



INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND THE ADMINISTRATION OF PUBLIC UNIVERSITIES IN BENUE AND NASARAWA STATES OF NORTH CENTRAL NIGERIA.

Dr. Jude Okpe

honokpejude@gmail.com

Department Of Educational Administration
And Planning, Joseph Sarwuan Tarka University, Makurdi
(Former, University Of Agriculture, Makurdi)

Abstract

This study examines Information and Communication Technology (ICT) and the administration of public universities in Benue and Nasarawa states, located in North Central Nigeria. The research is guided by two key research questions and corresponding hypotheses. A descriptive survey design was employed for this investigation. The target population consists of 4,623 academic staff members across five public universities in the aforementioned states. A sample size of 462, representing 10% of the total academic staff, was selected using a multi-stage sampling procedure. Data collection was facilitated through a structured questionnaire developed by the researchers, titled "ICT and Administration of Universities Questionnaire (ICTAUQ)."

The collected data were analyzed using descriptive statistics, specifically mean scores and standard deviations, to address the research questions. Additionally, chi-square tests were conducted to evaluate the hypotheses at a significance level of 0.05. The findings indicate that the utilization of cameras and projectors significantly impacts the administration of public universities in Benue and Nasarawa states, Nigeria. Based on these findings, it is recommended that public university administrators ensure the availability of adequate and functional cameras within these institutions. This provision would facilitate effective monitoring, recording, and management of institutional activities. Furthermore, it is advised that sufficient projectors be installed in lecture halls and conference rooms to enhance presentation quality and improve overall administrative effectiveness in public universities across Benue and Nasarawa states.

Keywords: *Information and Communication Technology (ICT), Administration of Public Universities and North Central.*

Introduction

Information and Communication Technology (ICT) represents a significant convergence of telecommunications, broadcasting, multimedia, and related technologies. This convergence promises transformative changes in education, particularly within the realm of university management (Amesi & Yellowe, 2018). ICT tools can be classified into electronic and non-electronic technologies that facilitate information storage and retrieval, thereby enhancing organizational efficiency. In the context of public universities in Nigeria, the government actively promotes the adoption of ICT as a means to revolutionize educational management, improve organizational structures, strengthen community ties, and equip learners with essential skills for independent learning.

University Administration Defined

According to Ogunode and Abubakar (2020), university administration involves the strategic application of resources to implement academic programs aimed at achieving institutional objectives. This process encompasses the mobilization and organization of both human and material resources



necessary for fulfilling the university's mission. Effective university administration requires long-term planning to optimize resource utilization across teaching, research, and community service initiatives.

The Necessity of Accessible Information

The administration of public universities, as highlighted by Ankrah and Atuase (2018), necessitates access to information that is easily accessible, accurate, timely, relevant, verifiable, complete, and clear. Such information forms the foundation for informed management decisions. Effective use of ICT can significantly enhance decision-making processes by providing reliable data. Utilization refers to the extent to which organizations achieve their objectives through available technologies (Unachukwu & Okorji, 2014). Akpan (2016) notes that ICT is employed in universities for communication, organization, dissemination, storage, retrieval, and management of information—thereby increasing efficiency among educational managers.

The Role of Cameras in Education

Cameras are vital ICT tools increasingly adopted by educational institutions including public universities for various purposes. These optical devices enable recording, transmission, and display of images for educational use (Ankrah & Atuase, 2018). The growing integration of cameras within educational settings can be attributed to their benefits; they are utilized not only for teaching but also for security purposes throughout school premises. Cameras provide a means to archive past events visually for informed decision-making.

Projectors as Essential Management Tools

Projectors serve as crucial output devices capable of projecting images generated by computers onto screens or walls (Amin et al., 2018). Within the array of ICT tools available for managing public universities, projectors hold a unique significance. They allow university managers to deliver presentations effectively on large screens so that all attendees can engage with the material presented. According to Farinkia and Tambi (2018), using projectors enhances message amplification and accelerates information absorption while facilitating comprehension—leading to more efficient decision-making processes.

In conclusion, the effective utilization of ICT tools such as cameras and projectors in public university administration is essential in today's digital age. As this study investigates the impact of ICT on administration and planning within public universities in Benue and Nasarawa States in Nigeria, it underscores the imperative need for institutions to embrace these technologies fully.

Statement of the Problem

The effective utilization of Information and Communication Technology (ICT) has the potential to significantly enhance the administration of educational institutions. However, when not executed properly, it can lead to adverse outcomes. Recently, there has been a growing focus on the management of Public Universities in Nigeria and globally. These institutions are recognized as pivotal centers for learning and are essential for producing skilled manpower necessary for sustainable national development. Despite their importance, many Public Universities in Nigeria, particularly those located in Benue and Nasarawa States, face considerable management challenges that hinder their effectiveness.

Administrators at these universities often struggle with information flow, which is crucial for facilitating both administrative and academic operations. This inefficiency has a detrimental impact on university management overall. The researcher has identified several critical issues affecting the administration of Public Universities in these regions, including insufficient information dissemination for informed decision-making, inadequate planning processes, poor communication practices, subpar research quality, and ineffective teaching and learning methodologies.

A significant contributing factor to these challenges appears to be the underutilization of ICT tools such as cameras and projectors. It is concerning that many managers, staff, and students continue



to depend on traditional methods for executing school activities. This reliance not only results in delays but also complicates the management of both administrative duties and academic tasks. Stakeholders have expressed concern over this situation; administrators often spend excessive time on office tasks with frequent errors arising from manual processes, while students lack access to essential technological resources that could enhance their educational experience.

This study aims to investigate the impact of ICT on the administration of Public Universities in Benue and Nasarawa States of North central Nigeria.

Objective of the Study

The objective of the study was to investigate the impact of ICT in the administration and planning in Public Universities in Benue and Nasarawa States, Nigeria, Nigeria. Specifically, the study sought to:

- 1 examine the impact of utilization of cameras on management of Public Universities.
- 2 examine impact of utilization of projectors on management of Public Universities.

Research Questions

- 1 What is impact of utilization of cameras on management of Public Universities?
- 2 What is impact of utilization of projectors on management of Public Universities?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

- 1 There is no significant impact of utilization of cameras on management of Public Universities.
- 2 There is no significant impact of utilization of projectors on management of Public Universities.

Research Methodology

The research adopted a descriptive survey design, as defined by Emaikwu (2015), which involves studying a group of individuals or items through the collection and analysis of data from a representative sample. The study was conducted in Benue and Nasarawa States, Nigeria, both of which are situated in the North Central region of the country.

The target population for this research consisted of 4,623 academic staff members across five public universities (three located in Benue State and two in Nasarawa State), as reported by the National Universities Commission (2020). A sample size of 462 participants, representing 10% of the total population, was selected using a multi-stage sampling procedure.

Data collection was facilitated through a structured questionnaire developed by the researchers, titled "Information Communication Technology and Administration and Planning of Universities Questionnaire (ICTAPUQ)." This instrument underwent validation by three experts one from the Faculty of Education at Benue State University, Makurdi, Joseph sarwuan Tarka University, Makurdi, Benue state, and federal university of lafia. Reliability testing yielded indices of 0.78 and 0.96 for clusters one and two respectively, resulting in an overall reliability index of 0.87, confirming the instrument's reliability and appropriateness for use. A total of 462 questionnaires were distributed to all selected staff members (100% response rate). The data collected were analyzed using descriptive statistics—mean scores and standard deviations—to address the research questions, while chi-square tests were applied to evaluate the hypotheses at a significance level of 0.05.



Data Presentation, Analysis and Interpretation

Research Question 1: What is impact of utilization of camera on management of Public Universities?

Table 1: *Mean and Standard Deviation Scores on Impact of Utilization of Cameras on Management of Public Universities*

S/No	Item Description	N	SA	A	D	SD	\bar{X}	δ	Decision
1	Utilization of cameras helps in recording vital university events.	450	213	108	63	66	3.04	1.10	Agree
2	Utilization of cameras enables staff supervision.	450	225	96	49	80	3.04	1.15	Agree
3	Utilization of cameras assists in printing pictures for reference purpose in the university.	450	240	74	69	67	3.08	1.13	Agree
4	Through utilization of cameras university administrators monitor the day-to-day activities of students on campus.	450	220	107	55	68	3.06	1.10	Agree
5	Cameras are utilized in checking indiscipline among students on campus.	450	256	69	32	93	3.08	1.21	Agree
Cluster Mean							3.06		Agree

Source: Researcher's Field Work, 2024

Table 1 shows Mean score values of 3.04, 3.04, 3.08, 3.06, 3.08 and cluster of 3.06 while Standard Deviation score values stood at 1.10, 1.15, 1.13, 1.10 and 1.21. The result indicated that item 1-5 individual scores agreed that utilization of cameras helps in recording vital university events, utilization of cameras enables staff supervision, utilization of cameras assists in printing pictures for reference purpose in the university, through utilization of cameras university administrators monitor the day-to-day activities of students on campus and cameras are utilized in checking indiscipline among students on campus. The Mean score cluster value of 3.06 was above the Mean score value benchmark of 2.50. This shows the impact of utilization of cameras on management of Public Universities.

Research Question 2: What is impact of utilization of Projectors on management of Public Universities?

Table 2: *Mean and Standard Deviation Scores on Impact of Utilization of Projectors on Management of Public Universities*

S/No	Item Description	N	SA	A	D	SD	\bar{X}	δ	Decision
6	Utilization of projectors assists lecturers in lecture presentation.	450	212	74	83	81	2.93	1.17	Agree
7	Utilization of projectors enhances students' understanding of lecture presentation.	450	231	81	32	106	2.97	1.24	Agree
8	Utilization of projectors enables large audience to see presentation clearly in the university.	450	223	82	32	113	2.92	1.25	Agree
9	Projectors can be integrated with an iPad allowing managers to control presentations from the tablet to share material with other iPad users.	450	164	132	98	56	2.90	1.04	Agree



10	Utilization of projectors eliminate doubts of the viewers to allow them opportunity to complete the assigned tasks in a perfect manner.	450	156	132	126	36	2.91	0.97	Agree
	Cluster Mean						2.93		Agree

Source: Researcher's Field Work, 2024

Table 2 shows Mean score values of 2.93, 2.97, 2.92, 2.90, 2.91 and cluster of 2.93 while Standard Deviation score values stood at 1.17, 1.24, 1.25, 1.04 and 0.97. The result indicated that item 6-10 individual scores agreed that utilization of projectors assists lecturers in lecture presentation, utilization of projectors enhances students' understanding of lecture presentation, utilization of projectors enables large audience to see presentation clearly in the university, projectors can be integrated with an iPad allowing managers to control presentations from the tablet to share material with other iPad users and utilization of projectors eliminate doubts of the viewers to allow them opportunity to complete the assigned tasks in a perfect manner. The Mean score cluster value of 2.93 was above the Mean score value benchmark of 2.50. This shows the impact of utilization of projectors on management of Public Universities.

Test of Hypotheses

The following null hypotheses were tested at 0.05 alpha level of significance using χ^2 square.
Hypothesis 1: There is no significant impact of utilization of Cameras on management of Public Universities.

Table 3: *Chi-square Analysis Summary of Impact of utilization of Cameras on Management of Public Universities*

Responses	Fo	Fe	P	Df	χ^2 Cal.	Decision
SA	230	112.5	0.000	3	130.960 ^a	Sign.
A	91	112.5				
D	54	112.5				
SD	75	112.5				
Total	450					

Source: Researcher's Field Work 2024

Table 3 showed Chi-square calculated value of 130.960^a at 3 degree of freedom; P=0.000 is less than 0.05. With this result, the null hypothesis which states that there is no significant impact of utilization of cameras on management of Public Universities was rejected. This can be interpreted to mean that there is significant positive impact utilization of cameras on management of Public Universities.

Hypothesis 4: There is no significant impact of utilization of projectors on management of Public Universities.

Table 4: *Chi-square Analysis Summary of Impact of utilization of Projectors on Management of Public Universities*

Responses	Fo	Fe	P	Df	χ^2 Cal.	Decision
SA	198	112.5	0.000	3	117.733 ^a	Sign.
A	100	112.5				
D	74	112.5				
SD	78	112.5				
Total	450					

Source: Researcher's Field Work 2024



Table 4 showed Chi-square calculated value of 117.733^a at 3 degree of freedom; P=0.000 is less than 0.05. With this result, the null hypothesis which states that there is no significant impact of utilization of projectors on management of Public Universities was rejected. This can be interpreted to mean that there is significant positive impact utilization of projectors on management of Public Universities.

Discussion on Findings

The initial finding of this study indicates a significant positive impact of camera utilization on the management of Public Universities. This aligns with the research conducted by Ankrah and Atuase (2018), which highlighted that CCTV cameras are instrumental for video surveillance. These cameras have gained popularity as a method for safeguarding valuable assets within organizations, monitoring the activities of suspicious individuals, and recording critical events. The implementation of CCTV surveillance systems has not only aided organizations in protecting their assets from theft and crime but has also alleviated the demands of vigilance work, allowing resources to be redirected towards more productive endeavors.

The second finding reveals a significant positive impact of projector utilization on the management of Public Universities. This supports Sontag's (2017) findings, which indicated that student engagement with video projector methods surpassed that of traditional lecture methods. Projectors have proven to be more effective and economical in enhancing students' knowledge acquisition and practical application.

Conclusion

In conclusion, the results of this study confirm that the utilization of Information and Communication Technology (ICT) significantly positively impacts the management of Public Universities in Benue and Nasarawa States, Nigeria. Specifically, the study demonstrated effective usage of cameras and projectors within public universities in Benue and Nasarawa States of North Central Nigeria.

Recommendations

Based on the findings, several recommendations are proposed:

1. Public University administrators should prioritize the installation and maintenance of adequate and functional cameras throughout their institutions in Benue and Nasarawa States, Nigeria. This measure will facilitate the monitoring, recording, and oversight of institutional activities, thereby enhancing effective management practices.
2. It is essential for Public University administrators to ensure that sufficient projectors are available in lecture halls as well as meeting or conference rooms. Proper installation and utilization of these projectors will significantly enhance presentations and overall management effectiveness within Public Universities in Benue and Nasarawa States, Nigeria.

References

- Akpan, C.P. (2016). Educational management skills. In C.C. Uchendu & B.A. Akuegwu (Eds) *Educational management: A guide for practitioners*. Calabar: University of Calabar Press.
- Amesi, J. & Yellowe, I. T. (2018). Availability and utilization of information and communication technology (ICT) gadgets in faculties of education in Rivers State Universities, Nigeria. *International Journal of Education and Evaluation*, 26-36.
- Amin, M.R. Azim, M. & Kalam, M.A. (2018). The benefit of using multimedia projector in English language teaching classroom. *International Journal of Social Sciences & Humanities*, 3(1), 62-76.



- Ankrah, E., & Atuase, D. (2018). The use of electronic resources by postgraduate students of the University of Cape Coast. *Library Philosophy and Practice*, 2(1), 58-64.
- Farinkia, N. & Tambi, A. (2018). Evaluation of instructional facilities used in the implementation of information and communication technology (ICT) curriculum in public secondary schools in the Southwest region of Cameroon. *European journal of education studies*, 4(2), 45-58.
- Ogunode, N. J., & Abubakar, L. (2020) Public Universities Administration in Nigeria: Challenges and the ways forward. *International Journal of Multidisciplinary Sciences and Advanced Technology (IJMSAT)*, 1(12), 25–35.
- Sontag, S. (2017). *The power of projectors in marketing higher education products*. New York: Farrar Straus and Giroux.
- Unachukwu, G.O. & Okorji, P.N. (2014). *Educational management: A skill building approach*. Nimo: Rex Charles and Patrick Limited.