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Advancing Curriculum Delivery through Technological Innovation in Office Technology and Management in Tertiary Institutions

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Abstract

The study focused on technological innovations and curriculum delivery in office technology and management programme in tertiary institutions. Descriptive research design was used for the study. Three research questions guided the study. The population of the study was 50 lecturers of office technology and management in the three tertiary institutions offering the programme in Ekiti State. There was no sampling because of the manageable size of the population. A structured questionnaire was used for data collection. The instrument was personally administered to the respondents by the researchers. Data were analyzed using mean and standard deviation. The findings of the study revealed that the extent of the usefulness of technological innovations in office technology and management programme is high; there are associated challenges with technological innovations in Office technology and management and curriculum delivery can be enhanced in the programme. The study concluded that a well implemented Office technology and management programme will climax in development and will enable graduates acquire certain vital skills needed for success. It was therefore recommended among others that the identified innovations should be integrated

into office technology and management programme during curriculum development or review by relevant stakeholders so as to enhance the skills of its graduates.

Keywords: Office technology and management, Technological innovation, Curriculum delivery, Vocational skills, Tertiary institutions.

Introduction

The whole idea about educational reforms in Nigeria is the desire to produce an all round educated persons that will be economically useful, and conscientious members of our society. In office technology and management programme, the aim is to provide for our system, the type of teaching/learning situations that focus not on artifacts, but on public knowledge, skills, competencies and reproducible ways. The design of Office Technology and Management programme components according to Omoniyi & Elemure (2014) appears to be responsive to a global initiative with an objective that portends new academic direction in favour of technology.

Habila in Isiyaku (2020) reiterated that one of the cardinal indices for measuring the standard of development of a nation is the level of its educational standard, and the level and quality of education collectively attained in a given society determines the extent to which other factors of development are exploited for the advancement of that society. Office Technology and management is a course of study which focuses on the use of computer system, software and network for processing and distribution of data and communicating information in the organization, in the planning, organizing and administering activities in an office. Office Technology and Management courses which includes business documentation, administrative office management, principles of record management, legal office procedure, entrepreneurship in business education and computer appreciation among others prepares students to occupy these positions available in the technological offices (Ogbusuo, 2016).

Office technology exposes students to skills, knowledge and attitudes required to teach and practice in an organization effectively. Omeje (2008) corroborated this when he maintained that office technology and management curriculum contents should be so redesigned in such

a way that a graduate of the programme should be well equipped to be self-employed, thereby not only reducing unemployment but also creating employment. Bakare & Aderogba (2020) described office technology and management as one of the components of business education where students lean knowledge and skills in managing and operating technologies in the offices. Famiwole & Akindula (2016) viewed it as an educational process involving the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

Office technology has to do with the strategic deployment of technology based information tools which economically promote organizational effectiveness and efficiency. Due to inadequate funding to acquire relevant technology, Wordu (2018) asserted that tertiary institutions face difficult conditions for learning. Rambe (2016) viewed that in spite of technology adoption becoming a common practice in educational programme, the innovative use of emerging technologies to transform curricula, teaching and learning remains an emerging phenomenon. He further submitted that curriculum transformation in higher education will remain trapped in rhetoric unless higher education addresses the crucial role of learning enablers and barriers to academic performance such as ineffective integration of technology into the curricula and literacy practices.

Literature review

Technological innovation in Office Technology and Management programme

Information technology has impacted greatly on the office technology and management curriculum and hence the need to adapt and operate in accordance with the dictates of the change or else the curriculum would become obsolete. Adeshina & Aliyu (2012) admitted that innovations in every sphere of life have brought about a change in needs, which invariably affect the curriculum in use at that period. Ogbusuo (2016) believed that the emergence of Information Communication Technology in the 21st century has created a more dimensional change in Office Technology and Management programme. In his view, keyboarding which was originally done with the use of typewriter is now done using microsoft word. Office technology and management of recent has developed into more complex learning which requires knowledge of other subjects. Ugochukwu cited in Ogbusuo (2016) stressed that it is more complex with increase in technology and computerized society.

Ogbusuo (2016) viewed that Office Technology and Management programme is a course that provides the business world with multi-skills knowledge workers who manage information efficiently, equipped with a comprehensive range of skills including managerial, technological and communication skills. The use of technology has increased tremendously in this modern dispensation. Education has moved from manual operational procedures to full automation of most of the teaching learning processes. The advent of technology according to Adeshina & Aliyu (2012) has brought about a faster and more efficient ways and means of handling office procedures and decision making processes based on accurate information, hence, most business organizations and even governmental agencies are now adopting office automation. Innovation therefore is a challenge to our educational systems, and the curriculum must be revisited to embrace these changes.

The anticipated progress in Office Technology and Management according to Omoniyi & Elemure (2014) cannot be contemplated in the absence of very vigorous consistent policies to improve and update vocational education and therefore institutions offering Office Technology and Management programme should be properly equipped with new and more automated instructional equipment. Bakare & Aderogba (2020) described a curriculum as the introduction of relevant new technologies into the existing curriculum of office technology and management in order for students to acquire skills in using them. The society has been compacted with so many office technologies. Students of office technology and management should be taught how to operate or use new technologies.

With the introduction of the computers for effective teaching in our institutions, Adeshina & Aliyu (2012) observed that the service delivery has changed, hence, the need to include these in the curriculum of office technology and management and to reflect the changes in the method of instruction and evaluation. For innovation in OTM curriculum to achieve the desired goals, it must be subjected to continuous evaluation in order to ensure that the production of skill manpower is maintained to meet the demand of those changes in the labour market.

Curriculum Delivery in Office Technology and Management

Bakare & Aderogba (2020) viewed that the present office technology and management curriculum needs to be blended with relevant innovations for the products to be efficient and relevant in the classes or offices after graduation. They further reiterated

that curriculum is all the planned experiences provided by the school to assist the learners in attaining the designated learning outcomes. Curriculum is an organized and logically arranged body of knowledge, skills and attitudes that enable the lecturers/instructors to assist the students master its content during instruction. Office technology and management curriculum need to be innovated with relevant technologies and skills for its graduates to perform brilliantly at their workplaces.

Adeshina & Aliyu (2012) citing Olaitan explained that curriculum innovation is a process by which new ideas, knowledge, skills and attitudes are included in a curriculum to bring about new changes and new goals in the educational set-up of a society as a result of technological development of improvement. Omoniyi & Elemure (2014) however viewed that implementing the new, long awaited ICT-driven OTM curriculum expectedly threw up new challenges. The OTM curriculum was aimed at producing graduates who would be able to effectively manage the electronic driven office, and who would be equipped with secretarial and office skills for employment in various fields of endeavour. According to the submission of Omoniyi & Elemure (2014), the objectives, theoretical and practical contents of the new curriculum are geared towards integrating graduates of OTM programme into the evolution of technology.

Adeshina & Aliyu (2012) hinted that innovation in office technology and management programme has become a necessity as the existing curriculum has failed to achieve the desired objectives due to the new ideas, skills and attitudes of doing things globally, especially with rapid changes in technology, office works which is being done with automotive machine, hence the need to produce personnel who are able to manipulate such. Curriculum innovation in office technology and management would entail revisiting the existing curriculum content with a view to adding new business ideas, skill, knowledge and attitudes in business. The products of the existing curriculum in office technology and management according to Adeshina & Aliyu (2012) lack some necessary modern ideals, skills and attitudes to function in an information technology based world of work. This in their view gave rise to the production of graduates without employable skill. Instead of producing job providers, the curriculum continues to produce job seekers.

The curriculum, in the view of Omoniyi & Elemure (2014) should enable learners to find meanings to their lives. Technological changes in the office have been tremendous that only innovation in the present curriculum content of Office Technology and

Management can make its recipients fit into the automation office. It was therefore suggested by them that the curriculum of office technology and management should be constantly reviewed, adjusted and improved by curriculum planners to ensure that it continues to be appropriate to the needs of the community, students' social body and the economic which it serves.

There was the need to have a curriculum to meet the new technological and socio-economic trends by ensuring that the curriculum contains ICT and entrepreneurship modules. A curriculum is effective to the extent that it is well implemented, in terms of the delivery of the subject matter to the learners (Odike & Mankiti, 2019). Vocational education program that aims to prepare people for the world of work according to Mohammad (2017) should have a curriculum that emphasizes practical skill acquisition. It was further observed that the 1989 curriculum for producing secretarial studies graduates did not consider computer and e-commerce skills and knowledge required of this cadre of office workers. Successful curriculum implementation in the view of Aliyu (2016) depends to a large extent on the availability and utilization of adequate instructional resources.

The future of Office Technology and Management as observed by Elemure & Elemure (2016) is said to be going in the direction of integration of competency based approach i.e. functional literacy, increased academic, critical and problem solving skills development, entrepreneurship based delivery, incorporation of establishment and utilization of production units within business institutions for practical work training and self-reliance and ICT based teaching/learning approaches areas of emphasis in the existing curriculum and delivery. The use of content and selectivity curriculum is a very potent one for modern curriculum developers, especially if goals of individuals i.e. learners and the nation as a whole are considered. This shows the significant place of technology in ensuring effectiveness and efficiency in curriculum implementation process. Okoli (2020) noted that the curriculum content of Office Technology and Management no doubt has been plague with challenges in a bid to providing the desired knowledge, skills and competencies to students.

Statement of the problem

It has been closely observed that the present graduates of office technology and management, who are expected to be efficient in using modern office technologies, find it difficult to do so. The curriculum of office technology and management still

appears to be deficient considering the level of technologies. The graduates therefore found it very difficult to secure employment because of low quality of training receive while in schools. Production of students without the requisite skills, turn them out to join the unending queue of unemployed youths, with the resulted consequences of social vices in the society.

Objectives of the Study

1. To identify the relevant technological innovations in office technology and management programme.
2. To examine the challenges associated with technological innovation in office technology and management programme.
3. To identify the strategies for enhancing curriculum delivery in office technology and management programme.

Research Questions

The following research questions guided the study

1. What are the relevant technological innovations in office technology and management programme?
2. What are the challenges associated with technological innovation in office technology and management programme?
3. What are the strategies for enhancing curriculum delivery in office technology and management programme?

Methodology

A descriptive survey design was employed in this study. The population consists of 50 lecturers in three tertiary institutions that offer office technology and management programme in Ekiti State. The institutions include the Federal polytechnic, Ado Ekiti, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti and Ekiti State University, Ado Ekiti. Total enumeration was used for the sample because of its manageable size. Instrument used for the study was a structured questionnaire in which the respondents were requested to indicate their views and opinions on a Likert-type 4 point rating scale of 'Strongly Agree' = 4 points, 'Agree' = 3 points, 'Disagree' = 2 points, 'Strongly Disagree' = 1 point. The instrument was personally administered to the respondents by the researchers. Data were analyzed using mean and standard

deviation. The decision rule was that any item with a mean score of 2.50 and above was taken as agreed while items with mean score below 2.50 were regarded as disagreed.

Analysis of result

Research Question 1

What are the relevant technological innovations in office technology and management programme?

Table 1

Relevant technological innovations in office technology and management programme

S/No	Item Statement	X	SD
1	Cloud computing and remote collaboration tools which enable real time collaboration, document sharing and remote project management	3.500	0.802
2	Automation and artificial intelligence tools to help students understand the role of AI in increasing productivity, data trends, improving decision making and optimizing office operations	3.429	0.777
3	Data management and analytics which allows students to gather insights from large datasets and make data driven decisions	3.000	0.655
4	Cyber security awareness that makes students learn about digital security essentials including secure communication protocols	2.857	0.623
5	Digital marketing and social media management skills that are becoming necessary as offices increasingly engage in digital marketing and brand management	3.643	0.854
6	Document management and digital filing systems which allow efficient document storage, retrieval and sharing in digital format	3.714	0.882
7	Virtual and augmented reality applications which offers a realistic training experience for students in a controlled virtual environment	3.714	0.882

8	Human resources information systems that equips students with skills in managing employees data, payroll, performance tracking and recruitment processes	3.643	0.854
9	Customer relationship management software which are essential to training in customer support, marketing and relationship management	3.643	0.854
10	Mobile and remote workforce management that enables students to be trained in mobile friendly office tools, preparing them for hybrid and mobile work environments	3.071	0.671
	Average Mean = 3.421		

Key: Strongly Agree (4), Agree (3), Disagree (2), Strongly Disagree (1), Std Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (SD), 1.500-2.499 = Disagree (D), 2.500-3.499 = Agree (A) and 3.500-4.449 = Strongly Agree (SA).

The above table reveals relevant technological innovations in office technology and management programme using their frequencies, percentages, means and standard deviations. All the items on the table were decided as 'agree' as their means were within 2.500-3.499. The result implies that the usefulness of technological innovations in office technology and management programme is high. Generally, the table shows a weighted mean of 3.421(0.785) and overall decision as 'agree'.

Research Question 2

What are the challenges associated with technological innovation in office technology and management programme?

Table 2:

Challenges associated with technological innovations in Office technology and management

S/No	Item Statement	X	SD
1	High costs of technology and infrastructure which make many institutions struggle with the costs of acquiring and maintaining up to date hardware and software	3.500	0.802

2	Lack of skilled instructors as many may not be familiar with the latest office technology and management technologies or may lack experience using advanced tools	3.500	0.802
3	Technological obsolescence which requires constant updating course materials to reflect the latest technology trends	3.571	0.828
4	Digital literacy gaps among students which can create disparities in their ability to understand and work with advance tools	2.929	0.640
5	Data privacy and cyber security concerns which make institutions to face the challenges in teaching students how to handle sensitive data securely, and in protecting their own data systems from breaches	3.000	0.655
6	Limited access to technology for remote learning since most office technology and management tools are software intensive and may not be accessible to students	2.714	0.608
7	Resistance to change as some students, educators and institutions may resist adopting new technologies preferring traditional teaching methods.	3.786	0.911
8	Lack of industry collaboration and feedback which make it difficult for institutions to align their programme with the latest industry requirements or trends	3.214	0.709
9	Curriculum approval processes which often require multiple layers of approval and can be time consuming and restrict the flexibility to introduce rapid changes	3.429	0.777
	Average Mean = 3.294		

Key: Strongly Agree (4), Agree (3), Disagree (2), Strongly Disagree (1), Std Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (SD), 1.500-2.499 = Disagree (D), 2.500-3.499 = Agree (A) and 3.500-4.449 = Strongly Agree (SA).

The above table reveals the challenges associated with technological innovations in Office technology and management using their frequencies, percentages, means and standard deviations. All the items on the table were decided as 'agree' as their means

were either within or above 2.500-3.499. The result implies that there are associated challenges with technological innovations in Office technology and management. Generally, the table shows a weighted mean of 3.294(0.748) and overall decision as 'agree'.

Research Question 3

What are the strategies for enhancing curriculum delivery in office technology and management programme?

Table 3:
Strategies for enhancing curriculum delivery in office technology and management programme

S/No	Item Statement	X	SD
1	Incorporate industry standard technology to familiarize students with tools used in workplaces and with practical job ready skills	3.714	0.882
2	Adopt blended and hybrid learning models which enables students to experience traditional lectures alongside online resources	3.571	0.828
3	Focus on project based and experiential learning which allows students to gain hands on experience and apply their classroom learning in real office environments	3.429	0.777
4	Collaboration with industry experts and employers to provide students with insights into current trends, challenges and practical skills	3.714	0.882
5	Integrating cyber security and data privacy awareness to educate students on basic practices	3.929	0.970
6	Promotion of digital literacy and lifelong learning on essential digital literacy skills and guiding students on courses that supplement their learning	3.857	0.940
7	Regularly updating curriculum content to reflect technological advances	3.643	0.854
8	Provide support for diverse learning styles and needs to ensure resources are accessible for all students	3.929	0.970

9	Effective monitoring and supervision by regulatory body	3.786	0.911
	Average Mean = 3.730		

Key: Strongly Agree (4), Agree (3), Disagree (2), Strongly Disagree (1), Std Dev = Standard Deviation

Mean Threshold: If the mean is 0.000-1.499 = Strongly Disagree (SD), 1.500-2.499 = Disagree (D), 2.500-3.499 = Agree (A) and 3.500-4.449 = Strongly Agree (SA).

The above table reveals the strategies for enhancing curriculum delivery in office technology and management programme using their frequencies, percentages, means and standard deviations. All the items on the table were decided as 'agree' as their means were either within or above 2.500-3.499. The result implies that the extent to which the enlisted strategies can enhance curriculum delivery in office technology and management programme is very high. Generally, the table shows a weighted mean of 3.730(0.890) and overall decision as 'agree'.

Discussion

The study revealed that the extent of the usefulness of technological innovations in office technology and management programme is high. The result is consistent with the finding of Oyedele & Fadare (2018) who viewed that the advent of new technologies and its integration meant that learning and teaching are getting more sophisticated everyday as the computer industry continues churning out new software every week with revolutionary impact and challenges in office technology and management. This result was supported by Azih & Ejeka (2015) who suggested that with the new curriculum, the Office Technology and Management graduates of today are not only required to have theoretical and practical knowledge and skills in ICT, computer operations, internet connectivity but are also expected to possess competencies in converging in the telecommunication and cyberspace technology. Okoli (2020) also asserted that technological changes in the office have been tremendous that only innovation in the present curriculum content of Office Technology and Management can make its recipients fit into the automation office/world. He viewed that while the present curriculum may provide the agenda for adequate preparations to harness its immense potentials, the emerging challenge hinges on effective capacity building in Office Technology and Management. The OTM programme according to Ama, Oko & Eze-Desy (2019) was designed in a

modular approach and accommodates practical and theoretical ICT knowledge which is intended to equip students with office skills for employment or be self-employed. The objectives, theoretical and practical contents of the new curriculum are geared towards integrating graduates of OTM programme into the evolution of technology.

The result of this study revealed that there are associated challenges with technological innovations in Office technology and management. Lending support to this study was the finding of Odike & Menkiti (2019) who identified the following as material and non material obstacles to the implementation of the OTM curriculum, these include insufficient number of computers and copies of software, lack of technical support and teachers' lack of knowledge and skills, and difficulty in integrating of instruction. In another study, Etuk (2015) identified insufficient electricity supply, poor maintenance culture, poor standard of equipment/accessories, high cost of equipment and poor funding was also identified as other challenges. This result was further corroborated by Fadare (2015) who listed the major problem facing office technology and management programme to include inadequate quantities of equipment, machines, tools and instructional materials. OTM programme is embedded suffers more in the sense that the necessary equipment, machines, and materials needed have to be imported for teaching, learning and research. The identified facilities for the programme are not available for the training of OTM students in Nigerian Polytechnics. Agholor (2019) further viewed that the utilization of ICT in the programme help to expand access to education, strengthen the relevance of education to the increasingly digital workplace and raise educational quality by helping to make teaching and learning into an emerging active process to real life.

The finding of the study further revealed that curriculum delivery can be enhanced in office technology and management programme. This result was supported by the finding of Azih & Ama (2019) who maintained that OTM curriculum contents should be so redesigned in such a way that a graduate of OTM should be well equipped to be self-employed, thereby not only reducing unemployment but also creating employment. The programme according to them came with the challenge of new skills and competencies needed to be acquired unlike the secretarial studies curriculum. The finding of Okoye & Iro (2016) agreed that subsequent review of the curriculum need to expand the amount of content quantity of vocational training and emphasize more on the quality of teaching-learning environment characterized by quality training facilities, tools and equipment and the quality of the teachers in subject matter

competence, skillfulness, teaching methodology, attitudes, values and virtues. The curriculum according to the finding need to be properly drilled on spreadsheet and modern records keeping and its security should be incorporated. To further strengthen this result, Odike & Mukiti (2019) asserted that there is the need to have a curriculum to meet the new technological and socio-economic trends by ensuring that the curriculum contains ICT and entrepreneurship modules.

Conclusion

Office Technology and Management programme is designed to equip graduates with office skills in various fields of endeavor. The curriculum framework of this programme is geared towards the development of skills, competencies and attributes that are necessary for efficiency of the economy. Based on the findings of this study, there are associated challenges with technological innovations in Office technology and management and curriculum delivery can be enhanced in the programme. It is obvious that a well implemented Office technology and management programme will climax in development and will enable graduates acquire certain vital skills needed for success.

Recommendations

1. For effective implementation of the programme of Office Technology and Management, it is imperative for the government and the management of institutions offering the programme to make adequate fund available at the right time for the running and sustenance of the programme.
2. The identified innovations should be integrated into office technology and management programme during curriculum development or review by relevant stakeholders.
3. There should be strict monitoring of office technology and management programme in the various institutions offering the programme for proper implementation in order to achieve the objective of the programme.

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