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INSTRUCTIONAL FACILITIES AND DIGITALISED OFFICE: TRAINING DEMANDS FOR NIGERIAN UNDERGRADUATES

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ABSTRACT
The main purpose of this study was to assess the instructional facilities for training Office Technology and Management (OTM) students in universities for the digitalised office. Specifically, the study investigated the availability of instructional facilities such as classrooms, computer laboratories, e-libraries, model offices and seminar rooms for training OTM students in universities for digitalised office. To achieve these purposes, five research questions were raised. The study adopted an ex-post facto research design as the population of the study comprised the items of the instructional facilities, while a standard checklist was constructed to determine the availability of these instructional facilities. This checklist was validated by expert in office technology management and measurement. To further ensure that the checklist measures what it ought to, reliability was conducted using Spearman Brown Formula and reliability co-efficient of 0.97 was obtained. Simple percentage was used to analyse the data collected. The findings of the study revealed that 67% of classroom facilities, 64% of e-library facilities, 52% of model office facilities, 67% of seminar room facilities were not available. Based on these findings it was recommended among others that there should be adequate provision of classrooms and its facilities, adequate establishment of e-library facilities.

Keywords: Digitalised office, instructional facilities and equipment, Office technology and Management students

1.0 INTRODUCTION
Every training program is meant to deliver specific Findings as people are expected to be more effective after training than they were before. Training can be referred to as teaching and learning activities carried on for the primary purpose of helping individuals acquire and apply the knowledge, skills, abilities and attitudes needed by a particular job and organisation (Dale, 2016). The Office Technology and Management (OTM) programme is an aspect of Business Education which also is a component of Vocational and Technical Education, that aimed at providing skills, knowledge, aptitudes and competencies necessary for employment in various offices and business organisations. The clamour for productivity and job efficiency by employers as a result of emerging office technologies prompted the OTM curriculum to be responsive, to enable the OTM graduate function effectively and conscientiously in a technologically driven work place. This was made possible by the National Board for Technical Education (NBTE) in 2004 leading to a change of its nomenclature from Secretarial Studies to Office Technology and Management (OTM).

According to UNESCO (2004), the objective of the OTM programme is to equip the students with effective work competencies and socio-psychological work skills which are very essential in everyday interactions. In addition to the acquisition of vocational skills and in partial fulfilment of the programme the students are expected to participate in a Supervised Industrial Work Experience Scheme (SIWES) during which they are to work in various organisations to help them practice the skills they have learnt. Upon graduation, the OTM graduates are expected to possess personal skills such as self-confidence, communicative, planning, adaptive, human relations, managerial skills and information communication and technology (ICT) skills such as the ability to use the computer to create spreadsheet and manage database. These skills and competencies when adequately acquired from the tertiary institutions provide job opportunities for the OTM graduate to function as office managers, teachers, secretaries, administrative assistants, information technology (IT) experts such as database administrators and IT consultants in modern office settings.

Contemporary offices have become technologically digitalised in order to increase work efficiency, enable employees to connect, collaborate, communicate, cooperate, work dexterously and improve productivity. This digitalised office is the key to have a vibrant workforce. It calls for the transformation of traditional office spaces and resources into an environment that supports digital business to everyone involved. The digitalised office is also a highly personal environment that enables people to do their job easily and effectively wherever they are instead of being constrained by technology, people become empowered by it, performing to their full potential and collaborating more easily than ever before. The digitalised office is the collection of all the digital tools provided by an organisation to allow its employees to do their job. It encompasses all the technologies used to get work done in modern workplace. Such as laptops, desktop computers, printers, scanners, photocopiers, smartphones, tablets. Others include system software and applications such as e-mail, instant messaging, human resource (HR) application, enterprise resource planning, customer relationship management (CRM) software and other technologies such as the intranet, internet and security system. (Tubb, 2013).

The digitalised office is not only about the technology but also about people and how they experience and interact with the office technology (Bynghall, 2017). This therefore requires that the OTM graduate be effectively trained to function in the digitalised office, where their productivity is measured in terms of how well they are able to experience and interact with the office technologies, forge a productive business relationship within and beyond the work place and most importantly achieve organisational goals. The ability of the OTM graduate to adapt to this digitalised office is however hinged on the instructional facilities and equipment available in the training process.

Instructional facilities and equipment are tangible resources provided for both staff and students of an institution to improve the quality of teaching and learning. The Capital Planning Group (2017) defined instructional facilities and equipment as classrooms, seminar rooms, instructional laboratories, computer laboratories and other spaces used principally for the purpose of delivering formal instructions to students. They are the physical resources that communicate an instructional message to students, also serve as primary tools and technologies that teachers use to organise their lessons and make knowledge and skills available to the students. They include; classrooms, seminar rooms, computer laboratories, model offices, e-libraries, information and communication technology (ICT) laboratories and internet services.

Studies have shown that the conducive learning environment is an important predictor of students learning and retention (Harmse, 2017; Bynghall, 2017). For instance, a well-equipped and state-of-the-art laboratory will enable the OTM student become conversant with the technologies that are present in the workplace. The use of computer hardware and various ICT applications will enable the OTM students acquire skills on word processing, writing and editing memos, letters and reports, data management programmes and spreadsheet programmes. Access to model offices and internet connection will also provide first-hand experience on what they will encounter in the digitalised office. These instructional facilities and equipment are provided to facilitate learning, add structure to lesson planning, delivery of instruction and enable students explore and experiment technologies in the digitalised office.

An instructional facility such as the classroom is a learning space found in educational institutions and may also be found in other places where education or training is provided. The classroom provides a space where learning can take place uninterrupted by outside distractions. Ryan (2013), say the classroom is where the students develop what they want their future to look like as well as knowledge of the skills needed to reach that goal. It ranges from small groups of five or six to big classrooms equipped with blackboards or whiteboards, television, charts, LCD projectors

for presenting information and images from a computer. An organised classroom setting can play a large role in students' concentration and the teacher's effective delivery of lesson.
Computer laboratory is an instructional facility which its entire purpose is to house computers. It is provided by the institutions to students who attend the institution or by others affiliated with that institution. Computer laboratories are technology centres, places where multimedia projects are created, provides instructional training on various hardware, software and also help students access the web. Lately, laptops are used instead of the traditional desktop computers in order to save space and give the lab some degree of mobility. They are equipped with internet access, desktops or laptop computers, scanners, printers, software such as Microsoft office, Microsoft excel adobe acrobat and various media player.

Model office, is a virtual prototype of the office in which facilities a rapid and highly effective means for students to capture the reality of the workplace. The model office is typically arranged like the real work environment comprising of various office equipment and supplies such as computers, scanners, printers, photocopiers, staplers, fax machine, projectors, internet service and software applications. Its essence is to depict to the students how a workplace looks like, how things are done and what outcomes occur as a result of things being done. This provides opportunity for real life scenarios of the workplace and allows the training of students to be grounded on practical experience.

E-Library is a digital library in which collections are stored in digital formats and accessible by computers (Trivedi, 2010). It provides online resources for research, simultaneous access of multiple file, access to primary information sources, support multimedia content along with text and integration with other digital libraries. The e-library plays a crucial role in preparing students for informed living in the 21st century. That is, providing current and up-to-date information on all areas of study needed for learners to improve academically and also for the teachers to prepare their lessons. It gives the teachers and all within the learning community avenue for exploring questions that arise out of individual curiosity and personal interest. The systematic delivery of instructional programs should be planned with a strategic library in order to enable the institutional communities achieve competencies of information literacy, accessing needed information, evaluating, managing and applying information (Gerber, 2016).

In furthering the course for preparing the OTM students for the digitalised office, instructional equipment such as internet services, ICT laboratory equipped with various multimedia and tools are used. These multimedia equipments are now permeating the educational system as a tool for effective teaching. They complement the teacher's efforts in the ICT laboratory ensuring effective learning. Internet service is an electronic communication environment built on the basis of the worldwide computer network (Azat, 2003). It is a dynamic system of global communication which links governments, institutions, individuals and cooperation to vast information sources. The application of internet services to training and instruction involves the usage of various internet technologies such as hardware and software to solve educational tasks. The internet contains a wealth of information and knowledge which assist teachers to give students extra resources and materials, allows students to visit websites and online encyclopaedia for greater details on any subject and allows communication from any location through video conferencing, virtual classrooms etc. Information and communication technology (ICT) laboratory also known as ICT unit, is established in various institutions to enable staff and students use information technology (IT) strategically and direct it resources to academic and administrative use. It is equipped with diverse set of technological tools, resources, multimedia, internet facility and satellite system. The place of ICT in training OTM students cannot be over-emphasised as it plays a pivotal role engaging the students in training and update on emerging technologies, providing a tremendous repertoire of knowledge on various ICT tools and services which are pre-requisite to adapting to the modern-day office.

Incontrovertibly, to be employable in the 21st century means being prepared for the digitalised workplace (Harmse, 2017). As a result, the training of OTM students in this era where technology is looming and fast pervading the workplace, requires that the instructional facilities and equipment employed are digitalised to enable them adapt to the digitalised office. However, the uncertainty as to their availability has led to an assessment of these instructional facilities and equipment for the training OTM students in tertiary institutions. Hence, this study investigated the availability of instructional facilities and digitised model office in the training of OTM undergraduates in Nigerian universities.

RQ5: What are the available seminar room facilities for training OTM students in tertiary institutions for the digitalised office?

2.0 METHODS

The design adopted for this study is the ex-post facto. This research design enabled the researcher to determine the availability of the instructional facilities for training OTM students for digitalised office. The populations of this study were items of the instructional facilities. This is because of the type of information to be obtained. The National University Commission (NUC) benchmark has stipulated the instructional facilities but this benchmark is overtaken by extent. However, with the looming technological advancements and the clamour for job efficiency, the training of the OTM students cannot be limited by extents. This has led to the construction of a standard checklist which contains the digitalised instructional facilities for training OTM students in tertiary institutions and to ensure that this checklist measures what it ought to, reliability was conducted.

A standard checklist titled "Office Technology Instructional Facilities Availability for the Digitalised Office" (OTIFADO). The checklist consisted 5 major instructional facilities (classroom, computer laboratory, model office, e-library and seminar room). The checklist was to determine the availability of instructional facilities used in the training of OTM students in tertiary institutions. The instrument was validated by experts in measurement and office technology. The reliability of the instrument was determined using split half method and was administered on 10 Office Technology and Management (OTM) lecturers in a Nigerian University. The alpha values for the two halves are 0.95 and 0.96 respectively. By employing the Spearman Brown formula, the reliability coefficient obtained was 0.97.

The instrument was administered by the researcher to the Heads of Department in the various institutions, to indicate the number of available instructional facilities and equipment, as they are the custodians of these facilities. The whole exercise lasted for a period of 6 weeks. The data collected by the researchers was analysed using simple percentage, in order to determine the available instructional facilities for training OTM students in tertiary institutions for digitalised office.

3.0 FINDINGS AND DISCUSSION

The findings in table 1 showed the percentage distribution for available classroom facilities for training OTM students. The table revealed that there were five facilities with high percentage of availability (66.7 to 100%). However, the table revealed that there were also two facilities that showed high percentage of not available (66.7% each). Therefore, there were relatively more classroom facilities available for training OTM university students for digitalised office.

Table 1: Percentage Distribution on Available Classroom Facilities

S/N	Items	Available		Not available	
		Frequency	Percent	Frequency	Percent
1	Interactive whiteboards	2	66.7	1	33.3
2	Internet connection	1	33.3	2	66.7
3	Chairs and tables	1	100.0	-	-
4	Public address system	2	66.7	1	33.3
5	Desktop computers	2	66.7	1	33.3
6	White marker boards	3	100.0	-	-
7	Adequate number of classrooms	1	33.3	2	66.7
	Average percentage		**66.67**		**33.32**

The findings from research question one revealed that 67% of classroom facilities were available, while 33% of classroom facilities were not available. Therefore, there were more classroom facilities available for training OTM students in universities for digitalised office. This could have been as a result of the need to meet the requirements for programme accreditation as specified by the regulatory body- National Universities Commission (NUC). This finding is in agreement with Okoro (2008), who emphasised that the availability of classroom facilities in the teaching and learning of the OTM students remain crucial. Oyinloye and Oluwalola (2014) further opined that this would enhance students' learning by allowing them to be involved in demonstrations and practice which would continue to build their skills. The findings further revealed that 33% of the non-available classroom facilities,

internet connection were one of them. This could however be adduced to low adaptation of new technology by these institutions. Another non-available facility was inadequate number of classrooms; this may have been due to overpopulation or underfunding. As a result, the learning environment becomes unconducive.

Table 2: **Percentage Distribution on Available Computer Laboratory Facilities**

S/N	Item	Available		Not available	
		Frequency	**Percent**	**Frequency**	**Percent**
	Desktop computer: Printer, photocopiers, keyboards, mouse, scanners, central processing unit, internet connection	2	66.7	1	33.3
	Network typology: LAN, WAN	1	33.3	2	66.7
	Headset	1	33.3	2	66.7
	Smart board	1	33.3	2	66.7
	Software programs/packages – word processing, data base management spreadsheet, presentation software, enterprise software, desktop publishing	2	66.7	1	33.3
	Workstations	-	-	3	100.0
	Average percent		**38.88**		**61.11**

Findings in Table 2 showed the percentage distribution for available computer laboratory facilities for training OTM students. The table revealed that there were two facilities with high percentage of availability (66.7% each). However, the table revealed that there were four facilities that showed low percentage of not available (66.7% to 100.0%). Therefore, there were relatively less computer laboratory facilities available for training OTM university students for digitalised office. Research question two revealed that there were only 39% of computer laboratory facilities available while 61% of computer laboratory facilities were not available. Therefore, there were far less computer laboratory facilities available for training OTM students in universities for digitalised office. This finding is in agreement with Aworanti (2015), who found that even the basic computer laboratory facilities have declined both in quantity and quality. Obunadike (2015) also noticed that practical courses that are supposed to expose students to real practical training in order to strike a balance with or match the theory in the classroom have become a myriad. As technology continues to lead society's future computer laboratory in the training institutions are mandatory to support the teaching and learning process. But a situation where 62% of these computer laboratories facilitates were not available, these institutions are obviously grossly underfunded. This could call to question the accreditation of the OTM programme in these institutions, as it is a pre-requisite for the establishment of the programme.

Table 3: Percentage Distribution on Available E-library Facilities

S/N	Items	Available		Not available	
		Frequency	**Percent**	**Frequency**	**Percent**
	Internet connection	2	66.7	1	33.3
	Chairs and tables	3	100.0	-	-
	Laptops	2	66.7	1	33.3
	Desktop computer	3	100.0	-	-
	Photocopier	2	66.7	1	33.3
	Networked laser printer	1	33.3	2	66.7
	Video viewing station	2	66.7	1	33.3
	Research workstation	1	33.3	2	66.7
	Microfilm reader	1	33.3	2	66.7
	Online catalogue (OPAC) workstations	2	66.7	1	33.3
	e-books	2	66.7	1	33.3
	e-learning	2	66.7	1	33.3
	Average percent		**63.9**		**36.1**

Findings in Table 3 showed the percentage distribution for the available e-library facilities for training OTM students. The table revealed that there were nine facilities with high percentage of availability (66.7% to 100.0%). The table also revealed that there were e-library facilities that showed high percentage of not available (66.7%).

Therefore, there were more e-library facilities available for training OTM students in universities for digitalised office.

In the case of research question three, the findings revealed that 64% of e-library facilities were available while 36% of e-library facilities were not available. Therefore, there were more e-library facilities for training OTM students in universities for digitalised office. This finding is in agreement with Emesini (2009), who mentioned that availability of e-library facilities provide the learners with exciting opportunities to search for more educational information, develop an enquiry mind and good study habits. However, with the rapid advances in information technologies that have revolutionised the role of libraries, 36% of unavailable e-library facilities could be as a result of the inability of these universities to grow to meet modern facilities. This situation is unsatisfactory as OTM students are expected to be exposed to the repertoire of knowledge that will prepare them for a productive life after school.

Table 4: Percentage Distribution on Available Model Office Facilities

S/N	Items	Available		Not available	
		Frequency	**Percent**	**Frequency**	**Percent**
26	Desktop computer: printer, photocopiers, keyboards, mouse, scanners, central processing unit, internet connection	-	-	3	100.0
27	Projectors	2	66.7	1	33.3
28	Laminating machine	-	-	3	100.0
29	Label markers	2	66.7	1	33.3
30	Collating machine	1	33.3	2	66.7
31	Shredders	-	-	3	100.0
32	Laptop	2	66.7	1	33.3
33	Telephone	2	66.7	1	33.3
34	Power backup	2	66.7	1	33.3
35	Software programs/packages-word processing, data base management spreadsheet, presentation software, enterprise software, desktop publishing	3	100.0	-	-
36	Folders and file	3	100.0	-	-
	Average percent		**51.52**		**48.47**

Findings in Table 4 showed the percentage distribution for available model office facilities for training OTM students. The table revealed that there were seven facilities with high percentage of availability (66.7 to 100.0%). Conversely, the table revealed that there were four facilities with high percentage of not available (66.7 to 100.0%). Therefore, there were relatively more model office facilities available for training OTM universities students for digitalised office.

The research question four revealed that only 52% of model office facilities were available while 48% of model office facilities were not available. Therefore, the model office facilities available for training OTM students in universities were fairly available. This finding is in agreement with Onyesom and Okolocha (2013), who affirmed that the availability of model offices in the business education programme will enable the students experience the actual operations happening in the real office. But, a situation where 48% of these facilities are not available, there is the likelihood that the OTM lecturers are unable to operate these facilities or they probably have low adaptation to new technologies. As such, the fright associated with the sophisticated work environment becomes inevitable due to the deficiency of training facilities in these training institutions.

Table 5: Percentage Distribution on Available Seminar Room Facilities

S/N	Items	Available		Not available	
		Frequency	**Percent**	**Frequency**	**Percent**
37	Projectors	2	66.7	1	33.3
38	Transparencies	-	-	3	100.0
39	Interactive whiteboard	2	66.7	1	33.3
40	Public Address system	3	100.0	-	-
41	Seats and tables	3	100.0	-	-
42	Audio and video conferencing	2	66.7	1	33.3
	Average percent		**66.68**		**33.31**

Findings in Table 5 showed the percentage distribution for available seminar room facilities for training OTM students. The table revealed that there were five facilities with high percentage of availability (66.7 to 100.0%). The table also revealed that there was only one facility that showed high percentage of non-availability (100.0%). Therefore, there were more seminar room facilities available for training OTM university students for digitalised office.

Research question five revealed that 67% of seminar room facilities were available while 33% of seminar room facilities were not available. This indicated that there were more seminar room facilities available for training OTM students in universities for digitalised office. This finding is in agreement with the findings of Houn and Sharp (2009), who opined that availability of seminar room facilities, facilitates learning characterised by active and reflective, group based, collaborative and inquiring based experience that are designed to promote deep and continued learning. Cox *et al.,* (2010), also adds that available seminar room facilities enhance learning by providing students with opportunities to practice skills of enquiry, value analysis and clarification. However, a 33% non-availability of these facilities may be caused by low adaptation to new technology, the inability of the institutions to grow to meet modern facilities and most likely inadequate funding.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Sequel to the finding of the study, it was concluded that there are average availability percentage of 67%, 64%, 52%, 67%, and 50% for classrooms, e-libraries, model offices, seminar rooms and internet services respectively. These are instructional facilities and equipment needed in the training of the OTM students in preparing them for a digitised office. Furthermore, there was an average availability percentage of 39% and 30% of computer laboratory facilities and information and communication technology laboratory equipment respectively. Based on these findings, it was concluded that the instructional facilities and equipment for training OTM students are moderately available. This would have implications for the training of the students in preparing them for a digitised office.

Based on the findings of this study, the following recommendations were made. The classroom facilities available for training OTM students showed a 67% availability and 33% non-availability. However, there is a need for provision of internet connection and adequate number of classrooms. Availability of these will help in the development of digital competency as well as meet the increasing population of the students.

There is an urgent need for the provision of computer laboratory facilities, since the primary goal of introducing computer education into the training institutions and the OTM programme is to train students in basic ICT applications, software programs and office applications. Apparently, with only 39% availability, the OTM students will not be efficiently trained in the use of these office applications and software. This situation should be consciously reversed by the managers of the university system through adequate funding. The importance of e-library has been demonstrated by the government in the national policy on education, when it states that every state needs to provide funds for the establishment of e-libraries in all her educational institutions. Therefore, e-library facilities in the institutions require improvement by the government and proprietors of the institutions.

Since the model office is an instructional facility required in the qualitative and quantitative training of OTM students. 45% non-availability indicates significant room for improvement. Since 52% availability of model office facilities cannot provide the qualitative and quantitative education required to train the OTM students for the digitalised office. Therefore, there is need for adequate provision of these facilities. There is also a need for adequate provision of seminar room facilities at 67% availability is not enough for the OTM students to acquire skills of enquiry, value analysis and clarification. With the numerous benefits accrued from the introduction of the internet, the OTM programme seems to be left out with 50% availability. This calls for an upgrade of the internet service equipment required in the training of OTM students. The conspicuous non-availability of ICT laboratory equipment reflects that most students are lacking in digital literacy. Therefore, all relevant stakeholders and agencies of the government should be charged with the responsibility of adequate provision of ICT laboratory equipment for the efficient training of OTM students.

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