computer networking. It was recommended that the accounting students should be exposed to computer and relevant accounting software packages to enable them face the business challenges in the labour market.

Introduction

Computer can be traced back to Blaise Pascal who in 1642 designed a machine that later became known as a calculator. Many changes have occurred over the years with the involvement of workers like Jacguard in 1801 and William in 1`1904. Atansoft Aben made the first electronic computer in 1939. The discovery of the power and uses of transistors in 1948 and interpreted circuits (ic) in 1957 put the device into a new dimension. This change led to computer being available for use by people (Obineli, 2001).

Computer is an electronic device that accepts data (input) through the input device, processing it in accordance with specific instructions to provide an output through the output device in the form of meaningful information (Kawonise and Ileladewa, 2009). Similarly, Idowu (2005) defined computer as an electronic device that operates under the control of instructions stored in its own memory unit, which can accept data (input), process data arithmetically and logically, produce results (output) and store the results for future use. Computer according to Umerah (2010) is a kind of electronic machine that assists mankind to solve different types of problems. The modern computer is basically an electronic device which can respond to commands (Ayo, 1998). Obineli (2010) sees computer as a complex system of electronic that is used for storage, manipulation and retrieval of data, or information. However, computer is a complex electronic typewriter and calculator rolled into one to assist individuals in solving different types of human problems. It uses data which could be in a variety of forms. In order word, it is an electronic device that is capable of accepting data, processing data and displaying the result. It can also be regarded as an automatic machine for processing information for:

- Manipulation of numbers (e.g. calculator)
- Operated for text (e.g. word processor)
- Pictorial presentation (e.g. graphs, charts or diagrams)

- A mixture of numbers and text manipulation (Computation of results). However, without the development of the computer (computer network) our modern world of high technology would not have developed.

In accounting profession, accountants deal with numbers of figures. Accounting is the process of recording; classifying, selecting, measuring, interpreting and communicating financial data of an organization or an individual to enable users make assessments and decision (Ezeani, 2008 and Agbata, 1999).

The objectives of accounting according to Agbata (1999) and Ama (2000) are as follows:

- keep records of assets, liabilities, purchases, sales and expenses value.
- provide information for the ascertainment of the financial worth of the business or person at any given
- record the desired type of reporting useful information to the users of accounting reports.
- detect fraud and other irregularities
- record financial records for comparative purposes
- provide the useful information regarding the resources and the performance of the organization.
- provide records of financial transactions that is permanent and systematic in nature.

Let us pause here and ask: in what ways can computer networking be used in achieving the mission of accounting, especially in this era of technological influx? What benefits should an accounting graduates (accountants) derived in utilizing the computer networking?

From the above definition of accounting, it is imperative that business (accounting) students must be well prepared for future labour market. In support of the above view, Ekpenyong, Ogbeide, and Owenvbiugie (2012) observed that business educators must anticipate the needs of business organizations up to five years. Thus, if these needs are adequately catered for by providing programmes that will enable the accounting students acquire appropriate skills, the accounting students upon graduation, will be prepared to serve productively in tomorrow's business environment. As already seen, business activities are geared towards changes in the world. These changes revolved on technology and technology has revolutionized business activities. Nnaji and Bagudu (2012) noted that computers have revolutionalized the way companies operate and today computers form an intrinsic part of almost every organizations 'infrastructure. This trend of development implies that the accounting students must adapt to technological (computer networking) changes.

Network is a group of computer and associated devices that are connected by communication devices such as telephone lines, cables and modem (Umerah, 2010). A modern is communication device responsible for the transmission of digital into Analog signal. Nwosu (1999) see connectivity as connecting to microcomputer by telephone or other telecommunication of the world. According to the author, there are several levels of connectivity beginning with downsizing. By downsizing, it involves moving of applications and minicomputers. With downsizing, one could access the facilities/capabilities of mainframes in three distinct ways, thus:

- Foster processing and more primary storage
- More powerful secondary storage
- Easier access to large database

However, with the connectivity, the communication lines are linked to tap information located in an outside databank otherwise known as network. Computer network is an interconnected set of two or more computers with data communicated devices. This is however, very essential as two or more computers are interconnected.

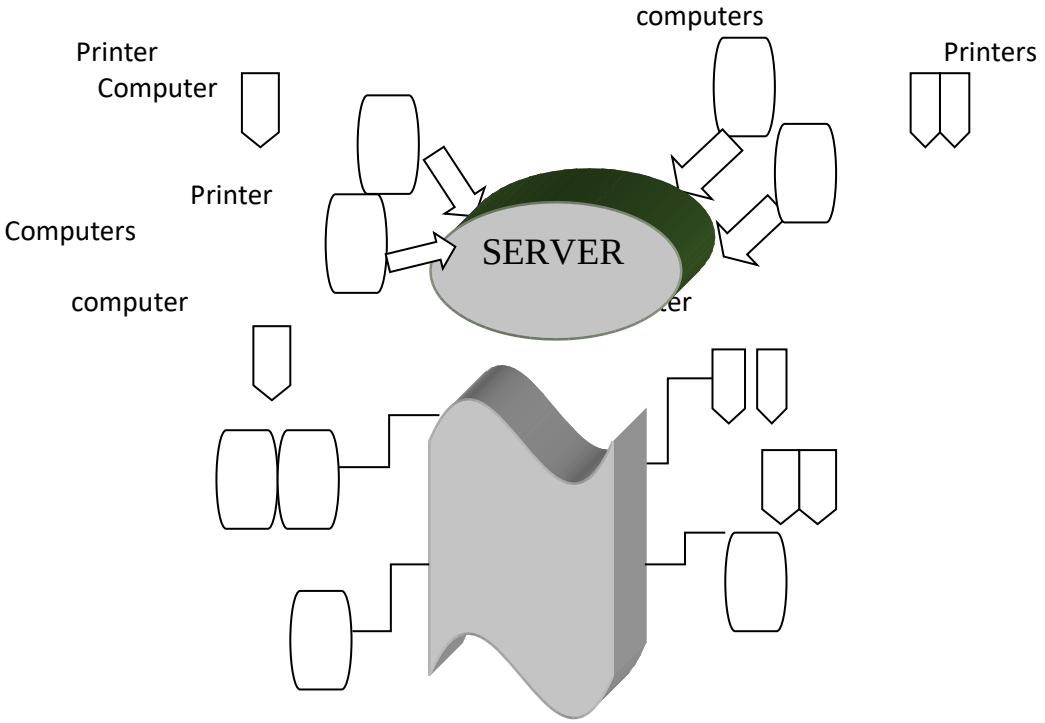
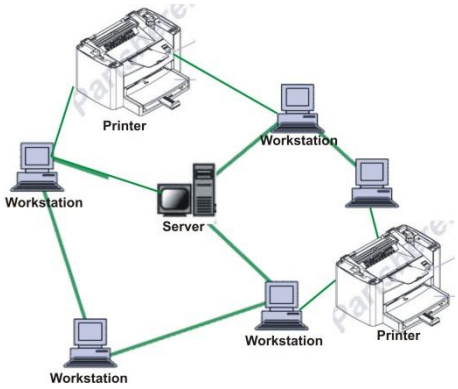


Fig. 1: Local Area Network

Fig.2:



Local Area Network

Types of Networking

Computer networking includes the followings:

LAN: Stands for Local Area Network and refers to a network set up in one building. This is mostly used to link two or more computers in order to share or link with each other, especially in area where many computers use one printer.

MAN: This is a Metropolitan Area Network and refers to two LANs linked between two buildings in the same metropolis.

WAN: This is a wide area Network and refers to LANs or MANs that are connected between cities. This is used where large computers are distributed around a vast geographical area.

WWW. This is a World Wide Web and it refers to the linking up the world's LANs, MANs and WANs to form a web of networks that cover the earth (NOUN, 2004, Umerah, 2010 and ICAN, 2011)

Local Area Network (LAN's): This is most used to link two or more computers in order to shear or link with each other, especially in an area where many computers use one printer (Umerah, 2010). To NOUN (2004),

LAN is a network in which all signals run on a single set of cables, which is fully administered by owner. There are three typical network topologies (Layouts). These include:

- Star – This is most commonly used. The station communicate through a central hub device
- Ring – Messages circulate the loop, passing from station to station
- Bus shapes– Here, data are sending to a transmitter at one end of the bus, and then the transmitter rebroadcasts the information back along the bus so that other status can receive it.

In LAN (Local Area Network) according to Nwosu (1999), computers in one building, street or community may be interconnected for the sharing of each other's information. Still to Nwosu (1999), under education, lecture notes, test items, research results, information on students including student's transcript, accounting results may be shared through LAN. On the other hand, LAN will also according to the author, facilitate the sharing of informing on financial report, sales, transactions, customers, prices, schedules, accounting information of different types, product etc.

Apart from cable linking the computers, there are three components that are present in most networks such as:

- The File Server: This refers to a high performance computer with a very large hard disk. The file server is a mass storage device that all users can share. Here, all shared programmes and data on the network is stored.
- Workstations: These are the computers on a network that users work on. Each computer has a network card installed in it, which enables the machine receive and transmit messages on the network cable (ICAN, 2011).
- Shared Equipment: Here, all users attached to network can also make use of certain shared equipment. It does not just end with a single LAN. However, some companies or organizations prefer to keep separate workgroups departments which are accomplished by giving each work group their own LAN.

- Wide Area Network (WAN's): LANs or MANs that are connected between cities are referred to as WANs. A LAN only has a range of approximately one kilometer. A prime example of WAN is the internet. The internet could be regarded as the largest of all WAN's. This is a global network of LAN's all connected together using the international telephone system. Here, an accountant can now send messages and data to people in different part of the world.

Internet (Wide Area Network) and internet and higher of connectivity which facilitate the use of fax machine's electronic bulletin boards, electronic mail, voice-messaging stations, databases, commercial services and group ware (Nwosu, 1999). With this connectivity, accounting educator may make reference and get information from books, dictionaries, encyclopedias, novels, advertisements, news, sports lectures/speeches, research findings, scientific discoveries, even almanacs stored in world's databases. Nwosu further affirms that with PCs connected to the internet, one can travel in the information super-high way, send or receive all types of information required in a few minutes. With laptops and computer network facilities, this can be done even from the classroom, research work will be facilitated and teaching will be more meaningful and relevant. Internet is a chain of computers linked together around the world (Conn, 2002).

Benefit associated with Computer Network

- It provides easy access for transaction
- It express new research information
- It brings world information on financial matters to accountants door step
- It is the easiest way of searching for financial and other related information.
- With network, accountant can transfer information between computers, even if they use different operating systems.
- Data are sent to remote storage devices and printers without having to send all of the signals through an expensive mainframe computer.
- Generally, network provide an inexpensive way to interconnect any number of systems and make communication sharing of data quick and easy (Ajayi, 2003,Umerah, 2010 and ICAN, 2011).

- Through connectivity one can reach anybody, transact business, transmit or receive any information in word, data, image or voice forms right from ones PC.

The Problems Associated with the Computer Network includes:

- Pornographic materials and hackers are so many rather than searching for financial and vital information
- Wastage of Finance: some accountants instead of searching for useful information, they rather waste their money on football, music, films etc
- Diversionary tendencies are quite common
- Existence of many webs possesses problem to the accountants.
- Professional accountants are facing greater responsibilities and are moving into higher technological skills.
- There is increase use of electronic mail.
- Many office workers including accountants are performing higher level tasks.
- There are more emphasis on cost-effectiveness, productivity and profit.
- New jobs are being created.
- Maintenance culture: Uddin and Uwaifo (2005) affirmed that in Nigeria, most equipment and infrastructure are in disrepair and decay due to our poor maintenance culture. Absence of maintenance culture systems has caused a major setback, and it is also a very serious challenge against effective implementation of computer networking.
- Acute manpower shortage: According to Higgins (2011), there is serious shortage of manpower in the right quality, quantity and mix, and with the right technical skill both for application and teaching. With this shortage, there is no way accounting education anchored in ICT/Computer networking could be successfully and holistically implemented.
- Many business teachers including accounting educators were faced with the problem of identifying and using appropriate accounting software for instruction.

Strategies for increasing the use of Computer: To solve the challenges above, the following strategies should be adopted:

- Access to Computer Networking (Technology): where computers and other ICT tools are available in the school, they should be located in such a way that accounting students can have unlimited access to them. Another strategy to solve the problem of access is to create ICT library for accounting education students. It is important that accounting students have easy access to ICT tools where they are available.
- Apart from formal professional development courses for accounting educators that may be organized by the institutions, individual coaching, peer tutoring, collaboration, networking and other private arrangement should be undertaken by accounting teachers to upgrade their skills and competence in using computer networking in the classroom.
- To reduce the problem of appropriate software selection a team of business teachers and experts should be involved so as to identify the relevant software for their lessons. According to Inije (2012), the computer which is one of the major components of ICT or networking depends on appropriate software for maximum results. A business teacher may not be familiar with all available software. For this reason, there is need to organize seminars, workshops and conferences where experts will present and explain the appropriate software that will enhance the teaching and learning of accounting education.
- Policies: Government should adopt sustainable policies that would make it possible for accounting students and teachers to have easy and cheap access to computer networking equipment, tools and packages. In this connection, accounting education programme or curriculum, has to be redesigned to incorporate e-learning and e-teaching.
- Training of sufficient manpower in the right quantity, quality and mix, is highly needed for the computer networking to be keep in place, and they have to be trained and retrained to keep than abreast with modern trends in the technology. Hence, new jobs new skills.

Purpose of the Study

The main purpose of the study is to determine the benefits of accounting education and computer networking towards a sustainable economy. Specifically, the study attempts to:

1. Identify some of the benefits of accounting education and computer network towards a sustainable economy.
2. Ascertain some of the problems associated with accounting education and computer networking towards a sustainable economy.
3. Determine the influence of accounting education and computer networking towards a sustainable economy.
4. Find out some of the prospect of accounting education and computer networking towards a sustainable economy.

Research Question

The following research questions guided the study:

1. What are some of the benefits of accounting education and computer networking towards a sustainable economy?
2. What are some of the problems associated with accounting education and computer networking towards a sustainable economy?
3. What is the influence of accounting education and computer networking towards a sustainable economy?
4. What are some of the prospects of accounting education and computer networking?

Methodology

A survey research design was employed for the study. The population for the study consists of 180 accountants working in business organizations located at Akure and who are registered and up-to-date members of the state Chamber of Commerce, Industry, Mines and Agriculture and have worked for ten years and above. Therefore, the entire population of 180 accountants was used for the study. No sampling was made hence the population was very few the population remains the sample. A check list questionnaire was designed and used for the study. The questionnaire sought information on the following towards a suitable economy: the benefits of accounting education and computer networking, problems associated with accounting education and computer networking, impact of accounting education and computer networking, and prospects of accounting education and computer networking. The instruments used to answer the research questions were structured to make use of 5 - point Likert response scale. The data generated for the study was analyzed using descriptive statistics (mean and standard deviation). The decision for answering research questions was based on real limit of numbers. The range for each numerical value of response categories was used to take decision on item. In this case, any item with mean value of 3.50 and above falls under accepted region while items within mean value of 3.49 and below fall under not accepted region.

Results

The results are presented in Tables 1-4. Thus:

Research Question 1: What are some of the benefits of accounting education and computer networking towards a sustainable economy?

Data in Table 1 reveals information on some of the benefits of accounting education and computer networking towards a sustainable economy.

Table 1: Mean Scores of Accountants on the Benefits of Accounting Education and Computer Networking

S/N	*Benefits of Computer Networking*	*Mean Scores* $(\bar{X})$	*SD*	*Remark*
1	Instant global banking transaction	4.81	0.40	Accept
2	Instant global access to information on business/accounting activities.	4.65	0.52	Accept
3	Generation of financial reports	4.24	0.54	Accept
4	Bio firms and companies uses computer network to source for their employees	4.16	0.16	Accept
5	Billing customers for services products	4.18	0.61	Accept
6	Instant messaging	4.44	0.94	Accept
7	Shopping (e-commerce)	4.1`3	0.70	Accept
8	Company profiles and financial details	4.80	0.40	Accept
9	Conferences such as teleconferences can be done through the web	4.07	0.89	Accept
10	Advertisement	4.18	0.81	Accept
11	Read financial reports and reviews	4.60	0.69	Accept
12	Calculating payroll and taxes	4.51	0.59	Accept
13	Paying for inventory and supplies	4.03	0.89	Accept
14	Increases personal productivity	3.89	0.01	Accept
15	Increases technological skills	3.98	0.81	Accept
16	Assists in using budgeting capabilities in capturing business objectives	4.04	0.88	Accept
17	Online bill pay are made easy	4.12	0.86	Accept
18	Credit card processing	4.80	0.40	Accept
19	Fixed asset management	4.62	0.58	Accept
20	Cash management	4.51	0.55	Accept
21	Multi-company management	4.09	0.87	Accept
22	Tax comment	4.31	0.63	Accept
23	General ledger are assessed	4.36	0.61	Accept
24	Accounts payable (Creditors)	4.31	0.63	Accept
25	Accounts Receivable (Debtors)	4.40	0.64	Accept

Data in table I above shows that all the items on the benefits of accounting education and computer networking have mean value of 3.50 and above which is our stipulated positive decision rule.

Research Question 2: What are some of the problems associated with accounting education and computer networking towards a sustainable economy?

The data in Table 3 presents information on some of the problems associated with accounting education and computer networking towards a sustainable economy.

Table 2: Mean Scores of Accountants on the Problems Associated with Accounting and Computer Networking

S/N	*Problems Associated with Computer Networking*	*Mean Scores* $(\bar{X})$	*SD*	*Remark*
1	Constant power fluctuation damages equipment	4.29	0.66	Accept
2	Scarcity of efficient technicians for repairing equipment	4.20	0.89	Accept
3	Breakdown of equipment delay work to a detriment situation	4.27	0.83	Accept
4	Acquisition of operational skills now mandatory for serving accountant	4.16	0.81	Accept
5	Operational skills now a basic condition for employment	4.60	0.71	Accept
6	Only competent accountant operate equipment	4.40	0.58	Accept
7	Most operators (accountants) need supervisory guide	3.87	1.01	Accept
8	High cost of equipment/facilities	4.29	0.66	Accept
9	Shortage of funding	4.16	0.81	Accept
10	Attitude of the management towards computer networks	3.98	0.80	Accept
11	Accountants incompetence in utilization of computer	4.60	0.71	Accept

In Table 2 above, all the items had mean range of 4.60 to 3.87. Therefore, the 11 items were identified as the problems associated with accounting education and computer networking towards a sustainable economy.

Research Question 3: What is the influence of accounting education and computer networking towards a sustainable economy?

Table 3 indicates information on the influence of accounting education and computer networking towards a sustainable economy.

Table 3: Means Scores of Accountants on the Impact of Accounting Education and Computer Networking

S/N	*Impact of Accounting Education and Computer Networking*	*Mean Scores* $(\bar{X})$	*SD*	*Remark*
1	Accounting Office work is becoming more challenged and complex	4.20	0.89	Accept
2	Enhanced control and financial management of business activities	4.40	0.58	Accept
3	A part from the accountants getting more involved in the use of computer networking, others including the executives utilize computer services	4.29	0.66	Accept
4	Information and data are electrically stored for almost instant access	4.60	0.50	Accept
5	Personal computers with ever expanding applications are being used	4.38	0.82	Accept
6	There is increasing use of electronic mail	4.18	0.91	Accept

Table 3 indicated that all items in the table had mean range of 4.60 to 4.18. Therefore, the 6 items were identified as the impact of accounting education and computer networking towards a sustainable economy.

Research Question 4: What are some of the prospects of accounting education and computer networking?

The data in Table 4 depicts information on the prospects of accounting education and computer Networking.

Table 4: Mean Scores of Accountants on the Prospect of Accounting Education and Computer Networking

S/N	*Prospect of Accounting Education and Computer Networking*	*Mean Scores (X)*	*SD*	*Remark*
1	Facilitation of local, National and International communication	4.71	0.50	Accept
2	Dividend preparation/earnings from global business transactions	4.02	0.71	Accept
3	Improve accountants job performance	4.44	0.94	Accept
4	Organization will no longer retrain newly employed graduates	4.16	0.72	Accept
5	Organization will plough, back retraining cost into a more useful unit	4.36	0.82	Accept
6	Optimum utilization of accounting staff and equipment	4.27	0.83	Accept
7	Generation of management reports	4.33	0.71	Accept
8	Computer networking brings world information to one's door ste.	4.18	0.91	Accept
9	It provides easy access for transaction socializing	4.60	0.50	Accept
10	Socializing	3.96	0.82	Accept
11	Consultancy services	4.20	0.84	Accept
12	Access information on business and employment	3.98	0.80	Accept

From Table 4 above all the 12 items had mean that falls within the range of 4.71 to 3.96. Therefore, the 12 items were identified as the prospect of accounting education and computer networking towards a sustainable economy.

Discussions

The findings of this study shows that global changes in process have affected our educational delivery systems to embrace advancement in technology by acquiring and utilization of computer networking resources in the area of teaching and learning process, and as well as in performing accounting tasks. From the analysis of data presented in table 1-4, accounting education and computer networking was found to contribute a lot towards a sustainable economy. The findings positively revealed that major benefits of accounting education and computer networking range from instant global banking transaction and instant global access to information on business/accounting activities, company profiles and financial details, read financial reports and review, calculating payroll and taxes, cash management as well as credit card processing, instant messaging and accounts receivable (debtors). This is inconsonance with the findings of Nwosu (1999) that once PCs is connected to the internet, one can travel in the information super-high way, send or receive all types of information required in a few minutes. This is in line with the findings of Ajayi (2003), and Umerah (2010).

Accounting and computer networking are not devoid of problems. These were positively reflected in the findings as shown in table 2. Some of the problems identified include: accountants incompetence in utilization of computer networking, acquisition of operational skills now a basic condition for employment, only competent accountant operate equipment.

There is serious shortage of manpower in the right quality, quantity and mix, and with the right technical skills both for application and teaching (Higgins, 2011). Other problems identified also include high cost of equipment/facilities; most accountants (operators) need supervisory guidance, constant power failure, scarcity of efficient technicians for repairing equipment, breakdown of equipment delays office work. In Nigeria, most equipment and infrastructure are in disrepair and decay due to our poor maintenance culture (Udin and Uwaifo, 2005).

From table 3 above, the findings indicate that accounting education and computer networking are making a lot of impact on business activities. Apart from the accountants getting more involved in the use of computer networking others including the executives utilizes computer services. Also, information and data are electronically stored for almost instant access, control and financial management of business activities are enhanced, and accounting work is becoming more challenged and complex. Data analyzed positively showed that accountants personal computers with ever-expanding applications are being used. The increase in electronic mail is not excluded.

Data analyzed in table 4 above, shows that positive prospects were identified, the findings depicts that organizations will no longer retrain newly employed graduates and cost for retraining will be ploughed back to the business for the accumulation of further wealth, facilitation of local, national and international communication. Other prospects include thus, improve accountants job performance, generation of management reports, easy access for transaction, optimum utilization of accounting staff and equipment, socialization, consultancy services and easy access for information on employment.

Conclusion

As already observed in the introduction, the activities of man today are engulfed in computer networking trends, which Nigerian educational system is striving to adapt. This implies that computer education should not merely teach accounting students how to use a computer but should also put emphasis on computer software packages and development in IT industry. It is obvious that accounting students must now be prepared to accept the challenges in computer education/networking and endeavor to excel in the labour market. The results of the study also implied that computer networking are becoming more common, and perhaps in future, computer skills will invariably become a basic requirement for job seekers. The impact of technology on economic activities indicates that the world is globally moving towards centralized network and systems management (Internet facility)

When our institutions are fully automated with interesting educational software, the graduates will be in a better position to contribute effectively to the economic activities already tailored towards information technology trends.

Recommendations

Based on the findings of this study, the following recommendations are made:

- More computer outfit should be provided in Business Education (Accounting) related departments
- Accounting laboratory should be furnished with more internet facilities fore adequate computer network.
- Adequate and regular power supply should be provided.
- Accounting students should be trained in computer networking and relevant accounting software packages..
- There should be need to provide for computer care, repairs, maintenance in order to keep it operationally functional.
- Accounting educators must be competent and knowledgeable in the use of computer network, so that they would impact this knowledge to the accounting students who invariably will become the future accountants.
- Seminars, conferences, workshops and capacity building programmes should be organized for accountants and indeed every employee.

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