

# The Role of Digital Competence in Mitigating Administrative Challenges among Office Secretaries in Universities in Akwa-Ibom State

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**Abstract:** In today's rapidly evolving digital system, university administration increasingly relies on the digital competence of office secretaries to overcome a wide range of administrative challenges. This study investigates the role of digital competence in mitigating administrative challenges among office secretaries in universities in Akwa Ibom State, Nigeria, focusing on the University of Uyo and Akwa Ibom State University. Grounded in the Technology Acceptance Model (TAM) and the Digital Competence Framework, the study adopted a descriptive survey design. A total of 103 secretaries were selected from a population of 139 using the Taro Yamane formula. Data were collected through a structured questionnaire titled "Questionnaire on Digital Competence in Mitigating Administrative Challenges among Office Managers (QDCMACOM)" and analyzed using descriptive statistics and t-tests at a 0.05 significance level. Findings revealed that secretaries across both institutions required core digital skills—such as computer operations, email and database management, digital record keeping, and cybersecurity awareness—to effectively handle administrative tasks. The results also showed that digital competence significantly contributed to the mitigation of data glitches, ICT and data security/confidentiality breaches. Although mean scores varied slightly between the two universities, inferential analysis revealed no statistically significant difference in responses, indicating a uniform level of digital competence and shared challenges across the institutions. The study concludes that digital competence is vital for enhancing administrative efficiency, ensuring data integrity, and safeguarding sensitive institutional information. It recommends that universities should prioritize ICT training, strengthen digital infrastructure, and implement continuous digital literacy evaluation for secretarial staff to improve service delivery and operational effectiveness.

**Keywords:** Digital Competence, Office Secretaries, Universities in Akwa-Ibom State.

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## Introduction

The dynamic nature of university administration in the 21st century increasingly depends on the effective deployment of digital skills for the smooth execution of tasks by office managers. The digital transformation of higher education institutions has become a global imperative, particularly in developing nations like Nigeria where traditional administrative systems face increasing pressure to modernize. Nigeria's quest for digital transformation in public service delivery and administration has become central to achieving sustainable development goals, with young people requiring digital skills to drive innovation. Universities in Akwa-Ibom State, like many tertiary institutions across Nigeria, are grappling with administrative inefficiencies that hinder their operational effectiveness and service delivery.

Digital competence, encompassing the knowledge, skills, and attitudes to use information and communication technologies (ICT) effectively, is essential for addressing administrative challenges in higher education institutions (Redecker, 2017). University office secretaries face growing pressure to transition from manual administrative processes to digitalized systems, often without the necessary digital capacity to navigate this change. Office secretaries in university settings play a pivotal role in institutional administration, serving as the backbone of day-to-day operations. They coordinate between various departments, manage information systems, oversee administrative processes, and ensure smooth operational flow. However, the increasing complexity of administrative tasks, coupled with the rapid digitization of university operations, has created new challenges that traditional administrative approaches cannot adequately address. Due to digitalization of administrative tasks, secretaries are now faced with myriads of ICT challenges confronting their effective service delivery. Some of the challenges commonly encountered are data glitch, ICT connectivity challenges and data security and confidentiality breaches. However, digital skills of the office secretaries will enable them to overcome some of these challenges commonly face from day-to-day administrative tasks.

One of the recurrent administrative challenges is data glitches, including loss, corruption, or mismanagement of electronic records, which negatively impact record keeping and institutional memory. Poorly managed databases, incompatible file formats, and inadequate backup systems have led to frequent disruptions in administrative continuity (Adebayo & Oyewole, 2021). Another persistent issue is ICT connectivity challenges. Most universities in Nigeria experience erratic internet services, limited bandwidth, and infrastructural deficiencies, making it difficult for office managers to use web-based platforms, emails, or cloud-based administrative tools effectively (Iloanusi & Osuagwu, 2021). These limitations often result in delayed communication and poor coordination of academic and non-academic functions.

Lastly, data security and confidentiality breaches pose a serious concern in university administration. Office secretaries handle sensitive academic records, personnel files, and financial documents, and any compromise of such data may result in legal or institutional consequences (Ogbuanya & Opeyemi, 2022). Many office secretaries lack proper training in cybersecurity practices such as encryption, password management, and secure data storage, increasing the vulnerability of their institutions to breaches.

Addressing these administrative challenges requires a digitally competent workforce that can operate, manage, and secure ICT systems effectively. As digital tools become integral to university administration, improving office secretaries' digital competence is not merely an option but a necessity for enhancing efficiency, accuracy, and accountability in university operations. Therefore, this study seeks to investigate the role digital competence plays in mitigating these critical administrative challenges in universities within Akwa Ibom State.

## Statement of the Problem

In an era where digital tools and information technologies are reshaping university administration, the effectiveness of office secretaries is increasingly determined by their level of digital competence. Despite the push for digital transformation in Nigerian universities, many office secretaries continue to encounter persistent administrative challenges that hinder operational efficiency.

Data glitches—such as the loss, corruption, or duplication of digital files—undermine record accuracy and institutional accountability. In many universities, poor file backup systems and a lack of digital file management skills have contributed to administrative delays and data loss. Similarly, unstable ICT infrastructure, including weak internet connectivity and outdated computer systems, continues to impede timely communication, document processing, and access to cloud-based platforms for collaborative tasks. Moreover, a growing concern among university administrators is the inability of office secretaries to safeguard confidential information. Inadequate training in digital ethics and data protection leaves sensitive academic, financial, and personnel records vulnerable to unauthorized access, theft, or leaks. While digital competence has the potential to address these issues, there remains a significant gap in the digital literacy levels of many office managers in public and private universities in Akwa Ibom State.

The problem this study seeks to address, therefore, is the extent to which digital competence among university office managers influences their ability to mitigate key administrative challenges such as data glitches, ICT connectivity issues, and data security breaches. Without a comprehensive understanding of this relationship, efforts to improve university administrative effectiveness may remain uncoordinated or ineffective.

## **Literature Review**

Digital competence has emerged as a fundamental requirement for effective administration in the 21st century. The literature defines digital competence as the ability to use digital technologies effectively, safely, and creatively to achieve goals related to work, learning, and participation in society. In the context of higher education administration, digital competence encompasses technical skills, information literacy, communication abilities, and problem-solving capabilities using digital tools. Research on ICT competence among academic staff in universities in Cross Rivers State, Nigeria, identified inadequate ICT facilities, excess workload, and funding as major challenges to ICT usage. This finding suggests that similar challenges may affect administrative staff, including office managers, in Nigerian universities.

## **Administrative Challenges in Nigerian Universities**

Nigerian universities face numerous administrative challenges that impact their operational efficiency and service delivery. Inadequate funding, shortage of professional teachers, inadequate infrastructural facilities, corruption, insecurity, weak administrators, lack of data, policy instability, strike actions and brain-drain were identified as challenges preventing effective educational administration in Nigeria. These systemic issues create a complex environment where office managers must operate, often with limited resources and outdated systems.

Managers and administrators in individual universities need reliable data on staff and students to help plan issues of infrastructure development and human resource planning. This highlights the critical role of effective information management systems and the need for digitally competent staff to operate these systems efficiently. The occurrence of data glitches poses a significant threat to the smooth and effective running of daily operations. Data glitches refer to technical errors or disruptions in the processing, storage, retrieval, or management of digital information. These glitches may manifest as the loss of essential files, corruption of data entries, duplication of records, or inconsistencies in digital databases. In many Nigerian universities, including those in Akwa Ibom State, such issues have increasingly become commonplace due to weak data management systems, inadequate backup procedures, and poor digital infrastructure.

University secretaries, who are pivotal to administrative functions, often rely on digital tools to carry out tasks such as record keeping, information dissemination, and coordination of academic and non-academic processes. When data glitches occur, they can disrupt workflow, delay important decisions, and even compromise the integrity of institutional records. For example, the loss or corruption of student records, meeting minutes, or financial documents can create administrative setbacks that ripple through entire departments.

However, the digital competence of university secretaries plays a critical role in mitigating these challenges. Digital skills enable secretaries to recognize early signs of data malfunction and take proactive steps to resolve or prevent them. Competence in basic computer operations, database management, and information storage allows secretaries to efficiently organize, retrieve, and safeguard institutional data. Additionally, secretaries with strong digital skills are more likely to implement routine data backup procedures, use error-checking functions, and apply recovery tools when necessary—thereby reducing the negative impacts of data loss or corruption.

Moreover, familiarity with cloud-based platforms and collaborative digital tools helps secretaries avoid reliance on single-device storage, which is often a source of data vulnerability. Secretaries who are digitally literate can also maintain version control of documents, manage access permissions, and follow best practices in file naming and storage—all of which contribute to minimizing data-related errors.

In essence, as university administration becomes more reliant on digital systems, the ability of secretaries to handle data glitches with confidence and technical proficiency has become a fundamental necessity. Their digital competence not only ensures continuity of administrative tasks in the face of technological disruptions but also strengthens the overall data integrity and accountability within the university system. Therefore, building the digital skills of university secretaries is not a luxury—it is a strategic investment toward more resilient and efficient higher education administration.

In today's digitally driven university environment, data security and confidentiality have emerged as critical concerns, particularly in administrative processes where sensitive information is constantly handled. University secretaries, as central figures in the day-to-day running of academic and non-academic operations, are often custodians of confidential records such as student results, staff files, personnel information, financial data, and internal memos. The increasing digitization of these records, while offering greater efficiency, also exposes them to potential security threats and breaches of confidentiality if not properly managed.

Data security/confidentiality breach challenges occur when unauthorized individuals gain access to private institutional data or when sensitive information is carelessly exposed or lost. Such breaches can arise from cyberattacks, phishing emails, poor password practices, insecure data transmission, or even human error due to a lack of digital literacy. In universities across Nigeria, including those in Akwa Ibom State, many secretaries still operate with limited understanding of cybersecurity protocols. This gap makes institutions vulnerable to data leaks, identity theft, file tampering, and even legal consequences arising from non-compliance with data protection regulations. The digital competence of university secretaries is therefore essential in confronting and mitigating these risks. Secretaries who possess strong digital skills are better equipped to manage and protect digital information using secure practices. For instance, they understand the importance of using strong and frequently updated passwords, enabling two-factor authentication, encrypting sensitive documents, and restricting access to confidential files through permission settings.

Furthermore, digital competence empowers secretaries to recognize and avoid common threats such as phishing emails, malware, or suspicious links that can compromise data security. They are also more likely to use secure platforms for storing and sharing files, such as institutional cloud storage with encryption, rather than unsafe external devices or personal emails. Regular training in cybersecurity awareness, which forms part of digital literacy, enhances their ability to adhere to data handling protocols and comply with institutional or national data protection policies. In addition, competent digital secretaries are able to implement best practices such as data anonymization when handling student or staff information for external reporting and ensuring that obsolete records are disposed of securely to prevent unintended disclosures. They also maintain the integrity of records by avoiding unauthorized alterations and ensuring accurate documentation of changes.

Hence, the ability of university secretaries to safeguard institutional information hinges on their level of digital competence. As data becomes an invaluable asset in university governance, investing in the digital

upskilling of office secretaries is not only vital for operational efficiency but also for protecting the reputation, compliance status, and legal standing of the institution. In the face of growing cybersecurity threats, secretaries who are digitally competent form the first line of defense in ensuring that sensitive information remains secure, confidential, and well-managed.

The digital transformation of Nigerian universities has been gradual and uneven, with significant variations across institutions and regions. Most Nigerian tertiary institutions that offer office technology and management suffer from inadequate modern office technology and information systems for teaching/learning and also acute shortage of qualified secretarial lecturers. This challenge extends beyond academic programs to administrative functions, where office secretaries require both technological resources and skills to perform effectively.

The impact of office technology management on university business education programs has become increasingly important, suggesting that understanding and improving office technology management is crucial for overall institutional effectiveness.

### **Theoretical Framework**

This study is grounded in the Technology Acceptance Model (TAM) and the Digital Competence Framework. TAM explains how users come to accept and use technology, emphasizing perceived usefulness and perceived ease of use as key factors. The Digital Competence Framework provides a comprehensive structure for understanding the various dimensions of digital skills, including information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving. The integration of these theoretical frameworks provides a robust foundation for understanding how digital competence influences administrative performance and how barriers to digital adoption can be addressed through targeted interventions.

### **Aim and Objectives of the Study**

The study investigated the role of digital competence in mitigating administrative challenges among office managers in universities in Akwa-Ibom State. The study determined:

1. Digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State.
2. How digital competence enhances the mitigation of data glitch challenge among office secretaries in universities in Akwa-Ibom State.
3. How digital competence enhances the mitigation of data security/confidentiality breach challenges among office secretaries in universities in Akwa-Ibom State.

### **Research Questions**

The following research questions were formulated by the researcher to guide the study.

1. What are the digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State?
2. How does digital competence enhance the mitigation of data glitch challenge among office secretaries in universities in Akwa-Ibom State?
3. How does digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State?

### **Hypothesis**

The following hypotheses are tested at 0.05 level of significant.

**H01:** There is no significant difference in the mean responses of secretaries of University of Uyo and Akwa-Ibom State University on digital competence skills required of office secretaries for effective

mitigation of administrative challenges in universities in Akwa-Ibom State.

**H02:** There is no significant difference in the mean responses of secretaries of University of Uyo and Akwa-Ibom State University on how digital competence enhance the mitigation of data glitch challenge in universities in Akwa-Ibom State.

**H03:** There is no significant difference in the mean responses of secretaries of University of Uyo and Akwa-Ibom State University on how digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State.

### Methodology

The study will adopt descriptive survey design to gather data from university secretaries across Rivers State. The study population was 139 office secretaries working in various departments, faculties and units of the University of Uyo and Akwa-Ibom State University in Akwa-Ibom State., that is University of Port Harcourt, Ignatius Ajuru University of Education and Rivers State University. The sample size of the study is 103 determine through Taro Yamene. The table below shows the population size of departmental and faculty secretaries of the institutions (UNIUYO and AKSU).

**Table 1: Population Size of Departmental and Faculty Secretaries of the Institutions (UNIUYO and AKSU).**

School	Population			Sample Size
	Department	Faculty	Total	
University of Uyo	76	12	88	65
Akwa-Ibom State University	43	8	51	38
<b>Total</b>	<b>109</b>	<b>20</b>	<b>139</b>	<b>103</b>

A simple random sampling technique was used to select departmental and faculty secretaries from the universities. The researcher developed questionnaire tagged “Questionnaire on Digital Competence in Mitigating Administrative Challenges among Office Managers (QDCMACOM)” The instrument was validated by experts in Office & Information Management and Business Education. A pilot study was conducted with 20 secretaries in a university outside the sample area, and Cronbach Alpha was used to determine reliability, giving coefficient of 0.82. Descriptive statistics (mean and standard deviation) was used to answer the research questions while t-test was used to test the hypotheses at 0.05 significance level.

### Results and Discussion of Findings

**Research Question One:** What are the digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State?

**Table 2: Mean responses of secretaries of University of Uyo and Akwa-Ibom State University on digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State**

S/N	Digital Competence Assessment	Secretaries in Uniuyo (n=65)		Secretaries in AKSU (n=38)		Mean Set (103)	Remark
		Mean	SD	Mean	SD		
1.	Basic computer operations (Word, Excel, PowerPoint) and digital communication tools (Zoom, Teams, etc.)	2.79	1.00	2.89	1.00	2.84	Agreed
2.	Internet navigation and email management	2.85	0.93	2.89	0.91	2.87	Agreed
3.	Database management and	2.95	0.88	3.00	0.79	2.98	Agreed

	data entry						
4.	Data backup and recovery procedures	2.86	0.94	2.99	0.94	2.93	Agreed
5.	Digital record keeping and archiving and cybersecurity awareness and practices	3.01	0.90	2.98	0.80	2.99	Agreed
	<b>Grand Mean</b>	<b>2.89</b>	<b>0.93</b>	<b>2.95</b>	<b>0.89</b>	<b>2.92</b>	<b>Agreed</b>

The data in table 2 showed that basic computer operations (Word, Excel, PowerPoint) and digital communication tools (Zoom, Teams, etc.) (Mean=2.84), internet navigation and email management (Mean=2.87), database management and data entry (Mean=2.98), data backup and recovery procedures (Mean=2.93) and digital record keeping and archiving and cybersecurity awareness and practices (Mean=2.99) are the digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State. The mean responses of secretaries in University of Uyo is 2.95 with the standard deviation 0.89 which is slightly higher than that of secretaries in Uyo Akwa-Ibom State University in mean of 2.89 and standard deviation is 0.93.

**Research Question Two:** How does digital competence enhance the mitigation of data glitch challenge among office secretaries in universities in Akwa-Ibom State?

**Table 3: Mean responses of secretaries of University of Uyo and Akwa-Ibom State University on how digital competence enhance the mitigation of data glitch challenge among office secretaries in universities in Akwa-Ibom State**

S/N	Digital Competence and Data Glitch Challenges	Secretaries in Uniuyo (n=65)		Secretaries in AKSU (n=38)		Mean Set (103)	Remark
		Mean	SD	Mean	SD		
6.	I frequently experience data glitches in my daily administrative tasks	3.12	1.74	3.14	1.76	3.13	Agreed
7.	My digital competence helps me quickly identify data glitch problems	2.99	0.91	3.00	0.95	3.00	Agreed
8.	I can resolve minor data glitches without external technical support	3.05	0.87	3.07	0.90	3.06	Agreed
9.	With my digital skills I regular data backup practices reduce the impact of data glitches	3.02	0.91	2.95	0.93	2.94	Agreed
10.	Knowledge of data recovery tools helps me restore lost information	3.04	0.99	2.85	0.79	2.85	Agreed
	<b>Grand Mean</b>	<b>3.04</b>	<b>1.08</b>	<b>3.00</b>	<b>1.07</b>	<b>3.00</b>	<b>Agreed</b>

The data in table 3 showed how digital competence enhance the mitigation of data glitch challenge among office secretaries in universities in Akwa-Ibom State. The table revealed that digital competence of office secretaries enables them to know what data glitches in administrative tasks implies (Mean=3.13), help they quickly identify data glitch problems (Mean=3.00), resolve minor data glitches without external technical support (Mean=3.06), carry out regular data backup practices to reduce the impact of data glitches (Mean=2.94) and boost office secretaries' knowledge of data recovery tools to restore lost information (Mean=2.85). The mean responses of secretaries in University of Uyo is 3.04 with the standard deviation 1.08 which is slightly higher than that of secretaries in Uyo Akwa-Ibom State

University in mean of 3.00 and standard deviation is 1.07.

**Research Question Three:** How does digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State?

**Table 4: Mean responses of secretaries of University of Uyo and Akwa-Ibom State University how digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State**

S/N	Digital competence and data security/confidentiality challenges	Secretaries in Uniuyo (n=65)		Secretaries in AKSU (n=38)		Mean Set (103)	Remark
		Mean	SD	Mean	SD		
11.	My digital knowledge enables me understand the importance of data security in my administrative role.	2.74	0.85	3.12	0.85	2.93	Agreed
12.	My digital knowledge enables me regularly update passwords and use strong authentication methods to protect confidential data.	3.19	0.97	2.89	0.93	3.04	Agreed
13.	My digital knowledge enables me identify and avoid phishing attempts and malicious emails targeting the institutional data.	3.16	0.96	3.17	0.87	3.16	Agreed
14.	My digital knowledge enables me use secure file sharing methods for sensitive documents within my office.	3.03	0.87	3.05	0.85	3.04	Agreed
15.	My digital knowledge enables me understand the legal implications of data breaches incidental to my role as office secretary.	3.09	0.78	3.10	0.87	3.09	Agreed
<b>Grand Mean</b>		<b>3.04</b>	<b>0.88</b>	<b>3.06</b>	<b>0.87</b>	<b>3.05</b>	<b>Agreed</b>

The data in table 4 showed how digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State. The table revealed that office secretaries' digital knowledge enables them understand the importance of data security in my administrative role (Mean=2.93), regularly update passwords and use strong authentication methods to protect confidential data (Mean=3.04), identify and avoid phishing attempts and malicious emails targeting the institutional data (Mean=3.16), use secure file sharing methods for sensitive documents within my office (Mean=3.04), and understand the legal implications of data breaches incidental to my role as office secretary (Mean=3.09). The mean responses of secretaries in University of Uyo is 3.06 with the standard deviation 0.87 which is slightly higher than that of secretaries in Uyo Akwa-Ibom State University in mean of 3.04 and standard deviation is 0.88.

### Hypothesis

**HO1:** There is no significant difference in the mean responses of male and female secretaries on digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State.



**Table 5: Summary of t-test on the difference in the mean responses of secretaries of University of Uyo and Akwa-Ibom State University on digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State**

University Affiliation of secretaries	N	Mean	SD	Df	t-test	Sig.	Remark
Uniuyo	65	2.89	0.93	101	0.321	0.749	NS
AKSU	38	2.95	0.89				

NS= Not Significant

Table 5 above showed the mean responses of secretaries of University of Uyo is 2.89 and the standard deviation is 0.93, while the mean responses of secretaries of Akwa-Ibom State University is 2.95 and the standard deviation is 0.89. The t-test calculated value is 0.321, the corresponded significance value is 0.749 showing  $> 0.05$  at 101 degrees of freedom. Hence, it is concluded that there is no significant difference in the mean of secretaries in University of Uyo and Akwa-Ibom State University on digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State. Therefore, the null hypothesis one is retained at 0.05 level of significance.

**HO2:** There is no significant difference in the mean responses of male and female secretaries on how digital competence enhance the mitigation of data glitch challenge in universities in Akwa-Ibom State.

**Table 6: Summary of t-test on the difference in the mean of secretaries of University of Uyo and Akwa-Ibom State University on digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State**

University Affiliation of secretaries	N	Mean	SD	Df	t-test	Sig.	Remark
Uniuyo	65	3.04	1.08	101	182	0.856	NS
AKSU	38	3.00	1.07				

NS= Not Significant

Table 5 above showed the mean responses of secretaries of University of Uyo is 3.04 and the standard deviation is 1.08, while the mean responses of secretaries of Akwa-Ibom State University is 3.00 and the standard deviation is 1.07. The t-test calculated value is 0.184, the corresponded significance value is 0.854 showing  $> 0.05$  at 103 degrees of freedom. Hence, it is concluded that there is no significant difference in the mean responses of secretaries in University of Uyo and Akwa-Ibom State University on how digital competence enhance the mitigation of data glitch challenge in universities in Akwa-Ibom State. Therefore, the null hypothesis two is retained at 0.05 level of significance.

**HO3:** There is no significant difference in the mean responses of male and female secretaries on how digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State.

**Table 7: Summary of t-test on the difference in the mean responses of secretaries of University of Uyo and Akwa-Ibom State University on digital competence skills required of office secretaries for effective mitigation of administrative challenges in universities in Akwa-Ibom State**

University Affiliation of secretaries	N	Mean	SD	Df	t-test	Sig.	Remark
Uniuyo	65	3.04	0.88	101	0.112	0.911	NS
AKSU	38	3.06	0.87				

NS= Not Significant

Table 3 above showed the mean responses of secretaries of University of Uyo is 3.04 and the standard deviation is 0.88, while the mean responses of secretaries of Akwa-Ibom State University is 3.06 and the standard deviation is 0.87. The t-test calculated value is 0.112, the corresponded significance value is 0.911 showing  $> 0.05$  at 101 degrees of freedom. Hence, it is concluded that there is no significant difference in the mean responses of secretaries of University of Uyo and secretaries of Akwa-Ibom State University on how digital competence enhance the mitigation of data security/confidentiality breach among office secretaries in universities in Akwa-Ibom State. Therefore, the null hypothesis three is retained at 0.05 level of significance.

### **Discussion of Findings**

The findings of the study reveal important insights into the role of digital competence in addressing administrative challenges among office managers (secretaries) in universities in Akwa Ibom State, specifically the University of Uyo and Akwa Ibom State University. From Table 2, the mean response of secretaries in the University of Uyo is slightly higher than that of Akwa Ibom State University regarding digital competence skills required for administrative functions. This slight difference in mean values suggests that secretaries in both institutions perceive digital competence as essential, though the degree of exposure and application may vary minimally. However, the analysis from Table 5 shows no statistically significant difference between the two groups. This implies a common level of awareness and usage of digital skills across both institutions.

In Table 3, which focuses on how digital competence aids in mitigating data glitch challenges, a similar trend is observed. The mean for University of Uyo is slightly higher than that of Akwa Ibom State University, suggesting that both groups moderately agree on the effectiveness of digital skills in resolving data-related issues. Again, no significant difference was found, as indicated in Table 5, reinforcing the shared understanding of the usefulness of digital competence in handling data issues across the universities.

Furthermore, Table 4 shows how digital competence assists in mitigating data security and confidentiality breaches. The mean responses from secretaries in the University of and Akwa Ibom State University are very close. The slight margin again points to a generally consistent perception of digital skills being effective in securing sensitive administrative data. Table 7 confirmed that there is no significant difference in this area as well. In summary, the analysis demonstrates that secretaries in both universities recognize the value of digital competence in overcoming administrative difficulties. The absence of significant differences suggests a similar level of digital competence and its impact, regardless of institutional differences.

### **Conclusion**

The study concludes that digital competence is a critical asset for office secretaries of in mitigating various administrative challenges such as data glitches, security breaches, and overall workflow disruptions. The findings show that while there are slight variations in mean responses between the University of Uyo and Akwa Ibom State University, these differences are not statistically significant, indicating a homogeneous appreciation and application of digital skills among office secretaries in both institutions. This suggests that both universities have likely made similar efforts in promoting digital literacy or have comparable digital infrastructures and support systems in place for secretarial staff.

### **Recommendations**

Based on the findings and conclusion, the following recommendations are made:

1. Universities should invest in regular, up-to-date ICT training programs for office managers to ensure they remain competent in using emerging digital tools for effective administration.
2. Adequate and modern digital infrastructure should be made available across university departments to support efficient data management to reduce data insecurity.

3. Periodic evaluations should be conducted to assess the effectiveness of digital skills of office secretaries in mitigating data administrative problems for effective system improvement.

## References

1. Abubakar, A. M., & Abubakar, M. (2020). Digital transformation in Nigerian universities: Challenges and opportunities. *Journal of Educational Technology Research*, 45(3), 234-251.
2. Adebayo, O. S. (2023). Administrative efficiency in Nigerian higher education: A digital perspective. *African Journal of Educational Management*, 18(2), 45-62.
3. Adebayo, O. S., & Oyewole, O. E. (2021). Challenges and prospects of digital record management in Nigerian tertiary institutions. *Library Philosophy and Practice*, 1–15.  
<https://digitalcommons.unl.edu/libphilprac/5632>
4. Adeleke, F. T., & Ogundipe, S. E. (2024). Digital competence framework for university administrators in Nigeria. *International Journal of Higher Education Management*, 12(4), 78-95.
5. Corresponding Author: [Your Name] Department of Educational Administration University of [Institution] Email: [email address] Phone: [phone number]
6. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
7. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
8. European Commission. (2022). DigComp 2.2: The Digital Competence Framework for Citizens. Publications Office of the European Union.
9. Ikegbunam, J. C., & Ezeugwu, C. O. (2023). Technology adoption in Nigerian universities: Barriers and facilitators. *Educational Technology International*, 24(1), 112-129.
10. Iloanusi, O. E., & Osuagwu, C. C. (2021). ICT infrastructure and the digital divide in Nigerian universities. *Journal of Research in Educational Technology*, 9(2), 42–51.
11. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610.
12. Nwankwo, P. U. (2024). Digital literacy and administrative performance in developing countries: A Nigerian perspective. *International Review of Administrative Sciences*, 89(2), 445-461.
13. Ogbuanya, T. C., & Opeyemi, T. O. (2022). Cybersecurity awareness and practices among administrative staff in Nigerian universities. *African Journal of Information and Communication Technology*, 18(3), 87–98. <https://doi.org/10.4314/ajict.v18i3.7>
14. Okafor, M. N., & Udoh, G. E. (2023). Infrastructure challenges in Nigerian university administration. *Journal of Educational Infrastructure*, 15(3), 78-92.
15. Okoli, N. J., & Ekpe, E. O. (2024). Professional development needs of university administrators in the digital age. *Higher Education Development Review*, 32(2), 156-173.
16. Onwuchekwa, C. I. (2023). Digital transformation strategies for Nigerian tertiary institutions. *Educational Planning and Policy Review*, 28(4), 201-218.
17. Oyeboode, L. A., & Fakorede, T. M. (2024). Measuring digital competence in higher education administration. *Assessment and Evaluation in Higher Education*, 49(3), 334-351.
18. Received: [Date] | Accepted: [Date] | Published: [Date]
19. Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu. Publications Office of the European Union. <https://doi.org/10.2760/159770>.

20. Taiwo, E. A., & Bello, R. S. (2023). Gender and digital competence in Nigerian universities. *Gender and Technology Studies*, 11(2), 89-106.
21. Udom, S. K., & Akpan, M. E. (2024). Age-related differences in technology adoption among university staff. *Journal of Educational Gerontology*, 18(1), 45-58.
22. Umoh, J. E. (2023). Training needs assessment for university administrators in Nigeria. *Professional Development in Education*, 49(4), 567-583.
23. Vuorikari, R., Kluzer, S., & Punie, Y. (2022). DigComp 2.2: The Digital Competence Framework for Citizens. EUR 31006 EN, Publications Office of the European Union.
24. Williams, A. B., & Johnson, K. L. (2024). Digital competence measurement instruments: A systematic review. *Computers & Education*, 201, 104-119.