

**ASSESSMENT OF INFORMATION AND MANAGEMENT TECHNOLOGY
COMPETENCIES REQUIRED BY OFFICE TECHNOLOGY MANAGEMENT (OTM)
GRADUATES FOR GLOBALIZED EMPLOYABILITY IN TODAY'S DIGITAL AGE**

BY

**Odochi Chinwe-Edozie Iheukwumere (MABEN): Department of Office Technology and
Management, Abia State Polytechnic, Aba; E-mail: chinwedoziel@gmail.com**

&

**Kelechi Mary Nkoro: Department of Office Technology and Management, Abia State
Polytechnic, Aba;
E-mail: kelechimary776@gmail.com**

Abstract

The study examined the information and management technology competencies required of Office Technology and Management (OTM) graduates for globalized employability in today's digital age. Two research questions guided the study and two hypotheses were tested at 0.05 level of significance. The descriptive survey research design was adopted for the study. The population of the study consisted of 98 office executives and 55 secretaries from chosen organizations in Aba, Abia state. The simple random sampling technique was used to select a sample of 81 (56 office executives and 25 secretaries) as respondents for the study. A well structured questionnaire on a 4-point scale was used as instrument for data collection, while the reliability test for the instrument yielded co-efficient 0.80 for the clusters using Cronbach Alpha. The data collected were analyzed using mean and standard deviation to answer the research questions, and t-test for the hypotheses testing. Finding revealed that internet research, computer skills, data management, email and communication, word processing, spreadsheet management, data security and privacy, and file and document management are the major information and management technology competencies required of OTM graduates for globalized employability in today's digital age. While limited access to ICT resources, lack of ICT training for tutors, inadequate ICT infrastructure, digital literacy gap, technological obsolescence, and confidence and self-efficacy are the major challenges impeding OTM graduates from acquiring information and management technology competencies for globalized employability. The study concluded that graduates in office technology and management need information and management technology competencies in order to advance professionally and find employment in the current digital era. Based on the findings, it was recommended among others that graduates in office technology and management must be dedicated to lifelong learning and professional development in order to stay abreast of emerging trends and technologies in their industry.

Keywords: information Management and Technology, Employability, Office Technology and Management, Employability, Digital age

Introduction

Graduate unemployment in Nigeria is a significant issue that has been affecting the country for many years. Despite the country's large population and abundance of natural resources, many graduates OTM inclusive struggle to find suitable employment opportunities. Klynveld Peat Marwick Goerdeler (KPMG) reported that as of the first quarter of the 2023, the Nigerian unemployment rate had increased to 37.7% in 2022 and will further rise to 40.6%, due to the continuing inflow of job seekers into the job market (Egole, 2023). This is a significant concern as a high unemployment rate can lead to various socio-economic problems, including crime and social unrest. Several factors contribute to the high rate of unemployment, including lack of job opportunities, a mismatch between skills of graduates and the needs of the labour market, inadequate infrastructure and corruption.

The National Board for Technical Education (NBTE) had previously established secretarial studies in Nigerian Polytechnics, but Office Technology and Management (OTM) has taken their place (Ademiluyi, & Emode, 2019). OTM is a component of vocational education that was created to prepare its recipients to acquire socio-psychological work skills and vocational knowledge in office education in order to find gainful job on the international market (Iheukwumere, Uteh & Nkemjika,

2019). The office technology and management curriculum is a component of the business education program (Ademuluyi, 2022), and it gives graduates the skills they need to engage in a variety of office tasks as well as self-employment. When it was discovered that the previous secretarial studies were parochial and unable to meet the demands of the information age, the OTM curriculum was created to replace it (Ukonu & Habu, 2022).

According to Iredia, Obo & Umokoro (2018), the current OTM curriculum was created to incorporate professional courses (core courses), which provide students with the theory and practical abilities necessary to function well in modern offices where new technical equipment is introduced on a daily basis. According to the National Board for Technical Education (NBTE), the purpose of the OTM program is to provide students with secretarial and office skills that will prepare them for employment in a variety of fields of endeavor as well as effective work competencies and socio-psychological work skills that are crucial in daily interactions in human societies (Okoye & Iro, 2020). It is to produce graduates who would be able to effectively manage the electronic driven offices, and be equipped with office work skills for self reliance employment in various fields of endeavour. The recipients of OTM programme are expected to fit properly into any electronic driven office and perform professionally the duties of a modern day secretary.

It is impossible to overstate the role that information and communication technologies (ICT) play in helping the present OTM program achieve its goals because society as a whole is increasingly reliant on ICT. The information and skills provided to OTM program participants need to be reorganized in order to stay up with technological advancements in education (Yamme, 2020). Tony-Okene, Iyaji & Aliyu (2023) define competence as having the knowledge, abilities, and judgment necessary to carry out a task successfully. The ability to successfully do a task or carry out a job requires having one or more of the talents, skills, experiences, attitudes, and knowledge that competence refers to. Competencies encompass the unique skills, knowledge, and expertise required to carry out a work successfully (Akoke, Atah & Bessong, 2022). Competencies in skill areas are important because they increase worker efficiency and productivity, which in turn increases worker satisfaction. Secretaries need specific skills to function well on a global basis.

Globalization is the unrestricted exchange of ideas, information, and cultural practices among all social systems in the world. It involves extending corporate operations in order to obtain a global viewpoint (Anyigor-Ogah, 2022). Therefore, in the face of globalization, workplace operations cannot be operational without employees who have the necessary employability skills to succeed and comprehend the realities of today's globalized workplace. Every work requires a specific set of abilities and conduct, which are known as employability skills. According to Osmani, Weerakkody, Hindi & Eldabi (2019), employability skills—also known as soft skills—include a variety of concepts, qualities, ways of thinking, knowledge, behavior, and technical competencies that an employee uses to work effectively and efficiently in the globally connected workplace.

Information and management technology competence as well as soft skills make up globalized employability competencies. According to Atah, Bessong & Ititim (2022), information and management technology competencies are skills required to effectively manage and use technology in an organizational setting. These abilities are essential for those whose employment involves controlling and using technology to achieve organizational goals. Information and communication technology competencies according to Odusina, Dasaolu, & Agbonna (2022) and Ademiluyi (2021) include ability to source information online, ability to send and receive email, ability to use different social media platforms for business activities, ability to conduct electronic meetings, ability to use Microsoft word to process different correspondence among others.

Soft skills, according to Fajaryati, Budiyo, Aklyar & Wiranto (2020), are desirable traits for some types of jobs that do not depend on learned information. It is a personality trait that supports situational awareness and improves one's capacity for task completion (Rouse, 2020). Soft skills are the interpersonal, social, human, and behavioral abilities required to apply managerial and informational

capabilities in the workplace. The abilities and skills necessary for administrative professionals to succeed in their positions in a worldwide or multinational setting are referred to as global secretarial competencies. These talents comprise a broader range of abilities need to successfully navigate various cultures, languages, and work situations and go beyond the simple administrative duties. Some of the most important global secretarial competencies, according to Odusina, et al (2022), include: confidentiality and professionalism, continuous learning, problem-solving and decision-making, organization and adaptability, technology skills, time management, cultural awareness, multilingual communication, teamwork, and attention to detail, among others.

Employability, on the other hand, relates to the capacity to find and keep a job. An individual's education, skills, and abilities determine how employable they are. The ability to move independently within the labor market is necessary to achieve potential through long-term work. Strong soft skills in secretarial work are necessary for success in administrative careers. Along with technical proficiency, they also require interpersonal, communication, and organizational abilities. It is crucial for office workers to stay informed and adaptive in the quickly changing digital landscape because as technology develops, new competencies can become necessary.

The attitude of various managements in and outside institutions towards the developments of technology related facilities such as internet and procurement of computers is rather slow in some instances and in others there are no aid supports by government. Access to technological resources is one of the effective ways to use ICTs in teaching and learning. Chetty, Aneja, Mishara, Geora, & Josie, (2018) opined that accessibility to ICT resources is the main obstacle to acquiring of ICT skills. Amiaya (2015) and Amimo (2021) noted that the efforts towards the use of ICT in the training of students have met several challenges, such as: limited accessibility and network connection, limited technical support, lack of effective ICT training, lack of ICT infrastructure, inadequate ICT competence, and resistance to change.

Problem Statement

New business models, sophisticated technology, and the appropriate digital tools that connect and support employees for increased productivity are all features of modern offices. The new approaches to performing office tasks as a result of technological advancements in the workplace necessitate adequate training and preparation of aspiring Office Technology and Management students in order for them to gain the knowledge, skills, and experiences necessary for employability on a global scale (Yammer, 2020).

One of the major causes of unemployment among OTM graduates is lack of competencies to back up what has been learnt from their various institutions of learning. OTM graduates are required to possess secretarial global competencies that are essential for success in administrative roles. Eze, Ezeahurukwe & Ameh (2021) asserted that occupational specific skills are no longer sufficient for graduates of OTM to meet the needs of digital world of work, and that it takes a set of employability skills. Hence, this study sought to assess the competencies required by Office Technology and Management graduates for globalized employability in today's digital age.

Purpose of Study

The study sought to examine:

1. The information and management technology competencies required of OTM graduates for globalized employability in today's digital age.
2. The challenges impeding OTM graduates from acquiring information and management technology competencies for global employability in today's digital age.

Research Questions

The following research questions guided the study:

1. What are the information management and technology competencies required of Office Technology and Management graduates for globalized employability in today's digital age?
2. What are the challenges impeding Office Technology and Management graduates from acquiring information management and technology competencies for globalized employability in today's digital age?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of office executives and secretaries on the information management and technology competencies required of Office Technology and Management graduates for globalized employability in today's digital age.
2. There is no significant difference in the mean ratings of office executives and secretaries on the challenges impeding Office Technology and Management graduates from acquiring information management and technology competencies for globalized employability in today's digital age.

Methodology

Descriptive research design was adopted for the study and the study was carried out in Aba, Abia state. The population of the study comprised of 98 executives and 55 secretaries from Abia state Polytechnic, Starline Nig. Limited, and Chemlap Nig. Limited. A sample of 56 office executives and 25 secretaries were selected using simple random sampling technique. The instrument for data collection was a researcher structured developed questionnaire titled: information and management competencies required of Office Technology and management graduates for globalized employability in today's digital age. The instrument was structured on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instrument had two sections: A and B. Section A contained information relating to respondents status in the organization, while section B contained 22 items in two clusters; cluster B1 contained 12 items on the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today's digital age, while cluster B2 contained 10 items on the challenges impeding Office technology and Management graduates from acquiring information and management technology competencies for globalized employability in today's digital age. The internal consistency of the instrument was determined using the Cronbach Alpha which yielded an overall reliability coefficient of 0.80 for the two clusters.

Data collected from the respondents were analyzed using mean, standard deviation, and t-test. The mean value was used to answer the research questions while standard deviation was used to ascertain the homogeneity or otherwise of the respondents' ratings. In analyzing the mean, any item score 2.5 and above was deemed to be agreed while any item with mean score below 2.5 was disagreed. For the hypotheses, t-test was used to test all the null hypotheses at 0.05 level of significance, where the calculated t-value was less than the critical t-value, it meant that the variable had a significant effect on the respondents' mean ratings and the hypothesis was rejected.

Results

Research Question 1

What are the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today's digital age?

Table 1: Mean ratings of responses of respondents on the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today’s digital age. N = 81

S/N	Items Remarks	Mean	SD	
1	Computer skills	3.19	0.80	Agree
2	Word processing	3.10	0.87	Agree
3	Spreadsheet management	3.09	0.74	Agree
4	Presentation skills	3.05	0.81	Agree
5	Email and communication	3.12	0.78	Agree
6	Data management	3.15	0.72	Agree
7	Internet research	3.22	0.72	Agree
8	File and document management	3.11	0.78	Agree
9	Collaboration and teamwork tools	2.65	0.77	Agree
10	Data security and privacy	3.28	0.84	Agree
11	Basic troubleshooting	2.89	0.71	Agree
12	Digital etiquette and professionalism	2.87	0.76	Agree

Decision rule = 2.50, Cluster mean = 3.08

Data in table 1 show the mean ratings and standard deviation of respondents on information and management technology competencies required of Office Technology and Management graduates for globalized employability in today’s digital age. The table reveals that all the items recorded mean ratings between 2.65 – 3.22 and standard deviations ranging from between 0.71 – 0.87 which all the items are accepted. The cluster mean of 3.06 indicates that all the items are among the information and management competencies required of Office Technology and Management graduates in today’s digital age.

Research Question 2

What are the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age?

Table 2: Mean ratings on the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age. N = 81

S/N	Items Remarks	Mean	SD	
13	Limited access to ICT resources	3.33	0.84	Agree
14	Lack of relevant curriculum	2.80	0.82	Agree
15	Lack of guidance and support	2.85	0.82	Agree
16	Lack of ICT training for tutors	3.21	0.72	Agree
17	Confidence and self-efficacy	3.01	0.79	Agree
18	Time constraints	3.10	0.77	Agree

19	Inadequate ICT infrastructure		3.45	0.81
	Agree			
20	Digital literacy gap		3.48	0.74
	Agree			
21	Technological obsolescence		3.02	0.70
	Agree			
22	Technological complexity	2.87	0.80	Agree

Decision rule = 2.50, Cluster mean = 3.11

Data in Table 2 show the mean ratings and standard deviation of respondents on challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age. The table reveals that all the items recorded mean ratings between 2.80 – 3.48 and standard deviations ranging from between 0.70 – 0.84 which all the items are accepted. The cluster mean of 3.11 indicates that all the items are among the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age.

Hypothesis 1

There is no significant difference in the mean ratings of office executives and secretaries on the competencies required of Office Technology and Management graduates for globalized employability in today’s digital age.

Table 3: t-test analysis of respondents mean ratings on the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today’s digital age.

Variable	N	Mean	SD	df	t-cal	t-crit.	Decision
Secretaries	25	3.18	0.79	79	0.43	1.96	Not significant
Office executives	56	3.00	0.76				

Data in table 3 indicate that the calculated t-value of 0.43 at 79 degree of freedom is less than the critical t-value of 1.96. Thus the null hypothesis is retained; this shows that there is no significant difference in the mean ratings of office executives and secretaries on the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today’s digital age.

Hypothesis 2

There is no significant difference in the mean ratings of office executives and secretaries on the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age.

Table 4: t-test analysis of respondents mean ratings on the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age.

Variable	N	Mean	SD	df	t-cal	t-crit.	
Decision							
Secretaries	25	2.98	0.76	79	0.21	1.96	Not significant
Office executives	56	3.01	0.82				

Data in table 4 indicate that the calculated t-value of 0.21 at 79 degree of freedom is less than the critical t-value of 1.96. Thus the null hypothesis is retained; this shows that there is no significant difference in the mean ratings of office executives and secretaries on the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age.

Discussion

The result in Table 1 showed that all the items as regards information and management technology competencies required of Office Technology and Management graduates for global employability in today’s digital age were accepted. The findings buttressed the discovery of Ademiluyi (2022) that information and communication technology skill are needed by office technology and management graduates for entrepreneurship and gainful employment. Further findings reveals that there is no significant difference in the mean responses of office executives and secretaries on the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today’s digital age. This implies that office executives and secretaries agreed that information and management technology competencies are required from Office Technology and management graduates for globalized employability in today’s digital age.

Further findings revealed no significant difference in the mean ratings of office executives and secretaries on the information and management technology competencies required of Office Technology and Management graduates for globalized employability in today’s digital age. This shows that both office executives and secretaries agreed that information and management competencies are required of Office Technology and Management graduates for globalized employability in today’s digital age.

Results in table 2 showed that limited access to ICT resources, confidence and self-efficacy, inadequate ICT infrastructure, technological complexity, technological obsolescence, lack of ICT training for tutors, among others are among the challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age. The finding of the study is in line with Amiaya (2015) and Amimo (2021) that the use of ICT in the training of office technology and management students has met several challenges. Despite the high unemployment rate and abundance of applicants, many organizations frequently lament that they have been unable to fill particular positions with Nigerian graduates since they are aware that many of them lack the necessary skills for long-term work (Ademiluyi, 2019).

However, in hypothesis 2, it was shown that there is no significant difference in the mean ratings of office executives and secretaries on the challenges impeding office technology and management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age. This shows that both office executives and secretaries agreed that there are challenges impeding Office Technology and Management graduates from acquiring information and management technology competencies for globalized employability in today’s digital age.

Conclusion

Graduates in office technology and management should be aware of new competencies that are becoming necessary as technology develops and be able to adapt to the fast changing digital environment. Therefore, the study comes to the conclusion that graduates in office technology and management need information and management technology competencies in order to advance professionally and find employment in the current digital era.

Recommendations

Based on the result of the study, the following recommendations were made:

1. Graduates in office technology and management must be dedicated to lifelong learning and professional development in order to stay abreast of emerging trends and technologies in their industry.
2. Graduates with degrees in office technology and management must be ready to adjust to a changing workplace that includes new technologies, various cultural norms, and evolving objectives.
3. More ICT infrastructure in the form of hardware and software should be provided in laboratories and they should be regularly updated to minimize reliance on obsolete technologies.

References

- Ademiluyi, A. B. (2021). Employability skills needed by OTM graduates for entrepreneurship and gainful employment in Nigeria. *International Journal of Education, Learning and Development*, 9(9), 32-42.
- Ademiluyi, L. F. (2019). Employability skills needed by business education students as perceived by teachers and employers of labour in South-Western Nigerian states. *Business Education Innovation Journal*, 11(1), 57-65
- Ademiluyi, L. F & Emode, P. A. (2019). Internet application and Microsoft excel competencies needed by polytechnic office technology and management teachers for computer-aided instructions. *Delta Business Education Journal*, 9(2), 27 – 35.
- Akoke, M. N. G., Atah, C. A. & Bessong, E. B (2022). Assessment of competencies required of university business education graduates for employability. *Association of business Educators of Nigeria Book of Proceedings*, 9(1), 914-921.
- Amiaya, A. O. (2015) Information and communication technology challenges and strategies among office technology and management educators in Nigerian Polytechnics. *International Journal of Education and Practice*, 3(3), 156-167.
- Amimo, C. A. (2021). From the Classroom into Virtual Learning Environments: Essential Knowledge, Competencies, Skills and Pedagogical Strategies for the 21st Century Teacher Education in Kenya. <https://www.intechopen.com/chapters/75908>.
- Anyigor-Ogar, A. C. (2022). Perception of business educators on therelevance of integrating globalized employability skills in the business education curriculum in tertiary institutions in Nigeria. *Association of Business Educators of Nigeria, Conference Proceedings*, 9(1), 732-740.
- Atah, C. A, Bessong, E. B., & Ititm, D. U. (2022). Influence of students' self esteem and students' locus of control and acquisition of employability skills among Business Education students in Federal Universities in South-south geopolitical zone of Nigeria. *Academic Journals*, 9(8), 1-11.
- Chetty, K., Aneja, U., Mishara, V., Geora, N., & Josie, J. (2018). Bridging the digital divide in the G20: skills for the new age.Economics: The Open-Access. Open-Assessment E-Journal, 12(24), 1-20.
- Egole, A (2023). Nigerian unemployment rate to hit 41% 2023. April 11, Retrieved from <https://punchng.com/nigerian-unemployment-rate-to-hit-41-in-2023-kpmg/>
- Eze, P. C., Ezeahurukwe, N. L. & Ameh, A. O. (2021). Digital employability skills required by future secretaries for optimum productivity in business organizations. *Nigerian Journal of Business Education (NIGJBED)*, 8(2), 187 – 198.

- Fajaryati, N., Budiyo, B., Aklyar, M. & Wiranto, D. (2020). The employability skills needed to face the demands of work in the future: systematic literature review. *Open Engineering*, 10(1), 595-603.
- Iheukwumere, O. C-E, Uteh, C. K. & Nkemjika, U. U. (2019). Perceived influence of instructional resources towards skill acquisition in office technology and management programme in Abia state polytechnic, Aba. *Delta Business Education Journal*, 9(2), 289-295.
- Iredia, B. F., Oboh, G. A., & Umokoro, S. (2018). The need for curriculum review for office technology and management. *Association of Business Educators of Nigeria (ABEN) Conference Proceedings*, 5(1), 92-96.
- Odusina, A. O., Dasaolu, O. A. & Agbonna, R. O. (2022). Secretarial skills, motivational tools and secretaries' job effectiveness in private organizations. *Sapientia Foundation Journal of Education, Sciences & Gender Studies*, 4(1).
- Okoye, K. R. E. & Iro, D. M. (2020). Employers' assessment of adequacy of office technology and management curriculum for graduates employability skills acquisition in North-West Nigeria. *NAU Journal of Technology and Vocational Education*. 151-162.
- Osmani, M., Weerakkody, V., Hindi, N. & Eldabi, T. (2019). Graduates employability skills: a review of literature against market demand. *Journal of Education for Business*, 96(7), 423-432.
- Rouse, M. (2019). Soft skills. Retrieved from <http://searchcio-techtargget.com>
- Tony-Okene, A. F., Iyaji, U. & Aliyu, J. A. (2023). Appraisal of the level of information and communication technology competencies possessed by office technology and management educators for effective training of self-reliance skills in polytechnics in Kogi state. *British Journal of Contemporary Education*, 6(1), 43-58.
- Ukonu, E. E. & Habu, J. U. (2022). Sustainable technological skills: the key for unlocking office technology management students' potentials in the 21st century workplace. *African Scholar Journal of African Innovation & Advanced Studies*, 24(2), 267-276.
- Yammer, M. (2020). Building a modern workplace. *Nigerian Journal of Business Education (NIGJBED)*, 8(2), 78-89.