
PERCEIVED INFLUENCE OF OFFICE TECHNOLOGY IN THE MANAGEMENT OF TERTIARY INSTITUTIONS IN AN ERA OF UNCERTAINTIES IN ANAMBRA STATE

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Abstract

This study focused on perceived influence of office technology in the management of tertiary institutions in an era of uncertainties in Anambra State. Two purposes of the study with their corresponding research questions and hypotheses guided the study. The null hypotheses were tested at 0.05 level of significance. The population of the study comprised 221 professional secretaries in Tertiary Institutions in Anambra State. There was no sampling as the population was manageable. The Instrument for data collection was questionnaire constructed by the researchers titled "Questionnaire Perceived Influence of Office Technology in the Management of Tertiary Institutions in an era of Uncertainties in Anambra State (QPIOTMTIEU)." All the 221 copies of the questionnaire administered to the respondents were correctly filled and returned. Data collected were analyzed using mean and standard deviation to answer the research questions and t-test statistics to test the null hypotheses at 0.05 level of significance. The study revealed that: Office Technology influenced the facilitation of communication and information management in Tertiary Institutions and that office technology positively influences office operations processes in the management of tertiary institutions in Anambra State. Based on the findings, the study revealed that the Government of Anambra State should collaborate with IT departments to create interdisciplinary courses that combine management and technology disciplines, ensuring that students understand both the business and tech sides and that school management board should organize guest lectures and workshops featuring industry professionals who can provide insights into current trends and the future of office technology.

Keywords: Office technology, management, tertiary institutions, era of uncertainties, education

Introduction

In today's rapidly evolving landscape, the management of tertiary institutions faces unprecedented challenges, particularly in times of uncertainty such as economic downturns, global pandemics, and sociopolitical upheavals. The integration of office technologies has emerged as a pivotal factor in navigating these turbulent waters, transforming how institutions operate, communicate, and deliver the influence of office technology on the management of tertiary institutions amid uncertainties. Higher education in Nigeria has undergone significant transformations, driven largely by advancements in technology. Abdellaoui, Baillon, Placido and Wakker, (2010) asserted that office technology, encompassing a wide range of tools and systems, plays a crucial role in enhancing communication and information management within tertiary institutions. Office technology is the term used to describe the use of networks, computer systems, and software for processing, distributing, and sharing information within an organization. Office technology refers to technology that can be used in an office setting (Laudon and Laudon, 2019). It may also include leveraged software, managed IT services, and other types of business technology support. Computers, paper shredders, printers, copiers, and phone systems are all included. The office technology for the past years from now has seemed

completely different because technology is continually changing in the present day of uncertainties.

Uncertainties according to Ambra and Wilson, (2018) refer to situations or conditions where information is incomplete, outcomes are unpredictable, and risk cannot be easily quantified. Uncertainties arise when there is a lack of clarity about events or development, making decision challenging. This study explores how these office technologies facilitate effective communication and streamline information management in tertiary institutions, contributing to improved educational outcomes and operational efficiency.

Office technology according to Barhoumi, (2016), refers to a range of tools, equipment, and systems used to enhance the efficiency and effectiveness of administrative and operational tasks within an office environment. It encompasses everything from hardware to software applications that facilitate communication, data management and productivity. Lupu, and Tiganasu, (2022) highlights the role of technology in creating collaborative workspaces that enable knowledge sharing and innovation among employees. Ndu (2021) asserted that office technology broadly encompasses all mechanical and electronic devices and systems that assist in the tasks associated with managing an office, including personal computing, telecommunications, and network systems.

One of the primary functions of office technologies in tertiary institutions is to facilitate communication between students, academics, and non-academics staff. Traditional methods of communication have been supplanted by more efficient digital channels. Email remains a cornerstone of academic communication, allowing for the rapid exchange of information between students and instructors. Additionally, messaging apps like WhatsApp, Zoom and Microsoft, video conferencing tools, telegrams among others have become integral to delivering lectures and hosting meetings. These technologies enable educators to engage with students regardless of geographical barriers, thereby ensuring uninterrupted learning activities. Office technology has revolutionized how information is and retrieved, leading to greater efficiency in university administration. These systems centralize data, making it easily accessible to both students and administrators (Laudon and Laudon, 2019). Students can track their grades and course registrations online, while staff can efficiently manage academic records and report generation.

Cloud technology offers scalable storage solutions that allow institutions to back up critical data and documents securely. By utilizing platforms like Google Drive or Dropbox, universities can ensure that information is accessible to authorized personnel while maintaining data security (Bocij, Greasley, and Hickie, 2015). Office technology according to Lupu, and Tiganasu (2022), aid in streamlining office operations in tertiary institutions.

Tertiary Institutions in this study refer to universities and colleges of education that offer office technology education. The integration of modern office technologies has emerged as a pivotal factor in optimizing the administrative processes within tertiary institutions. As these institutions grapple with increasing student populations, diverse educational needs, and limited resources. This study explores how office technology has facilitated the management of tertiary institutions in Nigeria, leading to improved efficiency, reduced operational costs, and enhanced service delivery. Tools such as email, instant messaging applications, and collaborative platforms (like Google Workspace and Microsoft Teams) have revolutionized how administrators, faculty, and students interact (Barhoumi, 2016). These technologies enable real-time communication, which is essential for swift decision-making and information dissemination. This collaboration fosters a culture of teamwork, ultimately benefiting the institution's strategic objectives and improving educational experience for students (Agomuo, 2005).

The ability to harness data has become increasingly essential for effective management in the face of uncertainties. Office technology provides institutions with robust data analytics

tools that aid in gathering and analyzing information related to student performance, enrollment trends, and financial health (Brien, & Marakas, 2011). Through leveraging this data, administrators can make informed decisions that align with institutional goals and respond proactively to emerging challenges. In a climate of uncertainty, data-driven strategies help minimize risks and optimize outcomes, ensuring the institution's sustainability and adaptability. One of the most significant impacts of office technology is its ability to foster enhanced communication and collaboration among stakeholders (Dyah, Purwoko, Argo, Siti, and Rizqi, 2018). With tools like email, video conferencing, and collaborative platforms, institutions maintain seamless interactions among faculty, staff, and students, regardless of geographical barriers (Edionwe, 2023). During crises such as the COVID-19 pandemic, for instance, universities seem to quickly adapt to remote learning environments by utilizing technologies to facilitate online classes. This shift not only ensured continuity in education but also provided a platform for real-time feedback and support, which is crucial during uncertain times.

Reducing the manual workload, institutions can minimize human error and enhance the accuracy of data. This holistic approach not only saves time and resources but also enables administrators to focus on strategic planning and improving educational outcomes rather than getting bogged down by repetitive tasks. Office technology also plays a crucial role in enhancing data management and accessibility in tertiary institutions (Dyah, Purwoko, Argo, Siti, and Rizqi, 2018). With the transition from paper-based records to digital databases, institutions can store, retrieve, and manage vast amounts of information efficiently. This shift facilitates easier access, promoting transparency and accountability. Moreover, Koko, (2010) asserts that data analytics tools enable institutions to gain insights from collected data, enhancing their decision-making processes. Implementing modern office technologies in the era of uncertainties significantly reduces operational costs for tertiary institutions in Anambra state. Through digitizing processes, institutions can cut down on expenses related to printing, storage, and paper management. Additionally, energy-efficient technologies and cloud computing can further decrease overhead costs associated with the benefit of office technology (Dyah, Purwoko, Argo, Siti, and Rizqi, 2018). Office technology aids in addressing language barriers and diverse learning styles.

Statement of the Problem

Despite the myriad benefits, the reliance on office technology in managing tertiary institutions is not without challenges. The digital divide remains a significant concern, unequal access to technology exacerbates existing educational inequalities. The rapid pace of technological change seems to overwhelm institutions, leading to implementation issues and potential resistance from tertiary institution community. The integration of office technology and management education into business education programs at tertiary institutions seems to lead to several potential negative outcomes, particularly in an era characterized by uncertainties. Students may become overly dependent on technology for managing tasks, leading to a poor or lack of critical thinking and problem-solving skills. This reliance may hinder students' and staff's ability to adapt to situations where technology fails or is unavailable. On the other hand, graduates may possibly gain employed in environments that are increasingly influenced by automation and artificial intelligence (AI), which result in fears regarding job security. Increased focus on office technology might diminish the emphasis on soft skills such as communication, teamwork, and interpersonal relations, which are crucial in management roles. The pressure to continuously upgrade one's technological skills in a rapidly changing environment can lead to stress and burnout among students and staff. Based on this, the researcher poises to investigate the Influence of Office Technology in the Management of Tertiary Institutions in the era of Uncertainties in Anambra State.

Purpose of the Study

The main purpose of the study is to investigate the Influence of Office Technology in the Management of Tertiary Institutions in the era of uncertainties in Anambra State. Specifically, the study sought to:

1. Ascertain the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State.
2. Determine the influence of Office Technology in Streamlining office operations processes in the management of tertiary institutions in Anambra State

Research Questions

The following research questions guided the study.

1. What is the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State?
2. What is the influence of Office Technology in Streamlining office operations processes in the management of tertiary institutions in Anambra State?

Hypotheses

The following null hypothesis was tested at 0.05 level of significance.

H₀₁: There was no significant difference in the mean ratings of male and female secretaries on the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State

H₀₂: There was no significant difference in the mean ratings of male and female secretaries on the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State

Methods

A descriptive survey research design was adopted for the study. A survey is a descriptive study when it seeks to document and describe what exists or the present status of existence or absence of what is being investigated. The study was carried out in tertiary institutions in Anambra State. The population of the study comprised all the 221 professional secretaries in tertiary institutions in Anambra State. The entire population of 221 professional secretaries was used as the sample size was manageable. The researcher developed a structured questionnaire titled, "Questionnaire Percieved Influence of Office Technology in the Management of Tertiary Institutions in an era of Uncertainties in Anambra State (QPIOTMTIEU)." To determine the reliability of the instrument, 20 copies of the questionnaire were trial tested in tertiary institutions in Enugu State which were outside the study area. The instrument was administered to 20 professional secretaries and the data collected was subjected to the test of internal consistency using Cronbach Alpha procedure with reliability coefficient of 0.86. The data collected for this study were analyzed using mean and standard deviation, while the null hypotheses were tested using the t- test at 0.05 level of significance. Any item with a mean equal to or greater than 2.50 was influenced, while those below 2.5 were not influenced. That is, on a four-point scale of Highly Influenced (HI), Influenced (I), Not Influenced (NI), and Highly Not Influenced (HNI) with their nominal values attached as 4, 3, 2 and 1 respectively.

Results

Research Question One

What is the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State?

Table 1: Mean and standard deviation on the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State

S/N	Items	N	$\bar{X}$	SD	Decision
1	Modern office tech enables effective communication among management and staff within the university.	216	3.42	0.52	HE
2	Email and messaging systems allow for fast and efficient exchange of information.	216	3.41	0.56	HE
3	Collaboration tools and shared platforms enhance teamwork and knowledge sharing among university members.	216	3.33	0.49	HE
4	With advanced information management systems, data can be securely stored and accessed as needed.	216	3.43	0.53	HE
5	Office tech facilitates easy dissemination of important announcements and updates to the university community.	216	3.43	0.58	HE
6	Ensure effective integration of video conference through zoom and Microsoft teams devices	216	3.47	0.53	HE
7	Modern office tech enables enhances communication among staff and students	216	3.63	0.48	VHE
Grand Mean			3.45		HE

Table 1 showed that the respondents agreed items 1, 2, 3, 4, 5, 6 and 7 with mean scores of: 3.42, 3.4, 3.3, 3.43, 3.43, 3.47 and 3.63 respectively that Office Technology influenced the facilitation of communication and information management in Tertiary Institutions in Anambra State with a grand mean score of 3.45.

Research Question Two

What is the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State?

Table 2: Mean and standard deviation on the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State

S/N	Items	N	$\bar{X}$	SD	Decision
8	Office tech streamlines administrative workflows, reducing manual errors and duplication of efforts	216	3.80	0.40	Influenced
9	Automated financial management systems ensure accurate tracking of university budgets and expenditures.	216	3.00	0.49	Influenced
10	Effective office tech simplifies procurement processes, ensuring transparency and accountability.	216	3.41	0.46	Influenced
11	Inventory management software helps universities keep track of supplies and equipment.	216	3.36	0.53	Influenced
12	Utilizing efficient office tech minimizes administrative costs and maximizes resource utilization.	216	3.47	0.53	Influenced
13	Enhances effective automation of data management	216	3.67	0.47	Influenced
Grand Mean		216	3.45		Influenced

Table 2 shows that the respondents agreed that office technology positively influences office operations processes in the management of tertiary institutions in Anambra State as recorded on item, 8, 9, 10, 11, 12 and 13 which scores a grand mean of 3.45.

Hypotheses

Ho₁: There was no significant difference in the mean ratings of male and female secretaries on the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State.

Table 3: t-test on the difference in the mean ratings of male and female secretaries on the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State.

Items	Status	N	Mean	SD	t.	Df	P-value	Decision
1	Male	100	3.58	0.53	0.12	114	0.98	NS
	Female	116	3.57	0.52				
2	Male	100	3.51	0.55	0.11	114	0.70	NS
	Female	116	3.50	0.56				
3	Male	100	3.71	0.48	0.33	114	0.43	NS
	Female	116	3.68	0.50				
4	Male	100	3.44	0.52	0.31	114	0.68	NS
	Female	116	3.43	0.53				
5	Male	100	3.44	0.58	0.21	114	0.81	NS
	Female	116	3.43	0.59				
6	Male	100	3.48	0.52	0.27	114	0.55	NS
	Female	116	3.46	0.53				
7	Male	100	3.63	0.48	0.10	114	1.00	NS
	Female	116	3.63	0.48				

Key: NS: Not significant

Result on Table 3 reveals that the mean ratings of male and female teachers on influence of Office Technology in facilitating communication and information management in tertiary institutions was not significant as the P value of 0.05 ($P < 0.05$) was less than the calculated values. This means that the sampled male and female teachers were of same opinion on the influence of Office Technology in facilitating communication and information management in Tertiary Institutions.

H₀₂: There was no significant difference in the mean ratings of male and female secretaries on the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State

Table 4: t-test on the difference in the mean ratings of male and female students on the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State

Items	Status	N	Mean	SD	t.cal.	Df	P-value	Decision
8	Male	100	3.64	0.49	0.12	114	1.01	NS
	Female	116	3.64	0.49				
9	Male	100	3.53	0.54	0.13	114	0.73	NS
	Female	116	3.51	0.55				
10	Male	100	3.74	0.49	0.37	114	0.46	NS
	Female	116	3.53	0.54				
11	Male	100	3.34	0.50	0.41	114	0.67	NS
	Female	116	3.33	0.51				
12	Male	100	3.43	0.57	0.27	114	0.86	NS
	Female	116	3.44	0.58				
13	Male	100	3.49	0.53	0.29	114	0.56	NS
	Female	116	3.45	0.54				

Key: NS: Not significant

Result on table 4 reveals that the mean ratings of male and female secretaries on the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State was not significant as the P value of 0.05 ($P < 0.05$) was less than the calculated values. This means that the sampled male and female teachers were of same opinion on the influence of Office Technology in streamlining office operations processes in the management of tertiary institutions in Anambra State.

Discussion

The results on table 1 show that the respondents agreed that, in the era uncertainties office technology positively influence the facilitation of communication, that email and messaging systems allow for fast and efficient exchange of information, collaboration tools and shared. While the result of the hypothesis indicates that there was no significant difference in the mean ratings of male and female secretaries on the influence of Office Technology in facilitating communication and information management in Tertiary Institutions in Anambra State. The result is in line with the findings of Koko, (2010) who reported that the integration of office technology into tertiary institutions has significantly enhanced communication and information management, leading to improved academic performance and operational efficacy. The findings is in line with Okoro (2022) that through leveraging digital tools, universities foster a more collaborative and accessible learning environment.

The result on table 2 show that the respondents agreed that office tech streamlines administrative workflows, reducing manual errors and duplication of efforts, Automated

financial management systems ensure accurate tracking of university budgets and expenditures, Effective office tech simplifies procurement processes, ensuring transparency and accountability, Inventory management software helps universities keep track of supplies and equipment, Utilizing efficient office tech minimizes administrative costs and maximizes resource utilization and that enhances effective automation of data management while hypothesis reveals that there was no significant difference in the mean ratings of male and female secretaries on the influence of office technology in streamlining office operations processes in the management of tertiary institutions in Anambra State. The finding is consistent with the views of Turban, Volonino, and Wood (2015) asserts that the integration of office technology extends beyond administrative efficiency; it profoundly influences the learning environment. Advanced educational technologies, including learning management systems, interactive digital tools, and virtual laboratories, offer students flexible and engaging learning experiences.

Conclusion

Office technology plays a transformative role in the management of tertiary institutions, particularly in an era marked by uncertainties. By enhancing communication, streamlining administrative processes, facilitating data-driven decision making, and improving the learning environment, technology empowers institutions to navigate challenges effectively. However, it is imperative to recognize and address the potential drawbacks associated with this reliance. As tertiary institutions continue to evolve in response to external pressures, a balanced and thoughtful integration of office technology will be crucial in fostering resilience, equity, and excellence in higher education management.

Recommendations

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

1. The tertiary institution in the state of should collaborate with IT departments to create interdisciplinary courses that combine management and technology disciplines, ensuring that students understand both the business and tech sides.
2. The school management boards should organize lectures and workshops featuring industry professionals who can provide insights into current trends and the future of office technology.

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