APPRAISAL OF THE IMPLEMENTATION OF INFORMATION TECHNOLOGY IN BUSINESS EDUCATION PROGRAMME IN FOUR FEDERAL UNIVERSITIES IN NIGERIA

By

ONUAGBA, NGOZI VICTORIA
(M.ED/EDU/6100/2009-2010)

A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE (MED) IN BUSINESS EDUCATION

JUNE, 2011

DECLARATION

I hereby declare that this Thesis has been written by me, and that it is a record of my own primary research work. It has not been presented in any previous application for a higher degree. All Quotations and sources of information are duly acknowledged by means of the given references.

Onuagba, Ngozi Victoria _____ _____
Student **Signature** **Date**

CERTIFICATION

This Thesis titled Appraisal of the Implementation of Information Technology in Business Education Programme in Four Federal Universities in Nigeria meets the regulations of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

Dr. A.A. Udoh ***Chairman supervisory Committee***	_____ ***Signature***	_____ ***Date***
Dr. M.M Aliyu ***Member Supervisory Committee***	_____ ***Signature***	_____ ***Date***
Dr. M.M Aliyu ***Head of Department Voc.& Tech Edu.***	_____ ***Signature***	_____ ***Date***
Prof. A.A Joshua ***Dean, School of Postgraduate Studies***	_____ ***Signature***	_____ ***Date***

ACKNOWLEDGEMENT

I thank God Almighty for seeing me through the programme successful despite all odds. May His Glorious name be praised forever in Jesus name (Amen).

I wish to register my profound gratitude to all the numerous people who have in one way or the other contributed towards the completion of this thesis. I am grateful to my employer, the federal Ministry of Education which granted me study leave to enable me undergo this course. I am greatly indebted to my able first supervisor Dr. A.A Udoh of the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria without whose writing, guidance, supervision and constructive criticisms this work would not have come to fruition. I also wish to acknowledge the valuable contributions made by my second supervisor Dr. M.M Aliyu towards the completion of this work. I am also grateful to all the lecturers and non-academic staff in the Department of Vocational and Technical Education, Ahmadu Bello University for their assistance and kindness during my stay in the university.

Special thanks go to my darling husband Mr. Christian Chimezie Onuagba and Children Onyinye Judith Onuagba, Samuel Chukwuka Onuagba, Ifeanyi Peter Onuagba and Chidimma Emmanuella Onuagba for their patience, encouragement, prayers and moral support all of which led to the successful completion of this work. I also thank Pastor and Mrs Moses Atung of Wisdom and Faith Ministries, Malali, Kaduna, Pastor and Mrs Nwachukwu of Truth and Life Bible Church, Kano. Mr and Mrs Eddy Okolo, my loving brother Mr. Robert Aliemeke, my other siblings, my good friend Rebecca Awodi and others too numerous to mention. May the good Lord reward each of you bountifully in Jesus name (Amen).

ABSTRACT

This study was conducted to appraise the Implementation of Information Technology in Business Education Programme in Four Federal Universities in Nigeria. The sample population of the study consisted two hundred and forty (240) students and fifteen (15) teachers from the Business Education Department in the four universities. The students were selected using the simple random sampling method while the teachers' population was considered not too large and therefore the census (whole) was adopted. Questionnaire and documentary evidences were used in gathering data which were statistically analyzed and interpreted. Four null-hypotheses were formulated and tested using the t-test. All the null-hypotheses showed no significant differences in the opinions of the teachers and the students in terms of availability of I.T materials and equipments, Business Education Curriculum, funding and manpower in Business Education. The findings of the study revealed that the available I.T materials and equipment were inadequate so much so that I.T related subjects were taught theoretically. The finding also revealed that the curriculum did not make adequate provision for the teaching of I.T subjects in Business Education. The finding revealed that the Business Education Departments of the Schools studied were under funded and thus cannot procure and maintain Information Technology equipment and materials. The fourth finding reveals that the departments do not have enough manpower to teach IT subjects. Based on these findings, it was concluded that the drawback in the implementation of Information Technology in Business Education Programme was as a result of a combination of the different factors earlier mentioned and it was recommended that funds should be made available for the procurement of IT equipment by all stakeholders. Teachers should be given opportunities for training and retaining in Information Technology skills to be more competent in teaching. These recommendations among others if put into practice will lead to the achievement of the objective of Business Education which is to produce competent, skillful, self reliant and responsible citizens in Nigeria.

TABLE OF CONTENT

Title page - - - - - - - - - i

Declaration - - - - - - - - - ii

Certification - - - - - - - - - iii

Acknowledgement - - - - - - - - iv

Abstract - - - - - - - - - v

Table of content - - - - - - - - vi

List of Tables - - - - - - - - xi

List of Figures - - - - - - - - xiii

List of Appendices - - - - - - - - xiv

List of Abbreviations - - - - - - - - xv

Operational Definition of Terms - - - - - xvi

CHAPTER ONE:

INTRODUCTION - - - - - - - - 1

1.1 Background to the Study - - - - - - 1

1.2 Statement of the Problem - - - - - - 3

1.3 Objectives of the Study - - - - - - - 4

1.4 Research Questions - - - - - - - 5

1.5 Hypotheses- - - - - - - - - 6

1.6 Significant of the Study - - - - - - 6

1.7 Basic Assumptions- - - - - - - - 7

1.8 Delimitation of the Study - - - - - 8

CHAPTER TWO:

REVIEW OF RELATED LITERATURE - - - - 9

2.1 Concept of Business Education - - - - - 10

2.1.1 Definitions of Business Education- - - - - - 11

2.1.2	Business Education and the Society - - - -	12
2.2	The Concept of Curriculum- - - - - -	13
2.2.1	The Conceptual Framework of Business Education Curriculum- - - - - -	14
2.2.2	Business Teacher Education Curriculum- - -	17
2.2.3	The Need for Curriculum Innovation in Business Education - - - - - -	18
2.3	Information Technology- - - - - -	19
2.3.1	Information Technology and the Society - - -	21
2.3.2	Information Technology and Business Education - - - - - - -	21
2.4	Implementation of Information Technology- - - -	24
2.5	Empirical Studies - - - - - - -	30
2.6	Summary of the Reviewed Related Literature - - -	36
CHAPTER THREE:		
RESEARCH DESIGN AND METHODOLOGY	- - - -	37
3.1	Research Design- - - - - - -	37
3.2	Population for the Study- - - - - -	38
3.3	Sample Size of Population - - - - - -	39
3.4	Sampling Techniques - - - - - -	40
3.5	Instrument for Data Collection - - - - -	40
3.5.1	Validity of Instrument - - - - - -	41
3.5.2	Pilot Study - - - - -- - - -	41
3.5.3	Reliability of the Instrument -- - - - -	42
3.6	Procedure for Data Collection - - - - -	42
3.7	Procedure of Data Analysis- - - - - -	43
CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA		
4:1	Analysis of Bio Data of the Respondents - - -	44
4.2	Analysis of Research Questions and Testing of Null Hypotheses -	44

CHAPTER FIVE: SUMMARY OF CONCLUSION AND RECOMMENDATIONS.

5.1.	Summary - - - - - - - -	73
5.2	Conclusion - - - - - - - -	74
5.3	Recommendations - - - - - - - -	76
5.4	Curriculum Implication- - - - - - -	78
5.5	Suggestion for Further Research - - - -	78
	REFERENCES- - - - - - - -	80
	APPENDICES- - - - - - - -	87

LIST OF FIGURES

Fig 2.1	A conceptual Framework for Analyzing - - -	15
Fig 2.2	Business Education Curriculum at the Tertiary Level - -	17
Fig 2.3	Four Components of Business Teachers' Education - -	18

LIST OF TABLES

Table 3.1	Population for the Study - - - -	39
Table 3.2	Sample size for the Study - - -	39
Table 4.1	Gender of Business Education Students in the Four Federal Universities - - -	44
Table 4:2	Business Education Students by Universities in the Study - - - - -- -	45
Table 4.3	Courses of Study of Business Education Students in the Four Universities - -	45
Table 4.4	Level of Study of Business Education Students in the Four Federal Universities - - -	46
Table 4.5	Business Education Teachers by Gender in the Four Federal Universities in the Study -- - - - - -	46
Table 4:6	Business Education Teachers By University - - - - - -	46
Table: 4:7	Analysis of Research Question One -- -	47
Table 4:8	Independent t-test. Difference between Teachers and Student in their Views on Availability of Instructional Facilities for Acquiring IT Skills. - - -	51
Table: 4:9	Analysis of Research Question Two - -	52
Table 4:10	Independent t-test Difference between the Mean Scores of Students and Teachers on the Adequacy of Provision for Teaching IT in Business Education Curriculum - -	56
Table: 4:11	Analysis of Research Question Three - -	57

Table 4:12	Independent t-test Difference between Teachers and Students on Funding of IT in Business Education Programme - - -	62
Table: 4:13	Analysis of Research Question Four (4) -	63
Table 4:14	Independent t-test Difference between Teachers and Student on the Implementation of Information Technology in Business Education - -	68

LIST OF APPENDICES

APPENDIX I	Questionnaire- - - - -	87
APPENDIX II	Frequency Tables- - - - -	98
APPENDIX III	Analysis and Arrangement of Research Question Items in Order of Mean Response Agreement - - -	101
APPENDIX IV	Statistical Mean Tables- - - -	105
APPENDIX V	Table for Determining Sample Size from a Given Population - - - -	109

LIST OF ABREVIATIONS

ABU	Ahmadu Bello University
ATBU	Abubakar Tafawa Balewa University
ETF	Education Trust fund
IT	Information Technology
JACITAD	Joint Action Committee on Information Technology Awareness and development.
NBTE	National Board for Technical Education
NITDA	National Information Technology Development Agency
NUC	Nigerian Universities Commission
SPSS	Statistical Package for Social Science
UNIBEN	University of Benin
UNN	University of Nigeria Nsukka

OPERATIONAL DEFINITION OF TERMS

Data:	Fact or observations about physical phenomena or business transactions. They are objective measurement of tributes of entities such as people, places, things and events.
Globalization:	Increasing integration of the economies around the world
Hardware:	Refers to all the physical components of the computer system.
Information:	Data placed in a meaningful and useful context for end users
Information Revolution:	A change from the old mode and methods of procuring, processing and producing information to more radical ones.
Software:	Computer programs and procedures concerned with the operation of an important system.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Business Education is a phase of education, which is aimed at developing business competencies in individuals at the tertiary level of education that will enable them to be gainfully employed and fit into the world of work as professionals. Based on this, Aina (2002) enumerated some major goals of Business Education. Among which are to enable students to: acquire skills and competencies required for the performance of basic business jobs that is, take simple administrative decisions and deal with correspondence; apply the various business concepts acquire in class to real life situations, and play a productive role in a free enterprise economy.

We live in a world where change is phenomenal and the society is dynamic and changing at a very fast rate. Therefore, if the business education graduates are to be relevant in the society, there is need for them to move and change along with the society in terms of the skills and knowledge acquired by them. The introduction of modern Information Technology has led to what is called globalization, which refers to the increasing integration of the economies around the world. According to Galbraith (1997) globalization on its own has generated both great hopes and great fears and is therefore, seen by different schools of thought as symbol of either all that is good or all that is bad in the modern society. Whichever way Information Technology is viewed

by individuals, it cannot erase its significance and contributions to the world at large.

There is, therefore, a need to produce and harness information to benefit the society through the use of such information to make better use of our limited supplies of material and energy resources. The computer is the tool used in the production of information and it is acclaimed as the most important technology development of the 20th century. Hawkridge (1983) noted that the computer has significantly magnified our ability to analyse, compute and communicate thereby greatly accelerating human technological progress. According to Robson (1997) the computer based information technology system has application in almost all spheres of human activity such as modern science, engineering education, medicine, industry, government and business.

Dangana (2002) noted that significantly, information technologists have used the computer in carrying out various research works into the unknown and have used the information obtained to improve the society through finding solutions to societal problems. In business, computer as a tool for information technology helps to solve the problems involved in handling, processing and distributing goods and services at a faster and more reliable manner than when such jobs are carried out manually without the use of computer. This agreed with Lucas (1997) who stated that it aids in the efficient running of a business through reduction in operational cost, increased revenue, reduced overhead cost, improved quality of information, improved competitive position, timely information, better management decisions etc.

Ronald, David and James. (1979) observed that the computer has revolutionarized the way companies work and today most organizations equip their offices with latest in technological innovation. Gone are the days of traditional manual information system, even the electronic typewriters are gradually giving way for desktop computers. For a business education graduates to fit into the ever-changing and technological world of work, they must have sound knowledge and skills of Information Technology. In short, they must be computer literate.

In view of the above, there is a need to emphasize on the acquisition of Information Technology skills in the curriculum of Business Education. Otherwise, the goal of providing trained manpower in applied sciences, technology and business to make individuals economically self reliant and gainfully employed will not be achieved. Therefore this study is aimed at appraising and evaluating the implementation of Information Technology in business education at the University level of education, its implication on the skills acquired by the graduates and their employability.

1.2 Statement of the Problem

Due to the importance of Information Technology to the individual and national economic development, nations, including Nigeria have made so much efforts towards its entrenchment in their economies. This according to Iromantu (2002) led to the setting up of the National Information Technology Development Agency (NITDA), Joint Action Committee on Information

Technology Awareness and Development (JACITAD) and other Agencies to facilitate the implementation of Information Technology Education in Nigeria.

The researcher, however, discovered from personal experience and discussions with other business education graduates, that despite all the efforts and commitment of the government towards the growth of Information Technology in Nigeria most business education graduates are not computer literate. The few that are computer literate acquired the skill through enrolment in private computer schools to enable them gain employment in business organizations. This development is an indication to fault in the business education curriculum. This is in agreement with Obi and Obiorah (2001) who said that the business education given in Nigeria today does not seem to match with the current development in Information Technology. This prompted the reseearcher to carry out this study in order to identify the faults with the aim of identifying possible solution to the problem.

1.3 Objectives of the Study

The main objective of this study is to evaluate the implementation of Information Technology in business education in some selected Federal Universities in Nigeria.

However, the specific objectives are to:

1. identify the adequacy of the Information Technology equipment and facilities in selected Federal universities in line with what is obtainable in the current world of work.

2. examine the adequacy of the provision for the teaching of Information Technology skills in the business education curriculum in the universities.
3. assess the level of government (local, state and federal) and private sector's participation in the funding of Information Technology in Business Education Programme at the tertiary level of education.
4. examine the availability and quality of manpower for the implementation of Information Technology in Business Education Programme in the selected Federal Universities in Nigeria.

1.4 Research Questions

The following question were posed in line with the objectives of the study

1. What are the opinions of teachers and students on the adequacy of the available instructional materials and equipment for the acquisition of Information Technology in business education programme in federal universities.
2. How adequate is the provision made for the teaching of Information Technology skills in the business education curriculum in federal universities.
3. To what extent is the Government and Business Organizations participating in the funding of Information Technology programme in Business Educations in federal universities.

4. To what extent has quantity and quality of manpower affected the acquisition of Information Technology skills by the students in business education departments in federal universities.

1.5 Hypotheses

In line with the specific objectives and research questions the following null hypotheses are formulated to aid the study.

Ho_1 There is no significant difference in the opinions of the teachers and students concerning the availability of instructional facilities and equipment for acquiring Information Technology skills in Nigerian Universities.

Ho_2 There is no significant difference in the opinions of the teachers and students as to the adequacy of the provision made for the teaching of Information Technology in Business Education Curriculum in the Universities.

Ho_3 There is no significant difference in the mean score of teachers and students on the level of funding Information Technology in Business Education Programme by government and business organizations.

Ho_4 There is no significant difference in responses of teachers and students on the quality and quantity of manpower needed for the implementation of Information Technology in Business Education.

1.6 Significant of the Study

The findings from this study will contribute immensely to the skills acquired by the business education graduates by revealing the strengths and

weaknesses in the business education curriculum especially in the area of Information Technology and so serve as a guide to the curriculum planners-National Board for Technical Education (NBTE), Nigeria Commission for Colleges of Education (NCCE) and the Nigeria University Commission (NUC) in the restructuring of Business Education Curriculum to include in depth teaching of Information Technology.

The findings of the study will also help to focus the attention of stakeholders e.g universities, department, lecturers and students of business education to the current trends in business and the world of work so that the graduates turned out will be self reliant, productive and employable citizens.

The study will help the Department of Business Education in tertiary institutions to detect the areas where there are lapses in the implementation of Information Technology programme and be able to correct such lapses.

The findings of this study will encourage Business Educators to acquire computer skills and if already acquired to update their knowledge in order for them and their students to be able to meet up the challenges of business and technology.

The findings will help to enlighten of the members of the society more on the uses of Information Technology to individuals and the society at large.

Other researchers will use the findings of this study as a foundation to carry out more researches on the implementation of information technology in Business Education at the tertiary level of education in general and the university in particular.

1.7 Basic Assumptions

For the purpose of this study, it is assumed that:

the inadequate implementation of information technology in business education will lead to the unemployment of our graduates.

the opinion the lecturers on this issues may differ from that of students.

the importance of information technology is yet to be recognized by those who formulate educational policies in Nigeria.

most lecturers in business education Department of Federal Universities are not computer literate.

1.8 Delimitation of the Study

This research work covered all Federal Universities that offer Business Teacher Education Programme. They are four in number namely – Ahmadu Bello University Zaria, University of Benin, University of Nigeria Nssuka, and Abubakar Tafawa Balewa University, Bauchi. The questionnaires were distributed among Business Education students at all level irrespective of course of study. This will enable the researcher have a more objective/ authentic research results.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This study on the appraisal of the implementation of information technology in Business Education Departments of Federal Universities in Nigeria was prompted by the current trends in the world of work and business. Journals, government publications, textbooks and papers from the internet were mostly reviewed.

This chapter consists of the following sub-headings:

2.1 Concept of Business Education

2.1.1 Definitions of Business Education

2.1.2 Business Education and the Society

2.2 The Concept of Curriculum

2.2.1 The Conceptual Framework of Business Education Curriculum

2.2.2 Business Teacher Education Curriculum

2.2.3 The Need for Curriculum Innovation in Business Education

2.3 Information Technology

2.3.1 Information Technology and the Society

2.3.2 Information Technology and Business Education

2.4 Implementation of Information Technology

2.5 Empirical Studies

2.6 Summary of the Reviewed Related Literature

2.1 The Concept of Business Education

In forming the policy on Education a nation has to certain questions which according to Onwuegbuna (2004) are:

Education for what?

Education for whom? And

What kind of education?

A nation has to consider the past, present and future problems and needs of the nation and thus, sets its priority on the policy on which education will be based. In Nigeria for example, the priority is to train competent and self reliant citizens and to achieve this goal, vocational and technical education which include business education is brought to play. There is a famous saying that "Education is not making men clever today but wise forever." Education is aimed at sending men and women into society well stocked with information and detailed knowledge to enable them function wisely as employers, employees, consumers and as responsible members of the society.

Business Education is simply one phase of the total educational programme. According to Osuala (1992), it is neither more nor less important than any other labeled area of study. Some people however, see Business Education as inferior to other courses like medicine, law, engineering etc. In reality Business Education is a great contributor to the progress of any nation be it a developed or developing one. Swanson (1947) opined that the modern and progressive school must effectively meet the needs of individual human beings as well as the needs and demands of the society; and good business

education like good defensible training in other areas that might be designated serves this end.

Nzeren (1992) in Nwachokor (2002) bemoaned the negative attitude of people towards business education. In his word; he said "The society, belief that business courses, in fact vocational education generally is meant for drop- outs and those who never do well in the society." Despite this attitude, business education as embedded in vocational and technical education has stood in its place as a strong nation builder. It is a formidable force in equipping the youth with appropriate skill, knowledge and abilities to enable them to be self employed, self reliant and responsible citizen leading to sustainable economic growth.

Nwachokor (2002) opined that that Business Education can help to solve the economic problem of unemployment. It is a known fact that unemployment leads to poverty and other social vices. A good training in Business Education will develop relevant competencies in the youth for employment in both private and public sectors or to be self- employed. As the saying goes "an idle mind is a devil workshop." A gainfully employed person will not think of committing crime.

2.1.1 Definition of Business Education

Business Education has been defined in different ways by different people. Below are some definitions as given by key Business Educators. Ulinfun (1982) defined business education as the education for business or training skills, which are required in business offices and clerical occupations and business policy analysis. Nannasy et al. in Eni (1987) defined business

education as the aspect of the total educational programme that provides knowledge, skills understanding and altitudes needed to perform in the business word as a producer and' or consumer of goods and services that business offers.

Popham et. al. (1975) in Nwokolo (1992) saw business education as that education which prepares students entry into and advancement in jobs within business and prepares them to handle their own business affairs and functions. Osuala (1992) opined that it is a training that encourages the beneficiary to acquire skills that fit into the world of work. The researcher defined Business education, as the type of education that helps to develop skills and competencies in business related courses.

2.1.2 Business Education and the Society

Nigeria just like any other nation has the aim of developing in every aspect of its economy. This has led to the formulation of a national policy to guide the education of its citizens towards the achievement of this aim. Business Education is an aspect of education that will led to the achievement of the set goals of Education. According to the National Policy on Education (2004), the National Education goals, based on the four main goals of Nigeria, are:

1. The inculcation of National consciousness and National unity;
2. The inculcation of the right type of values and attitudes for the survival of the individual and the Nigerian society;
3. The training of the mind in the understanding of the world around; and

4. The acquisition of appropriate skills and the development of mental, physical and social abilities and competencies as equipment for the individual to live in and contribute to the development of his society.

The National Policy on Education (2004) further recognizes the contribution of Business education towards the realization of the national educational goals through the aims of technical and vocational education some of which are to

1. provide manpower in applied sciences, technology and commerce particular at sub-professional grades;
2. provide technical knowledge and vocational skills necessary for agriculture, industrial, commercial and economic development;
3. give training and impart the necessary skills leading to production of craftsmen, technician and other skilled personnel who will be enterprising and self reliant.
4. enable our young men and women to have increasing and intelligent understanding of the increasing complexity of technology.

Ndinechi (2001) observed that the business education sector has become a permanent theme of discussion in education policy discourse nationally and globally. This is as a result of the realization of the importance of business education to both the individual and the society as a whole.

2.2 The Concept of Curriculum

Many definitions of the word 'curriculum' have been offered by different educators. Some saw it as accumulated tradition or organized

knowledge contained in schools and college subjects, while others consider it to be the modes of thinking and inquiring about the phenomena in our world. Fafunwa (1974) defined curriculum as the subject matter taught to a person or the whole educational process or the total environment in which education takes place. The dictionary of education gives the definition of curriculum as an organized course of study undertaken by a student in or under the aegis of a college, school, university or other institution of learning.

Hirst [1974] defines curriculum as a programme of activities designed so that pupil will attain by learning certain specific ends or objectives. Okurotifa [1975] remarked that the curriculum consists of all the learning experiences or educational programmes planned for students under the auspices of the school. Onwuka [1985] saw the curriculum as the entire situation that the school may select and consistently organize for the purpose of bringing about changes in the behavior of pupils as means of developing the personality of the individual. Aliyu [2001] defined curriculum as a process of learning, which takes all human sensitivities – political, economic, and professional into account. A curriculum is a plan for learning both (within) curricular or (outside) extra- curricular.

All education plans consist of a vision that interprets social values and a structure that translates those values into experience for learners.

2.2.1 The Conceptual Framework of Business Education Curriculum

Business education is one of the major areas of specialization which help to develop the economic well being of individual and the nation as a whole. As has being attested to by many authors including Osuala (1987) who described it as systematic learning experiences, which are designed to fit

individual for gainful employment in recognize occupation, prepare students to handle their own business affairs and to function intelligently as consumers and citizens in a business community. Business Education curriculum is aimed at achieving two goals as attested by the above definition. Woplsclager and Harris (1976) in Ndinechi (2001) graphical illustrated the Business Education curriculum as shown below.

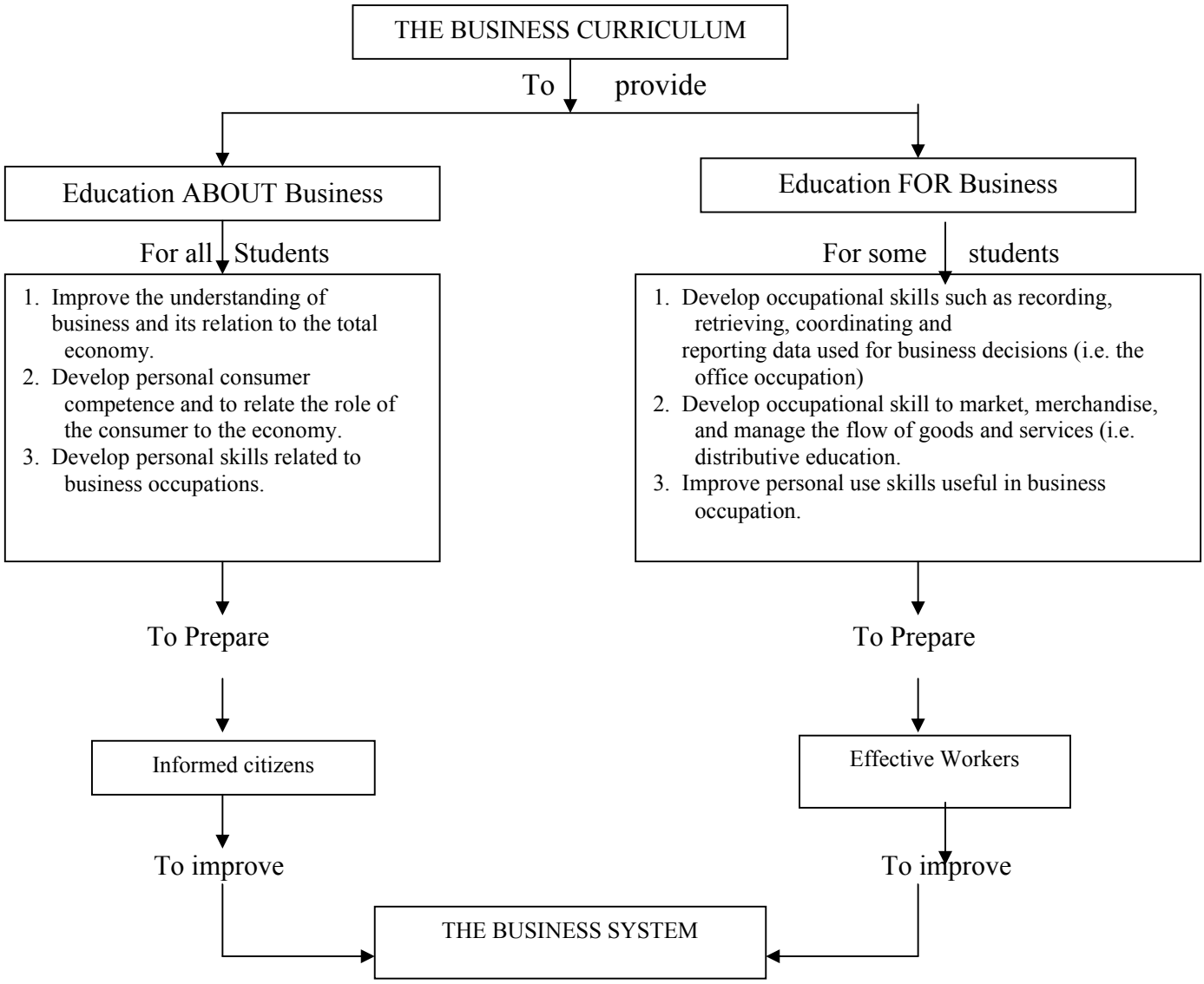


Fig 2.1 A conceptual Framework for Analyzing the Business Curriculum

The diagram showed that the Business Education curriculum is purposed to provide education about business for all students and education for business for those taking the course in order to acquire skills to enable them work as professionals in business. The business education curriculum at the primary and junior secondary school is mainly about business. At the senior secondary school, the curriculum is also about business but touching some aspects of for business in order to prepare the students either for jobs as clerks after secondary school, or for further training in business at the tertiary level of education. Business education curriculum at the tertiary level of education is for business. It is aimed at developing professional competencies for immediate employment.

Business education curriculum at the tertiary level is divided into two professional groups.

1. Business education for administration
2. Business education for business teachers

These two aspects of business education run similar Professional courses and only differ because of the educational courses which those that are trained to teach have to combine with the business courses. As illustrated by Aliyu (2001).

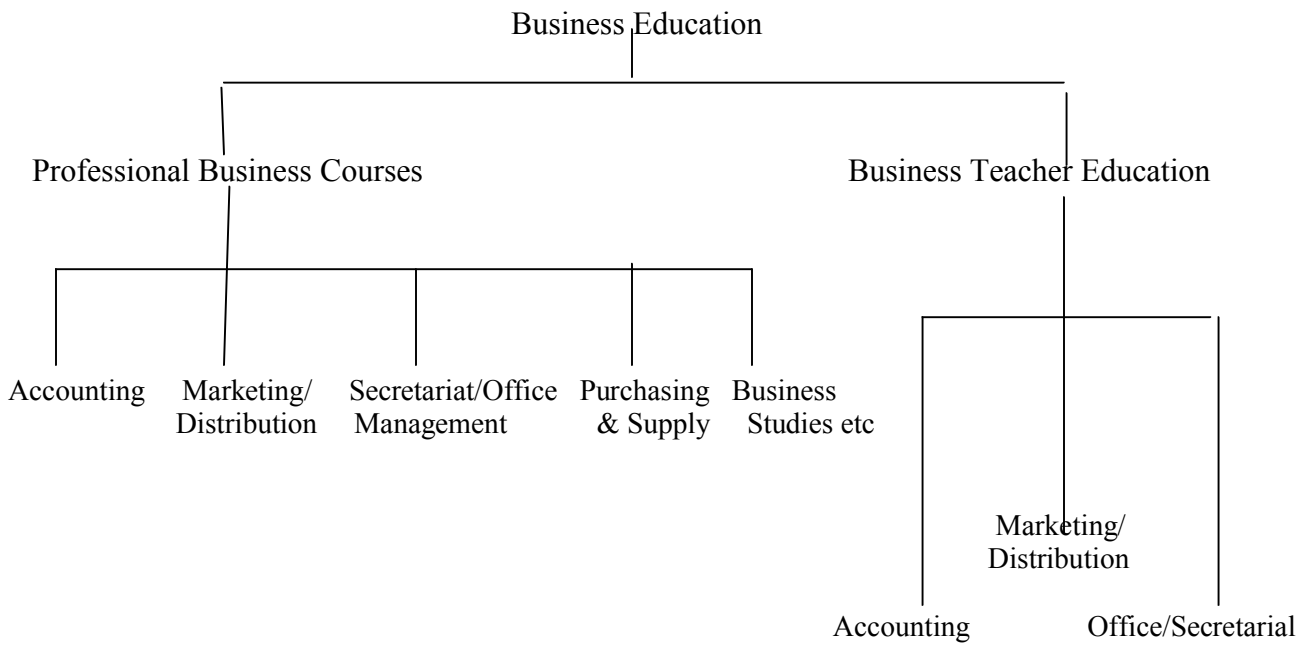


Fig. 2.2 Business Education Curriculum at the Tertiary Level

2.2.2 Business Teacher Education Curriculum

For a planned curriculum to achievement its purposes and objectives the teachers must be put into consideration. According to Crews and Dickson (1977) in Ndinechi (2001) the teachers is the curriculum and the success of the curriculum is directly related to the teacher. It is therefore, imperative that the business teachers at all levels are exposed to a wide variety of teaching options. Therefore, when planning the curriculum for business teachers there is need to bear in mind the dual purpose of business education – to provide instruction both for and about business. The needs of the individuals and the society as well as the content competencies must be the determiners of business teachers' education programme.

Clark (1975) in Ndinechi (2001) illustrated the weight of the four components of business teacher education as 15% professional educational, 15% teaching area 20% Business core and 50% General Education as shown below..

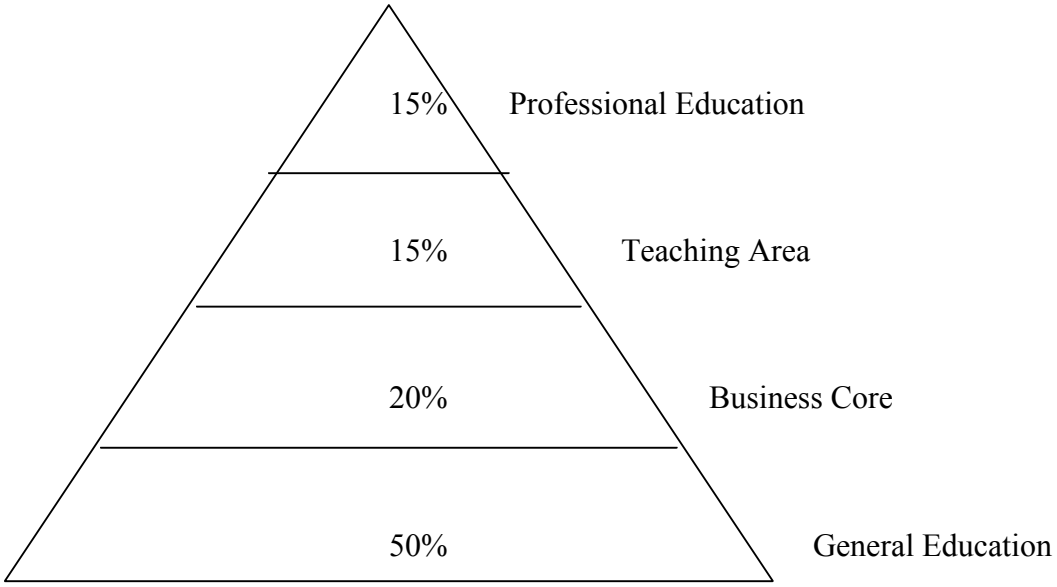


Fig. 2.3: Four Components of Business Teacher Education

Business education curriculum should cover a wide scope of business subjects for teachers to be able to train students for positions in business.

2.2.3 Need for Curriculum Innovation in Business Education

The business world is dynamic. There is a rapid change in the requirement for employment in the world of work and the society in general. Business education curriculum needs to be amended in order to be able to produce students that can cope with the changing trend. There is a need to engage in research to continuously validate, extend content, methodology,

contemporary concepts and theories in the field. Tonne and Nannassy (1970) acknowledged the fact when he said, "One way of securing better indication of job standards and determining how to improve education in general and business education in particular is to discover what people think about them. Among the groups whose opinions should be considered are businessmen, labour leaders, educators, laymen and the students themselves". This is further buttressed by Nolan, Hayden. and Malsbery (1970) when they opined that "A sense of the timelessness of certain learning, certain skills, certain attitudes will not cloud vision in the area where rather complete reform is needed."

In this era of information technology it is imperative to evaluate the curriculum, remove the subjects that are not relevant for today's and future needs of the students and the society, retain the relevant subjects and introduce new ones in order for business education graduates to be relevant in the society as has been said by authors like Arukwe (1990) and Aromolaran (1999) who said that for secretaries to perform and keep their jobs in this modern age, they have to acquire skills in modern office automation.

2.3 Information Technology

Information technologies a new trend in the world in general and the business in particular. It is causing considerable changes in the schools, work places and families due o the influx of international news through the various technologies used for handling information. According to Long (1991) Information technology is a faculty or force that is totally permeating concrete

and abstract reality and creating anew conception, new forms of interpretation, new ways of management and new insight into our life styles.

Information refers to the data, which has been processed, while technology according to Galbraith (1997) is the systematic application of scientific or other organized knowledge to practical tasks. It can also be define as the equipment, machine and devices used in the application of knowledge to practical tasks. Information technology has been defined by many authors in different ways. Robson (1997) defined Information technology as the phase that covered all the machineries or skills concerned with the capturing, storage, transmittal or presentation of information. Osuagwu (1999) agreed with Robson as he saw information technology as the convergence of microelectronics, telecommunications, computers and storage facilities.

The National Policy on Information Technology (2001) defined Information technology in two ways; first, it defined information technology as computers, auxiliary equipment, software and hardware and similar procedure services (including support services) an related resources. Secondly, it defined information technology as including any equipment or interconnected system or sub-system of equipment that is used in the automatic acquisition, storage manipulation management, movement, control, display, switching, interchange transmission or reception of data of information.

Ohakwe (2001) on the other hand considered information technology beyond hardware and software. He rather considered it as a process of acquisition, processing, storage, and dissemination of vocal, pictorial, textual

and numerical information. Osuwa (2002) defined Information technology as the application of scientific study of the art of using skills in making things, the mastery and utilization of manufacturing and industrial methods. The researcher defined information technology as the equipments, technology and skills applied to processing, storing, retrieving and transmitting information in electronic form.

2.3.1 Information Technology and the Society

The development of Information technology is rapidly revolutionalising, social, economic and education aspects of the developed countries of the world. The same influence is now being spread to developing countries like Nigeria. Hawkridge (1983) noted that Information technology in its new guise may change our lives for better or worse within a short period. Information Technology in reality has its good and bad sides. Hawkridge (1983) also noted that it is becoming a means of widening and wielding power…….. The new overtaken the old, providing more powerful way to create store, select, process, deliver and display information.

2.3.2 Information Technology and Business Education

One of the principle challenges is to prepare generation to take over from those currently making society works. The increasing rapid pace of change and the already foreseeable challenges that lie ahead in such fields as business, calls for a drastic reformation in the type of education giving to the

citizens. The future leaders should be educated to be able to face future challenges, which mainly have to do with Information technology. Madison, (1982) saw that information technology revolution is throwing a major and far-reaching challenge to education. He noted that long-sighted and percipient observers have already recognized the roles of Information technology in education and training.

Henson (1989) observed that Information technology and the learning of computer have been promoted as an important instructed purpose in and of itself. Armstrong (1989) noted that the prices of computer have greatly been reduced. Thus, Information technology has become so inexpensive and its benefit becoming so well known that it has moved out of the office into the hands of millions of individuals. So much so that any individual seeking employment in any field is expected to computer literate. In Nigeria, however, employers, educators, students and the general public are concerned that schools are producing graduates who are well equipped for roles in an economy that is increasingly high technology oriented.

This is being reflected in the Newspaper and journals and has promoted the review of some curriculum to include Information technology in the form of computer education at all levels. Hamilton (1985) noted that low level of skills available in some countries form part of a vicious circle whereby local contracts commissioned mainly by the government are giving to outsider experts rather than local businesses. This situation is as a result of the absence of local capacity as it is the typical case in Nigeria where jobs that are

supposed to be done by Nigerians are giving to foreigners who can use the modern technology to work.

The Federal Government on realizing the importance of Information technology established the National Information Technology Policy Agency (NITPA) to implement the National Information Technology Policy to promote information technology education in Nigeria. Some of the general objectives of information technology policy (2001) were to:

1 ensure that Information technology resources are readily available for efficient national development.

2 guarantee that the country benefits maximally and contributes meaningfully to the global solutions of the information age challenges

3 provide attractive career opportunities.

4 empower the youth with IT skills and prepare them for global competitiveness.

In its mission statement, Information technology National Policy (2001) stated that Information technology would be used for:

1 Creation of wealth

2 Poverty alleviation

3 Job creation

4 Global competitiveness

The Information Technology Society Forum (2003) in Vanguard newspaper observed that:

> Educational institution will have to face up to the challenges of facilitating lifelong learning, transforming education from the information to instilling the skill of learning. Information and communication technology offers the potentials for economic growth. It is therefore, imperative that huge knowledge potentials of industries be harnessed and consolidated within an institution framework of university to sustain life long learning for economic development.

Business education as one of the tools for national development cannot achieve its laudable aims of providing manpower in applied science, technology and commerce; finding solution to environmental problems; and imparting the necessary skills that will lead to the production of workers who will be self reliant without the information technology. There is a need therefore, for the inclusion of information technology skills in the Business Education programme for the graduates to be competent.

2.4 The Implementation of Information Technology

Several efforts are being put into making Nigeria a model nation in the area of information technology. This cannot be achieved except with proper implementation plan for the teaching of IT in tertiary schools. Heritage dictionary (1954) defined implementation as to carry into effect, to fulfill or to accomplish. The researcher defined implementation as the carrying out of an action or bringing an assignment or programme to being. In most cases it is easier to plan a programme very well but the execution or implementation of such programme is usually not easy. This situation is due to some reasons.

Elmore (1978) stated that the success or failure of implementation depends on the internal workings of each organization and the relationship among organizations at different levels of the implementation process. William (1980) argued that most implementation problems grow out of a division of labour between what he called the 'policy and operation of spheres'. According to them implementation is characterized by a process of mutual adaptation and it is also a dynamic organizational process that is shaped over time by interaction between project goals, methods and institutional setting. As such implementation is not static, it is an on-going process which takes place over a period of time.

William and Edward (1980) identified three interactive processes of implementation as:

1. **Mutual adaptation**: This involves changes in the project goals, design and institutional settings. When this happens, the implementation is successful.
2. **Co-optation:** A change in project design and no change in participants or institutional setting. This may be due to resistance to change or inadequate help from implementers.
3. **Non- implementation:** when a project breaks down in the course of implementation or when it is simply ignored by project participant.

Implementation is successful where there is a significant change in participant's attitude, skills and behaviour. In Nigeria, the implementation of Information technology programme is at the co-optation level. Despite the high

acceptance for the Information technology programme to be inculcated into the education system, not much has been done to implement it to the fullest. This could be due to many interactive factors like funding, facilities, personnel and so on.

1. **Funding:** The successful implementation of information technology in business education programme depends mainly on funding. It is no gain saying that business education departments in the universities are not adequately funded. Many of them do not have the Information technology and innovations being canvassed all over the world. Atueyi (2001) noted the huge financial requirements for the procurement of hard and software required for the programme. This not withstanding should not be a reason for the under funding of the Information technology progamme in business education especially when its long and short term benefits to the individuals students and the society are put into consideration.

   There are some cases in which the fund made available for this programme is embezzled and mismanaged by corrupt school administrators. Babalola (2001) recognized that Federal Government alone cannot fund Business education programme and suggested that industries also participate in their funding. Business education course are skill oriented and cannot be taught theoretically like a liberal courses. An increase in the funding of the department will enable them

acquire the necessary Information technology equipment as teaching aids.

2. **Facilities:** Initially, business education provided knowledge, skills and competence for performance in the business world with manual equipment. Today, manually operated equipment has been replaced with mechanical and electronic equipment. Nwosu (1999) observed that in the past technology was supportive because it served as aid to business education but innovations in Information technology have shifted this role from supportive to integrative. There is now a change in the nature of office work and teaching methods.

This brought up the need for Information technology equipment in Business Education Department as such equipment can be used by students to learn even in the absence of the teacher and these same type of equipment are used in offices to perform different function. Atueyi (2001) opined that the harmonization of world of work requirement and the training received by the students will go along way to improve the employment opportunities of graduate. A business education graduate who has been taught with Information Technology equipment will not be like a fish out of water in the area of employment but will simply put into practice what he has learnt in school.

There are some cases where computers etc are acquired but are not installed for usage. Alozie (1998) noted that lack of equipment has marred the environmental replication of work in training institutions and as a result half-baked graduates are produced. In most universities, the numbers of

Information technology equipment available are grossly inadequate. The ratio is about 1:100 students (if the computers are not kept away from the students). One wonders how the Information Technology skill can be imparted in such a pathetic situation. Cuban (1986) supported this by pointing out that counting the number of available computers does not provide adequate measures of their use.

Electricity supply is another problem when it comes to Information Technology implementation. Umeh (1996) stated that the inadequate power supply is one of the major constraints for the use of automated equipment. In Nigeria, there is frequent power outage, which damages computers and other Information Technology gadgets that need constant supply of power. To cushion this problem the Information technology equipment need uninterrupted power supply (UPS) facility, that is, interface between the power supply and the Information technology equipment.

Also, in the rural areas where there is no electricity, the requirement for installing power generator may prevent the implementation of Information technology programme. Where there is power supply, the voltage is not high enough as noted by De'Olivera (1991) who said that ICT rely on electricity. Particularly the rural areas are at disadvantage because of the limited extent of the national grids.

3. **Manpower:** The major player in the area of manpower requirement is the teacher. The quality of the education to be given is related to the quality of the teacher. According to Nolan, (1967) as cited by Oladebo

(1987) no curriculum, however, well written, they may be, no equipment, however costly it may be will compensate for a poor business teacher. To be able to teach or impart Information Technology skills a teacher must be well prepared and informed. The teacher must not be just computer literate he must have in-depth knowledge of Information technology in addition to other required courses.

This however, is not the case in Nigeria Universities as Umeh (1996) and Udenya (1987) in Atueyi (2001) highlighted the problems of staffing as follows-absence of highly skilled Information technologist and engineers, depth of experts in Information technology innovations etc. The National President of All Nigeria Conference of Principals Olisa (2004) stressed that over 90% of Nigeria teachers were not computer literate. In his words he said, "I think we need to sit down and ask ourselves what are the skills that a teacher needs in the 21st century? And a basic skill that a teacher needs include Information Technology literacy".

This situation call for training and retraining schemes for business educators and the infusion of competencies related to information and communication technology into the business teacher curriculum, as no teacher can effectively teach what he does not know. The retraining scheme is to enable the business education teacher to keep current with the changing world of business and Information Technology. Oyedele (2000) called on business teachers training institutions to provide students the opportunity to develop

skill in the use of equipment as more and more secondary schools are having access to highly sophisticated office equipments for instructional purposes.

Business educators should be motivated, though the attachment of incentives (monetary or otherwise) to the implementation/teaching of Information technology skills. Other resource personnel should also be adequately rewarded. When we look at the disparity between the remunerations of Information technology experts working in business organizations and their counterparts who are teaching in Nigeria universities, one cannot in anyway blame the teachers for not putting in their best in the classroom.

When you compare those working in Nigeria with those working in developed countries like America you will discover a great difference in their general condition of service and this has led to the massive brain drain being experienced in Nigeria in general and business education in particular. Also the non-involvement of teachers in curriculum innovation process should be taken into consideration. Cuban (1986) noted that teachers are just instructed to implement the curriculum. This is typical of Nigerian situation and it is not good for the implementation of Information technology in business education.

2.5 Empirical Studies

The introduction of modern information technology in all facets of life has attracted researchers seeking how it relates to various aspects of life including education. Among such researchers is Abdulkareem (1998) who conducted a research work on the Factors Affecting the Job Performance of

Secretaries in Kaduna State. The objective of the study was to determine the factors that affect the job performance of secretaries in Kaduna State and recommend measures that could be adapted to improve their job performance. The population for the study was 1,000, that is, all the secretaries working in all organizations in Kaduna State. The accidental sampling was used. The instrument for data collection was the questionnaire. The chi-square statistics was selected to test the nine null hypotheses to determine the difference in the opinions of male and female secretaries concerning their job performance. Out of the nine null hypotheses two were rejected while seven were retained.

In the course of reviewing this work the researcher discovered that there was no definition of terms. The sampling technique should have been 'quota' instead of accidental since the researcher was out to elicit the opinions of males and females. Also, it was observed that the research questions and null hypotheses were nine which were too many. The researcher suggested four or five. The researcher agreed with the author that factors that positively affected secretary's job performance are in with Maslow's hierarchy of need, which are physiological needs, social needs and self actualization.

In Imo State, Ohakwe (2001) conducted a study on manual office skill in an Information technological era. The objective of the study was to examine the place of manual office skills in a computer age. The population of the study was 148 personnel who worked with secretaries in Imo state civil service comprising 18 permanent secretaries, 130 non-permanent secretaries (i.e., 64 Directors and 66 Deputy Directors). The population was relatively small and

thus constituted the sample. The instrument for data collection was questionnaire. Standard deviation, mean score and Z-test statistical tools were used in analyzing the data collected. The result of the data analysed showed that shorthand skills, office machine operating skills were considered not important for today's business office skills.

In the course of studying this work, the current researcher discovered that the null hypotheses were not stated. The researcher observed a dearth in the sample population. The best people whose opinion should have been sought were those in the profession and not those who work with them as it was in this case. However, the study was able to come up with some relevant conclusions that are in line with what is now obtainable in business education curriculum.

In another work Oguoma (2002) carried out research work on the training for the world of work – A missing link. The objective of the study was to investigate the problems of lack of adequate link between industry requirements, (attitude, skill and knowledge) on the part of the graduates and the means of their inculcation while in schools. With a view of making valid conclusion and recommendation as to the possible ways of filling the missing gap. The population constituted of workers in both public and private sectors of Imo State, and HND and ND students of Federal Polytechnic, Nekede. A sample of 100 workers and 200 students were randomly selected. Questionnaire was used as the instrument for data collection.

Chi-Square statistical tool was used to analyse the research question and test the null hypotheses at 0.05 level of significant. One of the finding of this study was that most secretaries are not proficient in the use and operation of modern Information Technology equipment. The study of Oguoma (2002) has empowered this study. The researcher agreed with Oguoma that the curriculum of secretarial studies and business education in general must be periodically revised in line with technological and environment changes.

Athur (2005) conducted a research work on Integrating Information Technology with the Secretarial Education Curriculum in Tertiary Institutions in Bauchi. The population of the study was 180 and the definite sample size was 120 students and teachers who were randomly selected. The instrument for data collection was the questionnaire. The data collected were analyzed using frequency tables and percentages. The findings were as follows:

Information Technology makes the work of secretaries faster; the existing Secretarial Education Curriculum is inadequate for the preparation of secretaries for the modern day's office; most computer science courses lecturers do not understand the objectives of such courses for secretarial education.

The above study is relevant to the current research, because it focuses on the importance of Information Technology to today's secretary. Some of the shortcomings of this reviewed study are that there were no null hypotheses and the place where pilot study was conducted was not indicated.

Ogunedum (2007) carried out a research study titled: Relevance of Business Education and Technology for 21st Century and National Development: A Case Study of College of Education Zuba, FCT, Abuja. Findings of the study were that: Business Education is important to national development in the 21st Century; the curriculum of Business Education is relevant to the 21st Century need; teaching/learning facilities as well as manpower were adequate and that Business Education programme has not failed in its preparation of students for the world of work in the 21st century. The researcher however recommended that the curriculum should be reviewed to reflect the current trend of the 21st century and that the curriculum should incorporate the training requirements that will enable the Business Education students be acquainted with what is obtainable and also that obsolete equipment in the department should be replaced with modern ones.

Although, the current researcher agrees with the finding that Business Education is of great importance to the nation in the 21st century she however, disagreed with the other findings that teaching/learning equipment or facilities and the lecturers are adequate. In reality most Business Education Department are poorly equipped mostly with obsolete facilities and equipment. It was also observed by the current researcher that the present Business Education curriculum does not reflect the realities of what is obtainable in the world of work.

The shortcomings of this research however, were:

- There were no null hypotheses

- The method used in the selection of the sample population was not indicated.

Amoor (2009) conducted a research work titled: Challenges of Secretarial Education programme in Nigeria Universities in An Era of Modern Office Technology and Information System. The population of the study was 215 students and 32 lecturers. The population was considered not too large and thus served as the sample population. The instrument for data collection was the questionnaires. Five research questions and null hypotheses were formulated and analyzed using simple frequencies and percentages. The null hypotheses were tested using Pearson Product Moment Correlation (PPMC) and t-test at 0.05 level of significance. All the null hypotheses were rejected. From the finding it was concluded that there was no adequate modern Office Technology and Information Systems in Secretarial Education Programme in Nigeria Universities for teaching/learning which is responsible for the non-exposure of secretarial education students to practical operations of IT equipment. Based on this the researcher recommended that a Resource Mobilization Centre should be established to source funds from the Alumni associations of the Universities, Non-governmental Organization (NGOS), etc to purchase and install IT equipment and facilities for teaching/learning.

This research work is very relevant to this present study as it emphasized on information technology which is similar to the current research work. However the following shortcomings were observed.

1. The sampling technique was not given

2. The method of used in selecting the sample population was not stated.

2.6 Summary of the Reviewed Related Literature

Every activity of economic value is liable for appraisal. In this study the implementation of the information technology in business education programme has been appraised in order to ascertain the adequacy of the business education curriculum to the current trend in the world of work. This chapter reviewed the work of writers in information technology, starting from the theoretical framework of business education as a skill, imparting course and promoting self reliance in order to solve the problem of unemployment and under employment. The writer went on to highlight on the importance of information technology to business education in the present era of globalization.

It was highlighted that certain things are acting as barriers to the implementation of information technology such as inadequate funding, manpower, non-availability of instructional material among others. It was identified that the present business education curriculum implementations do not afford the graduates the opportunity to face today's world of work challenges especially in the area of information technology. An occupationally directed curriculum like business education curriculum must be comprehensive, balance, articulated to meet the ever-changing needs of students academically, socially and psychologically. There is therefore, a need to evolve an information technology friendly business education curriculum.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter explains the methodology that was used in the collection of data for the study under the following sub-headings:

3.1 Research Design

3.2 Population of the Study

3.3 Sample Size of Population

3.4 Sampling Techniques

3.6 Instrument for Data Collection

3.6.1 Validity of Instrument

3.6.2 Pilot Study

3.6.3 Reliability of the Instrument

3.6 Procedure for Data Collection

3.7 Procedure of Data Analysis

3.1 Research Design

The survey research design was used for this study because it is a very reliable tool for educational research. It is one of the least expensive methods of carrying out research other than the census method. It also allows the research to examine many variables (demographic and life style Information, attitudes, motives, performance etc). Survey research focuses on people, the vital facts of people, and their beliefs, opinions, attitudes, motivations and

behaviour. It helps the researcher to detect what people think and what they do. It can be used for both small and large sample population.

According to Kerlinger (1978) the accuracy of information properly from samples is frequently surprising even to the experts in the field. Sounder and Thornhill (1977) in Mamman (2005) supported this assertion, on survey design and said, It allows the collection of a large amount of data from a sizeable population in an economical way, based often on questionnaire, those data are standard, allowing easy comparison, in addition, the survey comparison is perceived as authoritative by people because it is easily understood.

Survey research therefore, gives a remarkably accurate picture of a phenomenon.

3.2 Population for the Study

Population for the study as shown in Table 3.1 were made of all Business Education students and teachers of the four (4) Federal Universities where the programme (Business Education) is offered, namely: Ahmadu Bello University, Zaria, has 249 students and 3 lecturers, Abubakar Tafawa Balawa University Bauchi is made up of 322 students and 10 lecturers, University of Benin, Benin city has 576 students and 7 lecturers, University of Nigeria Nsukka, 65 students and 5 lecturers making a total of 1212 students and 25 lecturers.

Table 3.1: Population for the Study

Name of Institution	Students	Lecturers	Total
ABU, Zaria	249	3	252
ATBU, Bauchi	322	10	332
UNIBEN, Benin	576	7	583
UNN, Nsukka	65	5	79
Total	**1212**	**25**	**1237**

Source: B.ED section of Department of Vocational & Technical Education of the various universities as at 2007.

3.3 Sample Size of Population

The sample size for the study was two hundred and forty (240) students selected randomly from Business Education Departments in the four universities and 15 lecturers. This sample selection was based on proportional sampling and is in accordance to the sample size selection chart of Krejcie and Morgan (1970:608) as shown in Appendix V. The sample size selected was also in line with Rosco (1970) in Mamman (2005) that postulated that 10% to 20% of the population can be used for a large population of students. All the lecturers (15) in the Departments who accepted and returned their questionnaire served as sample because of the small size. Table 3.2 shows the distribution of the samples among the Federal Universities

Table 3.2: Sample size for the study

Names of Institution	Students	Lecturers	Total
ABU, Zaria	62	3	65
ATBU, Bauchi	50	8	58
UNIBEN, Benin	114	2	116
UNN, Nsukka	14	2	16
Total	**240**	**15**	**255**

3.4 Sampling Techniques

The homogeneous nature of the population of the study necessitated a sampling technique to accommodate the type of population. A simple random sampling technique was used in the selection of the sample for the study. This allowed every subject of the population an equal chance of being included in the sample. Therefore, the simple sampling method as recommended by Rosco (1970) in Mamman (2005) was used in this study.

The "hat drawn" method was used to enable every student in each of the levels have the equal opportunity of being selected. Either '**YES'** or '**NO'** was written on a piece of paper. The pieces of paper were rolled and put into a nylon bag and shaken. Each student from each university was allowed to pick one. Those who picked '**YES'** were given questionnaire to fill while those that picked '**NO'** were not given.

3.5 Instrument for Data Collection

The major instrument for data collection for this study was the questionnaire. According to Kerlinger (1978) questionnaire is the best instrument to gather data about the respondent's feeling, emotions, perception. The questionnaire was developed and validated by the researcher's supervisor based on the objectives, research questions formulated. Two different sets of questionnaire were administered to students and lecturers. Each set of questionnaires was divided into two sections 'A' and 'B'. Section 'A' contained the personal data of the respondents, while section 'B' contained the

questions eliciting responses to the four stated research questions. The breakdown of section 'B' showed that items 1-7 were to answer research question 1, items 8-14 to answer research question two ; 15-25 to answer research question three; items 26-37 to answer research question four.

In the questionnaire, the items were based on 4-point Likert scale. Items were weighed on the following points.

Strongly Agreed	4 points
Agreed	3 points
Disagreed	2 points
Strongly disagreed	1 point

3.5.1 Validity of Instrument

Before the design of the questionnaire a survey opinions of some experienced business educators were sought. After discussion, the type of questions to be asked were marked and the questionnaire was written to project these questions. The sets of questionnaire were therefore validated by the supervisors and other experts. This is in line with Kerlinger (1977) and Afolabi (1998) in Udoh (2002) that validation of content of research instrument by experts is an important and acceptable type of validation.

3.5.2 Pilot Study

In order to ensure that this questionnaire was reliable, the researcher distributed twenty (20) copies of the questionnaire to Business Education

students of River State University of Science and Technology, Port Harcourt Five questionnaire were given to five (5) students who were randomly selected from each level to fill. The questionnaire were collected by the researcher immediately after filling.

3.5.3 Reliability of the Instrument

Reliability of an instrument refers to the consistency with which it measures what it intended to measure. The reliability co-efficient of the questionnaire was computed using split-half method. Pearson Product Moment Correlation (PPMC) was used to determine the correlation coefficient. The correlation co-efficient value of 0.878 obtained was corrected using spear man-Brown formular given as

$$R = \frac{2r}{1+r} \quad \text{or R} = \frac{2(\text{correlation between half test})}{1+(\text{correlation between half test})}$$

Where R is the reliability coefficient and r is the correlation coefficient. The reliability coefficient obtained after subtracting the value of 0.878 into the above formula is 0.94, ($p< 0.05$). This value is close to 1 evidence that the questionnaire is reliable.

3.6 Procedure of Data Collection

The researcher obtained a letter of introduction from researcher's institution, and visited the schools selected for the study. The cooperation of the Heads of Department and the lecturers were sought for easy access to the students. Two hundred and forty two (242) questionnaire were given to

students to fill after the researcher had introduced herself and the purpose of the study. The questionnaire were filed independently by the respondents and the completed copies were collected immediately by the researcher. Out of the two hundred and forty two (242), two hundred and forty (240) students' questionnaires were filled and returned giving 99% returned. Out of the twenty five (25) lecturers' questionnaires only eighteen (18) were accepted by the lecturers and fifteen (15) were filled and returned.

3.7 Procedure of Data Analysis

Data collected were presented in simple percentages using analytical tables to determine the frequency of occurrence of particular responses to questions raised. T-test was used to test all null hypotheses. According to Eke (2003) T-test has these assumptions:

1. It assumes random selection of groups.
2. It has normal distribution of data which is attained when sample is large.
3. It has equal population variance

Each null hypothesis was tested at a significant level of 0.05. For easy calculation all the Strongly Disagreed (SD) and Disagreed (D) were classified as Disagreed (D) similarly all the Strongly Agreed (SA) and Agreed (A) were grouped to be Agreed(A).

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the results and interpretation of the findings of the study. The results emanating from both the descriptive and inferential statistics were employed in analyzing the data collected from the subjects as presented.

4:1 Analysis of Bio Data of the Respondents

Table 4.1: Gender of Business Education Students in the Four Federal Universities

Student Gender	Frequency	Percentage
Male	80	34
Female	160	66
Total	**240**	**100**

Table 4:1 shows that out of a total 240 students of Business Education respondent 80 of them representing 34% were males while the rest 160 representing 66% were females. This representation confirmed the true position of things as Business Education courses are mostly populated by females. A trend that can easily be noticed in all the universities where business education course are being offered and it reflects gender imbalance. Though females are required more in education because of their tender nature and ability to encourage the youths especially in the area of teaching and learning.

Table 4.2: Business Education Students by Universities in the Study

Student (School)	Frequency	Percentage
ABU, Zaria	62	26
ATBU, Bauchi	50	21
UNIBEN, Benin City	114	47
UNN, Nsukka	14	6
Total	**240**	**100**

Table 4.2 shows the breakdown of the respondents (students) according to their schools. AB.U Zaria had 62 students that is 26%, ATBU Bauchi had 50 students that is 21%, University of Benin had the highest business education students of 114 that is 47%, while the rest 14 students, that is, 6 % were from UNN, Nsukka.

Table 4.3: Courses of Study of Business Education Students in the Four Universities

Students Courses of Study	Frequency	Percentage
Office Education	40	17
Accounting Education	80	33
Marketing Education	65	27
Business Education (General)	55	23
Total	**240**	**100**

Table 4.3 shows that Accounting Education students had the highest representation of 80 (33%) followed by Marketing Education students with 65 (27%). Business Education (General) 55 (23%) while the rest 40 (17%) students were Office Education students.

Table 4.4: Level of Study of Business Education Students in the Four Federal Universities

Level of Student	Frequency	Percentage
100 level	60	25
200 level	65	27
300level	75	31
400level	40	17
Total	**240**	**100**

In Table 4.4 all the levels of students were represented which shows 60 (25%) in 100 level Business Education while 200 level had 65 (27%) representation, 300 level had 75 (31%) representation and 40 (17%) of them in 400 level Business Education

Table 4.5: Business Education Teachers by Gender in the Four Federal Universities in the Study

Teacher (Gender)	Frequency	Percentage
Male	10	67
Female	5	33
Total	**15**	**100**

Table 4.5 shows that a total of 15 Business Education teachers served as samples for this study. 10 of them representing 67% were males while the remaining 5 of the teachers representing 33% were females.

Table 4:6: Business Education Teachers By University

Teacher (School)	Frequency	Percentage
ABU Zaria	3	20
ATBU Bauchi	8	54
UNIV. of Benin	2	13
UNN Nsukka	2	13
Total	**15**	**100**

In Table 4.6 out of 15 Business Education teachers sampled for this study, ATBU Bauchi had the highest representation of 8 or 54% while A.B.U Zaria had 3 representing 20% Business Education teachers. University of Benin and UNN Nsukka each had 2 representing 13% Business Education teachers representation.

4.2 Answers to Research Questions

The results of the responses are presented and analyzed in respect to each of the research questions and null hypotheses formulated for the study.

Research Question One (1): What are the opinion of the teachers and the students on the availability of instructional materials and equipment for the acquisition of Information Technology (IT) skills in Business Education Programme?

Appendix II shows the frequency table for this research question. However, the summary of items 1-7 of the questionnaire meant to answer this research question is shown in the Table 4:7

Table: 4:7 Analysis of Research Question One

Quest Item No	SA	A	D	SD	%A	%D
1	40(4)	48(9)	160(8)	134(7)	24.6	75.4
2	100(4)	81(9)	182(8)	97(7)	39.8	60.2
3	40(8)	153(9)	140(12)	109(12)	44.2	55.8
4	48(8)	30(6)	206(12)	115(5)	21.4	78.6
5	164(8)	171(9)	150(10)	67(5)	60.3	39.7
6	80(8)	204(9)	160(14)	72(3)	54.2	45.7
7	44(4)	84(6)	167(17)	113(4)	30.9	69.1
TOTAL	516(44)	771(57)	1174(80)	707(35)	41	59

N.B responses in brackets are for teachers while outside the brackets represent the students.

For easier calculation SA and A, D and SD were merged. Thus

$$\%= \text{Agreed} = \frac{SA(S(T)) + A(S(T))}{\text{TOTAL OF ALL (SA+A+D+SD).}} \times 100$$

$$\%= \text{Disagree} = \frac{D(S(T)) + SD(S(T))}{\text{TOTAL OF ALL (SA+A+D+SD).}} \times 100$$

Based on the summary of the data presented in Table, 4.7 the differences in the responses can be seen at a glance.

Item number one (1) shows a score of 40 for students and 4 for teachers who strongly agreed that the number of computers and other IT equipment were in commensurate with the number of student users in Business Education Department. Those in agreement scored 48 and 9 for students and teachers respectively. On the other hand, 160 and 8 students and teachers disagreed while the scores for strongly disagreed stood at 134 and 7 for students and teachers respectively. This made a total of 24.6% agreed and 75.4% disagreed.

Item two (2) focused on whether the number of equipment and facilities for teaching IT in the department were enough. The responses rated 100 and 4 for the students and teachers who strongly agreed, 81 and 9 for students and teachers who merely agreed, 182 and 8 students and teachers disagreed while 97 and 7 were rated for students and teachers who strongly disagreed. These responses showed a total percentage of 39.8% agreed and 60.2% disagreed.

Item three (3) was to determine the proficiency of the business education students in computer operation. 40 and 8 was scored by students and teachers that strongly agreed, 153 and 9 for those who merely agreed. On the

other hand those who disagreed rate 140 and 12 for students and teachers while strongly disagreed scored 109 and 4 for students and teachers respectively reflecting a percentage of 44.2% agreed and 55.8% disagreed.

In item four (4) 48 and 8 students and teachers strongly agreed and 30 students and 6 agreed that the students who can operate the computer acquired the skill in the Business Education computer room. This was however disagreed by students and teachers who rated 206 and 12 and strongly disagreed by 115 and 5 students and teachers respectively. Percentage agreed was 21.4% and disagreed 78.6%.

Item Five (5) shows a score of 164 and 8 for students and teachers who strongly agreed that IT subjects were taught theoretically, 171 and 9 for students and teacher who merely agreed. Also, it showed 150 and 10 for those in disagreement and 67 and 5 for students and teacher who strongly disagreed. Here percentage agreed is 60.3% and 39.7% for disagreed.

Item number six (6) was to find out if computer and other information processing subject taught using computer and other IT equipment as teaching aids. The score for strongly agreed was 80 for students and 4 for teachers. Agreed score 204 and 9 for students and teachers respectively while disagreed was scored 160 for students and 14 for the teachers. 72 and 4 students and teachers strongly disagreed. These figures represented 54.3% and 45.7% for Agreed and disagreed respectively.

Item 7 was to know whether the students have access to the available IT equipment and computers. Students and teachers who strongly agreed

scored 44 and 4, 84 and 6 for students and teachers who merely agreed. On the other hand, the score for disagreed stood at 176 for students and 16 for teachers and strongly disagreed scored 113 and 4 for students and teachers respectively. The percentage of Agreed was 30.9% and 69.1% for disagreed.

The total scores and percentages of those who agreed that the available IT instructional materials were adequate for the acquisition of IT skills in business education was 1388 representing 41.0% while those in disagreement was 1996 that is 59% and higher. Therefore, it could be inferred that the available IT facilities was inadequate for the teaching of Information Technology in Business Education Department of the universities.

To buttress this a further Statistical Package for Social Science (SPSS) analysis of the responses were carried out which revealed that highest mean response /agreement was a 2.2902 was for opinions of the students that computer and Information Technology were taught theoretically as shown in appendix III. Also null hypothesis one was further subjected to a t-test (SPSS) to the determine the relationship between the responses of students and the teachers as shown:

Null Hypothesis One (1) (Ho_1) There is no significant difference in the responses of the teachers and students concerning the availability of instructional facilities and equipment for acquiring information technology skills in Nigerian universities.

Table 4.8 provide a computed t-test for the analysis of null-hypothesis one (Ho1).

Table 4:8 Independent t-test difference between Teachers and Student in their views on Availability of Instructional Facility for Acquiring IT Skills.

	Status	N	Mean	SD	DF	T-Cal.	T-Crit.
Availability of instructional facilities and equipment for acquiring information technology skill	Students	240	13.2000	5.9672	253	.751	1.96
	Teachers	15	14.4000	6.63110			

Decision Rule: If t-cal. > t-crit. reject the H_o

If t-Cal. < t-crit. retain the H_o

Conclusion: t-Cal. = 0.751

t-Crit. = 1.96

t-Cal. < t-Crit.

The result obtained from independent t-test as shown in Table 4:8 revealed that there was no significant difference between teachers and students in their views on the availability of instructional facilities and equipment for acquiring IT skills in Nigerian Universities. This position was confirmed by the outcome of the table which showed that the value of the calculate t=0.751 at degree of freedom 253, was lower than the value of critical t=1.96 at 0.05 level of significance. Again, the descriptive mean response of 13.2000 and 14.4000 for students and teachers respondents respectively also confirmed a no significant difference between them. Therefore the null hypothesis which stated that there was no significant difference between teachers and students on availability of instructional facilities for acquiring IT skill in Nigerian universities is hereby retained.

Research Question Two (2) How adequate is the provision made for the teaching of Information Technology (IT) skills in the Business Education Curriculum in the universities?

Items no 8-14 on the questionnaire answer this question as shown in Table 4.4.1. See Appendix II for the frequency table.

Table 4.9: Analysis of Research Question Two

Quest Item No	SA	A	D	SD	%A	%D
8	188(20)	165(15)	154(6)	62(2)	63.5	36.5
9	252(20)	159(18)	148(6)	50(1)	68.7	31.3
10	136(12)	375(18)	104(8)	29 (2)	79.1	20.9
11	72(8)	192(9)	244(10)	36(5)	48.8	51.2
12	56(8)	177(6)	214(18)	60(2)	45.7	54.3
13	40(4)	141(6)	254(14)	56(5)	36.7	63.3
14	280(28)	282(15)	98(4)	27(1)	82.3	17.7
TOTAL	1024(100)	1491(87)	1214(66)	320(18)	62.5	37.5

N.B teachers' responses in brackets

For easier calculation SA and A, D and SD were merged. Thus

$$\%= \text{Agreed} = \frac{SA(S(T)) + A(S(T))}{\text{TOTAL OF ALL SA+A+D+SD).}} \times 100$$

$$\%= \text{Disagree} = \frac{D(S(T)) + SD(S(T))}{\text{TOTAL OF ALL (SA+A+D+SD).}} \times 100$$

Based on the summary of the data presented in Table 4.9 the differences in the responses are shown below.

Item 8 focused on the adequacy of the Business Education Curriculum for the present day employment requirement. The responses showed the score of 188 for students and 20 for teachers who strongly agreed and 165 for students and 15 for teachers who agreed that the curriculum was not adequate while 154 and 6 were scored by students and teachers who disagreed and 61 for students and 2 for teacher who strongly disagreed the responses showing that 63.5% agreed while 36.5% disagreed.

Item 9 shows that the students and teachers who strongly agreed to the notion that business education graduates can fit into today's world of work based on the training received in school rated 252 and 20 respectively. While 159 students and 18 teachers agreed. On the other hand students and teachers that disagreed scored 148 and 6 with a mere 50 for students and 1 for teachers who strongly disagreed. The responses showed a 68.7% in agreement and 31.3% in disagreement.

Items 10 sought to know whether there is a need to change the present day Business Education Curriculum. The responses to this question showed the scores of 136 and 12 for students and teachers respectively were recorded for strongly agreed and scores of 375 (18) for agreed representing 79.1% for agreed as against scores of 104 (8) for disagreed for students and teachers and 29 and 2 for students and teachers who strongly disagreed respectively, this representing 20.9% disagreed.

Item 11 was on whether the curriculum should be left as it is. The responses shows a score of 72 and 8 for students and teachers who strongly

agreed, 192 and 9 for students and teachers who merely agreed. As against the scores of 244 and 10 for students and teachers who disagreed and 36 and 5 for students and teachers that strongly disagreed. This represent 48.8% for those who agreed and 51.2% for disagreed of the responses.

Questionnaire item 12 sought to know whether Information Technology Skill form part of the skills being imparted in Business Education Department and the responses received showed the scores of students and teachers who strongly agreed as 56 and 8, 177 and 6 for agreed, while the scores for students and teachers who disagreed stood at 214(18) and 60(2) for strongly disagreed, this makes the total agreed 45.7% and total disagreed to be 54.3% of the total responses.

Items 13 was on whether there was emphasis on computer based learning in Business Education Department. The responses showed that students and teachers scored 40 and 4 for strongly agreed and 141 and 6 for agreed against the scores of 254(14) for disagreed and 56(5) scores for students and teachers respectively that strongly disagreed therefore making the percentage of total agreed a mere 36.7% of the total responses and disagreed 63.3% of the total responses.

Items 14 sought to know whether the teaching periods allocated for Information Technology subjects is adequate. The responses shows a score of 280 and 80 for students and teachers who strongly agreed while the students and teachers who merely agreed scored 282 and 15 as against the students and teachers who disagreed with 98 and 4 scores and 27(1) scores for strongly

disagreed thereby bringing the percentage of total agreed to 82.3% of the total responses and disagreed to 17.7% of the total responses.

Based on the responses of both the students and the teachers in research question two (2) it could be seen on the whole that a total agreed score was 2702 out of 4321 overall scores representing 62.5% while total disagreed scored 1617 out of the overall score of 4321 representing 37.5% of the overall scores. It could therefore be deduced that the curriculum was not suitable for the present days' job requirement and thus should be changed.

Using the Statistical Package for Social Science Version 15(SPSSV) analysis as shown in appendix III the highest mean (2.8824) response was on the adequacy of the period allocated for teaching IT subject despite this, many respondents were of the opinion for the need to amend the curriculum with a mean of 2.6824. This is an indication that the curriculum did not make adequate provision for IT skill acquisition. However, further analysis of the data was done by testing the Null hypothesis two ($H0_2$) still using the SPSS.

Null Hypothesis Two (2) (Ho_2) There is no significant difference in the opinions of the teachers and students as to the adequacy of the provision for the teaching of IT in Business Education curriculum.

Table 4.10 provide a computed t-test for the analysis of null-hypothesis two (Ho2)

Table 4.10: Independent t-test difference between the opinion of Students and Teachers on the Adequacy of Provision for Teaching IT in Business Education Curriculum

	Status	N	Mean	SD	DF	T-Cal.	T-Crit.
adequacy of the provision for the teaching of IT in Business Education Curriculum	Students	240	16.8708	6.07794	253	.738	1.96
	Teachers	15	18.0667	6.28452			

Decision Rule: If t-cal. > t-crit. reject the H_o

If t-Cal. < t-crit. retain the H_o

Conclusion: t-Cal. = 0.738
t-Crit. = 1.96
t-Cal. < t-Crit.

Result of the independent t-test shown in table 4:10 revealed that the value of calculated t = 0.738 at degree of freedom (df) 253, is smaller than the table or critical value of t= 1.96 and at 0.05 level of significance therefore is no significant difference between teachers and students in their views on the adequacy of the provision for the teaching of IT in Business Education curriculum. The null hypothesis which stated that there is no significant difference between the opinions teachers and students of Business Education on the adequacy of the provision for teaching of information technology in Business Education curriculum is hereby accepted and retained.

Research Question Three (3) To what extent is the government and the private business organizations participating in the funding of Information Technology (IT) programme in Business Education departments of the universities.

Items 15-25 on the questionnaires answer this question as shown in table 4.5.1.

See appendix II for frequency table.

Table 4.11: Analysis of Research Question Three

Quest Item No	SA	A	D	SD	%A	%D
15	96(8)	129(6)	196(14)	75(4)	45.5	54.5
16	84(16)	120(3)	212(14)	73(3)	41.9	58.1
17	80(4)	111(9)	192(14)	87(4)	40.7	59.3
18	80(8)	93(6)	180(14)	99(4)	38.6	61.4
19	68(4)	63(3)	294(16)	55(5)	27.2	72.8
20	100(8)	132(6)	192(12)	75(5)	46.6	53.4
21	84(8)	129(6)	218(18)	66(2)	42.6	57.4
22.	120(4)	150(9)	178(14)	71(4)	51.5	48.5
23.	80(4)	129(6)	208(14)	73(5)	42.2	57.8
24.	72(0)	75(6)	246(20	74(3)	30.8	69.2
25.	132(0)	63(3)	190(16)	91(6)	39.5	60.5
Total	996(64)	1194(63)	2306(166)	840(45)	40.8	59.2

N.B responses of teachers in brackets

For easier calculation SA and A, D and SD were merged. Thus

$$\%= \text{Agreed} = \frac{SA(S(T)) + A(S(T))}{\text{TOTAL OF ALL } (SA+A+D+SD).} \times 100$$

$$\%= \text{Disagree} = \frac{D(S(T)) + SD(S(T))}{\text{TOTAL OF ALL } (SA+A+D+SD).} \times 100$$

Questionnaire item 15 sought to find out if there is an increase in the funding of Information Technology (IT) programme in Business Education

Department by the federal government. In response, students and teachers who strongly agreed scored 96 and 8 respectively, those who merely agreed scored 192 and 6 while on the other hand disagreed has a score of 196 and 14 for the students and teachers and strongly disagreed scored 75 and 4 for the students and teachers respectively. This showed a total percentage of 45.5% for agreed and 54.5% for disagreed.

Item number 16 wanted to know if there had been a recent donation of computers to the Business Education Department by the Federal Government. The responses shows a score of 84 for students who strongly agreed and 16 for the teachers. It also showed 120 and 3 for students and teachers who agreed. Those who disagreed scored 212 and 14 and strongly disagreed scored 73 and 3 respectively for students and teachers. This brought the total percentage to 41.9% for Agreed and 58.1% for disagreed.

Items number 17 was on whether the impact of Education Trust Fund (ETF) was being felt in the funding of Information Technology in Business Education Department of the universities the scores were 80 for students and 14 for teachers who strongly agreed and 111 and 9 for students and teachers who merely agreed. On the other hand, students and teachers who disagreed scored 192 and 14, students and teachers who disagreed scored 87 and 4 respectively. This bring percentage scores to 40.7% for agreed and 59.3% for disagreed.

Item number 18 sought to know whether the ETF has at any time donated Information Technology (IT) equipment to the department for

teaching. Students and teachers who strongly agreed scored 80 and 8 respectively, those who agreed scored 93 and 6 while disagreed scored 180 and 14 and strongly disagreed scored 99 and 4 for students and teachers respectively making a total percentage of 38.6% for agreed and 61.4% for disagreed.

Item number 19 was to know whether career talks on the importance and uses of Information Technology are always being organized in the department. The scored of responses by students and teachers were 68 and 4 for strongly agreed, 63 and 3 for agreed, 294 and 16 for disagreed and 55 and 5 for strongly disagreed. Thus, the total percentage of agreed and disagreed is 27.2% and 72.8% respectively.

Item 20 was to find out if the fund allocated is enough for the procurement, repair and maintenance of IT equipment and facilities. The students and teachers who strongly agreed scored 100 and 8 while those who merely agreed scored 132 and 6 respectively. On the other hand the students and teachers who disagreed scored 192 and 12 while those who strongly disagreed scored 75 and 5 respectively. These responses represents 46.6% agreed and 53.6% disagreed.

Item number 21 on the questionnaire was to find out if the fund allocated for IT was being used appropriately. The responses showed a score of 84 and 8 for students and teachers who strongly agreed, 129 and 6 for those who agreed, 220 and 18 for disagreed and 66 and 2 for those who strongly

disagreed, bringing it to a total percentage of 42.6% for agreed and 57.4% for disagreed.

Item number 22 sought to know if the funds allocated for IT were diverted for other uses. The responses showed a score of 120 and 4 for students and teachers who strong agreed, 150 for students and 9 for teachers who agreed while on the other hand, students and teachers who disagreed scored 178 and 14, and a score of 71 and 4 for students and teachers who strongly disagreed respectively. This gave the percentage of those who agreed as 51.5% and 48.5% for disagreed.

Item number 23 was to find out if there was a cordial and complimentary relationship between the business education department and the private sector. On analysis it was discovered that the students and teachers who strongly agreed scored 80 and 4 respectively while those who merely agreed scored 129 and 6. On the other hand, those who disagreed scored 208 and 14, strongly disagreed scored 73 and 5 for students and teachers respectively. This represented a percentage of 42.2% Agreed and 57.8 Disagreed.

Item number 24 wanted to know if the private companies occasionally sponsor researches in business education. The students and teachers were respectively scored 72 and 0 for strongly agreed, 75 and 6 for agreed, 246 and 20 for disagreed and 74 and 3 for strongly disagreed, leading to 30.8% agreed and 69.2% disagreed.

Research question items 25 stated that the private companies occasionally send in their IT experts to enlighten students on IT by organizing

and sponsoring seminars and career talks. The respondents were scored thus; 132 and 0 for students and teachers who strongly agreed, 63 for students and 3 for teachers who agreed while the scores of 190 and 16 are for students and teachers who disagreed and 91 and 6 for those who strongly disagreed. Percentage of agreed stood at 39.5% while disagreed is 60.5%.

Based on the analysis of the responses students and the teachers. The overall scored of 5677 is made of 2317 (40.8%) for agreed and 3360 (59.2%) for disagreed. On the whole it could be seen that most respondents were of the opinion that the government and the private sector were not participating as much as they ought to. A further analysis by SPSS revealed that the highest mean response/agreement of 2.1569 was that the fund allocated for IT is diverted for other used while the second highest mean responses/agreement is 2.0863 in which most respondents were of the opinion that the allocated fund for IT was not being used appropriately. (see appendix III) However for further proof null hypothesis three (Ho_3) was subjected to statistical test using the SPSS.

Null Hypothesis Three (3) (Ho_3) There is no significant difference in the mean scores of the teachers and students on the funding of information technology in Business Education curriculum.

Table 4.12 provides a computed t-test for the analysis of null-hypothesis three (Ho3).

Table 4.12: Independent t-test Difference Between Teachers and Students on Funding of IT in Business Education Programme

	Status	N	Mean	SD	DF	T-Cal.	T-Crit.
Funding Of IT In Business Education Programme in Nigerian universities	Students	240	22.2333	9.75064	253	.116	1.96
	Teachers	15	25.5333	9.75064			

Decision Rule: If t-cal. > t-crit. reject the H_o

If t-Cal. < t-crit. retain the H_o

Conclusion: t-Cal. = 0.116

t-Crit. = 1.96

t-Cal. < t-Crit.

Result obtained in the independent t-test Table 4:4:3 above shows that significant difference does not exist between the teachers and students on the funding of information technology in Business Education Programme. This position is evidenced by the value of the calculated t=0.116 at degree of freedom (df) 253 is lower than the value of critical t=1.96, and 0.05 level of tolerance.

Even the value of their calculated mean scores of 22.2333 and 22.5333 for students and teachers respectively also showed no significant level of mean difference between them. Therefore the null hypothesis which states that there

is no significant difference between the mean scores of teachers and students on the funding of information technology in Business Education curriculum is hereby retained.

Research Question Four (4) To what extent do the quantity and quality of manpower affect the acquisition of information technology skills by the students Business Education Departments the universities.

Items no 26- 37 on the questionnaire answer this question as shown in table 4.13. See appendix II for frequency table.

Table 4.13: Analysis of Research Question Four (4)

Quest Item No	SA	A	D	SD	%A	%D
26	80(4)	147(9)	198(12)	72(5)	45.5	54.5
27	100(0)	120(9)	184(18)	83(3)	44.3	55.7
28	180(8)	213(9)	158(14)	45(3)	64.1	34.9
29	192(8)	213(12)	132(1)	55(3)	67.5	32.5
30	60(8)	81(9)	300(10)	48(5)	30.3	69.7
31	96(0)	120(9)	198(18)	77(3)	42.2	57.8
32	80(0)	66(0)	232(22)	82(4)	30.0	70.0
33	96(0)	96(6)	180(20)	94(3)	40.0	60.0
34.	216(16)	213(12)	128(10)	51(2)	70.5	29.5
35.	96(4)	93(6)	204(14)	83(5)	39.4	60.6
36.	40(0)	105(6)	212(16)	89(5)	31.9	68.1
37.	104(12)	249(12)	142(2)	60(2)	63.5	36.5
Total	1340(60)	1716(99)	2268(178)	839(43)	49.1	50.9

N.B responses of teachers in brackets

For easier calculation SA and A, D and SD were merged. Thus

$$\%= \text{Agreed} = \frac{SA(S(T)) + A(S(T))}{\text{TOTAL OF ALL } (SA+A+D+SD).} \times 100$$

$$\%= \text{Disagree} = \frac{D(S(T)) + SD(S(T))}{\text{TOTAL OF ALL } (SA+A+D+SD).} \times 100$$

Item number 26 wanted to know if there were enough lecturers in Business Education Department. The responses were scored accordingly. Strongly agreed was scored 80 for students and 4 for teachers, agreed was 147 for students and 9 for teachers while disagreed students score 198 and teachers 12 strongly disagreed scored 72 and 5 for students and teachers respectively bringing the percentage to 45.5% for agreed and 54.5% for disagreed.

Item 27 sought the opinions of respondents on the statement that each lecturer was restricted to teaching a specific subject. Strongly agreed scored 100 for students and no (0) score for teachers while 120 and 9 were for students and teachers who merely agreed. On the other hand, disagreed was 184 and 18 for students and teachers and 83 and 3 for students and teachers respectively who strongly disagreed. The percentage of agreed and disagreed stood at 44.3% and 55.7%.

Items number 28 was on whether a lecturer was required to teach more than two subjects. The responses for strongly agreed and agreed were scored 180 and 8 and 213 and 9 for students and teachers. While those who disagreed scored 158 for students and 14 for teachers. Those who strongly disagreed scored 45 and 3 for students and teachers. Therefore the percentage of agreed is 65.1% while disagreed is 34.9%.

Item numbers 29 wanted to know if all the lecturers can operate and use the computers to teach. Strongly agreed got scores of 192 for students and 8 for the teachers. Agreed scored 213 and 12 for the students and teachers respectively while disagreed scored 132 for the students and 12 for the

teachers. Strongly disagreed scored a mere 55 and 3 for students and teachers. The percentage of all agreed and disagreed 67.5 and 32.5 respectively.

Item number 30 stated that computer literacy was one of the requirements for employment as a lecturer in Business Education Department. Strongly agreed scored 60 and 8 for the students and teachers respectively while those who merely agreed scored 81 for students and 9 for the teachers in comparison, disagreed was scored 300 for the students and 10 for the teachers while strongly disagreed was 48 and 5 for the students and teachers respectively. All agreed represent 30.3% while all the disagreed scored 69.7%.

Items 31 was to find out if Business Education lecturer are well motivated to teach Information Technology Skill. The responses were scored as follows strongly agreed was 96 for students and nothing (0) for teachers agrees was 120 and 9 for students and teachers respectively. Disagreed were 198 for the students and 18 for the teachers while strongly disagreed students and teachers scored 77 and 3 making a percentage of 42.2% and 57.8% for all agreed and all disagreed.

Items number 32 wanted to know if there were incentives attached to the teaching of IT skills. The responses were scored as follows: strongly agreed 80 for the students (0) nothing for teachers. Agreed scored 66 for students (0) for the teacher. Disagreed student scored 232 and 22 for the teachers while strongly disagreed scored 82 and 14 for the students and teachers respectively. All agreed scored 30.0% while all disagreed scored 70.0%.

Items 33 was to know if the government is always ready to sponsor business related conferences. Students and teachers who strongly agreed scored 96 and zero (0), those who merely agreed scored 96 and 6, while disagreed was scored 180 for the student and 20 for the teachers. Strongly disagreed scored 94 and 3 for the students and teachers respectively. Together, the agreed scored 40% while disagreed scored 60%.

Item number 34 sought the opinions of the respondents on the statement that lecturers are not being given the training and retraining opportunity needed to update their knowledge. The responses attracted the scored of 216 and 16 for the students and teachers who strongly agreed. Agreed scored 213 and 12 for the students and teachers. On the other hand, those who disagreed scored 128 and 10 while strongly disagreed scored 51 and 2 for the students and teachers respectively thus bringing the percentage of agreed and disagreed to 70.5% and 29.5% respectively.

Item number 35 wanted to know if the lecturers are frequently sent on in service training in IT. The responses generated scored 96 and 4 for students and teachers who strongly agreed. students and teachers who merely agreed scored 93 and 6 respectively while disagreed was scored 204 and 14 for students and teachers. Strongly disagreed scored 83 and 15 for students and teachers. Thus the agreed represent 39.4% while disagreed scored 60.6%.

Items 36 was that the business education lecturers already have IT skill and so do not need to be sent on training. The students and teachers who strongly agreed scored 40 and 0 (zero) while agreed scored 105 and 12

respectively. Disagreed scored 212 for the students and 12 for the teachers strongly disagreed was 89 and 5 for students and teachers respectively. The percentage score of agreed is 31.9% while disagreed is 68.1%.

Item number 37 stated that all the lecturers in business education department should be sent on training in IT skill acquisition. The responses scores were 104 for students and 12 for teachers who strongly agreed, 249 for students and 12 for teachers who agreed then 142 and 12 for those disagreed and 60 and 2 for students and teachers who strongly disagreed. The percentage score of Agreed and disagreed stood at 63.5% and 36.5% respectively.

From the analysis drawn from table 4.13 it could be deduced that most students and teachers were of the opinion that the quality and quantity of manpower definitely affected the acquisition of IT skill in Business Education Department. The overall scores and percentage of agreed was 3216 out of 6543 total score making up 49.1% while disagreed was 3328 out of 6543 total score making up 50.9%.

To proof the above result an SPSS analysis was carried out and the statement that lecturers are not being given the training and retraining opportunities has the highest means responses of 2.5412 follow by the item which stated that a lecturers was required to teach more than two subjects with a mean response of 2.4706, as shown in Appendix III Whether there is a significant mean different between the opinions of the students and teachers will be further proved by the testing of null hypothesis four ($H0_4$) which was computed using the SPSS.

Null Hypothesis Four (4) (Ho_4) There is no significant difference in the responses of teachers and students on the availability and quality of manpower for the implementation of information technology in Business Education.

Table 4.14 provides a computed t-test for the analysis of null-hypothesis four (Ho4)

Table 4.14: Independent t-test difference between Teachers and Student on the Implementation of Information Technology in Business Education

	STATUS	N	MEAN	SD	DF	T-CAL.	T-CRIT.
Availability quality manpower for the implementation of information technology in Business Education	Students	240	25.6792	10.72328	253	.122	1.96
	Teachers	15	25.3333	9.20144			

Decision Rule: If t-cal. > t-crit. reject the H_o

If t-Cal. < t-crit. retain the H_o

Conclusion: t-Cal. = 0.122

t-Crit. = 1.96

t-Cal. < t-Crit.

The outcome of the above independent t-test Table 4:14 above shows that since the value of the calculated t was 0.122 at degree of freedom 253, is smaller than the value of critical t of 1.96 at 0.05 level of tolerance, then there is no significant difference between students and teachers of Business Education in their views on the availability of manpower for the implementation of IT in Business Education. To further support this position is the value of their calculated mean score of 25.6792 and 25.3333 for students and teachers which also showed a no significant difference between their mean

scores. Consequently the null hypothesis which states that there is no significant between teacher and students in their mean scores on the availability of quality manpower for the implementation of IT in Business Education Programme is hereby retained.

Discussions of the Result

The findings of research question one and null- hypothesis one revealed that a lot still need to be done in the area of provision for Information Technology materials and equipment if the business education students are to be competent in IT skill. This finding showed the inadequacy of the quantity and quality of computers and other IT facilities in comparison with the number of students in the departments. This agreed with Adah (2001) who lamented the sorry state of Vocational Education today which was described as mere 'shadows' of the set goals. According to him most institutions lack functional workshops, equipped typing pools, laboratories etc. yet students continue to graduate every year from our institutions.

The implication of this scenario is that theoretical mode of instruction carries the day. It is therefore not uncommon to see students in Information Technology classes without a single computer system. In some exceptional cases where computers and other IT material/equipment are available they are usually very few and of low standard as attested by Cuban (1996). No wonder UNESCO (2003) listed Nigerian Universities as one of the least users of computers for teaching and learning in computer demanding courses. For

business education graduates to be competent, computers and other relevant IT facilities must be provided.

The findings of research question and null-hypothesis two (2) revealed that the Business Education curriculum in the universities did not lay much emphasis on information technology as some respondents are of the opinion that the curriculum of Business Education in the universities should be amended to reflect more emphasis on the teaching of Information Technology. Considering the current global trend this calls for a critical review of the curriculum.

Ada, Aboho and Zaria (2002) in Onwuegbuna (2004) stated that curriculum is a reflection of what people think, feel, believe and do. The curriculum provides a systematic learning environment as well as conscious insight into the society which make societal improvement possible. The planning of Business Education curriculum therefore, must follow some realistic guidelines which according to Onwuegbuna (2004) include:

1. How can the curriculum be effectively designed?
2. How should the nature of curriculum be influenced by the values of the society in which it functions?
3. How do education institutions interact with other institutions and with the society in general?

In order to achieve the goals of business education and education in general, the society, the learner and the teacher are the three basic elements to be considered. These respondents want the curriculum to take cognizance of

the present day standard and the curriculum of an important subject like Business Education needs to be constantly revised and amended to incorporate more IT-tailored courses because the world is dynamic and moving at a fast pace.

This is in agreement with the National Policy on Education (NPE)(2004) which clearly stated that for the benefit of all citizens, the country's educational goals shall be clearly set out in terms of relevance to the needs of the individuals and those of the society in consonance with the realities of our environment and the modern world.

This finding indicated a clear picture of the neglect of Business Education department by the institutions, business organizations, government, etc when it comes to funding. Nwankwo (2002) agreed that the administration and supervision of business education in Nigeria was faced with a lot of problems but the fundamental problem was that of inadequate funding. When other Faculties like medicine, engineering, Law etc are being given grants from business organizations, Faculty of Education indeed Business Education Department is usually forgotten. Where fund was made available for the teaching of information technology, such funds were usually diverted for other uses.

According to Aina, (1996) in Akhere (2002) Business education is a subject which permeates the entire life of a nation thus should not be left to continue operating in archaic systems rather should be revisited especially in

the area of information technology which has become an indispensable tool of progress in this technological era.

This might have prompted Abubakar Tafawa Balewa University, Bauchi and Ahmadu Bello University, Zaria to open computer laboratories that allow students to use freely for one hour and the teachers are allowed to use the computers on paying a token.

The findings of this study showed that most, if not all the teachers/lecturers in business education department are computer literate which is a recent welcome development. There are however, the issues of under-funding of the departments, lack of incentives to motivate lecturers, lack of training and retraining courses in information technology, etc. These problems must be tackled as emphasis is being placed on information technology and computer literacy worldwide as a means of improving the manpower quality of citizens.

A teacher cannot give what he does not have. The teacher must possess the required skills to be able to impart such in students. According to Saurayi (2005) teachers quality refers to those professional characteristics or properties they possess which necessitates their success on the job. The Encyclopedia of Education (1971) stated that the quantity and quality of staff is the most important ingredient of media programme if it is to make a positive difference in teaching /learning. Also National Policy on Education (2004) stated that no educational system may rise above the quality of its teachers. Teachers should therefore be encouraged to improve on their qualification especially in for technology and computer skills as the quality of teachers dictates the pace of the country's educational system.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS.

5.1. Summary

The purpose of the study is to appraise the implementation of information technology in business education programme in federal universities in Nigeria, for this purpose, the literature review showed a number of empirical propositions on Business Education Curriculum, Information Technology and the relationship between information technology, business education and the society. Four research questions were raised to serve as logical basis in evaluating and appraising the implementation of information technology in Business Education as provided by the present curriculum. Four null hypotheses were formulated for the study, and tested at a significant level of 0.05

The survey research design was used because of its reliability as a tool for educational research. The population for the study consisted of all Business Education students and teachers of the four Federal Universities as at the time this study was carried out. Out of the population of 1212 students and 25 lecturers, totaling 1237, 240 students and 15 lecturers were randomly selected for the sample size. The instrument for collection of data was the questionnaire. In order to answer the research questions. And test the null hypotheses the simple statistical frequency table, percentages and t-test were utilized. With the aid of SPSS. All the four null hypotheses were retained. The major findings of the study were;

1. There was no significant difference in the opinions of the students and lecturers that the available Information Technology instructional materials and equipment in Business Education Departments were inadequate.
2. Information technology was not adequately provided for in the Business Education Curriculum in the universities there is therefore a need for the curriculum to be amended.
3 There was no significant different in the views of the students and lecturers that the Department of Business Education was not being well funded to encourage the teaching of information technology.
4. Students and lecturers agreed on the need for additional qualified teachers to teach Information Technology in Business Education,

5.2 Conclusion

From the findings, it was revealed that Information Technology facilities were not enough, thus making it impossible for business education graduates to have practical knowledge of information processing and technology skills that are required for today's job acquisition. This lack of proficiency in computer operation makes the graduates unqualified for employment leading to an increase in the level of unemployment in Nigeria.

The second major finding revealed that there is a short- fall in the business education curriculum provision for Information Technology teaching and should therefore be amended to meet the present day standard and needs of

the students, the teachers and society at large. The curriculum of an important course like business education needs to be constantly amended to incorporate more Information Technology tailored courses. Njoku (2001) stated that innovation cannot equip graduates without marching the innovation with the objectives of the programme. The objectives of business education should direct the amendment of the curriculum in order to produce a well defined and rounded curriculum in the area of information technology. Continuous use of out dated curriculum will only succeed in turning out incompetent graduate that will either seek for training after school in order to be gainfully employed or remain unemployed. Thereby leading to an increases in social problems and vices.

Thirdly the findings revealed that one of the major impediments to the implementation of information technology is fund. Nwangwu (2002) stated that the funding of education is a problem of great dimension. Although there is an indication that government has increased its allocation of funds to the department to implement the teaching of IT, such funds are usually diverted for other uses therefore, leaving the department with insufficient fund to cater for IT. There is also the issue of the private organizations like Macarthur Foundation and government through ETF concentrating on some universities and leaving out the others in their donation of computers and other IT materials and equipment and in the sponsorship of researches and career talks in the department. This discrimination in their contributions to the implementation of IT has lead to a disparity in the access to computers and other I.T equipment in

the various departments of the universities. Business Education departments of the universities are at a disadvantage. Theoretical teaching of IT courses continues with half baked graduates who may be ill-fitted for today's world of work being turned out.

This study also revealed that the teachers need additional training to be able to perform optimally despite the fact that they are proficient in the use of computer as indicated by some student and teacher respondents. A situation in which a teacher is required to teaching more than two subjects is not good enough. This conforms with the opinion of Ekpenyong and Nwabuisi (2002) that the inadequate manpower supply has been recognized as a major factor militating against the successful and effective implementation of Business Education Programmes. This is also an indication that the few available teachers/lecturers are over worked and thus cannot give their best.

On the whole, it could be conclude from the findings of this study that the inadequacy in the implementation of information technology in Business Education is a combination of different factors, such as, the curriculum, funding and the availability of equipment and manpower. All of which must be addressed for the noble objectives of business education to be achieved.

5.3 Recommendations

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

1. **Non-Availability of Instructional Facilities:-** The stake holders in education - all levels of government, private individuals and corporate

bodies should provide funds to institutions for the purchase of adequate quantity of modern IT equipment. Also facilities like Uninterrupted Power Supply (UPS), internet receiver, computer software etc should be provided. The universities should provide alternative power supply sources like generators, solar Energy generators e.t.c in order to counter the effect of frequent power outage in Nigeria, as IT equipment cannot be used without constant power supply,

2. **Curriculum review/amendment:-** The National Universities Commission(NUC) should emulate National Board for Technical Education(NBTE) by redesigning Business Education Curriculum to suit the job requirement of today through the integration and emphasizing on information technology and the ability of the graduates to use/ operate modern equipment,

3. **Funding**:- More funds should be made available to the business education depts. of the various universities by the government at various levels, the private sector, and benevolent individuals. They should be encouraged to contribute to the funding of the Business Education Programme. Also accountability must be applied to make the maximum used of the available resources. Thus, people of noble qualities of honesty, integrity and reliability should he appointed to manage such funds.

4. **Manpower:-** Lecturers / teachers should be sent on in-service training, workshops and seminars on information technology and how to operate

the various equipment used in modern offices. Also, universities offering postgraduate degrees in Business education should emphasize arid direct the programme towards developing information technology skills in the students. This will equip such postgraduate students to impart the so acquired skills into their own students.

5.4 Curriculum Implication

The recommendations made in this study will be of great importance to graduates, the teachers, the universities, the business world and the society at large through the restructuring of business education curriculum in the universities to integrate and emphasis on information technology as it relates to the world of work today. The ability of the business education graduates to operate the modern Information Technology equipment will enable them obtain gainful employment either in private/ public organizations, or self employment thereby reducing the rate of unemployment and social vices that is plaguing the Nation. This will bring about the achievement of the noble goals of business education in the area of training individuals to be useful/ productive members of the society.

5.5 Suggestion For Further Research

Based on the limitations of this study, the researcher wishes to suggest scientific investigation on the following areas

1. Effect of Information Technology on the Employability of Business Education Graduates.

2. Relationship between Gender and Secretarial Education as a Profession.
3. Information Technology in the Polytechnic and the University; A Comparative Study.
4. The Effect of the use of IT Equipment Assisted Instruction on the Academic Performance of Students of Business Education.

REFERENCES

Abdulkareem, M,I (1998) Factors Affecting the Job Performance of Secretaries in Kaduna State, Unpublished Thesis, Ahmadu BelLo University, Zaria.

Adah (2001) Functional Vocational and Technical Education in Nigerian Secondary Schools: The Challenges of the 3rd millennium. *Teacher Education Journal 2* 8-13

Agbionu, C.U. (2002) The Impact of Globalization on Business Education. *Business Education Journal* 3 (5) 49.

Aina O.(2001) Business Education, Technology and National Development (A keynote Address). *Business Education Journal* 3 (5) 1-8.

Akhere S.E (2002) The Relevance of Business Education in the 21st Century . *Books of Readings in Business Education* 1(2) 30-37.

Akpan, A. (2003] Information Technology - Implication. New Nigeria Weekly .

Aliyu, M.M, (2001) *Business Education in Nigeria (Trends and Issues)* ABU Press Ltd, Zaria Nigeria PP 32-50.

Alozie, A.N- (1998) *The* Changing Office Environment and Need for Office Education *Journal of Business and Office Education 1(1), 14-18*

Amoor S.S (2009) Challenges of Secretarial Education Programme in Nigerian Universities in an Era of Modern Office Technology and Information System. An unpublished thesis. Ahmadu Bello University, Zaria.

Anderson (1976) *The Administrative Secretary* 2nd ed, McGraw-Hill Inc. New York.

Armstrong, D.G. (1989) *New Information Technology and the Schools Education. An Introduction* 3rd Edition Macmillan Publ. Co. New York, PP, 130-133.

Aromolaran, E.A. (1999) Top Flight Secretaries in the New Millennium: Problems and Prospects of Office Automation. *Business Education Journal 3 (2) 99.*

Arthur O.A (2005) Integrating Information Technology with the Secretarial Education Curriculum in Tertiary Institution in Bauchi. Unpublished first degree project. Ahmadu Bello University, Zaria.

Arukwe, A.N. (1998) Employees Office Skills Competencies and Employers Preference. *Business Education Journal 3(2) 111-116*

Atakpa, R,A. (2002) Business Education in Information Technology Era Issues, Problems and Prospects. *Book of Readings in Business Education.* 2 68.

Atueyi, N.C. (2001) Integrating Information Technology into Business Education: *Business Education Journal* 3 (4) 177-179.

Awake (1997) Services and Resources of the Internet. Watch Tower Bible and Tracts Society New York.

Babalola, L.S. (2001*)* A Guide Towards Effective Curriculum Development for the Training of Secretaries in the Era of Advanced Technology. *Business, Education Journal* 3(4) 11.

Cremin, L. A. (1979) *Public School.* Harper and Row, New York,

Cuban, L, (1986) *Teachers and Machines; The Classroom Use of Technology Since 1920.* Teachers College Press New York,

Curtis, R.F. (1984) *Curriculum Development in Vocational and Technical Education Plan, Content and Implementation* 2nd ed. Allyn and Bacon Inc. Boston PP. 215-227.

Cutman, I.J. McDaniel C, (1983) *Business World.* John Willey and Sons Inc. New York. PP 514.

Dangana, A-B. (2002) Business Education in Information Technology Era: Issues, Problems and Prospects of Management Information System. *Book of Reading in Business Education* 2(2) 55.

De 'Olivera (1991] ICTs in the Least Developed Countries, retrieved February 2007. Internet Resource.

Denyer, D.I. (1989) *Officer Management* 5th ed. In: Josephine Shaw: (Ed) Pitman Publication, United Kingdom London PP 128-140.

Edward (1970) Modern Computer Concepts. South-Western Publishing Co, Cincinnati Ohio PP. 1-2.

Ekpenyong and J. Nwabuisi (2002) Business Teacher Education in Nigeria: Projecting a New Dimension. *Business Education Journal* 3 (5) 154-165.

Elmore G. (1978) Manpower Aspects of Education Planning Problems for the Future. UNESCO International Institute For Educational Planning, Imprimerie Rolland, Paris PP 15.

Encyclopedia of Education (1971) United States of America Macmillan Company Ltd vol. I

Eni, C,O. (1987) Business Education in a Developing Economy: The Nigerian Case. *Business Education Journal* 2 (1) 51-58.

Esther, M.A, (2000) Availability and Utilization of Instructional Materials in Business Subjects. Unpublished M.Ed Thesis.

Fafunwa, A.B. (1974) History- of Education in Nigeria. 8th Edition. George Allen and Urwins, London, PP. 233-236.

Federal Government of Nigeria National Policy on IT (2001) Federal Government Press PP. 1-9

Federal Ministry of Education (2004) National Policy on Education (3rd ed) NERDC, Lagos.

Galbraith, J.K, (1997) *The New Industrial State.* Houghton-Mifflin Co. Boston,

Hamilton (1995) ICTs in the Least Developed Countries retrieved February 2007. Internet Resource

Hawkridge, D. (1983) *New Information Technology in Education*. The John Hopkins University Press Baltimore Md.

Henson, T.K. (1989) *New Information Technology and the Schools Education:* An Introduction. 3rd Edition, PP 127-128

Hirst, P.H. (1974) *Knowledge and the Curriculum.* London, Rouledge.

Idih, E.N. (2002) Information Technology a Veritable Tool for Poverty Alleviation. *Business Education Journal* 3(5) 86.

Iromantu C. (2002) A New Telecons Law for Nigeria. Vanguard Newspaper October, 23, 2002 PP 29

Ivowi, H,M,O (1987) Appraisal of Research on the National Policy on Education: Implementation of National Policy on Education Theoretical/and Empirical Analysis. NERA Publication. University of Benin Nigeria.

Kerlinger, F.N. (1978) *Foundation of Behavioural Research*. 4th Edition Hatt, Rinehant and Winston PP, 482-484.

Krejcie, R.V and Morgan D.W (1970) *Determining sample size for Research Activities.* Education and psycholojical measurement 2, 608

Long, I. (1991) *Introduction to Computer and Information Processing* 3rd Edition Prentice Hall Inc. New Jersey.

Lucas, H.C, (1997) *Information Technology for Management*- The McGraw-Hill Companies Inc. New York PP 20.

Madison, A. (1982) *Information Technology and the Curriculum.* Harper And Row. New York.

Mamman, M. (2005) Statistics notebook. Faculty of Education ABU Zaria.

Ndinechi (2001) Purpose and Functions of Business Education. *Business Education Journal* 3(4) 1-8.

Njoku C.U (2001) Conflicts and Conflictions in Curriculum Innovations in Secretarial Studies Programme. *Business Education Journal* 3 (4) 81-90.

Nolan, C.A Hayden C.K and Malsbary D. R (1970) *Principles and Problems of Business Education*. South-Western Publishing Company New York

Nwachokor, J.O (2002) Inhibiting Factors of Poverty Reduction Through Sustainable Business Education. *Business Education Journal* 3 (2) 55

Nwangwu N. A (2002) The Politics of Education Policies in Nigeria. Faculty of Education. Lecture series. No 1 University of Benin PP 20

Nwankwo N.F (2002) Administration and Supervision of Business Education in Nigeria's Tertiary Institutions: Matters Arising. *Business Education Journal* 3 (5)15-23.

Nwaokolo, P.O. (1992] Educating the Business Researcher for Self Reliance in a Decadent Economy: An Entrepreneurial Initiative. *Business Education Journal*.

Nwosu, B.O. (1999) An Appraisal of Information Technology as a Strategy for Achieving the Mission of Business Education in 21st century. *Business Education Journal* 2 (2) 31-39.

Obi C.A and Obiorah J.O (2001) The Business Education Teacher as an instrument for Integrating Information Technology with Business Education. *Business Education Journal* 3(4) 112-118.

Oguoma (2002) Training for the World Of Work - A Missing Link. *Business Education Journal* 3(5).

Ogunedum K.A (2007) Relevance of Business Education and Technology for 21st Century and National Development: A Case Study of College of Education Zuba FCT Abuja. An unpublished first degree project. Ahmadu Bello University, Zaria.

Ohakwe (2001A) Manual Office Skills in an Information Technological Era. *Business Education Journal* 3 (4)

Ohakwe (2001B) The Dynamics of Information Technology in Contemporary Business Environment. *The Millennium Secretary's Journal* 71. 20-26

Okunrotifa, P.O. (1975) Principles of Curriculum Development And Instructional Planning. Planning for a Responsive Curriculum, A Paper Presented at a Workshop on the Training of Nurses. University of Ibadan. PP 166.

Oladebo S.A. (1987). The Challenges of the 'New National Policy on Education to Business Educators. *Business Education Journal* 2 (1) 32-39.

Olisa (2004] Nigerian Conference of Principals, Vanguard Newspaper.

Oliver, E.G. and Chapman, R.J. (1993) Data Processing and Information Technology PP 20.

Onuwegbuna J. O (2004) Learner –Centred Curriculum: Concept and Application in Vocational Education. *Journal of Educational Foundation Benue State University* 1(1) 1-10

Onwuka E.M (2005) Infusion of Education Sustainability in Nigeria: Administrative Implication. *Journal of Educational Studies* 2. 93. Institute of Education Unijos.

Onwuka, U. (1984) *Curriculum Development for Africa.* Africana Feb Publishers, Ltd, PP 44

Osuagwu, D.C. (1998) The Internet Resources and Applications- This Day PP 16

Osuala, E.C. (1992) *Principles and Methods of Business Education* Nigeria Pacific Publishers.

Osuala, E.C. (1987) *Foundation of Vocational Education*. 3rd Edition Pacific Pub Coy. Nsukka,

Osuwa, A.A. (2002) Information Technology and its Implication in Accounting Education. *Business Education Journal* 3(5) 40-41.

Oyedele, J.F. (2000) "Business Education in Nigeria: The Challenge for the 21st Century". *Business Education Journal* 2(3)

Robson, W. (1997) *Strategic Management and Information System.* 2nd Edition Pitman Publishing, London,

Roe, L.J and Edgar, L.M. (1975) *The Economic and Financing of Education. A System Approach.* 3rd ed. Prentice Hall. Inc, Eaglewood Cliffs New Jersey PP. 297-299,

Ronald, P.U, David, J.F, and James, H, (1979] *The Office of the Future; Communication and Computers.* North Holland Publ. Co. Oxford.

Saurayi I.D (2005) Relevance of Quality Criteria to Teachers Maximum Productivity in the Nigerian Educational system. *Journal of Educational Studies* 2(1) Institute of Education Unijos 6-10

Stephen, D. (1999) *Advanced Information Technology.* Stanley Thrones, London, PP. 276-323.

Swanson, E.A. (1947) The High School Curriculum: Business Subjects in the Curriculum. In: Douglas H. R. (Ed) The Ronald Press Co. New York PP 51.

Tonne, A.H., Nannasy, L.C. (1970) *Principles of Business Education* ed- McGraw-Hill, New York Inc. PP. 23.

Udenya, C.S. (1987) "The Curriculum" In fundamentals, innovations and issues in Education. In: Anih, S. (Ed). Institute of Economical Education Enugu.

Udoh, A.A (2002) Effects to Lecture Period and Automotive Device on the Performance of Low Achievers in Introductory Accounting in Ahmadu Bello University Campuses. Unpublished Thesis. Ahmadu Bello University, Zaria.

Ulinfun, F.E. (1982) Business Education Making Stride Slowly: A Paper Presented on the Occasion of the Launching of Business Education Students Association, College of Education Minna 26th April. PP 6

Uwaje C. (2003) “Imperative for University on Industry”. Guardian Newspaper. February 11. PP 42

Wiles, J. and Bondi, J.C (1979) *Curriculum Development*. 2nd Edition.

William B. and Edward, C.C, .(1980] *RPG and RPG II Programming; Applied Fundamentals*. Prentice Hall, Eaglewood Cliffs New Jersey.

William Morris (1954) *Heritage Illustrated Dictionary of English Language*. American Heritage Public Co. USA.

APPENDIX I
QUESTIONNAIRE

Department of Voc.&Tech. Edu.
Ahmadu Bello University
Zaria.
11th July, 2006

Dear Respondent

I am a post graduate student of Ahmadu Bello University, Zaria. My thesis is on appraisal of the implementation of Information Technology in Business Education Programme in some Federal Universities in Nigeria.

I sincerely request that you please fill this copy of questionnaire. Your frank response will aid this research a great deal.

This is purely for academic purpose. Your information will be treated confidentially.

Yours faithfully,

Onuagba, Ngozi V.
(M.ED/EDUC/6100/2009-2010)

QUESTIONNAIRE FOR STUDENTS

SECTION A

Instruction: Please tick ( ) where appropriate

PERSONAL DATE

1. Name _____

2. Gender (a) Male( ) (b) Female( )

3. Name of School_____

4. course:

   (a) Office education ( ) (b) Accounting Education( )

   (c) Marketing Education ( )

   (d) Business Education (General) ( )

5. Level (a) 100 (b) 200( ) (c) 300( ) (d) 400( )

SECTION B

Direction: At the end of each statement are columns with the letters:

SA- Strongly Agreed, A-Agreed,

SD-Strongly Disagree, D-Disagree

Tick (√) the one that clearly indicates your opinion.

S/No Research Question One	Availability of Instructional Materials/Equipment for the Acquisition of Information Technology Skills	SA	A	D	SD
1	The number of computers and other Information Technology equipment is in commensurate with the number of student users in the department				
2	The department has enough Information Technology equipment, facilities and materials for teaching students.				
3	Business Education student can proficiently operate the computer				
4	The students are able to develop this skill through constant practice the departmental computer room.				
5	Computer and other Information Technology subjects are taught theoretically				
6	Computer and other information processing subjects are taught using computer and other I.T equipment as teaching aids				
7	The available computers are easily accessible to the students.				
Research Question Two	**Adequacy Of The Provision Made For Teaching It Skills In Business Education Curriculum**				
8	The business education curriculum is adequate for present day employment regiment				
9	Business education graduates can conveniently fit into today's world of work based on training received at school				
10	The curriculum of Business Education need to be amended				
11	The curriculum should be left as it is.				

12	Information Technology is part of the skills being imparted in my department				
13	There is an emphasis on the use of computer based learning in my department.				
14	The periods allocated for teaching of Information Technology subjects like data processing is adequate				
Research Question Three	**Extent of Government and Business Organisations Participation in the Funding of Information Technology Business Education**				
15	Government is now increasing its funding of IT programme in the department				
16	A number of computers were recently donated to my department by the Federal Government				
17.	The Impact of Education Trust Fund (ETF) is being felt in the department in the area of Information Technology funding				
18.	The ETF had at one time or the other donated Information Technology equipment to the department for teaching.				
19	Career talks are always sponsored by the school to enlighten students and teachers on the importance and uses of Information Technology				
20	The fund allocated to the department is a enough for the procurement, repair and maintenance of Information Technology equipment and facilities				
21	The allocated fund are being used as appropriate				
22	The fund so allocated for IT is diverted for other uses.				

23	There is a cordial and complimentary relationship between the Business Education department and the private sector				
24	The private companies do occasionally sponsor researches in Business Education				
25	Private companies occasionally send in their information experts to enlighten students on Information Technology by organizing and sponsoring seminars and career talks				
Research Question four	**Extent of Man Power Quality/Quality Effect on the Acquisition of Information Technology Skill by Students.**				
26	There are enough lecturers in Business Education department				
27.	Each lecturer is restricted to teaching a specific subject.				
28	A lecturer is required to teach more than 2 subjects				
29	All the lecturers can operate and use the computer to teach				
30	Computer literacy is one of the requirements for employment as a lecturer in Business Education Department.				
31	Business Education lecturers are well motivated to teach Information Technology skills				
32	There are incentives attached to the teaching of Information Technology skills				
33	Government is always ready to sponsor business related conferences				
34	Lecturers are not being given the training and retraining opportunity needed to update their knowledge				
35	Lecturers are frequently sent on in-service training in information technology skill				

36	The Business Education lecturers already have information technology skill and so do not need to be sent on training.				
37	All lecturers in Business Education should be sent on training in IT skills acquisition				

QUESTIONNAIRE FOR BUSINESS LECTURERS

Section A

Instruction: Please tick ( ) were appropriate.

PERSONAL DATA

1. Name of Institution_____

2. Area of specialization: Accounting ( ) Marketing ( ) Office ( )

3. Your highest academic qualification

   P.hD ( ) M.A ( ) M.SC ( ) M.ED ( ) PGDE ( )

   B.ED ( ) B-A ( ) B.SC ( ) HND ( )

4. Teaching/Working experience

   1-5 years ( ) 6 - 10 years ((11-15 years ( ) 16 - 20 years ( )

   21 and above ( )

5. Which of the following professional association do you belong?

(a) National Association of Business Educators (NABE) ( )

(b) Vocational and Technical Education Teachers Association ( ]

(c) Curriculum Organization of Nigeria (CON] ( )

(d) Nigeria Institute of Management (NIM) ( ]

(d) Computer Association of Nigeria ( )

6, Which of these seminars or conferences have you ever attended?

(a) Planning of the National Policy of Education ( )

(b) Curriculum Planning Committee ( )

(c) National Association of Business Educators Annual Conference ( )

(d) Computer association of Nigeria Conference ( )

7. Which of these educational journals do you subscribe?

(a) Business education journals ( )

(b) Vocational Education journals ( )

(c) The accountants ( )

(d) The Manager ( )

(e) Business Times ( )

8. How many subjects do you teach per Semester?

1 ( ) 2( ] 3( ) 4( ) 5( )

9. How many students do you teach per class?

50-100 [ ) 101-150 ( ) 151-200 f) 201-250 ( ) 251-300 ( )

301-350(} 351-400 ( ) 400 and above ( )

S/NO Research Question One	Availability of Instructional Materials/Equipment for the Acquisition of Information Technology Skills	SA	A	D	SD
1	The number of computers and other Information Technology equipment is in commensurate with the number of student users in the department				
2	The department has enough Information Technology equipment, facilities and materials for teaching students.				
3	Business Education student can proficiently operate the computer				
4	The students are able to develop this skill through constant practice the departmental computer room.				
5	Computer and other Information Technology subjects are taught theoretically				
6	Computer and other information processing subjects are taught using computer and other I.T equipment as teaching aids				
7	The available computers are easily accessible to the students.				
Research Question Two	**Adequacy Of The Provision Made For Teaching It Skills In Business Education Curriculum**				
8	The business education curriculum is adequate for present day employment regiment				
9	Business education graduates can conveniently fit into today's world of work based on training received at school				
10	The curriculum of Business Education need to be amended				
11	The curriculum should be left as it is				
12	Information Technology is part of the skills being imparted in my department				
13	There is an emphasis on the use of computer based learning in my department.				

14	The periods allocated for teaching of Information Technology subjects like data processing is adequate				
Research Question Three	**Extent of Government and Business Organisations Participation in the Funding of Information Technology Business Education**				
15	Government is now increasing its funding of IT programme in the department				
16	A number of computers were recently donated to my department by the Federal Government				
17.	The Impact of Education Trust Fund (ETF) is being felt in the department in the area of Information Technology funding				
18.	The ETF had at one time or the other donated Information Technology equipment to the department for teaching.				
19	Career talks are always sponsored by the school to enlighten students and teachers on the importance and uses of Information Technology				
20	The fund allocated to the department is a enough for the procurement, repair and maintenance of Information Technology equipment and facilities				
21	The allocated fund are being used as appropriate				
22	The fund so allocated for IT is diverted for other uses.				
23	There is a cordial and complimentary relationship between the Business Education department and the private sector				
24	The private companies do occasionally sponsor researches in Business Education				
25	Private companies occasionally send in their information experts to enlighten students on Information Technology by organizing and sponsoring seminars and career talks				

Research Question four	**Extent of Man Power Quality/Quality Effect on the Acquisition of Information Technology Skill by Students.**				
26	There are enough lecturers in Business Education department				
27.	Each lecturer is restricted to teaching a specific subject.				
28	A lecturer is required to teach more than 2 subjects				
29	All the lecturers can operate and use the computer to teach				
30	Computer literacy is one of the requirements for employment as a lecturer in Business Education Department.				
31	Business Education lecturers are well motivated to teach Information Technology skills				
32	There are incentives attached to the teaching of Information Technology skills				
33	Government is always ready to sponsor business related conferences				
34	Lecturers are not being given the training and retraining opportunity needed to update their knowledge				
35	Lecturers are frequently sent on in-service training in information technology skill				
36	The Business Education lecturers already have information technology skill and so do not need to be sent on training.				
37	All lecturers in Business Education should be sent on training in IT skills acquisition				

APPENDIX II

Frequency Table 1: Research Question One (1)

QUEST ITEM NO	SA	A	D	SD	TOTAL
1	10(1)	16(3)	80(4)	137(7)	240(15)
2	25(1)	27(3)	91(4)	97(7)	240(15)
3	10(2)	51(3)	70(6)	109(4)	240(15)
4	12(2)	10(2)	103(6)	115(5)	240(15)
5	41(2)	57(3)	75(5)	67(5)	240(15)
6	20(2)	68(3)	80(7)	72(3)	240(15)
7	11(1)	28(2)	88(8)	113(4)	240(15)
TOTAL	129(11)	257(19)	587(40)	707(35)	

(N.B teacher responses in brackets)

Frequency Table II: Research Question Two(2)

Quest Item No	SA	A	D	SD	Total
8	47(5)	55(5)	76(3)	62(2)	240(15)
9	63(5)	53(16	74(3)	50(1)	240(15)
10	34(3)	125(6)	52(4)	29(2)	240(15)
11	18(2)	64(3)	122(5)	36(5)	240(15)
12	14(2)	59(2)	107(9)	60(2)	240(15)
13	10(1)	47(2)	127(7)	56(5)	240(15)
14	70(7)	94(5)	49(2)	27(1)	240(15)
TOTAL	256(25)	497(29)	607(33)	320(18)	240(15)

(N.B teacher responses in brackets)

Frequency Table III: Research Question Three (3)

QUEST ITEM NO	SA	A	D	SD	TOTAL
15	24(2)	43(2)	98(7)	75(4)	240(15)
16	21(4)	40(1)	106(7)	73(3)	240(15)
17	20(1)	37(3)	96(7)	87(4)	240(15)
18	20(2)	31(2)	90(7)	99(4)	240(15)
19	17(1)	21(1)	147(8)	55(5)	240(15)
20	25(2)	44(2)	96(6)	75(5)	240(15)
21	21(2)	43(2)	109(9)	67(2)	240(15)
22	30(1)	50(3)	89(7)	71(4)	240(15)
23.	20 (1)	43(2)	104(7)	73(5)	240(15)
24.	18(0)	25(2)	123(10)	74(3)	240(15)
25.	33(0)	21(1)	95(8)	91(6)	240(15)
TOTAL	216(16)	1194(21)	1153(83)	840(45)	

(N.B teacher responses in brackets)

Frequency Table IV: Research Question Four (4)

Quest Item No	SA	A	D	SD	Total
26	20(1)	49(3)	99(6)	72(5)	240(15)
27	25(0)	40(3)	92(9)	83(3)	240(15)
28	35(2)	71(3)	79(7)	45(3)	240(15)
29	48(2)	71(4)	66(6)	55(3)	240(15)
30	15(2)	27(3)	150(5)	48(5)	240(15)
31	24(0)	40(3)	99(9)	77(3)	240(15)
32	20(0)	22(0)	116(11)	82(4)	240(15)
33.	24(0)	32(2)	90(10)	94(3)	240(15)
34	54(4)	71(4)	64(5)	51(2)	240(15)
35.	24(1)	31(2)	102(7)	83(2)	240(15)
36	10(0)	35(2)	106(8)	89(5)	240(15)
37	26(3)	83(4)	71(6)	60(2)	240(15)
TOTAL	335(15)	572(33)	1134(89)	839(43)	

(N.B teacher responses in brackets)

APPENDIX III

Analysis and Arrangement of Research Question Items in Order of Mean Response Agreement

Research Question 1

What are the opinions of teachers and students on the availability of instructional material and equipment for the acquisition of information technology?

Table 1: Availability of Instructional Material/Equipment for the Acquisition of Information Technology.

S/NO	Availability of Instructional Material/Equipment for the Acquisition of Information Technology	Mean	S Error	STD Devia.
1	Computer in information technology subjects are taught theoretically	2.2902	.66605	1.05466
2	Computer and other subjects are taught using computer and other information technology equipment	2.1569	.05930	.94687
3	The departments have enough IT equipment facilities material for teaching students.	1.9137	.06038	.96412
4	Business Education students can proficiently operate the computer	1.8627	0.05697	0.90969
5	The available computers are easily accessible to the students.	1.7529	.05263	.84050
6	The students are able to develop their skill through constant practice with the departmental computers.	1.6863	.05015	.80084
7	The number of computer and IT equipment is commensurate with the number of students users in the department	1.6078	.05044	.80545

Research Question 2

How adequate is the provision made for the teaching of information technology skills in the business education curriculum?

Table 2: Adequacy of Provision made for Teaching IT Skills in Business Education Curriculum

S/NO	Adequacy of Provision made for Teaching IT Skills in Business Education Curriculum	Mean	S Error	STD Devia.
1	The periods allocated for the teaching Information Technology subjects like data processing is adequate	2.8824	.06042	.96488
2	The curriculum of Business Education needs to be amended	2.6824	.05434	.86778
3	Business Education graduates can conveniently fit into today's world of work based on training recent at school	2.5647	.06813	1.08802
4	The Business Education curriculum is adequate for present day employment requirement	2.3922	.6723	1.07364
5	The curriculum should be left as it is	2.1216	.05317	.82031
6	Information Technology is part of the skills being imparted in my department	2.1216	.05319	.84934
7	There is an emphasis on the use of computer based learning in my department.	2.0392	.04870	.77766

Research Question 3

To what extent is the government and business organization participating in finding of IT project in Business education

Table 3: Extent of Government and Business Participation In Funding of IT Project Business Education

S/NO	Extent of Government and Business Participation In Funding of IT Project Business Education	Mean	S Error	STD Devia.
1	The fund so allocated for IT is diverted for other uses.	2.1569	.06159	.98358
2	Allocated funds are being used as appropriate	2.0863	.05614	.89641
3	The fund allocated to the department is enough for the maintenance of IT equipment and facilities	2.0784	0.5990	.95660
4	Government is now increasing its funding of IT programme in the department	2.0706	.05917	.94479
5	A number of computers were recently donated to the department by the Federal Government	2.0588	.05776	.92242
6	There is a cordial and complimentary relationship between Business Education department and the private sector	2.0353	.05649	.90206
7	Career talks are always being sponsored by the school to enlighten students and teachers on the importance and uses of Information Technology	1.9922	.04876	.77861
8.	The Impact of ETF is being felt in the department in the area of IT funding	1.9647	.05757	.91935
9.	Private companies occasionally send IT expert to enlighten students on Information Technology and sponsoring seminars and career talks.	1.9647	.06221	.99345
10.	The private companies do occasionally sponsor researches in Business Education	1.9451	.05201	.83059
11.	The ETF had at one time or the other donated Information Technology equipment to the department for teaching.	1.8980	.05846	.93352

Research Question 4

To what extent do the quantity and quality of manpower affect the acquisition of IT skill by the students?

Table 4: Extent of Man Power Quality/Quantity Effect on the Acquisition of IT Skill by Students.

S/NO	Extent of Man Power Quality/Quantity Effect on the Acquisition of IT Skill by Students.	Mean	S Error	STD Devia.
1	Lecturers are not being given the training and retraining opportunity needed to update their knowledge	2.5412	.06637	1.05986
2	A lecturer is required to teach more than 2 subjects	2.4706	.06256	.99907
3	All the lecturers can operate and use the computer to teach	2.4588	0.06567	1.04865
4	All lecturers in Business Education should be sent on training in IT skills acquisition	2.3255	0.6062	.096796
5	Computer literacy is one of the requirements for employment as a lecturer in Business Education Department	2.0431	.04821	.76982
6	Business Education lecturers are well motivated to teach IT skills	2.0431	.05809	.92754
7	There are enough lecturers in Business Education Department	2.0667	.05719	.91330
8.	Each lecturer is restricted to teaching a specific subject.	2.0275	.05944	.094911
9.	Lecturers are frequently sent on in-service training in Information Technology skill	1.9804	.05840	.93257
10.	Government is always ready to sponsor business related conferences	1.9412	.05909	.94352
11.	There are incentives attached to the teaching of Information Technology skills	1.9059	.05355	.85514
12.	The Business Education lecturers already have Information Technology skill and so do not need to be sent on training	1.8549	.05057	.80752

APPENDIX IV

Statistical Mean Table: Research Question I

Quest Item	Mean	STD Error	STD Deviation
1	1.5917(1.8667)	0.05113(0.25572)	0.79218(0.99043)
2	1.9167(1.8667)	0.06226(0.25573)	0.96450(0.99043)
3	1.8417(2.2000)	0.05815(0.26186)	0.90091(1.01419)
4	1.6625(2.0667)	0.05039(0.26667)	0.78068(1.30280)
5	2.3000(2.1333)	0.06815(0.27372)	0.05577(1.06010)
6	2.1500(2.2667)	0.006117(0.24817)	0.94758(0.96115)
7	1.7375(2.0000)	0.05419(0.21822)	0.83956(0.84515)
TOTAL	13.2000(14.4000)	0.38519(1.71214)	5.96727(6.63110)

Note: Teacher in brackets

No of student 240

No of teachers 15

Statistical Mean Table: Research Question II

Quest Item	Mean	STD Error	STD Deviation
8	2.3625(2.8667)	0.06905(0.27372)	1.06967(1.06010)
9	2.5375(3.000)	0.07057(0.23905)	1.09327(0.92582)
10	2.6833(2.6667)	0.5570(0.25198)	0.86284(0.97590)
11	2.2667(2.1333)	0.05197(0.27372)	0.80514(0.22817)
12	2.1125(2.2667)	0.5475(0.22817)	0.84824(0.88372)
13	2.0458(1.9333)	0.04984(0.22817)	0.77215(0.88372)
14	2.8625(3.2000)	0.06228(0.24300)	0.96478(0.94112)
TOTAL	16.8708(18.0667)	0.39223(1.62266)	6.07794(6.28452)

Note: Teacher in brackets

No of student 240

No of teachers 15

Statistical Mean Table: Research Question III

Quest Item	Mean	STD Error	STD Deviation
15	2.0667(2.1333)	0.06093(0.25573)	0.94389(0.99043)
16	2.0375(2.4000)	0.05855(0.28950)	0.90711(1.12122)
17	1.9583(2.0667)	0.05958(0.22817)	0.92294(0.88372)
18	1.8833(2.1333)	0.06003(0.25573)	0.93005(0.99043)
19	2.0000(1.8667)	0.05010(0.21529)	0.77622(0.83381)
20	2.0792(2.0667)	0.05795(0.26667)	0.89781(0.88372)
21	2.0750(2.2667)	0.05795(0.22817)	0.89781(0.03280)
22.	2.1625(2.0667)	0.06396(0.22817)	0.99088(0.88372)
23.	2.0417(1.9333)	0.05839(0.22817)	0.90462(0.88372)
24.	1.9458(1.9333)	0.05449(0.15327)	0.84412(0.59362)
25.	1.9833(1.6667)	0.06521(0.15936)	1.01027(0.61721)
Total	22.2333(22.5333)	0.62940(2.38021)	9.75064(9.21851)

Note: Teacher in brackets

No of student 240

No of teachers 15

Statistical Mean Table: Research Question IV

Quest Item	Mean	STD Error	STD Deviation
26	2.0708(2.0000)	0.05902(0.23905)	0.91431(0.92582)
27	2.0292(2.0000)	0.06232(0.16903)	0.96551(0.65465)
28	2.4833(2.2667)	0.06468(0.24817)	1.00195(0.96115)
29	2.4667(2.2333)	0.06806(0.25198)	1.05445(0.97590)
30	2.0375(2.1333)	0.04845(0.27372)	0.75063(1.06010)
31	2.0458(2.0000)	0.06087(0.16903)	0.94292(0.65465)
32	1.9167(1.7333)	0.05638(0.11819)	0.87344(0.45774)
33.	1.9417(1.9333)	0.06210(0.15327)	0.96200(0.59362)
34.	2.5333(2.6667)	0.06857(0.27021)	1.06235(1.045654)
35.	1.9833(1.9333)	0.06050(0.22817)	0.93722(0.88372)
36.	1.8582(1.8000)	0.05268(0.17457)	0.81611(0.67612)
37	2.3125(2.5	0.06243(.025	0.96716(0.99

APPENDIX V

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S
10	10	220	140	1200	201
15	14	230	114	1300	207
20	10	240	149	1400	320
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	318
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Source: Krejcie and Morgan (1970:608).

APPRAISAL OF THE IMPLEMENTATION OF INFORMATION TECHNOLOGY IN BUSINESS EDUCATION PROGRAMME IN FOUR FEDERAL UNIVERSITIES IN NIGERIA

By

ONUAGBA, NGOZI VICTORIA

JUNE, 2011