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APPLICATION AND UTILIZATION OF ICT IN EDUCATIONAL MANAGEMENT AND STUDENTS' ACADEMIC COMMITMENTS IN NIGERIAN PUBLIC UNIVERSITIES

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Abstract

With the growing trend of digital literacy in the 21st-century workplace, integrating Information and Communication Technology (ICT) into educational settings has become imperative. Thus, this study investigates the application and utilisation of ICT in educational management and students' academic commitment in public universities in Ekiti State, Nigeria. A descriptive survey research design was adopted, involving 100 randomly selected Educational Management students from three universities in Ekiti State: Federal University Oye-Ekiti (FUOYE), Ekiti State University (EKSU) and Bamidele Olumilua University of Education, Science and Technology (BOUESTI). Data were collected through a structured questionnaire and analysed using descriptive statistics and Pearson correlation. The findings revealed that although various ICT tools such as learning management systems, digital libraries and online collaboration platforms are present, their availability and adequacy are limited. Despite infrastructural and technical constraints, students demonstrated strong digital literacy and acknowledged the benefits of ICT in enhancing their learning experiences, access to resources, collaboration and readiness for the digital workplace. Statistical analysis showed significant positive relationships between ICT application and students' academic commitment. The study concluded that while ICT holds transformative potential in educational management, greater investment in infrastructure, faculty training and policy implementation is needed to maximise its effectiveness.

Keywords: ICT, educational management, students' academic commitment, public universities

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Introduction

ICTs are the combination of computer networks with media technologies, such as telephone and audiovisual networks, using a single cabling system (which includes signal management and distribution) or link system. The word "technology" encompasses all forms of communication, including computers, televisions, cell phones, satellite systems, and other gadgets, as well as the various applications that accompany them, such as video conferencing and learning. With the introduction of ICT, education has radically changed. When the Internet became widely accessible in the 1990s, educational institutions started using it as a platform to provide online courses and programs (Dickson and Gloria, 2023). With the use of instructional software, online courses, and virtual learning environments, technology has become an essential part of education. Innovations like augmented reality and artificial intelligence (AI), which make education more efficient, engaging and customised, are revolutionising the way students learn.

Yesilyurt et al. (2014) claim that students can use their parents' computers and smartphones to finish their coursework and participate in self-directed learning activities. ICT affects how a subject is learned (Ajisafe, 2014). ICT places a strong focus on all forms of communication, including mobile phones and other gadgets. Information technology (IT) and ICT are often used synonymously. IT is a subset of ICT that includes computer networks and all forms of information. ICT places a strong focus on all forms of communication, including mobile phones and other gadgets.

In educational management, which aims to provide students with skills relevant to the modern technical and economic environment, the effective use of ICT technology is crucial. The use of ICT in education has fundamentally changed teaching and learning practices all around the world. Many Nigerian public colleges, especially those in Ekiti State, still find it difficult to fully incorporate ICT into their curricula despite the fact that its worth is widely recognised. Furthermore, it's unclear how much the current usage of ICT in these universities' educational management enhances students' academic engagement, learning outcomes, and readiness for the workforce. ICT infrastructure, accessibility, digital proficiency among students and instructors, and institutional support are still lacking. This shortcoming could worsen the discrepancy between the intended objectives of the Educational Management curriculum and students' actual academic performance and dedication.

Furthermore, it's unclear how much the current usage of ICT in these universities' educational management enhances students' academic engagement, learning outcomes, and readiness for the workforce.

The objectives to achieve the main purpose of the study are stated below:

1. To determine the types of ICT applications in public universities in Ekiti State.
2. To assess the level of ICT utilisation in educational management in public universities in Ekiti State.
3. To determine the challenges of ICT application in public universities in Ekiti State.
4. To investigate the impact of ICT on educational management in public universities in Ekiti State.

Research Questions

This study aims to provide answers to the following important questions:

1. What are the types of ICT applications in public universities in Ekiti State?
2. What is the level of ICT utilisation in educational management in public universities in Ekiti State?
3. What are the challenges of ICT application in public universities in Ekiti State?
4. What are the impacts of ICT in educational management in public universities in Ekiti State?

Research Hypotheses

The following research operational hypotheses were formulated to guide the study:

HO_1: There is no significant relationship between the types of ICT application and students' academic commitment in a public university in Ekiti State.

HO_2: There is no significant relationship between the utilization of ICT usage in Educational Management and students' academic commitment in public universities in Ekiti State.

HO_3: There is no significant relationship between the challenges of ICT application and students' academic commitment in a public university in Ekiti State.

HO_4: There is no significant relationship between the impact on ICT in Educational Management and students' academic commitment in public universities in Ekiti State.

Concepts of ICT

ICT, which encompasses the infrastructure components that enable modern computing, can be used to refer to all communication technologies, including the internet, wireless networks, cell phones, computers, software, middleware, video conferencing, social networking, and

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other media applications and services that enable users to access, retrieve, store, transmit, and manipulate information digitally (Pratt, 2019). ICT components include both the internet-enabled world and mobile phones that are driven by wireless networks (Pratt, 2019). Along with antiquated technology like landlines, radio, and television transmissions, it also includes the utilisation of modern breakthroughs like robotics and artificial intelligence. These days, the ICT revolution include digital ICT, such as smartphones, digital televisions, and robots, in addition to what are known as analogue gadgets, such as computers, phones, and televisions. It includes all of the hardware, networking components, software, and systems that enable online communication between people and organisations in both the public and private sectors. In this instance, ICT as a technological tool goes beyond the usual one-way garbage-in, garbage-out information technology by providing a means of managed and moderated communication.

ICT is the general term for the group of digital tools and platforms used for information generation, management, and storage. The "diverse set of technological tools and resources used to transmit, store, create, share or exchange information", according to UNESCO (2019), includes telephones, computers, the Internet, and broadcasting technologies. In educational settings, ICT refers to the integration of these tools into administrative, instructional, and research tasks to enhance the teaching and learning process (Yusuf, 2005).

Another definition of ICT is the convergence of government, computer, and telecommunications legislation pertaining to information access, security, processing, transmission, and storage (Rouge, 2022). Additionally, the author made a distinction between four ICT components: services, hardware, software, and electronics. The hardware supports ways for creating, transferring, storing, and managing information. The software components support individual productivity, workflow management, and all digital creations. The electrical components enable the transmission of digital information, including a subscription service delivery method, while the services component supports asset management, data lifecycle management, customer experience management, staff experience management, and data literacy. The stages involved in utilising and operating ICT are highlighted in the definition provided above.

According to UNESCO (2019), ICT can significantly help educational equity, universal access to education, and the improvement of high-quality teaching and learning—all of which are crucial for expanding educational possibilities globally.

ICT and Education System

ICT must be integrated into educational management in order to sufficiently educate students for the complexities of the contemporary global economy. Since educational operations

increasingly rely on technology for communication, data management, marketing, and decision-making, it is imperative that educational management adapt to incorporate ICT competencies (Okwuanaso & Nwosu, 2018). According to Rodríguez (2014), a society has reached the end of its age of advancement through labour and capital. Information gathering, sharing, and application are becoming key components of the competition. Through ICT, students can develop critical thinking, teamwork, digital literacy, and problem-solving skills—all of which are highly valued in today's competitive employment market (Aduwa-Ogiegbaen & Iyamu, 2005). ICT is a technology medium that enables an efficient and successful information system. It includes gathering, processing, storing, and displaying data. The primary components of ICT include computers, phones, radios, televisions, the internet, and broadcasting technologies.

Additionally, the effective use of ICT enhances the teaching of educational concepts by making learning more dynamic, flexible, and accessible. According to Yusuf (2005), by simulating real-world educational activities using digital platforms, students can close the gap between theoretical understanding and practical application. Furthermore, ICT improves teaching and learning quality and promotes lifelong learning, which is crucial for educators who must continuously adapt to technological advancements, according to UNESCO (2019).

The primary academic and administrative settings of Nigerian educational institutions now incorporate ICT. The university creates opportunities and opens doors for educational innovation by serving as a foundation for teaching, research, and community development. The use of ICT in higher education has grown to be an essential tool for both teaching and administrative tasks. The use of ICT in Nigerian universities would help build a creative, market- and research-focused fortress of learning that can successfully compete on a global stage. ICT is still being used for teaching and learning at a modest pace, though.

ICT and Academic Achievement

Nowadays, ICT is utilised in practically every task at many universities, including teaching, e-learning, e-examination, result computation, and other tasks related to education. Many scholars have made an effort to show how ICT and academic achievement are related, especially when it comes to teaching and learning. This is because ICT increases efficiency and productivity when doing a range of academic tasks.

ICT supports and upholds the dissemination of information in educational contexts, according to Laneways (2017). This implies that pupils who have access to ICT gadgets are probably going to be very skilled and will eventually demonstrate global relevance in the job. Therefore, the foundation of national development is the knowledge-base economy. Goodwin (2012) highlights the link between ICT and academic achievement, arguing that

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when educators are trained to use ICT and are digitally literate, their creativity and critical thinking skills are improved, and they give students individualised opportunities to express their understanding, better preparing them to deal with the ongoing technological change in society and the workplace.

Agalo (2021) also highlights the importance of online learning in today's technologically advanced culture. Therefore, in order to ensure that electronic learning, or e-learning, is incorporated into teacher education, the instructor needs to be aware of the significance of using technology in the classroom and have the skills and knowledge to integrate such media into instructional activities. Among the skills and competences that have been highlighted are self-learning instructional materials (SLIMs), learning web resources and honing technological capabilities, and using technology to change the content, teaching methods, and delivery styles.

Applications of ICT in Education

One of the primary uses of ICT is the usage of e-learning platforms like Moodle, Google Classroom, and Microsoft Teams, which allow for virtual instruction, assignment submission, and real-time contact between instructors and students. With a plethora of digital libraries and educational resources at their disposal, these platforms allow students to study at their own pace.

Office productivity tools like Microsoft Word, Excel, and PowerPoint are now crucial for enhancing students' data processing, communication, and presentation abilities. Additionally, by allowing students to practise decision-making and problem-solving in a risk-free virtual learning environment, the use of education simulation software fosters practical learning (Oye, Iahad & Ab. Rahim, 2012). Internet-based research activities, like using scholarly databases and online publications, have expanded the opportunities for student-driven research and knowledge development.

Benefits of ICT Application for Education Students

ICT use in the classroom has many benefits that significantly enhance students' academic achievement, workforce preparedness, and personal growth. ICT applications also encourage increased student interaction and collaboration because group projects, virtual discussion boards, and digital presentations promote cooperation and communication skills (Aduwa-Ogiegbaen & Iyamu, 2005). One of the most notable advantages is the development of digital literacy skills, which are essential for successful engagement in the modern workforce (Oye, Iahad & Ab. Rahim, 2012). Additionally, the flexibility of e-learning platforms enables students to balance their personal and academic responsibilities, encouraging lifelong learning and continuous professional development (UNESCO, 2019).

Challenges of Integrating ICT in Education

Since many institutions lack the resources to provide them, teachers and students have limited access to current ICT facilities. Another significant problem is that some educators are unable to effectively incorporate technology into their lesson plans because they lack ICT skills (Yusuf, 2005). Despite all of its advantages, ICT adoption and use in education are hampered by a number of issues. One of the biggest challenges, especially in developing countries, is the shortage of computers, contemporary software, and reliable internet connectivity (Aduwa-Ogiegbaen & Iyamu, 2005). This is sometimes the result of a lack of opportunities for professional development and training programmes that focus on ICT competency. Furthermore, the adoption of novel technology may be hampered by educators' and institutional managers' aversion to change because old teaching methods are often embedded in the educational culture (Okwuanaso & Nwosu, 2018).

Issues including cybersecurity concerns, the digital divide between urban and rural institutions, and a lack of technical support further hinder the successful integration of ICT in educational management (Oye, Iahad & Ab. Rahim, 2012). Even when ICT solutions are available, ongoing challenges include high maintenance costs, frequent technology obsolescence, and the need for frequent updates.

The use of ICT in the classroom has greatly altered students' educational experiences and increased their employment prospects. By incorporating ICT technology into teaching and learning processes, educational programmes have transitioned from traditional, passive instructional methods to more dynamic, interactive, and student-centred approaches (Yusuf, 2005). Additionally, students learn digital communication, information management, online cooperation, and critical thinking (Oye, Iahad, & Ab. Rahim, 2012). In today's industry, where being tech-savvy is sometimes a requirement for employment, these abilities are crucial for success. According to UNESCO (2019), ICT also promotes lifelong learning by enabling students to constantly upgrade their abilities, which is crucial in the ever-evolving global economy. However, in order to properly employ ICT in educational management, problems including limited infrastructure, poor teacher training, and digital inequality still need to be tackled, despite the substantial benefits (Aduwa-Ogiegbaen & Iyamu, 2005).

Methodology

Research Design

This study is a descriptive survey that looks at students' academic dedication in Ekiti State's public universities as well as the use of ICT in educational management. In addition, the procedure enabled the researchers to gather and examine data from undergraduate students who

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were chosen at random. It is anticipated that the conclusions drawn from this data will apply to the entire research population. The 300 and 400 undergraduate students at BOUESTI, EKSU, and FUOYE made up the target population. The data analysis method used was descriptive. A purposive simple random sampling technique was used to draw a total sample size of 100 respondents, which included 100 students randomly selected from each of the three public institutions (35, 32, and 33 respondents per university).

A structured questionnaire was used as the data collection tool. Using the four-point Likert rating scale—Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD)—the questionnaire was created with the study's goals in mind. The purpose of the questionnaire was to get data from participants who are directly involved.

Experts in educational management as well as test and measurement made the necessary changes to the instrument to guarantee its validity. Copies of the unprinted questionnaire were also shared with distinguished education experts and other knowledgeable individuals for their opinions and approval. A pre-test has been conducted using a prototype questionnaire. Before the final questionnaire was distributed, this allowed the researcher to identify potential issues in the field and possibly address any mistakes, omissions or suggestions made by the respondents.

The consistency of scores across items whenever the test is given is known as reliability. Utilising a questionnaire and test-retest methodology, these instruments' stability and dependability will be evaluated. Accordingly, the Cronbach's alpha will be 0.832. These figures attested to the instruments' dependability. Giving the identical test to a suitable group is the process for this test. Correlate the two sets of scores after giving the same group a one-time break under the identical circumstances. The respondents were visited by the researchers, who gave them the questionnaire in person. Descriptive statistics (simple frequency counts and percentages), which are frequently employed and relevant in educational research investigations, were utilised to analyse copies of the questionnaires that were obtained

Results and Discussion

The socio-demographic variables revealed that 40%, 36% and 24% of the respondents were FUOYE, EKSU and BOUESTI students, respectively. Also, 59% of the respondents were between 20 and 24 years old, 31% were between 15 and 19 years old, and 10% were between 25-30 years of age. The respondents were made up of 52% female and 48% male respondents. The 300-level students (60%) constituted the majority of the respondents, while 40% were 400-level students.

Research Question 1: What are the types of ICT applications in public universities in Ekiti State?

Table 1

Frequency & Percentage of The Types of ICT Applications in Public Universities In Ekiti State

Items	Inadequate		Not Available	
	F	%	F	%
Learning management systems (LMS)	61	61	39	39
Digital Libraries	60	60	40	40
Students information systems (SIS) (such as software applications that manage student data, including registration, grades, and transcripts)	57	57	43	43
e-learning platforms	57	57	43	43
Research and collaboration tools	65	65	35	35
Campus network and Wi-Fi	58	58	42	42
Virtual learning environments (VLE) an online spaces that simulate real-world environments, allowing students to interact, experiment and learn	57	57	43	43

Source: Fieldwork (2025)

According to Table 1, 61% of respondents said that learning management systems like Moodle or Canvas are available but insufficient for fulfilling educational needs, while 39% said they are not available. This indicates that almost 40% of students still do not have access to a working LMS. This suggests that there is a structural deficiency in the way that organised digital course delivery systems are integrated across campuses. According to the results, 40% of respondents said they have no access to any digital libraries at all, and 60% of respondents said they exist but are underequipped or poorly managed. The majority of students, 57%, stated that systems used for managing academic records, such as course registration, results, and transcripts, exist but are not sufficiently meeting students' needs. This dual challenge of poor functionality and complete absence limits access to essential e-resources, such as e-books, academic journals, and research databases. There is a digital divide in administrative procedures across institutions, as seen by the additional 43% who said they had no access to such systems. More than half of the respondents said that e-learning platforms, which include course management software and video conferencing capabilities, were available but insufficient.

There are no such platforms at all in the remaining 43%. This limitation erodes the potential for remote or blended learning, especially during disruptive times like COVID-19 lockdowns. A significant portion of respondents (65%) said that these tools—which include platforms like Google Docs, Microsoft Teams, and reference managers—are insufficient, and 35% said they are not available at all. The majority's discontent with quality and accessibility indicates that even in cases where these tools are available, they are not successfully incorporated

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into academic work. Additionally, 42% of students report no access at all, indicating a significant infrastructure gap that impedes digital learning and communication. While 58% of students acknowledge the existence of campus Wi-Fi and network services, they believe them to be insufficient, possibly because of slow speeds, poor coverage, or frequent outages. The need for investment in immersive learning platforms is demonstrated by the fact that VLEs that offer simulated, interactive environments for experiential learning are also severely lacking; 57% of respondents believe that current VLEs are not sufficiently developed or accessible, and 43% say they are completely unavailable.

Research Question 2: What is the level of ICT utilisation in educational management programmes in public universities in Ekiti State?

Table 2: Frequency & Percentage of the level of ICT usage in Educational Management Programme in Public Universities in Ekiti State

Items	SA		A		D		SD	
	F	%	F	%	F	%	F	%
ICT is frequently used by lecturers to deliver instruction in Educational Management courses	27	27	49	49	21	21	3	3
The university provides sufficient ICT facilities (e.g., computers, internet and software) for Educational Management students	24	24	46	46	25	25	5	5
I possess adequate ICT literacy skills to effectively utilize ICT in my Educational Management studies	49	49	43	43	6	6	2	2
The Educational Management provides adequate online resources (e.g., e-book, online journals) to support my studies	28	28	55	55	13	13	4	4
I frequently use collaborative ICT tools (e.g., Google Docs, online discussion forums) to work with peers on Educational Management projects	29	29	41	41	26	26	4	4
I often receive ICT-enhanced assignments (e.g., online quizzes, and multimedia presentations) in my Educational Management courses	26	26	43	22	22	9	9	
The university provides adequate ICT support services (e.g., help desk, technical support) to assist Educational Management students with ICT-related issues	41	41	40	40	13	13	6	6

Source: Fieldwork (2025)

According to Table 2, 76% of respondents agree that lecturers regularly use ICT to deliver instruction in Educational Management courses, while 24% disagree; 70% agree that the university provides enough ICT facilities (such as computers, internet, and software) for students studying educational management, and 92% agree that I have the necessary ICT literacy skills to use ICT in educational management studies. I also frequently use collaborative ICT tools (such as Google Docs and online discussion forums) to work with peers on educational management projects, while 30% disagree; sixty-nine per cent of respondents agree that I frequently receive ICT-enhanced assignments (such as online quizzes and multimedia presentations) in my educational management courses, while thirty-one percent disagree. Only eight percent disagree that educational management provides sufficient online resources (such as e-books and online journals) to support my studies, while seventeen percent disagree. Lastly, while 19% disagree, 81% of respondents concur that the university offers sufficient ICT support services (such as a help desk and technical support) to help educational management students with ICT-related problems.

Research Question 3: What are the challenges of ICT application in public universities in Ekiti State?

Table 3

Frequency & Percentage of the Challenges of ICT Application in Public Universities in Ekiti State

	SA		A		D		SD	
Items	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
The internet connectivity on campus is unreliable and hinders effective ICT application	26	26	43	43	26	26	5	5
Some lecturers lack the necessary ICT skills to effectively integrate ICT into their teaching	31	31	32	32	30	30	7	7
The university's ICT support services (e.g., help desk, technical support) are inadequate and unresponsive	16	16	54	54	20	20	10	10
The cost of ICT resources (e.g., internet, software, hardware) is prohibitively high for many students	27	27	43	43	26	26	4	4
Access to ICT facilities (e.g., computer labs, libraries) is limited making it difficult for students to use ICT for academic purposes	35	35	48	48	14	14	3	3

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The university does not provide adequate ICT training for students to develop necessary ICT skills	20	20	45	45	32	32	3	3
The university lacks sufficient ICT infrastructure (e.g., computers, internet, software) to support academic activities	28	28	40	40	23	23	9	9

Source: Fieldwork (2025)

Table 3 reveals that 69% of respondents agree that campus internet connectivity is unreliable and hinders effective ICT application, while 31% disagree; 63% agree that some lecturers lack the ICT skills necessary to integrate ICT into their teaching, while 37% disagree; 70% agree that the university's ICT support services, such as the help desk and technical support, are insufficient and unresponsive; 30% disagree that the cost of ICT resources, such as internet, software, and hardware are prohibitively high for many students, and 83% agree that limited access to ICT facilities, such as computer labs and libraries, makes it difficult for students to use ICT for academic purposes. Lastly, 62% of respondents concur that the university does not give students enough ICT instruction to help them acquire the skills they need, while 38% disagree.

Research Question 4: What is the impact of ICT on education management in public universities in Ekiti State?

Table 4

Frequency & Percentage of the impact on ICT in Education Management in Public Universities in Ekiti State

	SA		**A**		**D**		**SD**	
Items	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
ICT has improved my overall learning experience in educational management.	24	24	40	40	30	30	6	6
ICT has increased my access to educational resources (e.g., e-book, online journals) in the Educational Management	33	33	64	64	3	3	-	-
ICT has facilitated collaboration and teamwork among students in educational management.	28	28	47	47	24	24	1	1
The Educational Management has helped me develop relevant digital skills (e.g., data analysis, digital marketing)	49	49	45	45	6	6	-	-
ICT has improved my research capabilities and ability to access relevant Educational Management resources	43	43	38	38	15	15	4	4

ICT has improved my communication with lectures and enhanced feedback mechanisms in educational management.	46	46	38	38	15	15	1	1
The Educational Management has adequately prepared me for the digital workplace and the demands of the modern education environment	35	35	43	43	12	12	10	10

Source: Fieldwork (2025)

According to Table 4, 64% of respondents agree that ICT has enhanced my overall educational experience in the field of education management, while 36% disagree; 97% agree that ICT has expanded my access to educational resources (such as e-books and online journals) in the field, while only 3% disagree; 75% agree that ICT has made it easier for students to collaborate and work as a team in the field of education management, while 25% disagree; and 94% agree that the field has assisted me in my level; 84% of respondents agree that ICT has improved my communication with lecturers and improved feedback mechanisms in the field of education management, while 16% disagree. Only 6% disagree, but 81% agree that ICT has improved my research capabilities and ability to access pertinent education management resources, while 19% disagree. Lastly, 22% of respondents disagree with the statement that education management has sufficiently prepared me for the demands of the modern education environment and the digital workplace, while 78% of respondents agree.

Hypothesis: There is no significant relationship between the application of information and communication technology (ICT) in educational management and students' academic commitment in public universities in Ekiti State.

TABLE 5

Pearson Correlation of Application of Information Communication Technology (ICT) In Educational Management and Students' Academic Commitment In a public university in Ekiti State

Variables	**N**	**Mean**	**SD**	$\mathbf{r_{cal}}$	$\mathbf{r_{tab}}$
Application information communication	100	34.30	3.64		
Student academic commitment	100	78.13	6.10	0.777*	0.195

*Significant $P < 0.05$

Source: Fieldwork (2025)

Table 5 reveals that $r_{calculated}$ (0.77) is greater than r_{table} (0.195) at 0.05 level of significance. Thus, the null hypothesis was rejected. This implies that there is significant relationship between application of information communication technology (ICT) in educational management and

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students' academic commitment in public universities in Ekiti State.

Hypotheses 1: There is no significant relationship between the types of ICT application and students' academic commitment in a public university in Ekiti State**.**

Table 6: Pearson Correlation of the Types of ICT Application and Students' Academic Commitment in Public University in Ekiti State

Variables	N	Mean	SD	r_{cal}	r_{tab}
Types ICT application	100	11.20	1.61		
Student academic commitment	100	78.13	6.10	0.318*	0.195

*Significant P < 0.05

Source: Fieldwork (2025)

Table 6 reveals that $r_{calculated}$ (0.318) is greater than r_{table} (0.195) at 0.05 level of significance. Thus, the null hypothesis was rejected. This implies that there is significant relationship between the types of ICT application and students' academic commitment in public universities in Ekiti State.

Hypothesis 2: There is no significant relationship between the level of ICT usage in educational management and students' academic commitment in public universities in Ekiti State.

Table 7

Pearson Correlation of the Level of ICT Usage in Educational Management and Students' Academic Commitment in Public University in Ekiti State

Variables	N	Mean	SD	r_{cal}	r_{tab}
Level ICT usage	100	21.32	2.80		
Student academic commitment	100	78.13	6.10	0.714*	0.195

*Significant P < 0.05

Source: Fieldwork (2025)

Table 7 reveals that $r_{calculated}$ (0.714) is greater than r_{table} (0.195) at 0.05 level of significance. Thus, the null hypothesis was rejected. This implies that there is a significant relationship between the level of ICT usage in educational management and students' academic commitment in public universities in Ekiti State.

Hypothesis 3: There is no significant relationship between the challenges of ICT application and students' academic commitment in public universities in Ekiti State.

Table 8

Pearson Correlation of The Challenges of ICT Application And Students' Academic Commitment in Public Universities in Ekiti State

Variables	N	Mean	SD	r_{cal}	r_{tab}
challenges ICT application	100	23.12	3.12		
Student academic commitment	100	78.13	6.10	0.740*	0.195

*Significant P < 0.05

Source: Fieldwork (2025)

Table 8 reveals that $r_{calculated}$ (0.740) is greater than r_{table} (0.195) at 0.05 level of significance. Thus, the null hypothesis was rejected. This implies that there is a significant relationship between the challenges of ICT application and students' academic commitment in public universities in Ekiti State.

Hypothesis 4: There is no significant relationship between the impact on ICT educational management and students' academic commitment in public universities in Ekiti State**.**

Table 9

Pearson Correlation of the Impact on ICT in Educational Management and Students' Academic Commitment in Public University in Ekiti State

Variables	N	Mean	SD	r_{cal}	r_{tab}
impact on ICT	100	22.54	2.73		
Student academic commitment	100	78.13	6.10	0.464*	0.195

*Significant P < 0.05

Table 9 reveals that $r_{calculated}$ (0.464) is greater than r_{table} (0.195) at 0.05 level of significance. Thus, the null hypothesis was rejected. This implies that there is a significant relationship between the impact of ICT in educational management and students' academic commitment in public universities in Ekiti State.

Discussion of Findings

The results of this study shed light on how ICT is now used in educational management and how it affects students' academic dedication in Ekiti State's public universities. The discussion is organised in accordance with the hypotheses and research questions that served

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as the investigation's compass. Regarding the kinds of ICT applications that are available in universities, the study found that while some institutions do have tools like student information systems, digital libraries, learning management systems (LMS), and virtual learning environments (VLEs), they are generally insufficient. Many of these resources are either unavailable or insufficient for efficient academic use, according to a sizable portion of students (35–43%). This circumstance illustrates a pervasive lack of integration of ICT tools required for contemporary teaching methods. A digital divide that prevents equal access to administrative and instructional technologies is the result. These findings are consistent with previous research that highlights the necessity of a strong digital infrastructure to support effective teaching and learning (Yusuf, 2005; Oye et al., 2012). The study looked at the level of ICT usage in educational management and found that most students have strong digital literacy skills and that a large majority (76%) agreed that lecturers frequently use ICT in instructional delivery. However, access to adequate facilities and collaborative tools is still a concern, as only roughly 70% of respondents confirmed the availability of ICT resources and tools to support learning. This implies that although students are ready to embrace technology, institutional support is still lacking. This is in line with Laneways' (2017) assertion that institutional capacity and support must be added to individual digital readiness.

The study investigated the difficulties in applying ICT. Unreliable internet connectivity, restricted access to facilities like computer labs, expensive ICT tools, and insufficient technical support services were among the major obstacles that were found. Many respondents also pointed out that instructors and students alike are undertrained in ICT use. These difficulties are a reflection of structural flaws in the support systems and application of ICT policies. According to earlier research (Aduwa-Ogiegbaen & Iyamu, 2005; Agalo, 2021), the full potential of ICT in educational contexts cannot be achieved without sufficient infrastructure, funding, and training. Students' opinions on ICT's influence on educational management were overwhelmingly positive. Most of them concurred that ICT had improved their entire educational experience, made academic resources more accessible, encouraged collaboration, and made it easier to build skills necessary for the contemporary workplace. This bolsters the conclusions of UNESCO (2019), who claimed that successful ICT integration improves research capacity, job preparedness and learner engagement.

Five hypotheses were examined in the study, and each one was found to be statistically significant. According to the findings, students' academic commitment and ICT use were strongly positively correlated ($r = 0.777$). Academic commitment was also significantly correlated with the types of ICT used ($r = 0.318$), the amount of ICT used ($r = 0.714$), the difficulties in using ICT ($r = 0.740$), and the perceived impact of ICT ($r = 0.464$). These results demonstrate

that students' commitment to their academic work is greatly impacted by their use of ICT. They also corroborate the findings of Goodwin (2012), who discovered that when teachers use digital resources well, pupils' academic engagement and preparation are improved. The study identifies important areas that need improvement while also confirming the beneficial effects of ICT on students' academic participation in educational management. These include access, infrastructure, technical assistance, and training for instructors and students. To fully utilise ICT's potential to revolutionise educational management and enhance academic results, these problems must be resolved.

Conclusion

This study looked at how ICT may improve the educational management curriculum and encourage students' dedication to their studies in Ekiti State's public universities. Using information from three significant institutions—FUOYE, EKSU, and BOUESTI—the study evaluated the types, applications, difficulties, and effects of ICT use. In this study, a descriptive approach to data analysis was used. One hundred students were selected at random from the three public universities for this study. As a result, there are 100 (100) respondents in the entire sample. A purposive simple random sample will be used to determine the number of responders.

The findings, however, showed that although there are ICT tools including e-learning platforms, digital libraries, and learning management systems (LMS), their use and accessibility are limited. Infrastructure issues like unstable internet, a lack of ICT equipment, and inadequate support systems continue to be problems even while students have high levels of digital literacy and professors utilise ICT moderately. ICT, however, has been shown to have a favourable impact on pupils' academic behaviour. Students expressed greater preparedness for the digital workforce, better contact with instructors, stronger research and teamwork, and easier access to educational materials. Students' academic dedication and ICT factors (application types, usage level, obstacles, and impact) were found to be statistically significantly correlated, highlighting the close relationship between educational achievement and technology integration.

In conclusion, despite being crucial, ICT integration in educational management in Ekiti State's public universities is still not at its best because of issues with infrastructure, funding, and human resources. Nonetheless, the data confirms that ICT greatly improves students' learning experience, academic commitment, and digital readiness when used properly. The results demonstrate that students who have greater access to ICT resources are more involved, accountable for their academic performance, and better equipped to meet the demands of the workplace in the future. Thus, the study emphasises ICT as a strategic enabler for attaining high-quality education and student development in the twenty-first century, rather than merely

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as a pedagogical instrument.

Recommendations

Based on the findings, the following recommendations are made:

1. Institutions ought to foster virtual learning settings that encourage independent study and teamwork, offer open-access e-books, and subscribe to more online academic databases.
2. By providing subsidised devices, internet access, and digital literacy programmes, special focus should be given to tackling digital inequalities among students from economically disadvantaged or rural backgrounds.
3. To improve digital access and usage, the government and university administration should place a high priority on providing modern ICT infrastructure, such as fast internet, up-to-date software, operational computer labs, and smart classrooms.
4. Educational stakeholders should create and implement ICT usage guidelines that include systems for assessing the calibre, accessibility, and efficiency of ICT resources in colleges.
5. To enhance lecturers' ICT proficiency and promote creative teaching methods, ongoing courses for professional development should be arranged.
6. Create specialised ICT help desks and student training centres on campuses to offer technical support and consistently enhance students' digital literacy.
7. The school management should collaborate with philanthropists to procure ICT facilities for their respective schools.

References

Aduwa-Ogiegbaen, S. E. & Iyamu, E. O. S. (2005). Using information and communication technology in secondary schools in Nigeria: Problems and prospects. *Educational Technology & Society, 8*(1), 104–112.

Ajisafe, M. O. (2014). *Information and communication technology in education: Concepts and applications*. Ibadan: Spectrum Books.

Agalo, J. (2021). Integrating e-learning in teaching education. *Journal of Emerging Technologies, 1* (1), 33-41. https://doi.org/10.57040/jet.v1i1.70.

Dickson, M & Gloria, M (2023), Integration of Technology in Education and its Impact on Learning and Teaching, (2)47, 54-63 Available:https://www.weforum.org/agenda/2016/01/the-fourth industrial-revolution what it means and how to respond.

Goodwin, K. (2012). Use of Tablet Technology in Classroom. Strathfield, New South Wales: NSW Curriculum and Learning Center. Gullan D. 3 ways digital learning can empower star employees; 2019. Available: https://www.bizcommunity.com/

Laneways Team. (2017). ICT Enabled Education: The Alchemy of Mixing Technology and Education. Retrieved from https://stories.linways.in/ictenablededucationd190bcc91bf0.

Okwuanaso, S. I. & Nwosu, B. O. (2018). Emerging trends in business education curriculum: The role of information and communication technology. *Nigerian Journal of Business Education, 5*(1), 1–11.

Oye, N. D. & Iahad, N. A. & Ab. Rahim, N. (2012). The impact of e-learning on students' performance in tertiary institutions. *International Journal of Computer Networks and Wireless Communications, 2*(2), 121–130.

Pratt, K. M. (2019). ICT Information and Communication Technology, Technologies. Tech Target. Retrieved from https://www.techtarget.co/searchcio/definition/ict-information-and-communicationtechnology.

Pearson, P. D. & Kinzer, C. K. & Leu, D. J. (2005). Learning from text in the digital age. In D.

ISSN: 2705-3830 (Print)
ISSN: 2705-3857 (Online)

E. Alvermann (Ed.), *Theoretical models and processes of reading* 5th ed., 1519–1546. International Reading Association.

Rouge, M. (2022). *Information and communication technology (ICT): Framework and components*. *Technophilia*. Retrieved from https://www.technophilia.org/ictcomponents.

UNESCO. (2019). *Information and communication technology (ICT) in education: A curriculum for schools and programme of teacher development*. United Nations Educational, Scientific and Cultural Organization. Retrieved from https://www.unesco.org.

Yesilyurt, E., Ulas, A. H. & Kocak, N. (2014). Teachers' attitudes toward technology use and barriers to technology integration in schools. *Computers in Human Behavior, 37*, 348–354.

Yusuf, M. O. (2005). Information and communication technology and education: Analyzing the Nigerian national policy for information technology. *International Education Journal, 6*(3), 316–321.