

THE EXTENT OFFICE TECHNOLOGY AND MANAGEMENT GRADUATES IN BAUCHI STATE POSSESS OFFICE APPLICATION SKILLS FOR MODERN OFFICE NEEDS

Okeke, A. U. Ph.D

*Department of Technology and Vocational Education,
Nnamdi Azikiwe University, Awka Anambra State*

&

Ifesi, Cecilia

Department of Office Technology and Management, Federal Polytechnic, Bauchi

Abstract

The study ascertained the extent Office Technology and Management graduates in Bauchi State possess office application skills for modern office needs. One research question guided the study, while two hypotheses were tested at 0.05 level of significance. The study adopted descriptive survey research design. The entire population of 119 supervisors in the banks, communication industries and ministries in Bauchi state were used for the study. Data were collected for the study with a 15-item validated questionnaire. Cronbach-alpha reliability test was used to determine the reliability of the instrument. Mean statistics was used to answer the research questions while standard deviation was used to check the spread of the responses to the mean. The null hypotheses were tested at 0.05 level of significance using independent t-test and Analysis of Variance (ANOVA). Findings of the study revealed that Office Technology and Management graduates possess office application skills to a moderate extent. However, supervisors in public and private organisations in Bauchi state differ significantly in their mean ratings on the extent OTM graduates possess office application skills for modern office needs. Conclusions were drawn and relevant recommendations were made which includes that graduates should use the period of National Youth Service to acquire practical knowledge in office application so as to prepare them for the labour market.

Introduction

In today's business world, one of the things that make organizations unique is the extent they use information and communication technologies (ICTs). Information and communication technology has been defined by Nwaukwa (2015) as new technologies used for accessing, gathering, manipulating and making available or communicating information for an enhanced learning. ICT refers to digital devices made up of computers and telephones with varying capacities for information processing, which has become today's office managers' management tool. Through the operations of Management Information System (MIS), ICT is used as a major

management tool to create, store, organize, retrieve and use information relating to staff, operations, cost, examination and other records (Okoro, 2013). The development of information and communication technology has greatly facilitated the operation of business organizations at a relatively low cost. ICT makes possible the processing of data to generate information. Information in this sense is data that have been processed, which become meaningful and understandable to the receiver.

Information and communication technology needs have become the current trend in the 21st century global development. It is indeed an essential need of the modern society. The vision of the ICT Policy is to make Nigeria an Information Technology (IT) capable country in Africa and a key player in the information society, using it as the engine for sustainable development and global competitiveness in areas like education, creation of health, poverty alleviation, and job creation among others. The needs of the society are expressed in terms of general aims which influence curriculum planning. Therefore Office Technology and Management (OTM) graduates are expected to possess skills for modern office needs.

An office is seen as any place where business, clerical and professional activities take place. The modern office, according to Ekpenyong (2008) involves the use of new inventions or devices in an office to transform, or change the process of office work. Ekpenyong stated that it is this rapid change in the technology of office work through the use of computers to do the work that was previously done manually that explains what we call modern office. Modern office encompasses more innovative equipment that facilitates efficiency in office work than traditional offices. Traditional office depends on manual typewriters and punching machines. Personnel that worked in the office at that time included the typist, the receptionist, the secretary, the messenger or office assistants, tea girls and a host of other office workers. The office of today has changed as a result of many electronic devices which adorn the offices. Electronic equipment permits fast and economical processing of huge amount of data, records can be managed using electronic filing techniques and electronic document interchange. Central to the ICT operations is the computer. Modern office of today does not need many workers as against the traditional office since the use of ICT enables few hands to effectively run an office. In the view of Olorundare (2013), ICT has found its niche in education sector. The development in the education sector in both developed and developing countries attest to the fact that ICT has become a central focus of many countries' educational policies. ICT devices are being used to prepare the present generation of students for a future workplace that would undoubtedly be characterized by ICT. Olorundare argued that preparing students (OTM students inclusive) for tomorrow's world can only be done through a careful integration of ICT in their curriculum.

Current changes in the business office led to a sustained call by secretarial studies students, business educators, managers of business organizations and other practitioners in the field for the need to align the Secretarial Studies programme with the prevailing realities in the business office brought about by ICTs. This call is to

prevent secretarial studies students and allied business graduates being rendered irrelevant in contemporary offices due to insufficient skills acquisition. In response to these repeated calls, the National Board for Technical Education (NBTE) as one of its functions, in 2004, designed the existing Office Technology and Management (OTM) programme (Olukemi & Boluwaji, 2014). The OTM is to equip secretarial and office students with vocational skills in Office Technology and Management and socio-psychological work skills for employment in various fields of endeavour. In addition to other changes, the present OTM programme incorporates many ICT courses that equip students with relevant skills to fit into 21st century offices as against a few courses in word processing in the old programme.

Office technology and management (OTM) is a component under the umbrella of business education. Business education, in the view of Popham, Schrag and Blockhus (2005) is education that prepares students for entry into and advancement in jobs within business. Olukemi and Boluwaji (2014) defined OTM as the application of scientific knowledge, devices and systems to facilitate and enhance the information processes and delivery of same. It is also viewed as a concept that is associated with office automation, electronic technology and office globalization. Office Technology and Management is a course of study in the Nigerian tertiary institutions designed to replace the secretarial studies programme. The need to prepare and make students of secretarial studies competent, skillful and employable in the world of work, which is being driven by technological content in the curriculum of erstwhile secretarial studies programme in the nation's tertiary institutions, gave birth to Office Technology and Management. Adelakin (2009), Nwabuona (2010) described the OTM programme as focusing on combination of office information technology skills with adequate and relevant business knowledge in solving organizational problems.

Graduates of Office Technology and Management are produced from universities, polytechnics and colleges of education. A graduate of Office Technology and Management is a person who has completed a course of study in Office Technology and Management programme. Esene (2014) opined that graduates of OTM programmes are called Office Technology Managers, Professional Secretaries or Administrative Assistant Officers.

Skill is the proficiency, or dexterity that is acquired or developed through training or experience. It can also be seen as an ability to carry out an activity or job well especially because of practice. Okoro and Ifesi (2016) viewed skill as the ability which comes from a person's knowledge, aptitude to do something efficiently. Therefore, to ascertain the level of skill possession of the OTM graduates in Bauchi state, the opinion of their supervisors is very important since they are responsible for planning and directing the work flow of the organization and making sure that individuals carry out their duties accordingly. Supervisors in the context of this study are made up of the managers of some private and public organisations which include banks, communications industries and ministries in Bauchi State under which the OTM graduates serve. The choice of these three organizations is based on the fact that

they have automated offices where most of the modern office equipment can be found. As modern office needs are changing every day, there is need to train skilled OTM students to meet these modern office needs when employed after graduation.

In order to ensure that trainees acquire needed skills for the emerging responsibilities in industries in this technological era and that the required standard is maintained,, the NBTE ensured that relevant curricula and minimum standard are put in place. This is followed by periodic accreditations of the institutions offering the programme. Office Technology and Management courses are offered in colleges of technology, polytechnics and universities of technology where successful trainees are awarded National Diploma (ND), Higher National Diploma (HND) or Bachelor of Science (B.Sc.) degree in Office Technology and Management as the case may be. Graduates of these OTM programmes are therefore certified as qualified secretaries based on their training. The programme is oriented towards ICT and incorporates the following components in its design: Office Application, Office Technology, Business and Administrative Management and General Studies.

Office Application Skills deals with the ability to understand the impact of ICT in the workplace, identify the computer main components, and work efficiently on any window environment using word processing packages and to apply key health and safety using principles in the office (Okoro, 2009). According to Ojukwu and Ojukwu in Olukemi and Boluwaji (2014), the office application skills which OTM students and business education graduates must acquire if they are to remain relevant in the present dispensation and fit into modern offices include: keyboarding skills, shorthand, computer excel manipulation, networking skills, word processing, reprographic skills for documentation, office practice skills, database management among others. According to Okoro (2009), office application is software that is used in business operations among which are: word processing, spreadsheet, database management and e-mail. Common office applications are widely available in a packaged set from vendors. Esene (2012) asserted that office application components of OTM are ICT, word processing, computer appreciation and WEB page design. Okoro (2009) further enumerated some of the office application skills OTM graduates must possess in order to fit into modern offices to include: Knowledge of Keyboarding as an input device, Advanced transcription such as transcribing dictated passages of varying speeds with a minimum of 95% accuracy, High speed when producing information using a personal computer, Reprographic skills for documents, Word processing skills for documents, Networking skills, Skills in computer spreadsheet manipulation, Operation of MS word for windows, Design and maintain webpage Internet services skills, Video/teleconferencing skills, E-commerce, E-tailing and other E-business concepts, ability to use search engines, carry out electronic presentation using MS power point, Database management skills, Advanced desktop publishing skills, Ability to assemble reports from complex sources such as retrieving information from electronic files. According to NBTE (2004), with MS Excel, students are equipped with strong skills to effectively

and efficiently work using a computer-based spreadsheet. In this ICT application, it is required that OTM lecturers should be able to equip the students with spreadsheet competencies that would help them discharge their duties effectively in the modern office.

Power point presentation is an aspect of OTM curriculum designed to equip students with strong skills to effectively and efficiently work using a computer-based visual aid presentation applications. This aspect of ICT application in OTM curriculum is designed to enable students to understand the importance of designing web pages for modern offices, have full command of a web design software application to improve business online performance and understand the impact of using the internet for business and commerce in the modern economy. Webpage design involves use of computer application program such as MS Front Page to create and format a web as well as hyperlinks.

According to Nwosu (2007), the modern office of today has placed a demand on the graduates of OTM who must possess all the necessary office application skills needed in order to be efficient in office operations. The author went further to state that any OTM graduate who cannot demonstrate basic knowledge of the networking system in the office, share ideas with colleagues using video conferencing and use search engines to locate valuable information will face challenges in the office of today. Oduma (2010) noted that business education graduates should possess competence in the use of database packages especially MS Access. He defined Access as a program that enables organization to easily create, share and maintain data and files electronically. Okoro (2010) averred that in this technological age secretaries should enhance their capacity in the use of internet technologies to get information that would help in performing their functions in the office.

The relevance of OTM programme is measured by the effectiveness, competence and job performance of the graduates of the programme when employed in private and government organizations (Amiaya, 2013). Also, the rationale for determining the extent OTM graduates possess skills in meeting the modern office needs can be underscored when viewed from the perspective of supervisors' position as ones who monitors or oversees employed graduates of OTM programme to ensure that they perform their assigned jobs efficiently at the right time. Also, the frequency of the emergent new technologies in the work environment of the trainee office workers underscore the need for assessing the skills possessed by graduates of OTM programme.

The rate of unemployment among OTM graduates of tertiary institutions across the nation suggests that Office Technology and management graduates may not have been performing up to the skill requirements of modern offices. Akpotohwo (2014), observed that supervisors of private and public organizations are worried about the poor performance of graduates of the OTM programmes in their office functions. Akpotohwo also opined that this poor performance could be as a result of inadequate trainings received in OTM programmes which tend to render OTM

graduates ineffective in modern offices. This may likely be the case in Bauchi state. Therefore this study is carried out to determine the extent OTM graduates in Bauchi state possessed performance skills for modern office needs. The assessment will probably enhance the delivery and facilitation of teaching and learning, and better equipment of OTM programme with ICT facilities for better students' training.

Statement of the Problem

The modern office needs of today have become enormous and pose a challenge to trainees in office skills. The influx of technology has drastically changed the office setting and equipment. Continuous flux does not seem to be matched by efficiency and effectiveness of personnel. The unsatisfactory performance of OTM graduates across the nation suggests that Office Technology and Management graduates may not have been equipped with the performance skills required to meet with modern office needs. One would have thought that with the advancement in technology and modern office equipment which gave rise to the inclusion of several ICT courses in the OTM curriculum, OTM graduates would be adequately equipped with the relevant skills needed to carry out office functions efficiently but this is far from the case. Okoro (2009) noted that many OTM graduates are still unable to demonstrate basic knowledge of networking system nor able to use internet technologies to source for current information in the office. Experts in the field have decried the seeming ineffectiveness and inefficiency of graduates of the OTM programme. According to Olukemi and Boluwaji (2014), the success of OTM programme is measured by effectiveness and efficiency of its graduates in performing their job functions. The difficulty of OTM graduates to utilize various computer-based technologies as observed by Okolocha and Olannnye (2015), and the outcry of supervisors about the inability of graduates of the OTM programme to use various ICT applications in carrying out office functions is worrisome. Could this poor performance be as a result of the type of training received by the graduates in the course of studying?

It is in view of the above reasons that this research was designed to ascertain how OTM graduates in Bauchi state fit into the picture in the opinion of their supervisors with respect to their possession of office application skills.

Purpose of the Study

The purpose of this study is to determine the extent office technology and management graduates in Bauchi state possess office application skills for modern office needs.

Research Question

To what extent do office technology and management graduates in Bauchi state possess office application skills for modern office needs.

Hypotheses

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

1. There is no significant difference between the mean ratings of supervisors in private organisations and those in public organizations in Bauchi State on the extent OTM graduates possess Office Application skills for modern office needs
2. Supervisors in banks, communication industries and ministries in Bauchi State do not differ significantly in their mean ratings on the extent OTM graduates possess Office Application skills for modern office needs.

Method

The study employed the descriptive survey research design. The population of the study consisted of 119 supervisors in banks, communication industries and ministries in Bauchi state. The instrument for data collection was a structured questionnaire which was validated by three experts and the internal consistency of the questionnaire items was 0.85. The questionnaire was administered with the help of three research assistants that were briefed. Out of the 119 questionnaires administered, 110 (92%) were retrieved. Mean and standard deviation were used in analyzing the data relating to research questions while the independent t-test and analysis of variance (ANOVA) were used to test the hypotheses at 0.05 level of significance. The mean responses on the research questions were adjudged on the following basis: 1.00-1.49 very low extent (VLE), 1.50-2.49 low extent (LE), 2.50-3.49 moderate extent (ME), 3.50-4.49 high extent (HE) and 4.50-5.00 very high extent (VHE). Where the F-computed in ANOVA and t-calculated in t-test was equal or greater than F-critical/t-critical the null hypotheses was rejected but was accepted where the F-computed/t-calculated was less than F-critical/t-critical.

Results

**Table 1 Respondents' mean rating on the extent OTM graduates possess office application skills for modern office needs
N= 110**

S/N	Office Applications Skills	\bar{x}	SD	Remark
1.	Ability to produce mailable documents of different forms using Microsoft Office Word	4.07	1.03	High Extent
2.	Apply suitable formats to various kinds of documents	3.71	1.43	High Extent
3	Create and organize a data base system	3.13	1.24	Moderate Extent
4.	Design and maintain a webpage	1.9	1.18	Low Extent
5.	Produce data using spreadsheet	4.26	.70	High Extent
6	Demonstrate basic knowledge of the networking system in the office	2.33	1.52	Low Extent
7.	Use internet technologies to source for current information.	2.73	1.53	Moderate Extent
8.	Share ideas with colleagues using video conferencing	1.95	1.22	Low Extent
9.	Use search engines to locate valuable information	2.88	1.40	Moderate Extent
10.	Retrieve information from electronic files	4.59	.59	Very High Extent
11.	Demonstrate basic knowledge of Desktop Publishing	2.36	1.53	Low Extent
12	Send information within and outside the organization using email	3.9	1.08	High Extent
13	Maintain information security in the office	4.52	.87	Very High Extent
14	Update various software and antivirus programs when the need arises.	4.52	.68	Very High Extent
15	Use Microsoft Power point for presentation	2.7	1.38	Moderate Extent
Cluster Mean		3.30		Moderate Extent

The data in Table 1 show that three items (10, 13, and 14) were rated by the supervisors to a very high extent. Out of the 15 items, the supervisors rated four (1, 2, 5 and 12) to a high extent, four (3, 7, 9 and 15) to a moderate extent and four (4, 6, 8 and 11) to a low extent. The cluster means score of 3.30 shows that on the whole supervisors in the area of study rated OTM graduates office application skills to a moderate extent.

Hypothesis 1

There is no significant difference between the mean ratings of supervisors in private and those in public organizations in Bauchi State on the extent OTM graduates possess Office Application skills for modern office needs

This null hypothesis was tested using t-test at 0.05 level of significance and the results are presented in Table 2

Table 2: t-test result of the difference between the mean ratings of supervisors in private and public organisations in Bauchi state on the extent OTM graduates possess Office Application skills for modern office needs.

Ownership of organization	N	Mean	SD	A	df	t-cal	t-crt.	Decision
Public	80	16.18	14.75	0.05	108	2.397	1.658	Significant
Private	30	9.57	5.00					

Table 2 shows that the calculated t –value of 2.397 is greater than the critical t-value of 1.658 (2.397>1.658) at 0.05 level of significance and 108 degree of freedom. This means that the respondents differ significantly in their mean ratings regarding the extent OTM graduates possess office application skills for the modern office as a result of ownership of the organization. Therefore the null hypothesis was rejected.

Hypothesis 2

Supervisors in banks, communication industries and ministries in Bauchi State do not differ significantly in their mean ratings on the extent OTM graduates possess Office Application skills for modern office needs.

This null hypothesis was tested using ANOVA at 0.05 level of significance and the results are presented in Table 3

Table 3: ANOVA result of the difference in the mean ratings of supervisors in the Banks, Communication industries and Ministries in Bauchi state on the extent OTM graduates possess Office Application Skills for modern office needs

	Sum of Squares	df	Mean Square	F-cal	F-tab	Decision
Between Groups	1789.013	2	894.507		.	
Within Groups	17766.950	106	167.613	5.337	3.07	Significant
Total	19555.963	108				

The data in Table 3 indicated that the calculated f -value of 5.337 is greater than the tabulated f -value of 3.07 ($5.337 > 3.07$) at 0.05 level of significance and 108 degree of freedom. This means that the respondents differ significantly in their mean ratings on the extent OTM graduates possess office application skills for the modern office as a result of the type of organization. Therefore the null hypothesis was rejected.

Discussions of the Findings

Findings of the study revealed that OTM graduates in Bauchi state possess office application skills to a moderate extent. OTM graduates were rated as possessing skills to a low extent in designing and maintaining a webpage, demonstrating basic knowledge of the networking system in the office, sharing ideas with colleagues using video conferencing and ability to demonstrate basic knowledge of desktop publishing. This finding is in line with the finding of Ezenwafor (2011) who found that business education students on graduation cannot manipulate various computer application programmes which are commonly used in the modern office. This study also revealed that OTM graduates possess the ability to create and maintain a data base system to a moderate extent. The finding is also in line with the finding of Okolocha and Olannye (2015) who held that secretaries in government ministries in Delta state fairly possess data base management competencies.

The result also showed that OTM graduates skills possession in using internet technologies and search engines to source for current information and using power point for presentation were rated to a moderate extent. The finding is in line with Okoro (2010) who found that most secretaries seldom use the internet technologies to get information that would help in performing their functions in the office. However, the finding to an extent disagrees with that of Okolocha and Olannye (2015) which revealed that secretaries in government ministries in Delta state highly possess power point presentation and internet application competencies. This disagreement in the findings may be as a result of the area of the study and the kind of development obtainable in the environment. It was also discovered from the study that OTM graduates possess skills to a high extent and very high extent respectively in the use of Microsoft office word, spreadsheet, sending information using email, retrieving information from electronic files, maintaining information security and updating various software and antivirus programs. This finding buttressed that of Ezenwafor (2011) who found that business educators (OTM inclusive) in tertiary institutions were competent in word processing and adequately utilize it in training students. The finding also, is in support of Okoro (2010) study who found that secretaries in Bauchi are competent in Microsoft office word, spreadsheet and maintaining information security in the office, Microsoft office word and spreadsheet are the most frequently used applications by secretaries in the office, and this informs the finding of this and other studies.

Furthermore, the test of the null hypotheses showed that supervisors in private and public organisations as well as banks, communication industries and ministries in Bauchi state differ significantly in their mean ratings on the extent OTM graduates possess office application skills for modern office needs. This difference in the opinion of the supervisors could be attributed to the extent to which the organization is able to provide the necessary modern technology and the type of application program used by the OTM graduates for carrying out office functions. In the view of Okoro, (2010) most ministries are still unable to provide the needed modern office technology for the day-to-day running of the office. The author further stated that the ability of the secretary to perform efficiently is dependent on the extent to which the organization is able to equip the office with modern technologies. Those graduates who work in the banks and communication industries are likely to be exposed to more sophisticated technologies than those working in the ministries.

Conclusions

Based on the findings of the study, the following conclusion were drawn: The office technology and management graduates in Bauchi state possessed office application skills to a moderate extent; the Supervisors in private and public organisations differ significantly in their mean ratings regarding the extent OTM graduates possess office application skills for the modern office. Supervisors in the Banks, Communication industries and Ministries in Bauchi state respondents differ significantly in their mean ratings on the extent OTM graduates possess office application skills for the modern office as a result of the type of organization.

Recommendations

Based on the findings of the study, the following recommendations were made.

1. OTM graduates in Bauchi state should not rely only on institutional provision for skill update rather personal sacrifice should be made to keep them professionally relevant and up to date.
2. Students should liaise with private computer training centers for skill development and update especially in the areas of database management, desktop publishing, webpage design and networking system,
3. Graduates should use the period of National Youth Service to acquire practical knowledge in office application so as to prepare them for the labour market.

References

- Adelakin, R. T. (2009). Issues and trends in teaching and learning of office technology and management. Association of business educators of Nigeria (ABEN). *Book of Readings*, 1(9), 114-123.
- Akpotohwo, F. C. (2014). Re-engineering entrepreneurship development through corporate branding culture concepts for sustainable development in an emergent economy. *Developing Country Studies*, 4(24), 163-167.
- Amaiya A. O. (2013). Strategies for improving the provision of ICT resources in office technology and management programme in the polytechnics in Delta state, Nigeria. *American International Journal of Contemporary Research* 4(1) 291-296. Retrieved from: [http:// www. Aijernet.com](http://www.Aijernet.com) on 2/5/15.
- Ekpenyong, L. E. (2008). Business education views on the entrepreneurial competencies needed by business education graduates. *Delta Business Education Journal*, 1(3), 200-204.
- Esene, R. A. (2012). *Methods of teaching vocational business subjects*. Agbor: Ruyi Publishers.
- Esene, R. A. (2014), *Professional ethics and social responsibility for higher institutions*. Benin City: Ruyi Publishers.
- National Board for Technical Education (2004). *Curriculum and course specification (ND and HND) in office technology and management*. Kaduna: Atman ltd.
- Nwabuona, E. (2010), *Office technology and management: Some issues and solutions*. Oko: The Scribe Federal Polytechnic, Oko.
- Nwaukwa, F. C. (2015). Extent of integration of information and communication technology in instructional delivery by secondary school business subjects teachers in Abia State. (Unpublishe masters thesis). Department of Vocational Education, Nnamdi Azikiwe University Awka.
- Nwosu, A. N. (2007). Reforming the practice of shorthand and typewriting in the secretarial profession in an ICT era. The business educators' perceptive. A paper presented at the 19th Annual national conference of the Association of Business Educators of Nigeria held at the Ebonyi State University, Abakaliki, Ebonyi State from 16th-20th October.
- Oduma, C.A. (2010). A survey of employers' perception of the professional competencies needed by business education graduates for gainful employment in organization. *Journal of Business and Vocational Education* 1(1), 25-37

- Ojukwu, K & Ojukwu, F. K. (2005).Managers and business educators' perceptions of the competencies required in modern computerized offices. Nigerian Association of \business Educators. *Business Education Journal*, 5(1), 81-83.
- Okolocha, C. C.& Olannye, V.E. (2015).Supervisors' assessment of computer-based competencies possessed By secretaries in government ministries in Delta State of Nigeria. *International Journal of Management Sciences*, 5(6), 467-475.
- Okoro, F. & Ifesi, C. (2016) Teachers' perception of the marketability of the secretarial profession in meeting the needs of the present day Nigerian labour market. *Journal of Professional Secretaries and Administrators* 22 (8), 58-66.
- Okoro, F.(2009). Polytechnic teachers perception of the relevance of the components of office technology and management programme in meeting the ICT needs of contemporary office. *Business Education Journal* 7(1), 45-61.
- Okoro, F.(2010). Enhancing the role of the secretary in an information and communication technology era towards meeting the challenges of vision 20:2020. A paper presented at the National Conference of the National Association of Professional Secretarial Staff of Nigeria (NAPSSON). Held at Ilorin from 11th – 16th October, 2010.
- Okoro, O. B. (2013). Assessment of ICT competencies possessed by polytechnic OTM lecturers in South-South geo-political zone of Nigeria. Unpublished master's thesis submitted to department of technology and vocational education, Nnamdi Azikiwe University Awka.
- Olorundare, S. (2013).Utilization of ICT in curriculum development, implementation and evolution in the service of education. Nsukka: University of Nigeria.
- Olukemi, J. O., & Boluwaji, C. E. (2014).Challenges of curriculum development in office technology and management in tertiary institutions. *International Journal of Technology and Inclusive Education (IJTIE)*, 1(3), 475-484.
- Popham, E. L., Schrag, A. F. & Blockhus, W. (2005).*A teaching-learning system for business education*. New York: Gregg division of McGraw-Hill Book company. Royal Pace *Publications*.