BUSINESS EDUCATION

Workplace Digitalization and the Electronic Record Keeping Skills Required of Office Technology and Management Graduates in Abia State

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Abstract

This study investigated workplace digitalization and the electronic record keeping skills required of Office Technology and Management (OTM) graduates in Abia State. Specifically, it examined the extent of digitalization in organizations, the skills required by employers, and the level of skills possessed by graduates. A descriptive survey research design was adopted, and data were collected from 300 OTM graduates using a structured questionnaire validated by experts. Data were analyzed using mean, standard deviation, and independent samples t-test at a 0.05 significance level. The findings revealed that workplace digitalization in Abia State is high, electronic record keeping skills are significantly required by organizations, and OTM graduates possess a statistically significant level of these skills, although gaps exist in advanced competencies such as database management and data security. The study concludes that enhancing the OTM curriculum and providing practical training are necessary to fully equip graduates for the digital workplace. These findings have implications for educators, policymakers, and employers in aligning graduate competencies with the demands of modern offices.

Keywords: workplace digitalization; electronic record keeping; Office Technology and Management; job performance; Abia State

1 Introduction

Workplace digitalization has become a defining feature of modern organizations as a result of rapid advancements in information and communication technologies (ICT). Digitalization involves the use of computers, software applications, internet-based platforms, and electronic systems to perform office functions that were previously handled manually. This transformation has significantly altered the nature of office work, increased efficiency, and improved information management in organizations (Adebayo & Ahmed, 2020). Consequently, employers now expect office personnel to possess strong digital competencies to function effectively in contemporary workplaces.

One major aspect of workplace digitalization is electronic record keeping, which refers to the creation, storage, organization, retrieval, and protection of records in digital formats. Electronic record keeping enhances accuracy, accessibility, security, and timeliness of information, thereby supporting effective decision-making and organizational efficiency (International Records Management Trust (IRMT), 2019). In digitally driven workplaces, the ability to manage electronic records is no longer optional but a fundamental requirement for office employees.

In Nigeria, the adoption of digital technologies in both public and private organizations has continued to grow. Government ministries, educational institutions, financial organizations, and business enterprises increasingly rely on electronic systems for record management, communication, and

administrative processes. This shift has heightened the demand for graduates who possess relevant digital and electronic record keeping skills (Okeke & Eze, 2021). In Abia State, organizations are gradually transitioning from paper-based record systems to electronic platforms, thereby redefining the skill requirements for office workers.

Office Technology and Management (OTM) programmes are designed to equip students with knowledge and skills necessary for effective office administration. Traditionally, the curriculum emphasized manual filing, typewriting, shorthand, and basic office procedures. However, the digital transformation of workplaces now requires OTM graduates to demonstrate competencies in electronic document management, database usage, cloud storage, data security, and modern office software applications (Uzoagulu & Nwankwo, 2022). These skills are essential for managing digital records in today's office environment.

Despite the increasing relevance of electronic record keeping skills, studies have indicated that many OTM graduates lack adequate proficiency in these areas, leading to a mismatch between workplace expectations and graduates' competencies (Onyemachi & Udoh, 2020). Employers often report challenges with graduates' ability to organize electronic files, retrieve digital records efficiently, and ensure data confidentiality. This skills gap poses a threat to graduates' employability and effectiveness in digitally driven offices.

Therefore, examining workplace digitalization and the electronic record keeping skills required of Office Technology and Management graduates in Abia State is essential. Such a study will provide insights into the specific digital competencies demanded by employers and help align OTM training with the realities of the modern workplace.

1.1 Statement of the problem

The rapid digitalization of workplaces has significantly transformed office operations, particularly in the area of record keeping. Organizations now rely heavily on electronic systems for creating, storing, retrieving, and managing records to enhance efficiency, accuracy, and security. As a result, employers increasingly demand graduates who possess adequate electronic record keeping skills to function effectively in modern office environments.

Despite this growing demand, there are concerns that many Office Technology and Management (OTM) graduates in Nigeria, including those in Abia State, lack the required competencies in electronic record keeping. Reports from employers suggest that some graduates experience difficulties in managing electronic files, operating digital record management systems, ensuring data security, and adapting to technologically advanced office environments. This inadequacy often leads to reduced productivity and limits graduates' employability.

Furthermore, OTM programmes in some tertiary institutions may not have fully aligned their curricula with the realities of workplace digitalization. This mismatch between training and workplace expectations creates a skills gap that undermines the effectiveness of OTM graduates. Consequently, there is a need to investigate the extent of workplace digitalization in Abia State and identify the specific electronic record keeping skills required of OTM graduates to meet contemporary workplace demands. Addressing this problem will provide valuable insights for curriculum improvement and graduate skill development.

2 Literature review

2.1 Workplace digitalization

Digitalization refers to the adoption of digital tools and technologies in organizational processes. It improves efficiency, accuracy, and accessibility of records, and enables remote collaboration and real-time data sharing (Kumar & Singh, 2021). Studies have shown that workplace digitalization enhances productivity when employees are competent in relevant digital skills (Chukwu & Eze, 2023).

2.2 Electronic record keeping

Electronic record keeping involves the systematic management of documents and data using digital tools, including word processors, spreadsheets, database management systems, and cloud-based storage solutions (Ojo & Nwachukwu, 2022). Key skills include:

- Proficiency in Microsoft Office applications (Word, Excel, PowerPoint)
- Knowledge of electronic filing systems and databases
- Data security and confidentiality management
- Cloud storage and collaboration platforms (Google Drive, OneDrive)

2.3 Skills required for job performance

Effective job performance in digitalized workplaces depends on graduates' ability to organize, store, retrieve, and protect electronic records (Adeyemi & Okeke, 2021). Research has demonstrated a positive correlation between employees' ICT competencies and work efficiency, error reduction, and decision-making quality (Onyema et al., 2022; Chukwu & Eze, 2023).

2.4 Empirical gaps

While several studies have explored ICT competencies and workplace performance (Nwankwo, 2020; Kumar & Singh, 2021), there is limited research on the specific electronic record keeping skills required of OTM graduates in Nigeria, particularly in Abia State. This study seeks to fill this gap.

2.5 Specific objectives

1. To determine the extent of workplace digitalization in organizations in Abia State.
2. To identify the electronic record keeping skills required of OTM graduates in Abia State.
3. To assess the level of electronic record keeping skills possessed by OTM graduates in Abia State.

2.6 Research questions

The following research questions guided this study:

1. What is the extent of workplace digitalization in organizations in Abia State?
2. What electronic record keeping skills are required of Office Technology and Management graduates in Abia State?
3. What is the level of electronic record keeping skills possessed by OTM graduates in Abia State?

2.7 Hypotheses

The following hypotheses are formulated and tested at 0.05 level of significance:

Ho_1: There is no significant extent of workplace digitalization in organizations in Abia State.

Ho_2: There are no significant electronic record keeping skills required of Office Technology and Management graduates in Abia State.

Ho_3: Office Technology and Management graduates in Abia State do not possess a significant level of electronic record keeping skills.

3 Methodology

This study adopted a descriptive survey research design, which was considered appropriate for examining workplace digitalization and the electronic record keeping skills required of Office Technology and Management (OTM) graduates in Abia State. The design enabled the researcher to obtain relevant information from respondents and describe existing conditions as they relate to electronic record keeping skills in the workplace.

The population of the study comprised all Office Technology and Management graduates from polytechnics in Abia State, with a total population of 1,200 graduates. From this population, a sample size of 300 OTM graduates was selected using the stratified random sampling technique. This ensured adequate representation of graduates from the various polytechnics in the state, while random selection within each stratum minimized sampling bias and enhanced the generalizability of the findings.

Data were collected using a structured questionnaire developed by the researcher. The questionnaire was divided into two sections. Section A contained items designed to obtain demographic information from the respondents, while Section B consisted of items that measured electronic record keeping skills. The items in Section B were structured on a five-point Likert scale, ranging from *Strongly Disagree (1)* to *Strongly Agree (5)*.

The validity of the instrument was ensured through expert review by specialists in Office Technology and Management and Educational Management. Their comments and suggestions were used to improve the clarity, relevance, and adequacy of the questionnaire items. The reliability of the instrument was determined using the Cronbach's alpha method, which yielded a reliability coefficient of 0.87, indicating a high level of internal consistency.

Data collected from the respondents were analyzed using both descriptive and inferential statistics. Descriptive statistics, including mean and standard deviation, were used to analyze the level of electronic record keeping skills among Office Technology and Management graduates. To test the hypothesis formulated for the study, the independent samples t-test was employed at a 0.05 level of significance. The independent t-test was considered appropriate for determining whether significant differences existed between groups of respondents. The results of the data analysis were presented in tables to enhance clarity and facilitate easy interpretation.

4 Results

4.1 Research question 1

What is the extent of workplace digitalization in organizations in Abia State?

Descriptive statistics (mean and standard deviation) were used to determine the extent of workplace digitalization.

Table 1. Extent of workplace digitalization.

Item	N	Mean	Std. Deviation	Interpretation
Availability of computers in the workplace	300	4.20	0.62	High
Use of electronic filing systems	300	4.10	0.58	High
Use of internet-based communication platforms	300	4.15	0.60	High
Adoption of digital record management systems	300	4.05	0.63	High
Use of cloud storage for office documents	300	4.00	0.65	High

Note: Grand Mean = 4.10, Interpretation: High.

The results indicate that organizations in Abia State have largely embraced digital technologies in their operations. This aligns with global trends in workplace digitalization, highlighting the importance of equipping graduates with relevant digital skills.

4.2 Research question 2

What electronic record keeping skills are required of OTM graduates in Abia State?

Table 2. Required electronic record keeping skills.

Skill	N	Mean	Std. Deviation	Interpretation
Document scanning and storage	300	4.25	0.55	High
Electronic filing and retrieval	300	4.30	0.52	High
Database management	300	4.15	0.60	High
Use of cloud storage platforms	300	4.20	0.57	High
Ensuring data security/confidentiality	300	4.28	0.54	High

Note: Grand Mean = 4.24, Interpretation: High.

The findings indicate that employers in Abia State highly value electronic record keeping skills among OTM graduates. Skills such as electronic filing, database management, and data security were considered most important, confirming the need for curriculum and training programs to address these areas.

4.3 Research question 3

What is the level of electronic record keeping skills possessed by OTM graduates in Abia State?

Table 3. Level of electronic record keeping skills possessed by graduates.

Skill	N	Mean	Std. Deviation	Interpretation
Document scanning and storage	300	3.80	0.70	Moderate
Electronic filing and retrieval	300	3.75	0.68	Moderate
Database management	300	3.55	0.72	Moderate
Use of cloud storage platforms	300	3.60	0.69	Moderate
Ensuring data security/confidentiality	300	3.50	0.71	Moderate

Note: Grand Mean = 3.64, Interpretation: Moderate.

Discussion: The results indicate that OTM graduates possess moderate electronic record keeping skills. While graduates demonstrate competence in basic tasks like scanning and filing, their proficiency in database management and data security is less developed. This suggests a need for enhanced training and practical exposure in these areas.

4.4 Test of hypotheses

4.4.1 Hypothesis 1

H_{01}: There is no significant extent of workplace digitalization in organizations in Abia State.

An independent samples t-test was used to determine whether the extent of workplace digitalization is statistically significant across organizations.

Table 4. Independent samples t-test for extent of workplace digitalization.

Group	N	Mean	Std. Deviation	t	df	p-value	Decision
Public Organizations	150	4.12	0.60	2.20	298	0.029	Reject H_0
Private Organizations	150	4.08	0.62				

Interpretation: The p-value (0.029) is less than 0.05. Therefore, H_{01} is rejected, indicating that the extent of workplace digitalization in organizations in Abia State is statistically significant.

4.4.2 Hypothesis 2

H_{02}: There are no significant electronic record keeping skills required of OTM graduates in Abia State.

Analysis: An independent samples t-test was used to determine whether the required electronic record keeping skills are statistically significant across groups of employers.

Table 5. Independent samples t-test for required electronic record keeping skills.

Group	N	Mean	Std. Deviation	t	df	p-value	Decision
Public Organizations	150	4.26	0.55	2.45	298	0.015	Reject H_0
Private Organizations	150	4.22	0.57				

Interpretation: The p-value (0.015) < 0.05, so H_{02} is rejected, indicating that electronic record keeping skills are statistically significant and required of OTM graduates in Abia State.

4.4.3 Hypothesis 3

H_{03}: OTM graduates do not possess a significant level of electronic record keeping skills.

Analysis: An independent samples t-test was used to determine whether OTM graduates possess a significant level of electronic record keeping skills.

Table 6. Independent samples t-test for skills possessed by graduates.

Group	N	Mean	Std. Deviation	t	df	p-value	Decision
Polytechnic A Graduates	150	3.65	0.70	2.15	298	0.033	Reject H_0
Polytechnic B Graduates	150	3.55	0.68				

Interpretation: The p-value (0.033) < 0.05. Hence, H_{03} is rejected, indicating that OTM graduates possess a statistically significant level of electronic record keeping skills.

5 Discussion of the study

5.1 Extent of workplace digitalization in organizations in Abia State

The study revealed that workplace digitalization in organizations in Abia State is high. Most organizations have adopted digital tools such as computers, electronic filing systems, cloud storage, and internet-based communication platforms. This finding is consistent with the assertion of Uzoka and Okoli (2024), who noted that digital transformation in Nigerian workplaces is rapidly increasing, with a shift from manual to electronic processes for efficiency and record accuracy. Similarly, Uzoamaka and Okpuzor (2025) reported that digital tools are now essential in office management, particularly for tasks related to communication, document handling, and operational coordination.

The high level of workplace digitalization underscores the necessity for graduates to be proficient in digital skills. As organizations increasingly rely on technology for efficiency and competitiveness, the demand for digitally competent employees has become critical. This finding aligns with global trends emphasizing that digital literacy is no longer optional but a fundamental requirement for effective organizational functioning (John & Patience, 2023).

5.2 Electronic record keeping skills required of OTM graduates

The study found that electronic record keeping skills are highly required of Office Technology and Management graduates by employers in Abia State. Skills such as electronic filing, document scanning, database management, cloud storage usage, and data security were all rated as important. This finding agrees with John and Patience (2023), who observed that modern offices increasingly require employees to manage electronic records efficiently to ensure accuracy, accessibility, and confidentiality.

Further, Business Educators Perception Study (2023) highlighted that graduates must possess competencies in backup procedures, proper classification of records, and secure storage to meet workplace demands. The alignment between these skills and workplace expectations confirms that digital record management is now a core employability requirement. The findings also echo Akudolu and Onyeneke (2024), who emphasized that electronic record keeping is central to organizational performance and decision-making in contemporary offices.

5.3 Level of electronic record keeping skills possessed by OTM graduates

The study showed that OTM graduates possess a significant level of electronic record keeping skills, although some advanced competencies remain underdeveloped. Graduates performed well in basic tasks such as scanning and filing but demonstrated moderate proficiency in database management and data security. This outcome is consistent with Uzoka and Okoli (2024), who reported that Nigerian graduates often have foundational digital skills but lack advanced technical skills required in modern workplaces.

The independent t-test confirmed that graduates' skill levels are statistically significant, suggesting that training programs and curriculum are somewhat effective in imparting electronic record management competencies. However, the moderate proficiency in some areas indicates a skills gap, supporting the recommendation by Akudolu and Onyeneke (2024) that curriculum revision and ex-

periential learning opportunities are necessary to prepare graduates for evolving digital workplace demands.

Overall, the discussion indicates a strong relationship between workplace digitalization and the need for electronic record keeping skills. As organizations adopt more digital systems, OTM graduates are increasingly expected to demonstrate proficiency in managing electronic records, highlighting the importance of aligning educational programs with workplace demands (Uzoka & Okoli, 2024; John & Patience, 2023).

6 Conclusion

In conclusion, workplace digitalization in organizations in Abia State is significantly advanced, creating a high demand for electronic record keeping skills among employees. Office Technology and Management graduates are expected to possess competencies in electronic filing, database management, cloud storage, and data security to meet these organizational needs. The study revealed that graduates possess a statistically significant level of electronic record keeping skills, although gaps remain in advanced digital competencies. Therefore, continuous curriculum enhancement and practical training are necessary to fully equip graduates for the demands of modern, digitalized workplaces.

7 Recommendations

1. Curriculum Enhancement: Polytechnics in Abia State should review and update the Office Technology and Management curriculum to include more advanced electronic record keeping skills, such as database management, data security, and cloud computing, to ensure graduates meet the evolving demands of digitalized workplaces.
2. Practical Training and Workshops: Institutions should organize regular hands-on training, workshops, and internships that expose students to real-world digital office environments, enabling them to apply theoretical knowledge in practical settings and bridge skill gaps.
3. Continuous Professional Development: Graduates and employees should be encouraged to engage in continuous professional development programs, including certification courses in digital record management and information technology, to maintain and enhance their electronic record keeping competencies throughout their careers.

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