

**BUSINESS EDUCATORS' UTILIZATION OF COMPUTER  
APPLICATIONS IN TEACHING IN COLLEGES OF EDUCATION IN  
FEDERAL CAPITAL TERRITORY AND NIGER STATE, NIGERIA**

**BY**

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AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA**

**FEBRUARY, 2015**

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(M.ED/EDUC/4215/2009-2010)**

**A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES  
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**DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION  
AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA**

**FEBRUARY, 2015**

## **DECLARATION**

I declare that the work in the thesis entitled “Business Educators’ Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State Nigeria” has been carried out by me in the Department of Vocational and Technical Education. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at this or any other institution.

Hamzat Ramat ABDULLAHI

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## CERTIFICATION

This thesis entitled “*Business Educators’ Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State Nigeria*” by Hamzat Ramat ABDULLAHI meets the requirements governing the award of the degree of Master of Education of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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Date

## **DEDICATION**

This work is dedicated to the Almighty God, and to the blessed memory of my late beloved parents, Alh. M. B. Lapai & Haj. R. M. B. Lapai.

## ACKNOWLEDGEMENTS

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Finally, the researcher is ultimately grateful to God who has given him the grace to complete this work successfully.

## ABSTRACT

This Study entitled “Business Educators’ Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State Nigeria” was designed to establish business educators’ utilization of computer applications in teaching business education. Four specific objectives and four research questions were stated, while four null hypotheses were tested at 0.05 level of significance. Literature and empirical studies were reviewed. From all the literature reviewed, there was hardly available record on study of this nature in the Federal Capital Territory and Niger State, Nigeria. This was the main gap which this study served to fill. Descriptive research survey design was used for the study. Population for the study was 307 business educators while the sample was 184. A structured questionnaire was the main instrument of the study; and out of the 184 administered, 131 were retrieved and found valid. Mean scores were used to answer the four research questions whereas t-test was used to test the four hypotheses. Results of the study showed among others that business educators agreed on the availability of computer applications (such as micro soft word) in teaching business education; business educators utilize computer applications (such as micro soft word) in teaching business education to very great extent; gender influences business educators’ utilization of computer applications (such as micro soft word) in teaching business education. Results of the t-test showed that no significant difference exist between the mean responses of business educators on the availability of computer applications (such as micro soft word) in teaching business education. However, t-test statistic revealed that there is significant difference between male and female business educators’ mean responses on gender influence on utilization of computer applications (such as micro soft word) in teaching business education. It was concluded that computer applications like micro soft word, micro soft excel, power point, spreadsheet and database are available in teaching business education. It was recommended among others that Management of colleges of education in the Federal Capital Territory and Niger State should endeavour to construct computer technology centre for business education department especially where there is none in order to encourage the promotion of positive disposition on utilization of computer applications in teaching business education. It was suggested that similar study be conducted in other tertiary institutions in the country including university in order to establish if findings would be similar.

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## **LIST OF ABBREVIATIONS**

C. O. E.	College of Education
F. C. E.	Federal College of Education
F. G. N.	Federal Government of Nigeria
I. T.	Information Technology
Lec.	Lecturer
N. C. C. E.	National Commission for Colleges of Education
N. C. E.	Nigeria Certificate in Education
N. P. E.	National Policy on Education
S. P. S. S.	Statistical Package for Social Sciences
Stud.	Student
T. A. M.	Technology Acceptance Model
T. R. A.	Technology Reasoned Actions

## DEFINITION OF TERMS

**Booting:** This is a process whereby the computer is switched on and allowed to do some automatic pre-operational updates before use.

**Bulletin Board System:** Is a non-commercial interactive bulletin board systems run on personal computers in homes and offices. It is a free service to which any user can call using a modem without any prior arrangement.

**Business Educator:** Within the context of this study, refers to lecturers who impart knowledge and skill to individual.

**Computer Assisted Instruction:** Within this context refers to the use of computers in teaching. It does not involve teaching about computers, but rather, using computers as aid in the classroom instruction of a particular subject matter.

**Computer Managed Instruction:** In this study, computer managed instruction means that the computer oversees students' instruction and directs them elsewhere for actual learning experience. Thus, it can assign students to read a certain book, listen to a certain tape and so on.

**Digital Divide:** In this Study, it refers to a growing gap between those who have computer and internet access and those who do not.

**Electronic Organizer:** Is a small device with fax accessories not only for sending and receiving facsimile messages but also for sorting great amount of information on addresses, phone numbers, appointments and any information that can be recorded in a diary.

**Facsimile:** Is used to transmit both graphic and alphanumeric data from one location to another, and it is popularly called FAX.

**Interactive Radio:** This is a medium that enables people to communicate live with the transmitter.

**Office Technology:** Within this context, it refers to the adoption or use of scientific knowledge and or equipment in the performance of office duties. It involves a substantial use of computer

alongside with other electronic equipment to automate the basic administrative tasks or duties in the office.

**Stimulus:** Is anything capable of eliciting a particular response or behavior in an organism.

**Very Small Aperture Terminal:** Within the context of this study, refers to an interactive information technology which establishes the connections between the teacher and the student in different countries or community distant education.

**Video or Teleconferencing:** This is a system in which a number of users or persons are simultaneously on line, chatting and discussing. It can be used to conduct meetings, seminars, workshops and other activities at different locations.

**Video Text:** This is a device that enables users equipped with special visual device or terminals to access information held on the data base of an interactive computer.

**Video Messaging System:** These are computer system linked to telephone that converts the human voice into digital bits.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

With computer technology every phase of business education programme becomes virtually easier. The common application of computer in business education are in the area of word processing (Microsoft word), internet browsing, presentation tool (power point), spreadsheet and excel (micro soft excel). At the centre of Information Technology is the computer. Information technology is viable as a tool for teaching by the business education teacher. Nwosu (1999A) asserted that the computer has become a vehicle for instruction through the innovations of Computer Assisted Instruction (CAI) and Computer Managed Instruction (CMI) systems. These innovations indicate the ever existing realities in the use of technological devices in a modern business world. It also underscores the competencies, skills and knowledge needed for effective and efficient teaching of business courses in Nigerian colleges of education.

Computer technology is penetrating all the facets of human activity, thus transforming the economic and social life of people and nations. Aremu and Morakinyo (2005) observed that the world is undergoing an information technology revolution that is dramatically changing every facet of human life from education, industry, economy, politics, culture and medicine to a myriad of others. Computer technology is therefore no longer relegated to specialized work place settings. It has become increasingly common in schools, homes, public and private offices (Adeyegbe, 2006). In particular, business education programme requires the utilization of computer technology applications for both theory and practice. The computer is required to do most of the word processing and allied duties. Also, the accounting packages are now available for a more effective and stress –free accounting work with low utilization in business.

According to the National Policy on Education (FGN, 2004A). The idea of Technical and Vocational Education was conceived to enable individuals have functional literacy. This include in addition to general education, the study of technologies and related sciences and the acquisition of practical skills attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. Business education being an aspect of Vocational and Technical Education is skill acquisition oriented programme poised to produce business teachers who will be



able to inculcate the right attitudes, knowledge and skills in the clerical, stenographic, book-keeping and accounting, data processing, marketing and sales, office administration and management field. Substantiating this further, Aliyu (2006A) said that Business education is education for the acquisition and development of skills and competencies, attitudes and attributes which are necessary for efficiency of the economic system.

The business world is increasingly being dynamic in line with technological changes which necessitate stakeholders in the area of business education to take urgent actions that would facilitate adaptation to the great resources of computer technology. Technological changes, especially in business education department of colleges of education have continued to challenge instruction and skill acquisition. Thus, advances in technology have affected the ways teaching is being carried out in modern society. Teaching in colleges of education are hitherto, being carried out traditionally. This has equally impacted on the business educators' utilization of computer applications in teaching business subjects. Okafor (2008) observed that using computer technology effectively not only in the business world but in the classroom in particular for teaching, will determine extent of users' application of its diverse utilities to other areas of education. Those who have exposure to the use of computer technology for teaching tend to be more dynamic and receptive to modern approach to teaching than those who lack such exposure.

Computer applications utilization in teaching, especially in business education, is yet to receive the right attention it deserves as a modern means of changing the way education is conducted and knowledge is being impacted by business educators. This has led to slow pace of utilization of computer applications such as micro soft excel and micro soft word by most business educators to teach subjects like accounting, typewriting, etc. Asuquo (2008) indicated that business educators can attain efficiency in computer technology applications usage in teaching when they depart from the traditional method of teaching and embrace state of the art pattern of instruction. He also maintained that computer technology allows teachers to be more independent in their choices about what and how to teach, thereby making them interactive with different instructional applications. It affords business educators the opportunity to share instructional materials and wealth of knowledge for teaching, research and development.

Udida and Ntukidem (2010) found that business educators' extent of computer applications utilization in teaching business subjects is significantly low. They equally observed that most institutions of learning that offer business education programme do not utilize computer applications for effective and efficient teaching. The quality of teaching in this respect is often constrained by the limited utilization of computer applications by business educators. It was on the basis of this brief background that this study was conducted.

## **1.2 Statement of Problem**

As indicated on the background to the study, business educators are expected to possess competencies, skills and knowledge needed for effective and efficient teaching of business subjects using computer applications so as to be able to face challenges posed by computer technology. Thus business education programme should position business educators on acquiring the relevant instructional skills needed for teaching business courses in colleges of education. This seems to be unachievable to the programme of business education in the wake that the programme has been too slow in responding to the technological revolution which education is currently experiencing.

It is also shown that business education programme requires the utilization of computer technology applications for both theory and practice. The Computer, for instance is required to do most of the word processing and allied duties. Accounting packages are now available for a more effective and stress free accounting work with low utilization in business. International Computer Development and Learning (2005) reported that the majority of the teachers in Nigeria remained largely unexposed to the computer applications utilization in teaching. This has affected business educators' quality of teaching, research and development.

Technological Changes have continued to challenge instruction and skill acquisition. Teaching in colleges of education are hitherto, being carried out traditionally and this has equally impacted on business educators' extent of computer applications utilization in teaching business subjects. It also underscores the need for a radical departure from the traditional approach to teaching, to a technologically driven approach. Business educators seems to be slowly beginning to realize the need for computer technology utilization in teaching.

However, business educators' utilization of computer applications in teaching as not been investigated from the researcher's study of literature, particularly in colleges of education in Federal

Capital Territory and Niger State, Nigeria is hardly available. The researcher is therefore interested in knowing about business educators' utilization of computer applications in teaching. Consequently, this study was conducted on "Business educators' utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State Nigeria".

### **1.3 Objectives of the Study**

The main objective of this study was to determine the business educators' utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State Nigeria. The specific objectives were to:

1. determine the availability of computer applications in teaching business education in colleges of education;
2. establish the extent to which business educators utilize computer applications in teaching business education in colleges of education;
3. determine the influence of gender on business educators' utilization of computer applications in teaching business education in colleges of education;
4. determine the challenges business educators face on utilization of computer applications in teaching business education in colleges of education.

### **1.4 Research Questions**

This study provided answers to the following research questions:

1. what are the available computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?
2. to what extent do business educators utilise computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?
3. what is the influence of gender on business educators' utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?

4. what are the challenges business educators face on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?

### **1.5 Research Hypotheses**

The following null hypotheses were tested at 0.05 level of significance:

1. there is no significant difference between the mean responses of business educators on how the availability of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State.
2. there is no significant difference between the mean responses of business educators' extent of utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State.
3. there is no significant difference between the mean responses of male and female business educators on the influence of gender on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State.
4. there is no significant difference between the mean responses of business educators' utilization of computer applications on challenges face in teaching business education in colleges of education in Federal Capital Territory and Niger State.

### **1.6 Significance of the Study**

This study would be of benefit to business educators, management of colleges of education. The result of the findings would serve as awareness to business education stakeholders on business educators' extent of utilization of computer applications in teaching business courses. It is hoped that business educators who have negative perception on computer applications utilization in teaching would develop a positive disposition on computer technology utilization for efficient, effective and result –oriented teaching.

It would also be of significance to the business education curriculum planners in colleges of education as it would serve as a source of information about business educators' utilization of computer applications in teaching. The result of the study would serve as a source of reference to

business educators who would want to engage in similar research to increase the frontiers of knowledge in the area of computer technology, its applications or resources as well as effective utilization in teaching business courses in Colleges of Education.

Other members of the society not mentioned above stands to benefit from the result of findings of this study by getting or being acquainted with computer technology in education thereby helping in elimination of the fear of technology amongst some members of the society. The result of findings of this study would also serve as reference material to Federal Capital Territory College of Education, Zuba, Federal College of Education Kontagora and Niger State College of Education Minna, where business education is offered.

### **1.7 Assumption of the Study**

This study was based on the assumptions that:

1. Business educators are slow in utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State, Nigeria.
2. There is no gender difference on business educators' extent of utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State, Nigeria.

### **1.8 Delimitation of the Study**

The study was delimited to business educators' utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State Nigeria. It was also delimited lecturers in the department of business education of the studied institutions. The lecturers were chosen because they teach the students and are expected to have acquired competencies, skills and some computer based knowledge and its applications in teaching business education. The study was also delimited to most commonly used computer applications in teaching business education which are word application (micro soft word), presentation application (power point), world wide web browsing application (internet), spreadsheet, micro soft excel, database, corel draw and electronic mail. These were delimited because they form the most commonly utilized computer applications in business.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

This chapter reviewed related literature under the following sub-headings:

- 2.1 Theoretical Framework
- 2.2 Conceptual Framework
  - 2.2.1 Concept of Business Education
  - 2.2.2 Concept of Computer Technology
- 2.3 Teaching and Learning Business Education Using Computer Applications
- 2.4 Impact of Utilization of Computer Applications on Business Education
- 2.5 Challenges of Utilization of Computer Applications on Business Education
- 2.6 Empirical Studies
- 2.7 Summary of Related Literature Reviewed

#### **2.1 Theoretical Framework**

This study is anchored on the Theory of Reasoned Actions (TRA) and Technology Acceptance Model (TAM). This is because the theories explain computer technology utilization behavior which causes individual to use or disuse computer technology; and therefore relates and useful to this present study.

Theory of Reasoned Actions (TRA) originated from social psychology, and developed in 2000 by Ajzen and Fishbein. Ajzen and Fishbein (2000) postulated this theory to define the links between the beliefs, attitudes, norms, intentions and behavior of individuals. The theory assumes that a person's behavior is determined by the person's behavioural intention to perform it, and the intention itself is determined by the person's attitudes and his or her subjective norms towards the behaviour. The subject norm refers to the person's behaviour that most people who are important to him think he should or should not perform the behaviour in question. In TRA, rational

considerations determine the choices and behaviour of individuals and individual intentions determine behaviour. Intentions also reflect individual attitudes and the extent to which individuals respond to a specific act as desirable or favourable. The theory suggests that human action is governed by personal attitudes, but also by social pressure.

The theory also focused on the prediction and understanding of human behaviour to help in solving applied problems and making policy decisions. The theorists state that TRA is applicable, for example, when studying individual behaviour, individual occupational orientations or family planning behavior, norms and attitudes in relation to a performed behaviour within a social setting.

The Theory of Reasoned Actions is useful to understand human behaviour towards performing actions influenced by attitudes and beliefs. It can be used to understand social situations for decision makings. Davis (2002) and Karahanna (2003) tested the theory to examine users` Pre-adoption and Post-adoption beliefs and attitudes.

However, Venkatesh (2003) believed that the theory is falsifiable and does not consider behavioural outcome expectancy, effort expectancy and facilitating conditions as determinants of human actions. The model is also static, and fails to recognize the dynamic nature of humans in social situations. The model does not also consider moderating variables of Reasoned Actions which Venkatesh (2003) identified as gender, age, experience and voluntariness of action.

The theory was however, found to be useful for this study because it defined the links between attitudes and behaviour. Business educators` appreciation of computer applications may be used as construct for the study of the initial adoption and subsequent utilization of computer applications in teaching business education.

Another theory which served as basis for this study is the Technology Acceptance Model (TAM) of Davis (2002). He presented a theoretical model aiming to predict and explain information technology (IT) usage behavior, that is, what causes potential adopters to accept or reject the use of information technology. Theoretically, TAM is based on the theory of Reasoned Actions (TRA). In Technology Acceptance Model (TAM), two theoretical constructs, perceived usefulness and perceived ease of use, are the fundamental determinates of system use, and predict attitudes toward the use of the system, that is, the user`s willingness to use the system. Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job

performance, and perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort.

Davis (2002) maintained that various behaviour cause potential adopters to accept or reject the use of computer technology. It treats behavioural experience as individual pre-exposure to the use of computer technology. Technology Acceptance Model maintained that individual believe of technology usefulness and perceived ease of use are a function of individual pre-exposure experience and social conditions.

This theory was also chosen because of its emphasis on behavioural tendencies that leads an individual to use or disuse computer technology. Business educators can utilize computer applications in teaching business subjects only when they have experience its usefulness to the classroom situation. Also, prior knowledge or education about computer technology might influence their extent of its utilization for teaching business education.

## **2.2 Conceptual Framework**

This section explains concepts reviewed in line with the present study under the following sub-headings:

### **2.2.1 Concept of Business Education**

Business education has been defined by several authors. People outside the field of business education have different perceptions of it too. Some authors see it as a vocational training in selected business and office skills, while others defined business education as a phase of education which prepares teachers for the teaching of business subjects. Other definitions of business education in recent times include:-

1. Anyaduba (1986): Business education is concerned with the education of the individual of business and about business. He went further to state that education of the individual for business is target on those who want to take up careers in business, and that education of the individual about business are for all students in the entire school system regardless of career expectations. By this concept, Anyaduba looks at business education as an educational programme that prepares individuals, not only for entry into and advancement in jobs within the business but also prepare



students that will be self- reliant enterprising and contribute to national development regardless of career expectations.

2. Osmua (1989): Defined business education as that part of education field which deals with business experiences both for specialised occupation uses and for general uses. From this concept, business education is considered as a programme designed for students to expose them to courses in their special areas as well as in education and general studies.

3. Okoh (1999): Opined that training teachers of business courses is only an integral part of business education. It is also concerned with the training of individuals to fit into occupation outside the classroom. He concluded by saying that business education is an all embracing concept. By this definition, Okoh see business education as that aspect of education that provides training for the individual to perform not only in the classroom but also in the business world.

4. Osuala (2004) sees business education as a programme of instruction which consist of two parts:

a. Office education, a vocational programme for office careers through initial, refresher, and upgrading education leading to employability and advancement in office occupations and

b. General business education, a programme to provide students with information and competencies which are needed by all in managing personal business affairs and in using the services of the business world.

He further stated that business education represents a broad and diverse discipline that is included in all types of educational delivery system, elementary and secondary schools, colleges and universities. Business education includes education for office occupations, distribution and marketing occupations, business administration and economic understanding. From this, it can be seen that Osuala considers business education as an all embracing concept.

5. Aliyu (2006B): Observed that business education is education for business. It is the intellectual and vocational preparation for earning a living in a contemporary industrial and business environment. Business education is education for the acquisition and development of skills and competencies attitudes and attributes which are necessary for efficiency of the economic systems. Going by this definition, Aliyu looks at business education as education designed to

provide training for specific jobs and to develop ability and skills which are required in a contemporary industrial and business environment.

6. Abdulraheem and Lawali (2007): Defined business education as a component of vocational technical education which prepares individuals for career opportunities to be gainfully employed either as employers or employees. It leads to acquisition of skills and knowledge for harnessing resources for productive purpose. By this, they see business education as an education programme which prepares individuals for the acquisition of vocational skills that leads to the production of skilled personnel who will be self-reliant, enterprising and contribute to national development.

7. Ekpenyong (2008): Defined business education in a generic sense that it includes education intended for all who need education at high school or post-high school (including university) level, other than for scientific and technical qualification, to equip them with knowledge and skills for their work in any sector of economic activities, be it private or public. Simply put, it is education for and about work.

From these definitions, it could be remarked that there are as many definitions of business education as possible. However, a careful analysis of the definitions reveals some commonalities. For example, scholars like Anyaduba (1986), Osmua (1989), Osuala (2004) and Ekpenyong (2008), seem to have agreed with the assertion that business education is needed by all students in order to function intelligently as consumers and citizens in all economic activities of any nation. Anyaduba (1986), Aliyu (2006B) and Ekpenyong (2008) summarized the views about business education as education for business and about business.

Similarly, Aliyu (2001) stressed that education about business is for all students, adding that it is aimed at improving the students' understanding of business and its relationship to the total economy, developing personal consumer competency, relating the role of the consumer to the total economy, and developing personal use skills in relation to business occupations. While education for business is meant for some students who choose to enter into and advance in office and distributive occupations. He further observed that it is targeted at developing occupational skills to facilitate business functions in both office and distributive occupation as well as improving personal use skills needed in the performance of business occupations.

This indicates that business education as a programme of study is tailored at preparing students to learn how to work effectively and efficiently with all kinds of knowledge tools and diverse information utilities. This is in addition to equipping business education students with competencies, knowledge and skills needed to face the ever-changing challenges posed by computer technology in today's world.

### **2.2.2 Concept of Computer Technology**

The National Policy on Information Technology (2001) defines computer technology in two ways. In the first definition, the term computer technology means electronic device, ancillary equipment, software and firmware (hardware) and similar procedures, services (including support services) and related resources used for accepting, processing and producing data as information to its end users. In the second definition, the term computer technology includes any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display switching, interchange, transmission or reception of data or information.

It refers to all forms of technology applied to processing, storing and transmitting information in electronic form. The physical equipment used for this purpose includes computers, communication equipment and even electronic pocket organizers (LUCAS, 2001). The Information Technology National Policy (2001) in its mission statement said that computer technology would be used for:

- (a) Creation of Wealth
- (b) Poverty Alleviation
- (c) Job Creation
- (d) Global Competitiveness

Some of the general objectives of Information (computer) Technology Policy (2001) include:

- (1) To ensure that computer technology resources are readily available for efficient national development.
- (2) To guarantee that the country benefits maximally, and contributes meaningfully to the global solutions of the information age challenges.
- (3) To empower children, women and the disabled by providing special programmes for the acquisition of computer skills.
- (4) To empower the youth with computer technology skills and prepare them for global compositeness.
- (5) To establish computer technology infrastructure and maximize its utilization nationwide.
- (6) To create computer technology awareness and ensure universal access in order to promote computer technology utilization in all sectors of national life.
- (7) To build a mass pool of computer technology literate manpower.
- (8) To develop human capital with emphases on creating and supporting a knowledge-based society.
- (9) To sit up advisory standards for education, working practices and industry.
- (10) To establish appropriate institutional framework to achieve the goals stated above.

To achieve the general objectives for human resources development, some strategies are outlined. These strategies are targeted at the building of knowledge and skills in computer technology. According to the National Policy on Information (computer) Technology (2001) among the strategies include:

- (a) making the use of computer technology mandatory at all levels of educational institutions;
- (b) development of computer technology curricular for primary, secondary, and tertiary institutions;
- (c) use of computer technology in distance education; restructuring the education system at all levels to respond effectively to the challenges and imagined impact of the information age, and in particular, the allocation of special computer technology development fund to education at all levels.

The above general objectives and strategies are laudable and could be achieved only when the Nigerian education system address the issue of research, evaluation, and assessment, all of

which are critical to ensure success. In addition to this, quality professional business teachers with the technological skills match up the theoretical aspect of business education curriculum with the practical during delivery of lessons. Again, computer technology is a system that enables data or information to be collected and distributed, analyzed, and processed. Though it does not create information and does not verify its validity, which are human endeavours; but its efficiency and effectiveness is so high that it can be apply to economy, education, commerce, teaching and learning etc, in order to develop and utilize its potentialities in our day-to-day activities.

According to UNESCO (2002), computer technology has become, within a very short time, one of the basic building blocks of modern society. The organization added that computer technology adds value to the processes of teaching and in the organization and management of learning institutions. Computer technology is in essence, the fusion of Information Technology (IT) and Communication Technology (CT). Computer technology entails gathering, recording and dissemination of information while the communication technology concerns efficient techniques of transferring information from one location to another or teacher to the student.

Computer is a programmable multiuse machine that accept data (raw facts and figures) and process or manipulate them into information such as summaries, totals, reports, and so on (Uwakwe, 2004). Communication technology on the other hand consists of electromagnetic devices and systems for communication over long distances. These devices include telephone, radio, cable TV, and on-line. On-line means using a computer or information devices, connected through a voice or data network, to access information and service. These are transmitted over a computer network most often the internet. The internet according to Akpan (2004) represents the global networking of the individual computers across the world. It is known with other names such as net, web, cyber space and information super-high-way. These technologies are variously called information and communication technology.

Similarly, Ademulegun (2005) highlighted the technologies included in computer technology as follows:

- (a) Computer (Laptops inclusive);
- (b) Digital Camera and Video Camera;
- (c) Simulated Environments and Computer Games;

- (d) Television, Videos, DVDs, CD Players and Tape Recorders;
- (e) Printers
- (f) Internet and Projectors;
- (g) Video Conferencing;
- (h) Web-Cams and Scanner Technologies;
- (i) Photocopiers.

In his own view of the concept, Ayannuga (2006) viewed computer technology as the use of electronic-based technology and the internet to make information and communication services available to a wide range of users. He further described the term as a combination of a range of technologies in addition to telephone which according to him refer to the internet that provides the mechanism for transporting data in a number of formats including text, images, sounds and video. He went on to stress again that computer technology are information handling tools. They include among others satellite, wireless technology and the internet. According to him computer technology is a general term sometimes used to apply many different things by different people. In its broad sense it is used to refer to a variety of tools, all of which make it possible to improve efficiency in its application tentacles. He further refers to computer technology to include the internet based tools and Usenet Conference, Gopher and World Wide Web. It also involves non-internet services which include direct modern to modern links, dial-in bulletin board systems, and so on.

In contrast, Asaolu (2006) viewed technology as applied sciences, standardized means and ways of adopting scientific principles for the design, production and maintenance of goods and services to meet human needs. The concept computer technology could be put together to mean the new media tools applied in information services delivery which encompasses to collect, organizes, retrieve, disseminate and preserve information. It is generally agreed that information is the communication of knowledge ideas, values and traditions. Computer technology thus serves as the power means of helping individual students, teachers and the entire societies to achieve greater access to knowledge and ideas.

It implied therefore that different definitions abound in literature, and there is no a universally acceptable definition of computer technology. However, from the various literatures, internet, electronic mail, voice message system, interactive radio, and other communication

equipment not mentioned and which are yet to be invented all fall under the concept of computer technology.

### **2.3 Teaching and Learning Business Education Using Computer Applications**

The rapid growth of information technologies has added to the quest for improved teaching and learning. With current advances globally in information technology, it is essential that teaching and learning should be re-directed to reflect the new order. Thus, teaching and learning are two terms used to describe activities carried out toward imparting of knowledge by a person called the teacher in one hand, and acquiring of knowledge by another person called the learner on the other. According to Smith (2001) teaching is an active process in which one person shares information with others to cause behavioural changes in them. It is undertaking certain ethical tasks or activities the intention of which is to induce learning. He went further to state that teaching is the process of imparting knowledge and skill to individual person or student. Corroborating this, Sansawal (2002) posit that teaching is a professional and conscious activities which involves imparting of knowledge and skills capable of eliciting behavioural changes in individual by either assimilation or accommodation. He stressed further that knowledge and skills would include providing training and practice in the different techniques, approaches and strategies that would help the individual to plan and acquire competencies necessary for his or her personal and national development.

The effectiveness of teaching has been measured to a large extent on the resultant change in individual or learner's behaviour. Learning is a social and active process, where the individual assimilates ideas, concepts or constructs that are presented or encountered as a result of social interaction and support for individual interests. Remnet (2003) defined learning as the process of assimilating information with a resultant change in behaviour. He maintained that effective learning provides individual the opportunity to be more active in their construction of mental representations of learning contents. Remnet also maintained that teaching-learning process is a planned interaction that promotes behavioural change that is not a result of maturation or coincidence.

Teaching and learning of business education subjects should be anchored on the use of computer technology applications for effective delivery. The teacher should employ educational technology applications such as micro soft word, micro soft excel, internet and power point to achieve quality instructional delivery. The combination of these technologies according to Akudolu

(2007) would promote utilization of computer technology not only for instruction but also for the production of instructional material and the development of instructional delivery systems by the teacher.

Similarly, Obinni and Soreyewun (2008) said that computer technology tools are indispensable in this modern age and its utilization in teaching and learning business education in Nigerian schools will aid the production of skilled manpower for economic development. They maintained that schools in Nigeria have been under-constant pressure to provide students the skill and competencies needed to effectively use emerging technologies for learning. This can only be realised when the teacher is adequately equipped with the right type of computer technology skills, knowledge and competencies. By integrating information technology into education, fundamental shift in the way teachers teach and students learn will be evolved.

#### **2.4 Impact of Utilization of Computer Applications on Business Education**

The impact of utilization of computer applications on business education can be viewed from the stand point of resourcefulness of computer technology applications to business education. In the past, business education provides knowledge, skills and understanding needed for performance in business world when most of the equipment were manual. Today, the use of manual equipment has been replaced with the use of electronic equipment. Also, technology was supportive to education before now and, now integrative to education. It serves as teaching aid to business teachers in the past, but presently, it serves as facilitator and integrator to business. Lending Credence to this, Nwosu (1999B) observed that in the past technology was supportive because it served as aid to business education, but innovation in information technology have shifted this role from supportive to integrative. This in effect has changed the nature of office work as well as teaching methods.

Computer technologies are also transformational tools which, when applied or used appropriately, can promote the shift to a learner –centered environment. Supporting this assertion, Okafor (2002) observed that using computer technology effectively in the classroom is a means of transforming the classroom teaching and learning and making it possible for the classroom to be student-centered with teachers serving as coaches. He went further to said that computer technology enhances the process of knowledge revolution, it makes education to be more productive, it speed



the rate of learning thereby enabling the recipient to learn in less time, it gives information at specific base by providing the necessary framework for designing condition of learning suitable. It makes instruction more powerful and learning more creative.

In the area of improving the quality of training using computer technology, Wadi and Sonia(2002) contributed that computer technology can enhance the quality of education in several ways: by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and enhancing teacher training. They explained these three (3) ways in the following manner:

1. **Motivating to Learn:** computer technologies such as multimedia, software applications that combine text, sound, and moving images can be used to provide challenging and authentic content that will engage the student in the learning process and tele-collaboration.

2. **Facilitating the Acquisition of Basic Skills:** the transmission of basic skills and concepts that are the foundation of higher order thinking skills and creativity can be facilitated by computer technologies through drill and practice.

3. **Enhancing Teacher Training:** computer technologies have also been used to improve access to and the quality of teacher training. For example, education in Nigeria is taking advantage of computer technology through the National Open University of Nigeria (NOUN) to provide educational development opportunities to individual who have not obtained the requisite degree for their current job placement via satellite-based video and audio conferencing.

Komolafe (2005) described the impacts of utilization of computer applications as both positive and negative. Some of the positive impacts of computer technology according to him include:

i. computer technology has led to increased job opportunities for business education graduates by providing additional career areas or options.

ii. the use of computer technology enhances speed and accuracy.

iii. computer technology is a morale booster to the business education graduates.

iv. computer technology enhances effective maintenance, updating and manipulating of records and correspondence.

- v. computer technology leads to better decision making because it is easier to collect, analyse and make information available more effectively and speedily.
- vi. the use of computer technology in the business world leads to training and retraining of lecturers thereby widening their scope of knowledge and skills.
- vii. computer technology eliminates time wastages on routine jobs such as records management.
- viii. computer technology has led to increased productivity and specialization.
- ix. the emergence of computer technology has made it possible for many functions to be carried out at different locations.

On the other hand, Komolafe (2005) highlighted the negative impact of computer technology as follows:-

- i. computer technology may lead to fear of unknown, that is, it may replace business education graduates with modern equipment that could effectively perform, for instance, secretarial or accounting duties with, little, or minimal human intervention;
- ii. modus operandi of the office work may change. This can lead to resistant behavior, withdrawal, non-compliance and loss of job satisfaction and security;
- iii. knowledge and skills required over a period of time can be disrupted;
- iv. computer technology may lead to cyber-crimes and other electronic frauds;
- v. it may lead to health hazards such as eye strain caused by frequent use of the computer without a protective monitor glass;

Similarly, Okebukola (2006) said that computer technology tools have some merits as compared to conventional mode of information sharing and delivery. He observed that with the aid of technology, teachers can take business students beyond traditional classroom limits, creating virtual environment to experiment, explore and utilise technology to solve many challenging tasks in teaching and learning to enhance the quality of training. On the other hand, Patrick (2008) observed that administrative and paper work which a teacher is usually engaged in, will be drastically reduced to its bearest minimum that little or minimal human efforts will be required, thereby posing great concern for job satisfaction and security.

It is pertinent therefore, to appreciate and realize that the propelling forces driving global competition, awareness, communications and interactions at speed never imagined before, is computer technology. It has shrunk the world into a global village and also bulldozed communication super highway (the internet). It has altered the way people do their job, re-defined competencies required of employees and consequently posed challenge to education to evolve a technologically driven curriculum and training. Lending credence to this, Baba (2009) posit that the success or failure of any classroom interaction depends to a great extent on the adequacy, functionality and utilization of instructional equipment and facilities, such as computer technology, the teacher and the curriculum from which the learner draw his experience.

Considering these impacts, it can be deduced that the positive out-weighs the negative. Nevertheless, if, because of the negative effect, computer technology is not given its right place in education sector, it would be difficult for business educators to equip students with relevant skills, knowledge and competencies for effective and efficient learning of business education in Colleges of Education in Nigeria.

## **2.5 Challenges of Utilization of Computer Applications on Business Education**

In spite of the impact and significance of computer technology applications to business education, it is bedeviled with challenges that have kept its utilization on a slow pace especially in business education. Fajuyigbe and Ekuobase (2000) highlighted barriers to effective utilization of computer technology applications as constant power failure, high cost of installing machines, inadequate fund, short supply of experts to manipulate the machines and, limited library resources. Adamu (2008) supported that high cost of installation and maintenance of computer technology gadgets as well as environmental factors constitutes challenges to the effective utilization of computer applications. He explained that poor funding of education in Nigeria makes computer technology facilities out of reach for many institutions, students and teachers. He further stressed that some colleges of education that wish to have computer technology centers are unable to do so because of the cost of establishment, while in many universities, cost of maintaining the facilities is a serious problem. He said again that computer technology makes use of devices which are sensitive to heat, dust, humidity, vibration and mechanical shock. This explains why many computers are exposed to virus and constant breakdown. In his contribution, Murtala (2008) remarked that electronic libraries, internet, computer well-trained personnel who could put students

through the use of computer technology applications posed a serious problem to education. According to him, instability of electric power supply has been a major factor affecting the utilization of computer applications in education and indicate that introduction of computer technology as facilitator to teaching and learning of business education will be seriously affected by frequent power failure.

Similarly, Achimugu, Oluwagbemi and Oluwaranti (2010) asserted that challenges facing utilization of computer applications to business education can be broadly grouped into four categories, namely:

1. inadequate infrastructure
2. inadequate skilled manpower
3. resistance to change and
4. inadequate funding. They explained these challenges as follows:

1. **Inadequate Infrastructure:** tertiary institutions in Nigeria lack adequate computer technology infrastructure to effectively tap into the opportunities offered by the cyber space. Personal computers (PC) are available in most Nigerian tertiary institutions, but they are not readily accessible to students because of the low computer (PC). In most cases, the basic software applications needed for practical works are not available and where they are available, they are not accessible because of the low ratio. There is also the lack of computer aided interaction and other specialized software to support some areas of teaching and learning and research. Internet connectivity is available in most tertiary institutions in Nigeria, but in most cases, the bandwidth subscribed to (which determined the speed of access) is too small to support any meaningful academic activity during peak period. Some institutions have subscribed to virtually library sites whereby members can access electronic academic material such as journals. Also some institution have CD-ROM collections on specialized fields, but the currency of the information on the CDs, cannot be guaranteed as no effort is made to update them whereas computer technology infrastructures like multimedia projectors are available in Nigerian tertiary institutions to support teaching, learning and research, other infrastructure like interactive white- boards and mobile devices are lacking.

2. **Inadequate Skilled Manpower:** inadequate computer technology personnel are a major problem in Nigerian tertiary institutions. The reason for this can be ascribed to the lucrative job opportunities available to computer technology professionals outside the academics. The situation has made institutions rely on commercial private ventures to provide support for the few computer technology facilities available. The supports offered in most cases are commercial and lack academic content.

3. **Resistance to Change:** there is the concern of faculty members not willing to take the “Soft” approach to teaching and learning. Rather, they stick to the traditional “hard” approach. Report from Organization for Economic Cooperation and Development (2005) gave reasons why faculties resist e-learning, for example. These include:

- a. that e-learning development, with its standardization aspects, might conflict to some extent with the professional culture of academic, based on autonomy and reward system often based on research.
- b. concern about intellectual property rights and shared rights among faculty, institutions and technologies.

4. **Funding:** this is the major challenge confronting the acquisition and utilization of computer technology skills in Nigerian tertiary institutions. Most institutions solely rely on their proprietor for funding and the bulk of such fund goes to servicing the overhead cost. Acquisition of computer technology facilities require huge capital outlay and, governments are faced with numerous responsibilities that makes it virtually impossible to satisfactorily meet up with infrastructural needs of every sector.

## 2.6 Empirical Studies

In the course of this study some related studies were examined. These studies are related to this work in one way or the other, but are different from the present study. They include:

Sacks (2000) conducted a study on “Business Education Students and Teachers’ Utilization of Computer Technology in Classroom Situation. An Empirical study of Cape Town, South Africa”, the study was inspired by a study conducted by Zulu and Martino (1998) that network learning institution where in students and teachers have access to computer technology tools could

foster positive disposition on utilization of computer technology tools such as computer aided or assisted instructions for teaching and learning. The major objective of the study was to determine business education students and teachers' utilization of computer technology as an educational delivery tool for teaching and learning.

The study had four specific objectives. The total population was 1004. By simple random sampling, 576 students and 26 teachers were taken as sample. Instrument for the study was questionnaire made up 76 items divided into four sections. Section I dealt on demographic data, section II dealt on awareness and access to computer usage. Section III determined the computer competencies and skills required of students to learn and teachers to teach. Section IV dealt on computer technology utilization by students and teachers for teaching and learning. The analysis was carried out using one way ANOVA.

The study revealed that students and teachers were aware of computer technology but have low access to computer as education delivery tool. Computer booting, keyboard, basic text formatting, searching skills etc were identified as computer skills required by students to learn and teachers to teach business education. It was also found that business education students and teachers' utilization of computer technology for teaching and learning was not quite encouraging.

The present study found the work relevant in the area of the instrument used. It helps to sharpen the questionnaire raised for this study. However, the present study differs from the previous study because, while the previous study ascertained business education students and teachers' utilization of computer technology as an educational delivery tool for teaching and learning, the present study determined business educators' utilization of computer applications in teaching in colleges of education. Beside the statistical tool used was useful in the present study.

In another study conducted by Dauda (2001) on "Investigation of College Business Students and Teachers' Utilization of Computer Technology Components for Teaching and Learning". The study was conducted to examine business education students and teachers' utilization of computer technology. It also examined specifically students and teachers' extent of utilization in classroom teaching and learning. Survey research design was used for the study. Population of the study was 404. By simple random sampling 276 were used as sample. This number was made up of 261 business education students and 15 business education teachers. Instrument for the study was a

survey questionnaire. The survey was designed to assess students and teachers access, skills, and utilization of computer technology in teaching and learning business education courses. The survey contained a mixture of mixed scaled, five points scaled, multiple choice, and open-ended questions. The instrument was administered to the respondents. The response rate was 88% with 243 students and 13 teachers completing the survey. The data were analysed using Statistical Package for Social Sciences (SPSS).

The result of the analysis indicated that students and teachers had negative disposition on computer technology which led to high level digital-divide among them. It also revealed that utilization of computer technology in classroom teaching and learning of business education courses was low among students and teachers.

The present study found the statistical tools used in the previous study very relevant. The similarity between the present study and the previous one is that both studies were conducted on computer technology utilization in teaching and learning. However, the two studies differ because, while the former centered on computer technology components the present study centered on utilization of computer applications in teaching.

Yusuf (2002) researched on “Students’ Utilization of Computer Technology in Post-Secondary Schools in Minna Town, Niger State”. The purpose of the study was to determine the extent to which various independent variables affect computer technology in Niger State post-secondary schools. These independent variables are students’ utilization of computer technology, instructional materials, computer tools and student’s interest.

Students numbering 900 from the four schools of study location were used as population. 226 students were selected from the population using simple random technique. The sample size, according to the researcher is 25% of the target population and is based on Borg and Gall’s (1993) method of determining sample size for a study. The students used were final year students of post-secondary institutions within the study location.

The research design used was survey design while survey questionnaire was the major instrument used for data collection. Twelve item questionnaires were raised and administered. And sample percentage was used to analyze the data and the findings revealed: 62.1% agreed that the students’ utilization of computer technology is influenced by prior exposure and experience about

computer technology; 60.7% disagreed that there were adequate teaching or instructional materials in computer technology; 57.1% agreed to proper enlightenment about computer technology utilization in teaching and learning and 75.8% agreed that students' interest affects utilization of computer technology in post-secondary schools in Niger State.

Based on these findings, the researcher concluded that since students' utilization of computer technology is influenced by prior exposure and experience about computer technology, it could lead to a remarkable difference between students who have been adequately informed about the subject matter and those who have not, which eventually could result to greater inclination amongst the adequately informed and low inclination amongst the poorly informed students. Other factors that could lead to utilization of computer technology in teaching and learning according to the researcher are provision of computers and computer utilities, increased enlightenment, training and retraining of teachers, government funding of computer technology projects and, restructuring of the curriculum.

The similarity between the present study and the one conducted by Yusuf (2002) is that both studies are designed to determine the extent of utilization of computer technology by teachers in teaching and, the two studies shared one common study location, which is Niger State. On the contrary, the two studies differ in the sense that the former was on students' utilization of computer technology in post-secondary schools in Minna Town, Niger state while, the present study focused on business educators' utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State, Nigeria.

In a related study, Adeyemi (2005) assessed Business Teachers and Students' Computer Technology Application into Business Education Classroom in Kogi State. The aim of the study were to ascertain business education teachers and students' computer technology application, computer facilities available for teaching business education by the teacher and learning same by the students, and whether computer technology is been utilized efficiently in the teaching and learning of business education courses or not.

Descriptive human survey method was used by the researcher for the study. The target population was made up of two groups of respondent, namely: business education teachers numbering 80 and a total of 4300 business students from the three senatorial constituencies in Kogi



State. The researcher used the 80 teachers in the three constituencies as sample size, while 300 final year students were selected randomly as sample size for the study.

The researcher developed two sets of questionnaire to administer for the two groups of respondent. Three research questions were raised and three null hypotheses formulated and tested at alpha level of 0.05 significance. The statistical tool used for data analyses was ANOVA, and result suggested that there was general low utilization of computer technology among business teachers and students in Kogi State. It also revealed that there was a total lack of commitment for the development of computer technology facilities and application to classroom teaching and learning in the state. Further, the study indicated that computer technology-driven teachers, adequate instructional materials, up-to-date technological facilities, sufficient funding, will enhance positive disposition for utilization of computer technology in business education classroom.

The present study found statistical tool used in the previous study very relevant. However, the study did not indicate questionnaire rating scale used. The present study also relates to the previous studies because both are conducted on utilization of computer technology. On the contrary, the former was an assessment of Business Teachers and Students' Computer Technology Application into Business Education classroom, while the present study focused on Business Educators' Utilization of Computer Applications in Colleges of Education in Federal Capital Territory and Niger State, Nigeria.

Cloete (2007) conducted a study on the Business Students and Lecturers' Perception on Information Technology Utilization in Teaching and Learning in Cape Town, South Africa. The purpose of the study was to determine the extent to which students and lecturers' perception influence utilization of IT in teaching and learning business courses in University of Cape Town, South Africa.

Descriptive survey was used and a structured questionnaire was constructed and administered. The population for the study was made up of 389 business education students and 33 business education lecturers, thus a total population of 422. By sampling 200 respondents consisted of 183 students and 17 lecturers were drawn and formed the sample size for the study. Three research questions were raised and three null hypotheses were formulated and tested at 0.05 level of significance. Likert scale of rating was used to score the responses of respondents.

Frequency table and simple percentage were used to analyse the data and the results revealed that students perception influence the use of information technology in learning, lecturer's negative disposition towards information technology utilization in classroom instructions affect its integration into business and, slow pace of utilization of information technology amongst students affect its integration to learning business courses and writing research reports. It recommended that governments should pay adequate attention to education generally and ICT in particular.

The weaknesses of the study are that the researcher did not indicate the sample size for the study. Also, reliability test on the instrument was not conducted and population of the study should have been expanded to include other institutions of higher learning in Cape Town, South Africa, for more credible and acceptable results. That notwithstanding, the rating scale used in the study was useful to the present study. The present study also found the study relevant as some of its findings served as literature review for the present work.

The present study is similar to the previous study in the sense that both studies focused on Technology Utilization in Teaching and Learning. However, the two studies differ because the former's study location was Cape Town University, South Africa, while; the present study research location was colleges of education in Federal Capital Territory and Niger State, Nigeria.

Nwanawezi and Onoh (2009) conducted a study on Students` Barriers to Effective Acquisition of Computer Technology Skills in Business Education Programme. A sample of 48 university undergraduate business education students was selected as sample for the study. The instrument for data collection was a questionnaire. The analysis of data collected was carried out using mean and standard deviation while, null hypotheses were tested at 0.05 level of significance.

The result of major findings of the study revealed among other things that inappropriate information and communication technology skills and competencies were business education students` major barriers in their quest to integrate excellent and employable competencies into learning business education.

The study failed to indicate the population and the method used in sampling 48 students. The research questions and null hypotheses were also not revealed by the study. There was no reliability test, too. However, the present study found the previous study very useful as some of its findings and interpretation of results helped to sharpen the results of the present study.

The similarity between the present study and the previous study is that both are on computer technology application to business. On the contrary, the former dealt on Students' Barriers to Effective Acquisition of Computer Technology Skills whereas; the present study focused on Business Educators' Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State, Nigeria.

Adeniran (2010) conducted a study on "Business Education Lecturer's Utilization of Computer Technology Resources in Nigeria Certificate in Education Business Education". The study assessed the state of acquisition, adequacy and availability of computer technology resources to facilitate the teaching and learning of business education at NCE level in Sokoto State College of Education. A survey research design was used with a structured questionnaire for business education lecturers. Four research questions were raised and four null hypotheses formulated and tested at 0.05 level of significance. Twenty-eight business education lecturers represented both the population and sample for the study.

Frequency table and simple percentage were used to analyse the data and the following were the major findings of the study: there were no adequate computer technology resources in Nigerian colleges of education; business education educators lack computer competencies and skills; there was absence of enabling environment for computer integration into business education; there were also no pedagogical considerations to the business education curriculum, and there were business educators' resistance to the new technology. Based on the findings, the researcher recommended for a national policy framework for monitoring both acquisition and utilization of computer technology resources in Nigerian colleges of education.

The limitations of the study were as follows: the researcher's instrument was not subjected to pilot study to determine its reliability; the target group should have been expanded to include business education students and officials of ministry of education; the researcher also failed to indicate questionnaire rating scale for the study. However, the statistical tool used was useful to the present study.

The present study relates with the previous study because both studies were designed to deal with utilization of computer technology in teaching and learning in colleges of education. However, the two studies differ in the sense that the former was conducted on business education Lecturers'

Utilization of Computer Technology Resources in Nigeria Certificate in Education whereas; the present study focused on Business Educators' Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State, Nigeria.

## **2.7 Summary of Related Literature Reviewed**

The Theory of Reasoned Actions (TRA) and Technology Acceptance Model (TAM) served as the bases for the study. Business Education was seen as education designed to provide training for specific jobs and to develop ability and skills which are required in a contemporary industrial and business environment. Objective of business education was also reviewed as the preparation of individual for acquisition of appropriate skills, abilities and competencies, both mental and physical as equipment for the individual to level in and contribute to the development of his or her society. Philosophy of Business Education aimed at developing the business students into a sound and effective citizen through the provision of saleable skills for self- reliance and national development.

The review dealt with teaching and learning as well as its philosophy where learning was construed as the result of constructed meaning and life-long experience. It also highlighted the impact of computer technology as transforming the classroom teaching and learning. Challenge of computer application on business education was seen as lack of computer literacy and skills among teachers, thereby affecting utilization of computer applications in teaching. Previous available record reviewed showed that business educators lack computer technology competencies and skills required for teaching in Nigerian colleges of education. However, there were no specific records on Business Educators' Utilization of Computer Applications in Teaching in Colleges of Education, and this served as the gap filled by the present study.

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the method and procedures used in conducting the Study under the following sub-headings:

- 3.1 Research Design
- 3.2 Population for the Study
- 3.3 Sample size and sampling Procedure
- 3.4 Instruments for Data Collection
  - 3.4.1 Validity of the Instrument
  - 3.4.2 Pilot Study
  - 3.4.3 Reliability of the Instruments
- 3.5 Procedure for Data Collection
- 3.6 Procedure for Data Analysis

#### **3.1 Research Design**

Descriptive survey design was used for this study. Olayiwola (2010) stated that survey research design is used to describe a given state of affairs at a particular time. The choice of the design was influenced by the researcher's desire to study a targeted population of business educators in colleges of education in Federal Capital Territory and Niger state, Nigeria through its sample. The design was also used in order to determine business educators' utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State, Nigeria. Thus, this method allowed inferences to be drawn about business educators' utilization of computer applications in teaching in colleges of education.

### 3.2 Population for the Study

The population for the study was 307 business educators from colleges of education in Federal Capital Territory and Niger State, Nigeria. The population is as represented in Table 3.1.

**Table 3.1: Population for the Study**

S/N	Institution	Location	Male Business Educators	Female Business Educators	Total Business Educators
1	FCT College of Education	Zuba, FCT Abuja	31	52	83
2	Federal College of Education	Kontagora, Niger State	49	63	112
3	College of Education	Minna, Niger State	47	65	112
<b>Total</b>			<b>127</b>	<b>180</b>	<b>307</b>

*Source: Field survey in 2013 in Colleges of Education in Federal Capital Territory and Niger state*

### 3.3 Sample Size and Sampling Procedure

Simple random technique was used to select 307 business educators from the three colleges of education under study. This represented 60% of business educators drawn from the study institutions. The sample distribution for the study is as shown in Table 3.2.

**Table 3.2: Sample Size for the Study**

S/N	Institution	Location	Male Business Educators	Female Business Educators	Total Business Educators
1	FCT College of Education	Zuba, FCT Abuja	19	31	50
2	Federal College of Education	Kontagora, Niger State	29	38	67
3	College of Education	Minna, Niger State	28	39	67
<b>Total</b>			<b>76</b>	<b>108</b>	<b>184</b>

*Source: field survey in 2013 in Colleges of Education in Federal Capital Territory and Niger State*

In order to ensure that the sample for the study was reflective of the parent population, simple random technique was used to select 60% of business educators representing 184 respondents from the target population in the three colleges of education under study as held by Olayiwola (2010) who stated that the main purpose of this technique is to ensure that every subject is represented in the same proportion that they exist in the population. The researcher folded pieces of paper written on some, “yes” in proportion to the number of business educators sampled from each institution and on others “no” well mixed in a container. All those who picked the “yes” responses were given copies of questionnaire to answer and those who picked “no” responses were not involved in the study as sample. Thus, a sample of 184 business educators was used for the study as shown in Table 3.2.

### **3.4 Instrument for Data Collection**

The instrument for data collection for this study was a structured questionnaire. The questionnaire was divided into two sections. Section A consisted of Demographic Classification of respondents such as gender and institution. Section B consisted of 30 items raised to elicit responses from the respondents in line with the objectives of the study. A four point scale was used in rating

the responses of the respondents. Each item in the questionnaire was structured to elicit such responses as Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Ranking order of these responses were represented as: 4, 3, 2, and 1 points. From the breakdown of the questionnaire items as contained in appendix III, items 1-7 of questionnaire were meant to provide answer to research question one, while items 8-14 of the questionnaire were meant to provide answers to research question two. Research question three has items 15-21 of the questionnaire while research question four has items 22-30 of the questionnaire.

### **3.4.1 Validity of the Instrument**

In order to test the content and face validity of the instrument the draft copies of the questionnaire were submitted to two experts in the department of Vocational and Technical Education and the researcher's two supervisors who were not less than senior lecturers by rank for vetting. This was in line with the view of Udoh (2002) who stated that validation of content of a research instrument by experts is both important and acceptable. Three items were modified in line with the corrections and observations made by the experts and the supervisors.

### **3.4.2 Pilot Study**

In order to further test the suitability and the reliability of the instrument, a pilot study was carried out using the instrument on 30 business educators in Federal College of Education, Okene, Kogi State, where business education programme is being offered. The 30 business educators were randomly selected using simple random sampling and were given questionnaire to answer. F.C.E. Okene was chosen because it offers business education programme at Nigeria Certificate in Education (N.C.E.) level and did not fall under the main area of this present study. The results of the pilot study are presented in 3.4.3.

### **3.4.3 Reliability of the Instrument**

In order to determine the reliability of the instrument, test-retest method was used. Data gathered from the pilot study were analyzed using Pearson Product Moment Correlation coefficient on the Statistical Package for Social Sciences (SPSS) software. This was to determine the internal consistency of the instrument. The result yielded a reliability coefficient of 0.891. This falls within the range suggested by Olayiwola (2010) who stated that instrument for data collection are reliable when reliability coefficients are up to 0.60. This therefore means that the instrument used for the pilot study was reliable.



### **3.5 Procedure for Data Collection**

With the help of letter of introduction from the department of Vocational and Technical Education as in Appendix I, the researcher visited the three colleges of education under study and administered the approved research instrument at their respective institution. The three business educators in the study institutions who assisted the researcher to administer and retrieve the questionnaire were considered as research assistants in order to facilitate data collection. The researcher and the research assistants administered the approved questionnaire to business educators sampled for the study in each of the Colleges. A total of 184 copies of the questionnaire were administered. No College was given more copies of the questionnaire to answer than the number sampled. After been responded to, a total of 134 copies of the questionnaire representing (73%) were retrieved for analysis. Out of the number of questionnaire retrieved, 131 were found valid and hence used for the study. The whole exercise lasted for four week.

### **3.6 Procedure for Data Analysis**

Frequency counts and percentage were used to analyses demographic information of the respondents. The raw data collected were weighted and means of the data were used to answer the four research questions. The mean rating on the scale was 2.50 for research question one and four. Any response that had a mean score of 2.50 or above was considered as agreed and any response that had a mean score of less than 2.50 was considered as disagreed. Meanwhile Strongly Agree, Agree, Disagree and Strongly Disagree were considered as such for questionnaire items in research question one and four. As for research question two to three, the decision rule was that any mean less than 2 was considered as low influence, any mean ranging of 2 to 2.4 was considered as moderate influence, any mean of 2.5-3.4 was considered as great influence while any mean of 3.5 and above was considered as very great influence.

Meanwhile, independent t-test was used to test the four null hypotheses at (alpha)  $\alpha=0.05$  level of significance. The choice of the t-test was in line with Ojobo (2008) who suggested that for a test of difference between two means of independent variables, the t-test was the appropriate statistic to use. The decision rule for t-test statistic is that if t-calculated value is less than t-critical value or if significance P-value is equal or less than the alpha the null hypothesis is rejected, but

otherwise, it is retained. All null hypotheses were tested at (alpha)  $\alpha=0.05$  level of significance. At this level null hypothesis was either rejected or retained.

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF DATA

This Chapter presents the results of data gathered from the sampled respondents in the three colleges of education under the study and the analysis was undertaken under the following sections:

- (a.) Characteristics of Respondent
- (b.) Answer the Research Questions
- (c.) Hypothesis Testing
- (d.) Discussion of Findings

#### 4.1 Characteristics of Respondent

This section presents the demographic data of respondents according to gender and institution.

##### 4.1.1 Analysis of Respondents by Gender

In order to ensure that business educators participated in the study irrespective of their gender, male and female respondents were sampled for the study as presented in Table 4.1

**Table 4.1: Analysis of Respondents by Gender**

Gender	Frequency	Percentage
<b>Male Business Educators</b>	71	54.2
<b>Female Business Educators</b>	60	45.8
<b>Total</b>	<b>131</b>	<b>100.0</b>

*Source: field survey 2013*

According to Table 4.1, 71 of the respondents representing 54.2% are male business educators while, 60 of the respondents representing 45.8% are female business educators. This implied that there was a fair representation of gender hence the responses analyzed was that of male and female business educators for the study.

#### 4.1.2 Analysis of Respondents by Institution

In order to ensure fair representation, business educators were sampled from the study institutions. This is as presented in Table 4.2.

**Table 4.2 Analysis of Respondents by Institution**

Business Educators' Institution	Frequency	Percentage
<b>FCT College of Education, Zuba, Abuja</b>	38	29
<b>Federal College of Education, Kontagora, Niger State</b>	43	33
<b>College of Education, Minna, Niger State</b>	50	38
<b>TOTAL</b>	<b>131</b>	<b>100</b>

*Source: field survey 2013*

Table 4.2 reveals that 38 (29%) of the respondents are from FCT College of Education, Zuba; 43 (33%) are from Federal College of Education, Kontagora and 50 (38%) respondents are from College of Education, Minna. This showed a fair representation of respondents from the three colleges of education in Federal Capital Territory and Niger State, Nigeria that run business education programme. Thus, the responses analyzed in this study were of business educators in the Federal Capital Territory and Niger State Colleges of Education.

#### 4.2 Answer Research Questions

The main objective of this was to determine business educators' utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State, Nigeria. Consequently, four specific objectives and research questions were raised while, four null hypotheses were formulated and tested at (alpha)  $\alpha=0.05$  level of significant using the t-test statistic. Fourty questionnaire items were raised and administered to respondents in order to generate data for the study. The data so generated were used to answer the research questions and test the four null hypotheses as presented in the subsequent paragraphs.

#### 4.2.1 Research Question One:

*What are the available computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?*

Items 1-7 from the questionnaire were used to answer this research question. Response scores of Strongly Agree(SA), Agree (A),Disagree (D) and Strongly Disagree (SD); Mean and Standard deviations of the responses generated from the ten questionnaire items are as presented in Table 4.3 while, the summary of the raw data are in appendix IV.

**Table 4.3: Mean responses of business educators on the availability of computer applications in teaching business education in colleges of education.**

S/N	COMPUTER APPLICATIONS	RESPONDENT	RESPONSE SCORE				MEAN	STANDARD DEVIATION
			SA	A	D	SD		
1.	Corel draw	Business Educators	79	47	2	3	3.6150	.6955
2.	Database	Business Educators	105	18	8	0	3.6965	.7454
3.	Spreadsheet	Business Educators	94	27	6	4	3.4555	.7324
4.	Power point	Business Educators	93	34	2	2	3.6684	.5495
5.	Micro soft word	Business Educators	124	2	2	3	3.9124	.3838
6.	Internet	Business Educators	82	38	6	4	3.5717	.7040
7.	Electronic Mail (E-mail)	Business Educators	97	16	9	9	3.5927	.7398
<b>Business Educators' Aggregate Mean Score</b>			<b>3.64</b>			<b>Agreed</b>		

Source: field survey 2013

Results from Table 4.3 indicated that business educators who strongly agreed that corel draw are available for teaching business education was 79, agreed had 47 scores while 2 disagreed and 3 strongly disagreed, thus business educators' mean response was 3.6150. Scores of business

educators who strongly agreed that database are available for teaching business education was 105, 18 agreed while 8 disagreed. However, there was no response on strongly disagreed, thus business educators' mean response was 3.6965.

On the availability of computer applications used in teaching business education, 94 business educators strongly agreed that spreadsheet are available for teaching business education, 27 agreed whereas 6 disagreed and 4 strongly disagreed, thus business educators' mean response was 3.4555. Scores of business educators who strongly agreed that power point are available for teaching business education was 93, agreed had 34 scores while 2 disagreed and strongly disagreed stood at 2, thus business educators' mean response was 3.6684.

Business educators who strongly agreed that micro soft word are available for teaching business education was 124, agreed stood at 2 while 2 disagreed and 3 strongly disagreed, thus business educators' mean response was 3.9124. On internet availability for teaching business education, 82 business educators strongly agreed that internet are available for teaching business education, 38 agreed whereas 6 disagreed and 4 strongly disagreed, thus business educators' mean response was 3.5717. Scores of business educators who strongly agreed that electronic mail are available for teaching business education was 97, agreed had 16 scores while disagreed was 9 and strongly disagreed stood at 9, thus business educators' mean response was 3.5927.

The overall results from Table 4.3 indicated that business educators' aggregate mean score was 3.64 and also revealed that business educators agreed on the availability of computer applications (such as micro soft word) in teaching business education because this has the highest mean response of 3.9124. This therefore answered the research question that what are the available computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?

#### **4.2.2 Research Questions Two:**

*To what extent do business educators utilise computer applications in teaching business education in Colleges of Education in Federal Capital Territory and Niger State?*

Items 8-14 from the questionnaire were used to answer this research question. Response scores of Very Great Extent (VGE), Great Extent (GE), Moderate Extent (ME) and Low Extent

(LE); Mean and Standard Deviation of the responses generated from the questionnaire item are as presented in Table 4.4 while, the summary of the raw data are in Appendix IV.

**Table 4.4 Mean Responses of business educators on the extent of their utilization of computer applications in teaching business education.**

S/N	ITEMS	RESPONDENTS	RESPONSE SCORES				MEAN	STANDARD DEVIATION
			VGE	GE	ME	LE		
8.	Corel draw	Business Educators	113	2	9	7	3.6548	.8489
9.	Database	Business Educators	108	6	12	5	3.7426	.6855
10.	Micro soft word	Business Educators	120	5	3	3	3.8861	.8124
11.	Power point	Business Educators	111	6	5	9	3.6702	.8171
12.	Spreadsheet	Business Educators	108	5	8	10	3.6108	.8685
13.	Internet	Business Educators	47	65	8	11	3.1671	.8052
14.	Electronic Mail (E-mail)	Business Educators	89	29	4	9	3.5855	.7606
<b>Business Educators' Aggregate Mean Score</b>							<b>3.62</b>	<b>Agreed</b>

*Source: field survey 2013*

Results from table 4.4 indicated that 113 business educators utilize corel draw application in teaching business education to very great extent, 2 great extent while moderate extent had 9 and low extent was 7, thus business educators' mean response was 3.6548. Scores of business educators who utilize database in teaching business education to very great extent was 108, great extent had 6 scores while 12 utilise database in teaching business education to moderate extent and 5 low extent, thus business educators' mean response was 3.7426. On the extent of business educators' utilization of computer applications in teaching, 120 business educators utilise micro soft word in teaching business education to very great extent, great extent had 5 scores whereas moderate extent stood at 3 and low extent was 3, thus business educators' mean response was 3.8861.

Business educators who utilize power point in teaching business education to very great extent was 111, great extent had 6 scores while 5 business educators utilize power point in teaching business education to moderate extent and low extent was 9, thus business educators' mean

response was 3.6702. Business educators who utilise spreadsheet in teaching business education to very great extent was 108, great extent had 5 scores whereas moderate extent stood at 8 and low extent was 10, thus business educators' mean response was 3.6108.

Internet was utilised by 47 business educators in teaching business education to very great extent, great extent was 65 while moderate extent had 8 scores and low extent was 11, thus business educators' mean response was 3.1671. Business educators who utilise electronic mail in teaching business education to very great extent was 89, great extent had 29 scores while moderate extent was 4 and low extent stood at 9, thus business educators' mean response was 3.5855.

The overall results from Table 4.4 revealed that business educators' aggregate mean score was 3.62 and also indicated that business educators utilise computer applications (such as micro soft word) in teaching business education to very great extent because this has the highest mean response of 3.8861. This therefore answered the research question that to what extent do business educators utilise computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?

#### 4.2.3 Research Question Three:

*What is the influence of gender on business educators' utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?*

Items 15-21 from the questionnaire were used to answer this research question. Response scores of Very Great Extent (VGE) Great Extent (GE), Moderate Extent (ME) and Low Extent (LE); Mean and Standard Deviation of the responses generated from the questionnaire item are as presented in Table 4.5 while, the summary of the raw data are in Appendix IV.

**Table 4.5 Mean responses of business educators on gender influence on utilization of computer applications in teaching business education**

S/N	COMPUTER APPLICATIONS	GENDER	RESPONSE SCORES				MEAN	STANDARD DEVIATION
			VGE	GE	ME	LE		
15	Corel draw	Male	65	1	3	2	3.8169	.6394
		Female	48	1	6	5	3.5338	.9873
16	Database	Male	62	5	4	0	3.8168	.5157
		Female	47	1	7	5	3.4833	.10166



17	Micro soft word	Male	68	1	2	0	3.9014	.5114
		Female	49	4	4	3	3.6500	.8197
18	Power point	Male	65	3	2	1	3.8592	.5753
		Female	46	3	3	8	3.4500	1.0800
19	Spreadsheet	Male	66	1	1	3	3.8310	.6543
		Female	45	4	6	5	3.4823	.9827
20	Internet	Male	21	47	0	3	3.2113	.6528
		Female	26	18	8	8	3.0333	1.0571
21	Electronic mail (E-mail)	Male	58	9	1	3	3.7183	.7006
		Female	31	20	3	6	3.2667	.9543
<b>Business Educators' Aggregate Mean Score</b>							<b>3.58 Agreed</b>	

*Source: field survey 2013*

Results from Table 4.5 which dwells on gender influence on business educators' utilization of computer applications in teaching business education, 65 male business educators are of opinion that gender influences their utilization of corel draw in teaching business education to very great extent, great extent had 1 score, moderate extent was 3 and low extent stood at 2, thus male business educators' mean response was 3.8169 while 48 female business educators are of opinion that gender influences their utilization corel draw in teaching business education to very great extent, great extent was 1, moderate extent had 6 and low extent was 5, thus female business educators' mean response was 3.5338. 62 male business educators agreed that gender influences their utilization of database in teaching business education to very great extent, great extent had 5 scores, moderate extent stood at 4. However, there was no response on low extent by male business educators as it has zero score, thus male business educators' mean response was 3.8168 while 47 female business educators are of opinion that gender influences their utilization of database in teaching business education to very great extent, great extent was 1 whereas moderate extent had 7 scores and 5 low extent, thus female business educators' mean response was 3.4833.

Male business educators who agreed that gender influences their utilization of micro soft word in teaching business education to very great extent was 68, great extent had 1 score, moderate extent was 2. However, there was no response on low extent by male business educators as it has zero score, thus male business educators' mean response was 3.9014 while 49 female business educators are of opinion that gender influences their utilization of micro soft word in teaching business education to very great extent, great extent was 4, moderate extent had 4 scores and 3 low

extent, thus female business educators' mean response was 3.6500. Male business educators who also agreed that gender influences their utilization of power point in teaching business education to very great extent was 65, great extent had 3 scores while moderate extent was 2 and low extent stood at 1, thus male business educators' mean response was 3.8592 whereas 46 female business educators are of opinion that gender influences their utilization of power point in teaching business education to very great extent, great extent had 3 scores, moderate extent was 3 and low extent had 8 scores, thus female business educators' mean response was 3.4500.

Male business educators who agreed that gender influences their utilization of spreadsheet in teaching business education to very great extent was 66, great extent had 1 score, moderate extent was 1 and low extent stood at 3, thus male business educators' mean response was 3.8310 while 45 female business educators are of opinion that gender influences their utilization of spreadsheet in teaching business education to very great extent, great extent was 4, moderate extent had 6 scores and low extent was 5, thus female business educators' mean response was 3.4823. Also, 21 male business educators are of opinion that gender influences their utilization of internet in teaching business education to very great extent, great extent had 47 scores. However, there was no response on moderate extent as it has zero score while low extent stood at 3, thus male business educators' mean response was 3.2113 whereas 26 female business educators agreed that gender influence their utilization of internet in teaching business education to very great extent, great extent had 18 scores, moderate extent was 8 and low extent stood at 8, thus female business educators' mean response was 3.0333.

Similarly, 58 male business educators are of opinion that gender influences their utilization of electronic mail in teaching business education to very great extent, great extent had 9 scores, moderate extent was 1 and low extent had 3 scores, thus male business educators' mean response was 3.7183 while 31 female business educators are of opinion that gender influences their utilization of electronic mail in teaching business education to very great extent, great extent had 20 scores, moderate extent was 3 and low extent had 6 scores, thus female business educators' mean response was 3.2667.

The overall results from Table 4.5 indicated that business educators' aggregate mean score was 3.58 and also revealed that gender influences male and female business educators on utilization of computer applications (such as micro soft word) in teaching business education because this has the highest male and female mean responses which were 3.9014 and 3.6500

respectively. This therefore answered the research question that what is the influence of gender on business educators' utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?

#### 4.2.4 Research Question Four:

*What are the challenges business educators face on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?*

Items 22-30 from the questionnaire were used to answer this question. Response scores of Strongly agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD); Mean and Standard Deviation of the responses generated from the questionnaire item are as presented in Table 4.6 while, the summary of the raw data are in Appendix IV.

**Table 4.6 Mean responses of business educators on challenges of utilization of computer applications in teaching business education**

S/N	ITEMS	RESPONDENTS	RESPONSE SCORE				MEAN	STANDARD DEVIATION
			SA	A	D	SD		
22	Inadequate Relevant Software Applications	Business Education	89	28	9	5	3.5893	.6868
23	Lack of Access to Computers	Business Education	193	20	3	36	3.2171	.2203
24	Lack of Maintenance Culture	Business Education	97	16	12	6	3.4825	.2796
25	High Cost of Equipment	Business Education	109	5	10	7	3.4896	.9040
26	Lack of Computer Literacy and Skills	Business Education	121	5	2	3	3.8888	.4216
27	Inadequate Support Services	Business Education	117	4	5	5	3.7956	.6499

<b>28</b>	Unsteady Supply	Power	Business Education	115	3	5	8	3.7621	.6908
<b>29</b>	Resistance Change	to	Business Education	115	2	3	11	3.6635	.8238
<b>30</b>	Inadequate Infrastructure		Business Education	29	94	4	4	3.2531	.6150
Business Educators' Mean Score								3.57	Agreed

### *Field Survey 2013*

Results from Table 4.6 indicated that business educators who strongly agreed that inadequate relevant software applications are challenges of utilization of computer applications in teaching business education was 89, agreed had 28 scores, 9 disagreed and 5 strongly disagreed, thus business educators' mean response was 3.5893. Business educators who strongly agreed that lack of access to computers are challenges of utilization of computer applications in teaching business education was 193, agreed stood at 20, disagreed had 3 and strongly disagreed was 36, thus business educators' mean response was 3.2171. Also, business educators who strongly agreed that lack of maintenance culture constitute challenge of utilization of computer applications in teaching business education was 97, agreed had 16 scores, 12 disagreed and 6 strongly disagreed, thus business educators' mean response was 3.4825.

High cost of equipment was strongly agreed by 109 business educators as challenge of utilization of computer applications in teaching business education, 5 agreed, disagreed had 10 scores and strongly disagreed was 7, thus business educators' mean response was 3.4896. Business educators who strongly agreed that lack of computer literacy and skills constituted challenges of utilization of computer applications in teaching business education was 121, agreed had 5 scores, 2 disagreed and 3 strongly disagreed, thus business educators' mean response was 3.8888. Inadequate support services was strongly agreed by 117 business educators as challenge of utilization of computer applications in teaching business education, 4 agreed, disagreed was 5 and strongly disagreed had 5 scores, thus business educators' mean response was 3.7956.

Similarly, 115 business educators strongly agreed that unsteady power supply is a challenge of utilization of computer applications in teaching business education, agreed had 3 scores, 5

disagreed and strongly disagreed was 8, thus business educators' mean response was 3.7621. Business educators who strongly agreed that resistance to change constitute challenge of utilization of computer applications in teaching business education was 115, agreed had 2 scores, disagreed was 3 and strongly disagreed stood at 11, thus business educators' mean response was 3.6635. On the challenges of utilization of computer applications in teaching business education, business educators who strongly agreed that inadequate infrastructure constitute challenge of utilization of computer applications in teaching business education was 29, agreed had 94 scores, disagreed was 4 and strongly disagreed stood at 4, thus business educators' mean response was 3.2531.

The overall results from Table 4.6 indicated that business educators' aggregate mean score was 3.57 and also revealed that business educators face challenges (such as lack of computer literacy and skills) on utilization of computer applications in teaching business education because this has the highest business educators' mean response of 3.8888. This therefore answered the research question that what are the challenges business educators face on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State?

### **4.3 Test of Null Hypotheses**

The four null hypotheses were subjected to statistical testing. Independent t-test was used to test research hypotheses one to four. The details of each test are as presented in the subsequent paragraphs.

#### **4.3.1 Null Hypothesis One:**

*There is no significant difference between the mean responses of business educators on the availability of computer applications used in teaching business education in colleges of education in Federal Capital Territory and Niger State.*

To test this null hypothesis, independent t-test was used to test for level of significance between mean responses of business educators on the availability of computer applications in teaching business education in colleges of education. Results of the test are presented on Table 4.7.

**Table 4.7 Independent t-test for mean difference between business educators' response on the availability of computer applications in teaching business education.**

	Respondent	N	Mean	SD	S.E	DF	t-cal	t-crit	P
<b>Business educators' response on availability of computer applications in teaching business education</b>	Business Educators	131	35.8803	6.3051	.8450	129	0.209	1.96	0.835

N= number, SD=Standard Deviation, S.E= Standard Error, DF=Degree of freedom, t-cal=t-calculated, t-crit=critical P= probability. *Source: field survey 2013*

Table 4.7 shows that the number of business educators (N) was 131. Business educators' mean was 35.8803. The Standard Deviation (SD) was 6.3051 whereas Standard Error (S.E) was .8450 and the Degree of Freedom (DF) is 129. The independent t-test statistic also reveals t-calculated value of 0.209 while, t-critical value was 1.96 and the P-value of 0.835. From the table, it showed that t-calculated of 0.209 is less than t-critical of 1.96. The P-value of 0.835 was greater than the 0.05 level of significance. This means that there is no significant mean difference between business educators on the availability of computer applications in teaching business education. Consequently, the null hypothesis which states that there is no significant difference between the mean responses of business educators on the availability of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State is hereby retained.

#### **4.3.2 Null Hypothesis Two**

*There is no significant difference between the mean responses of business educators on the extent of utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State.*

Independent t-test was used to test for level of significance between mean responses of business educators on utilization of computer applications in teaching business education in colleges of education. Results of the test are as presented on Table 4.8.

**Table 4.8 Independent t-test for mean difference between business educators on utilization of computer applications in teaching business education.**

	Respondent	N	Mean	SD	S.E	DF	t-cal	t-crit	P
Business educators' extent of utilization of computer applications in teaching business education	Business Educators	131	35.4930	7.2818	.9441	129	1.092	1.96	0.277

*Source: Field Survey 2013*

Table 4.8 shows that the number of business educators (N) was 131 and business educators' mean was 35.4930. The Standard Deviation (SD) was 7.2818 while Standard Error (SE) is .9441. The Degree of Freedom (DF) was 129. The independent t-test statistic also revealed t-calculated value of 1.092 while, t-critical value was 1.96. The P- value of 0.277 is greater than the 0.05 level of significance. This means there is no significant mean difference between business educators' extent of utilization of computer applications in teaching business education. Consequently, the null hypothesis which states that there is no significant difference between the mean responses of business educators on the extent of their utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State is hereby retained.

#### **4.3.3 Null Hypothesis Three:**

*There is no significant difference between the mean responses of male and female business educators on the influence of gender on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State.*

Independent t-test was used to test for level of significance between mean responses of male and female business educators on gender influence on utilization of computer applications in teaching business education in colleges of education. Results of the test are as presented on Table 4.9.

**Table 4.10 Independent t-test on gender influence on business education students and lecturers’ perception on utilization of information technology in teaching and learning business education.**

	Gender	N	Mean	SD	S.E	DF	t-cal	t-crit	P
<b>Gender influence on business educators on utilization of computer applications in teaching business education</b>	Male	71	36.5211	5.5519	.6589				
	Female	60	33.8500	9.7890	1.2637	129	1.95	1.96	0.05

*Source: field survey 2013*

From Table 4:9, the number of male business educators (N) was 71 while that of female business educators was 60. Male business educators’ mean was 36.5211 and that of female business educators was 33.8500. The Standard Deviation (S.D) is 5.5519 for male business educators while that of female business educators was 9.7890. Standard Error (S.E) was .6589 for male business educators and that of female business educators was 1.2637. The Degree of Freedom (DF) is 129. The independent t-test statistic also reveals t-calculated value of 1.95 while, t-critical value was 1.96 and the P-value of 0.05. Results from the table showed that-calculated value of 1.95 is less than t-critical value of 1.96. The P-value of 0.05 was equal to 0.05 level of significance. This means that there is significant mean difference between male and female business educators’ responses on gender influence on utilization of computer applications in teaching business education. Consequently, the null hypothesis which states that there is no significant difference



between the mean responses of male and female business educators on the influence of gender on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State is hereby rejected.

**4.3.4 Null Hypothesis Four:**

*There is no significant difference between the mean responses of business educators on challenges face on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State.*

Independent t-test was used to test for level of significant difference between mean responses of business educators on challenges face on utilization of computer applications in teaching business education. Results of the test are as presented on Table 4.10.

**Table 4.11 Independent t-test on challenges business educators face on utilization of computer applications in teaching business education.**

	Respondent	N	Mean	SD	S.E	DF	t-cal	t-crit	P
<b>Challenges face on utilization of computer applications in teaching business education</b>	Business Educators	131	35.9472	6.5328	1.7254	129	1.125	1.96	0.263

*Source: Field Survey 2013*

From Table 4.10, the number of business educators (N) was 131. Mean responses of business educators was 35.9472. The Standard Deviation (S.D) was 6.5328. Standard Error (S.E) was 1.7254. The Degree of Freedom (DF) is 129. The independent t-test statistic also revealed t-calculated value of 1.125 while t-critical value was 1.96 and P-value of 0.263. From the table, it showed that t-calculated of 1.125 was less than t-critical of 1.96. The p-value of 0.263 was greater

than the 0.05 level of significance. This means that there is no significant difference between the mean responses of business educators on challenges face on utilization of computer applications in teaching business education. Consequently, the null hypothesis which states that there is no significant difference between mean responses of business educators on challenges face on utilization of computer applications in teaching business education in colleges of education in Federal Capital Territory and Niger State is hereby retained.

#### **4.4 Summary of Major Findings**

The major findings of the study are:

1. Business educators agreed on the availability of computer applications (such as micro soft word) in teaching business education.
2. Business educators utilise computer applications (such as micro soft word)in teaching business education to very great extent.
3. Gender influences business educators on utilization of computer applications (such as micro soft word) in teaching business education to very great extent.
4. Business educators agreed on challenges (such as lack of computer literacy and skills) face on utilization of computer applications in teaching business education.

#### **4.5 Discussion of Findings**

The findings of this study found that business educators agreed on the availability of computer applications (such as micro soft word) in teaching business education. This statement has the highest business educators' mean response of 3.9124. The result is in agreement with Jegede (2007) who asserted that business educators have identify the availability of computer applications such as micro soft word, power point, world wide web and micro soft excel. According to him, these applications are available and user-friendliness. Therefore, it implied that availability of computer applications is critical to accessibility and successfulness of utilization of computer technology in teaching business education. This is in evident in the result of t-test statistic which showed no significant difference existing between the mean responses of business educators on the

availability of computer applications in teaching business education. This indicated that business educators are aware of the availability of computer applications in teaching business education.

On the extent to which business educators utilize computer applications in teaching business education, result indicated that business educators utilize computer applications (such as micro soft word) in teaching business education to very great extent. Business educators' mean response was 3.8861, and this is a pointer that demonstrated the extent of business educators' utilization of computer applications(such as micro soft word) in teaching. It was found that the application frequently used by business educators was micro soft word. This finding is consistent with what Becker (2008) observed that micro soft word, power point, corel draw and world wide web browsing application soft wares were the most commonly used applications by teachers regardless of the subject they taught.

The result of the study also revealed that gender difference has very great influence on business educators' utilization of computer applications in teaching business education. Male business educators' mean response was 3.9014 while female business educators' mean response was 3.6500. This implied that male and female business educators share the same opinion on utilization of computer applications in teaching. This finding is in line with the findings of Myers and Moody (2008) whose study showed that male and female business educators were found to have similar views on utilization of computer applications and are cognizant of the integration of technical and social components of computer technology into classroom situation.

On challenges of computer applications in teaching, the study revealed that business educators face many challenges on utilization of computer applications in teaching business education which are centered on inadequate relevant application software, lack of access to computers, lack of computer literacy and skills, resistance to change, among others. Business educators' mean response on this statement was 3.8888. However, the result of the study revealed that computer applications were slowly utilized in teaching business education. This result is in agreement with Howie & Paterson (2008) who said that lack of computer literacy and skills among teachers, lack of access to computers resistance to change account for low utilization of computer applications in teaching. This is an indication that business educators are face with numerous computer application problems which slow the extent of its utilization in teaching business education. This finding supports the findings of Yunusa (2009) who demonstrated that teachers are

faced with many computer technology challenges which hinders utilization in classroom instruction.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendations based on the findings of the study.

#### 5.1 Summary

The main objective of this study was to determine business educators' utilization of computer applications in teaching. To achieve this, four specific objectives, four research questions and four null hypotheses were stated and tested at 0.05 level of significance. Highlights of the major findings showed that:

1. Business educators agreed on the availability of computer applications (such as micro soft word) in teaching business education.
2. Business educators utilize computer applications(such as micro soft word) in teaching business education to very great extent.
3. Gender influences business educators' utilization of computer applications (such as micro soft word) in teaching business education to very great extent.
4. Business educators face challenges of utilization of computer applications (such as lack of computer literacy and skills) in teaching business education.

The t-test statistic revealed that no significant difference exist between the mean responses of business educators on the availability of computer applications (such as micro soft word) in teaching business education. The result of t–test showed that there is no significant difference between the mean responses of business educators on the extent of their utilization of computer applications (such as micro soft word) in teaching business education. However, t–test showed no significant difference exist between the mean responses of male and female business educators on the extent to which gender influences their utilization of computer applications (such as micro soft word) in teaching business education. The t-test statistic showed that there is significant difference between the mean responses of business educators on challenges (such as lack of computer literacy and skills) face on utilization of computer applications in teaching business education.

## **5.2 Conclusion**

Based on the findings of this study, the following inferences are drawn:

1. Computer applications like micro soft word, micro soft excel, power point, corel draw, spreadsheet, database, electronic mail and the world wide web (internet) browsing are available in teaching business education.
2. It is also concluded that business educators in colleges of education are not adequately utilizing computer applications like micro soft word, micro soft excel, power point, corel draw, spreadsheet, database, electronic mail and the world wide web in teaching business education. The consequence of this is that they may not be able to impart computer knowledge, skills and competence to learners in the area of teaching.
3. It is equally concluded that male and female business educators share the same view on the extent of utilization of computer applications in teaching business education.
4. It is worthy to note that business educators identified challenges face on utilization of computer applications for which could serve as a starting point to addressing the low utilization in teaching business education.

## **5.3 Recommendations**

Based on the findings and the conclusions drawn, the following recommendations are made:

1. Management of collages of education in the Federal Capital Territory and Niger State should endeavour to construct computer technology center for the department of business education in order to encourage the promotion of appreciation of computer technology among business educators. This will promote the formation of positive disposition on utilization of computer applications in teaching of business education.
2. Government should sponsor the re-training of business educators on the utilization of computer applications in education.
3. Management of collage of education in the Federal Capital Territory and Niger state should establish guidance and counseling unit for the department of business education to therapeutically help in managing interest and gender-related issues of computer technology in teaching business education.

4. Collages of education in the Federal Capital Territory and Niger State should be properly funded by the government to enhance procurement of computer technology facilities for effective utilization of computer applications in teaching business education.

#### **5.4 Limitation of the Study**

Limitations of the study include the following:

1. The study was conducted when some colleges were writing examinations, but with the help of the research assistants in those collages the questionnaire were filled.
2. Many copies of the questionnaire administered were not returned and some haphazardly filled as a result became invalid.

#### **5.5 Suggestions for Further Studies**

Further studies can be conducted in the following area:

1. Similar study can be conducted in other tertiary institutions in the country including university in order to establish if findings would be similar.
2. Study can be conducted to Examine Correlation Between Business Educators and Students on Utilization of Computer Technology in Teaching and Learning in Nigeria Colleges of Education.
3. Tertiary Institution Lecturers' Utilization of Computer Technology and its Effects on Classroom Instructions.
4. Study can also be carried out on Exploration of Teachers' Skills and Utilization of Computer Technology in Teaching and Learning in Tertiary Institutions in the North-East Zone of Nigeria.

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Appendix I



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Your Ref: \_\_\_\_\_

20<sup>th</sup> February, 2014

Our Ref: \_\_\_\_\_  
M.Ed/Educ/4215/2009-2010

Date: \_\_\_\_\_

*Letter of Introduction*

**HAMZAT RAMAT ABDULLAHI – M.ED/EDUC/4215/2009-2010**

This is to certify that the above mentioned name is a Postgraduate student (M.Ed Business Education) in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria carrying out a research topic: ***Business Educators' Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State, Nigeria.***

Please, kindly give him every assistance he may require.

**Professor A.A. Udoh**  
**HEAD OF DEPARTMENT**

## Appendix II

Department of Vocational and Technical Education  
Faculty of Education  
Ahmadu Bello University, Zaria  
Nigeria.

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### **REQUEST TO ADMINISTER QUESTIONNAIRE**

I am a postgraduate student in the above named institution. I am conducting a study on the *Business Educators' Utilization of Computer Applications in Teaching in Colleges of Education in Federal Capital Territory and Niger State, Nigeria*. Your college is one of the colleges for the study.

I therefore request your permission to administer the questionnaire in your College in order to get data for the study. This is purely academic work; therefore any data collected will be used for that purpose only. Your response will be treated as confidential.

Thanks for your cooperation.

Yours faithfully

Hamzat, Ramat ABDULLAHI



### Appendix III

#### QUESTIONNAIRE FOR BUSINESS EDUCATORS

The questionnaire is designed to determine business educators’ utilization of computer applications in teaching in colleges of education in Federal Capital Territory and Niger State, Nigeria. You are please required to tick and fill the questionnaire below.

#### SECTION A: DEMOGRAPHIC DATA

1. Gender.....Male [ ] Female [ ]
2. Institution.....

#### SECTION B: ANSWERING RESEARCH QUESTIONS

**Read each statement carefully and tick the column on the right hand side that appropriately indicates the extent to which you agree or disagree with the following statement on the availability of computer applications in teaching business education.**

**Key:**

**SA= Strongly Agree**

**A= Agree**

**D= Disagree**

**SD= Strongly Disagree.**

S/N	COMPUTER APPLICATIONS	RESPONDENTS	RESPONSE SCORE			
			SA	A	D	SD
1.	Corel draw	Business Educator				
2.	Database	Business Educator				
3.	Spreadsheet	Business Educator				
4.	Power point	Business				

		Educator				
5.	Micro soft word	Business Educator				
6.	World wide web browsing (internet)	Business Educator				
7.	Electronic mail (Email)	Business Educator				

Extent of Business Educators' Utilization of Computer Applications in Teaching Business Education

**N.B: Tick in the appropriate column the extent of your utilization of computer applications in teaching business education.**

**KEY**

**VGE= Very Great Extent**

**GE= Great Extent**

**ME= Moderate Extent**

**LE= Low Extent**

S/N	COMPUTER APPLICATIONS	RESPONDENTS	RESPONSE SCORES			
			VGE	GE	ME	LE
8.	Corel draw	Business Educators				
9.	Database	Business Educators				
10.	Spreadsheet	Business Educators				
11.	Power point	Business Educators				
12.	Micro soft	Business Educators				

	word					
13.	World wide web browsing (internet)	Business Educators				
14.	Electronic mail (Email)	Business Educators				

Influence of Gender on Business Educators' Utilization of Computer Applications in Teaching Business Education

**Rate the Influence of gender difference on your utilization of computer applications in teaching business education. Please tick only the option that best describes your perception.**

S/N	COMPUTER APPLICATIONS	GENDER	VGE	GE	ME	LE
15	Corel draw	Male Female				
16	Database	Male Female				
17	Spreadsheet	Male Female				
18	Power point	Male Female				
19	Micro soft word	Male Female				
20	World wide web browsing (internet)	Male Female				
21	Electronic mail (Email)	Male Female				

Challenges Business Educators Face on Utilization of Computer Applications in Teaching Business Education.

**N.B: Tick the column on the right hand side that appropriately indicates the extent to which you agree or disagree with the following statement on challenges of utilization of computer applications in teaching business education.**

**KEY:**

**SA=Strongly Agree**

**A= Agree**

**D= Disagree**

**SD=Strongly Disagree**

<b>S/N</b>	<b>ITEMS</b>	<b>RESPONDENTS</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
22	Inadequate relevant software applications	Business Educators				
23	Lack of access to computers	Business Educators				
24	Lack of maintenance culture	Business Educators				
25	High cost of equipment	Business Educators				
26	Lack of computer literacy and skills	Business Educators				
27	Inadequate support services	Business Educators				
28	Unsteady power supply	Business Educators				
29	Resistance to change	Business Educators				
30	Inadequate infrastructure	Business Educators				

**APPENDIX IV**

DETAILS OF ALL STATISTICAL ANALYSIS

**Research Question One: Business Educators**

**Frequencies**

	Corel draw	Data base	Spread sheet	Power point	Microsoft word	Internet	Electronic mail (e-mail)
N Valid	131	131	131	131	131	131	131
Missing	0	0	0	0	0	0	0
Mean	3.7778	3.7778	3.1111	3.6944	3.9722	3.7222	3.7222
Std. Deviation	.42164	.63746	1.06309	.46718	.16667	.61464	.45426

**Frequency Table**

Corel Draw

	Frequency	Percent	Valid Percent	Cumulative Percent
A	8	22.2	22.2	22.2
Valid SA	28	77.8	77.8	100.0
Total	36	100.0	100.0	

**Data Base**

	Frequency	Percent	Valid Percent	Cumulative Percent
D	4	11.1	11.1	11.1
Valid SA	32	88.9	88.9	100.0
Total	36	100.0	100.0	

### Spread Sheet

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	4	11.1	11.1	11.1
D	6	16.7	16.7	27.8
Valid A	8	22.2	22.2	50.0
SA	18	50.0	50.0	100.0
Total	36	100.0	100.0	

### Power Point

	Frequency	Percent	Valid Percent	Cumulative Percent
A	11	30.6	30.6	30.6
Valid SA	25	69.4	69.4	100.0
Total	36	100.0	100.0	

### Microsoft Word

	Frequency	Percent	Valid Percent	Cumulative Percent
A	1	2.8	2.8	2.8
Valid SA	35	97.2	97.2	100.0
Total	36	100.0	100.0	

**Internet**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	1	2.8	2.8	2.8
A	7	19.4	19.4	22.2
SA	28	77.8	77.8	100.0
Total	36	100.0	100.0	

**Electronic Mail**

	Frequency	Percent	Valid Percent	Cumulative Percent
A	10	27.8	27.8	27.8
SA	26	72.2	72.2	100.0
Total	36	100.0	100.0	

**Research Question Two: Business Educators**

**Frequencies**

	Corel draw	Data base	Spread sheet	Power point	Microsoft word	Internet	Electronic mail (e-mail)
Valid	131	131	131	131	131	131	131
Missing	0	0	0	0	0	0	0
Mean	3.5833	3.8889	3.9722	3.6667	3.6111	3.2500	3.7500
Std. Deviation	.90633	.52251	.16667	.75593	.93435	.69179	.60356



**Corel Draw**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	2	5.6	5.6	5.6
D	4	11.1	11.1	16.7
Valid A	1	2.8	2.8	19.4
SA	29	80.6	80.6	100.0
Total	36	100.0	100.0	

**Data Base**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	1	2.8	2.8	2.8
Valid A	1	2.8	2.8	5.6
SA	34	94.4	94.4	100.0
Total	36	100.0	100.0	

**Microsoft Word**

	Frequency	Percent	Valid Percent	Cumulative Percent
A	1	2.8	2.8	2.8
Valid SA	35	97.2	97.2	100.0
Total	36	100.0	100.0	

**Power Point**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	1	2.8	2.8	2.8
D	3	8.3	8.3	11.1
Valid A	3	8.3	8.3	19.4
SA	29	80.6	80.6	100.0
Total	36	100.0	100.0	

**Spread Sheet**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	3	8.3	8.3	8.3
D	2	5.6	5.6	13.9
Valid A	1	2.8	2.8	16.7
SA	30	83.3	83.3	100.0
Total	36	100.0	100.0	

**Internet**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	1	2.8	2.8	2.8
D	2	5.6	5.6	8.3
Valid A	20	55.6	55.6	63.9
SA	13	36.1	36.1	100.0
Total	36	100.0	100.0	

### Electronic Mail

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	1	2.8	2.8	2.8
A	6	16.7	16.7	19.4
SA	29	80.6	80.6	100.0
Total	36	100.0	100.0	

### Research Question Three: Male Business Educators

#### Frequencies

	Corel draw	Data base	Spread sheet	Power point	Microsoft word	Internet	Electronic mail (e-mail)
N Valid	71	71	71	71	71	71	71
Missing	0	0	0	0	0	0	0
Mean	3.8169	3.8169	3.9296	3.8592	3.8310	3.2113	3.7183
Std. Deviation	.63942	.51575	.35148	.51536	.65435	.65281	.70068

#### Corel Draw

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	2	2.8	2.8	2.8
D	3	4.2	4.2	7.0
A	1	1.4	1.4	8.5
SA	65	91.5	91.5	100.0
A Total	71	100.0	100.0	

**Data Base.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	4	5.6	5.6	5.6
A	5	7.0	7.0	12.7
SA	62	87.3	87.3	100.0
Total	71	100.0	100.0	

**Microsoft Word**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid D	2	2.8	2.8	2.8
A	1	1.4	1.4	4.2
SA	68	95.8	95.8	100.0
Total	71	100.0	100.0	

**Power Point**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SD	1	1.4	1.4	1.4
D	2	2.8	2.8	4.2
A	3	4.2	4.2	8.5
SA	65	91.5	91.5	100.0
Total	71	100.0	100.0	

### Spread Sheet

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	3	4.2	4.2	4.2
D	1	1.4	1.4	5.6
Valid A	1	1.4	1.4	7.0
SA	66	93.0	93.0	100.0
Total	71	100.0	100.0	

### Internet

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	3	4.2	4.2	4.2
Valid A	47	66.2	66.2	70.4
SA	21	29.6	29.6	100.0
Total	71	100.0	100.0	

### Electronic Mail

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	3	4.2	4.2	4.2
D	1	1.4	1.4	5.6
Valid A	9	12.7	12.7	18.3
SA	58	81.7	81.7	100.0
Total	71	100.0	100.0	

### Research Question Three: Female Business Educators

#### Frequencies

	Corel draw	Data base	Spread sheet	Power point	Microsoft word	Internet	Electronic mail (e-mail)
N Valid	60	60	60	60	60	60	60
Missing	0	0	0	0	0	0	0
Mean	3.5333	3.5000	3.6500	3.4500	3.4833	3.0333	3.2667
Std. Deviation	.98233	1.00000	.81978	1.08025	.98276	1.05713	.95432

#### Corel Draw

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	5	8.3	8.3	8.3
D	6	10.0	10.0	18.3
A	1	1.7	1.7	20.0
SA	48	80.0	80.0	100.0
Total	60	100.0	100.0	

#### Data Base

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid SA	5	8.3	8.3	8.3
D	7	11.7	11.7	20.0
A	1	1.7	1.7	21.7
SA	47	78.3	78.3	100.0
Total	60	100.0	100.0	

**Microsoft word**

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	3	5.0	5.0	5.0
D	4	6.7	6.7	11.7
Valid A	4	6.7	6.7	18.3
SA	49	81.7	81.7	100.0
Total	60	100.0	100.0	

**Power Point**

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	8	13.3	13.3	13.3
D	3	5.0	5.0	18.3
Valid A	3	5.0	5.0	23.3
SA	46	76.7	76.7	100.0
Total	60	100.0	100.0	

**Spread Sheet**

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	5	8.3	8.3	8.3
D	6	10.0	10.0	18.3
Valid A	4	6.7	6.7	25.0
SA	45	75.0	75.0	100.0
Total	60	100.0	100.0	

### Internet

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	8	13.3	13.3	13.3
D	8	13.3	13.3	26.7
Valid A	18	30.0	30.0	56.7
SA	26	43.3	43.3	100.0
Total	60	100.0	100.0	

### Electronic Mail

	Frequency	Percent	Valid Percent	Cumulative Percent
SA	6	10.0	10.0	10.0
D	3	5.0	5.0	15.0
Valid A	20	33.3	33.3	48.3
SA	31	51.7	51.7	100.0
Total	60	100.0	100.0	

### Research question 4: Business educators

#### Frequencies

#### Statistics

	Inadequate Relevant software applications	Lack of access to computers	Lack of maintenance culture	High cost of equipment	Lack of computer literacy and skills	Inadequate support services	Unsteady power supply
Valid N	131	131	131	131	131	131	131
Missing	0	0	0	0	0	0	0
Mean	3.3611	3.4444	3.8333	3.8611	3.6111	3.5278	3.6944
Std. Deviation	1.01848	.96937	.56061	.48714	.87105	.84468	.52478



**Inadequate Relevant software applications**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	89	67.93	67.93	67.93
D	28	21.37	21.37	89.3
Valid A	9	6.87	6.87	96.17
SA	5	3.82	3.82	100.0
Total	131	100.0	100.0	

**Lack of access to computers**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	193	147.32	147.32	147.32
D	20	15.26	15.26	162.58
Valid A	3	2.29	2.29	164.87
SA	36	27.48	27.48	100.0
Total	131	100.0	100.0	

**Lack of maintenance culture**

	Frequency	Percent	Valid Percent	Cumulative Percent
D	97	74.04	74.04	74.04
Valid SA	34	25.95	25.95	100.0
Total	131	100.0	100.0	

**High cost of equipment**

	Frequency	Percent	Valid Percent	Cumulative Percent
D	109	83.21	83.21	83.21
Valid A	15	11.45	11.45	94.66
SA	7	5.34	5.34	100.0
Total	131	100.0	100.0	

**Lack of computer literacy and skills**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	121	92.37	92.37	92.37
D	5	3.82	3.82	96.19
Valid A	2	1.53	1.53	97.72
SA	3	2.29	2.29	100.0
Total	131	100.0	100.0	

**Inadequate support services**

	Frequency	Percent	Valid Percent	Cumulative Percent
SD	117	5.6	5.6	5.6
D	4	3.05	3.05	8.65
Valid A	5	3.05	3.05	11.7
SA	5	3.81	3.81	100.0
Total	131	100.0	100.0	

**Unsteady power supply**

	Frequency	Percent	Valid Percent	Cumulative Percent
D	115	87.79	87.79	87.79
Valid A	3	2.29	2.29	90.08
SA	13	9.92	9.92	100.0
Total	131	100.0	100.0	

**Hypothesis one: T-Test**

**Group Statistics**

	Respondent	N	Mean	Std. Deviation	Std. Error Mean
Availability of computer applications in teaching business education	Business Educators	131	35.8803	6.3051	.8450

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Availability of computer applications in teaching business education	.129	.720	.209	129	.835	.26053	1.24495	-2.20264	2.72369

**Hypothesis two**

**T-Test**

**Group Statistics**

	Respondents	N	Mean	Std. Deviation	Std. Error Mean
Business educators' utilization of computer application	Business Educators	131	34.6526	8.41322	.86318

### Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Business educators' utilization of computer application	2.643	.106	-1.092	129	.277	-1.68070	1.53908	-4.72582	1.36441

### Hypothesis three

#### T-Test

#### Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
Gender Influence on utilization of computer applications	Male Business Educators	71	36.5211	5.55199	.65890
	Female Business Educators	60	33.8500	9.78900	1.26375

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Gender influence of business educators on utilization of computer applications	Equal variances assumed	20.102	.000	1.957	129	.052	2.67113	1.36458	-.02873	5.37099
	Equal variances not assumed			1.874	89.841	.064	2.67113	1.42521	-.16037	5.50262

### Hypothesis four

#### T-Test

#### Group Statistics

	Respondent	N	Mean	Std. Deviation	Std. Error Mean
Challenges of utilization of computer applications	Business Educators	131	35.2000	7.05691	.72402

### Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Challenges of utilization of computer applications education	.023	.879	Equal variances assumed	-1.125	129	.263	-1.49444	1.32861	-4.12313	1.13424
			Equal variances not assumed	-1.209	73.658	.230	-1.49444	1.23576	-3.95694	.96805