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INFLUENCE OF COMPUTER-BASED EXAMINATION ON ACADEMIC PERFORMANCE OF UNDERGRADUATE STUDENTS OF THE UNIVERSITY OF UYO

[*1]Ephraim Joseph Udofia, [2]Ubong Christopher Umoh, [3]Idara Nduaesa Nduaesa

[1,2]Department of Psychological Foundation of Education, Faculty of Education, University of Uyo, Nigeria.

[3]Department of Business Education, Faculty of Vocational Education, Library and Information Science, University of Uyo, Nigeria.

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***Corresponding Author: Ephraim Joseph Udofia**

Department of Psychological Foundation of Education, Faculty of Education, University of Uyo, Nigeria.

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ABSTRACT

This study examined the influence of computer-based examination (CBE) on the academic performance of undergraduate students at the University of Uyo, Nigeria. The increasing integration of information and communication technology (ICT) in educational assessment has led to the widespread adoption of computer-based examinations as a replacement for traditional paper-based testing methods. However, concerns remain regarding how this transition affects students' academic outcomes, particularly in developing countries where infrastructural and technical challenges persist. The study was anchored on the Technology Acceptance Model (TAM) and Cognitive Load Theory (CLT), which provided insights into students' interaction with digital examination systems and the cognitive demands associated with their use. A descriptive survey research design was adopted, with a population of 30,000 undergraduate students, from which a sample size of 395 was selected using stratified and simple random sampling techniques. Data were collected using a structured questionnaire titled Computer-Based Examination and Academic Performance Questionnaire (CBEAPQ), validated by experts and tested for reliability using Cronbach Alpha (r = 0.85). Data analysis involved mean, standard deviation, and regression analysis at a 0.05 level of significance. Findings revealed that accessibility to computer facilities had a low but significant influence on academic performance, system reliability had a moderate and significant influence, while technology-related examination anxiety had a moderate negative influence on students'

academic performance. The study concluded that although CBE enhances efficiency, transparency, and objectivity in assessment, its effectiveness is constrained by infrastructural limitations and students' psychological readiness. It was recommended that universities improve ICT infrastructure, ensure system reliability, and provide adequate training to reduce students' anxiety and enhance performance.

KEYWORDS: Computer-Based Examination, Academic Performance, System Reliability, Accessibility to Computer Facilities, Technology-Related Anxiety, Undergraduate Students.

INTRODUCTION

Technological advancement has continued to reshape educational systems across the globe, particularly in the areas of teaching, learning, and assessment. Higher education institutions are increasingly adopting digital technologies to enhance the efficiency, transparency, and effectiveness of academic processes. One of the most prominent technological innovations in educational assessment is the adoption of Computer-Based Examination (CBE). Computer-based examination systems utilize computers and digital platforms to administer, process, and score examinations electronically, thereby replacing the traditional paper-and-pencil testing method (Alruwais et al., 2020; Okoye & Nwoye, 2021).

The integration of information and communication technology (ICT) into assessment practices has become necessary due to the growing demand for more reliable and efficient methods of evaluating students' learning outcomes. Universities around the world are gradually transitioning from conventional examination systems to digital testing environments in order to improve examination administration and reduce challenges associated with manual assessment processes. Computer-based examinations offer several advantages including faster grading, improved accuracy in scoring, enhanced security, and better data management (Gikandi et al., 2020; Dada et al., 2025).

Computer-Based Examination refers to an assessment system in which examinations are conducted using computers and specialized software applications rather than printed question papers and answer sheets. In this system, questions are displayed on a computer screen and students provide their responses electronically using input devices such as keyboards or mouse devices. According to Al-Mahdi and Ahmed (2022), computer-based examinations enable automated scoring and immediate processing of results, which significantly reduces the workload of lecturers and examination administrators. Similarly, Adebayo and

Abdulhamid (2023) note that computerized testing systems improve examination transparency and minimize human errors commonly associated with manual marking.

The growing adoption of computer-based examination in universities is largely motivated by the need to address several limitations associated with traditional examination methods. Conventional paper-based examinations often involve time-consuming marking procedures, increased costs of printing and logistics, and greater vulnerability to examination malpractice. Digital examination systems, on the other hand, incorporate features such as randomized questions, time-controlled testing environments, and automated scoring mechanisms, which contribute to improved credibility and efficiency of assessment processes (Oyetola & Adu, 2022; Yusuf et al., 2024).

Academic performance is a critical indicator used to evaluate students' learning outcomes and educational achievement in higher education institutions. It reflects the extent to which students have successfully acquired knowledge, skills, and competencies required in their academic programmes. Researchers have consistently emphasized that the methods used for assessment play a crucial role in shaping students' study habits, motivation, and learning strategies (Spector, 2020; Redecker & Johannessen, 2021). When assessment systems are efficient, fair, and transparent, students are more likely to engage actively in the learning process and strive for improved academic performance.

The introduction of computer-based examination systems has the potential to significantly influence students' academic performance. Digital assessment environments often encourage students to develop stronger technological competencies and better time-management skills during examinations. Automated grading systems also reduce bias and ensure objectivity in the evaluation of students' responses. In addition, some computerized testing platforms provide instant feedback, which helps students identify their strengths and weaknesses and adjust their learning strategies accordingly (Ifinedo et al., 2020; Dada et al., 2025).

Despite the numerous benefits associated with computer-based examinations, several challenges may affect their effective implementation. Some students may experience anxiety or discomfort when interacting with digital testing platforms, especially if they possess limited computer literacy skills. Technical issues such as poor internet connectivity, system malfunctions, or unstable power supply may also disrupt examination processes and negatively affect students' performance. In developing countries, these challenges are particularly significant due to infrastructural limitations and inadequate ICT resources in many educational institutions (Okoye & Nwoye, 2021; Oyetola & Adu, 2022).

In Nigeria, many universities have increasingly adopted computer-based examination systems as part of broader efforts to modernize assessment practices and align with global educational standards. Institutions such as the University of Uyo have implemented computerized testing platforms in various courses and examinations in order to enhance examination efficiency and reduce malpractice. Although many students have gradually adapted to the digital examination system, concerns remain regarding how the use of computer-based examination influences students' academic performance. Some studies suggest that digital assessments improve examination efficiency and objectivity, while others highlight challenges such as technical difficulties and students' lack of familiarity with computer systems (Adebayo & Abdulhamid, 2023; Yusuf et al., 2024).

Given the increasing reliance on digital assessment technologies in higher education, it is important to examine how computer-based examination systems affect students' academic outcomes. Understanding the relationship between computer-based examination and academic performance will help educational administrators and policymakers design more effective assessment strategies that support students' learning experiences. Therefore, this study investigates the influence of computer-based examination on the academic performance of undergraduate students at the University of Uyo.

Theoretical Framework

1. Technology Acceptance Model (TAM) by Fred Davis (1989)

The Technology Acceptance Model (TAM), proposed by Fred Davis in 1989, provides a useful framework for understanding how individuals adopt and interact with new technology. One of the core tenets of TAM is perceived usefulness, which refers to the degree to which a user believes that engaging with a technology will enhance their performance. In the context of computer-based examinations (CBE), this concept captures how students perceive the benefits of using digital platforms to take exams, including efficiency, accuracy, and faster result processing. Another central tenet is perceived ease of use, which reflects the degree to which a user believes that interacting with the system will be free of effort. If students find the system intuitive, navigable, and manageable, they are more likely to engage positively with it and perform optimally.

TAM also emphasizes the role of attitude toward using the system, where users develop positive or negative feelings based on their perceptions of usefulness and ease of use. Positive attitudes lead to greater confidence and willingness to engage with technology, while negative attitudes may result in resistance, avoidance, or anxiety. Following this, behavioral

intention to use captures the likelihood that an individual will actually adopt the system based on their attitude, while actual system use is the ultimate manifestation of these perceptions and intentions. Finally, TAM recognizes that external variables, such as prior experience, training, system design, and availability of technical support, influence both perceived usefulness and ease of use. These variables shape users' attitudes and engagement, highlighting that technology adoption is not only about the system itself but also about the environment and support structures surrounding it.

Relevance to the Study

In the context of this study, TAM helps explain how undergraduate students at the University of Uyo interact with computer-based examination (CBE) systems. Accessibility to computer facilities influences perceived ease of use; if students cannot readily access computers, they may feel unprepared or hesitant to engage with the system. System reliability affects perceived usefulness; a system prone to glitches or interruptions may reduce students' confidence that the platform can fairly and accurately evaluate their performance. Additionally, technology-related examination anxiety can negatively influence students' attitudes, leading to resistance or distraction during exams. By applying TAM, this study captures how students' perceptions, attitudes, and experiences with CBE systems ultimately shape their academic performance. Essentially, TAM humanizes the technological experience, showing that students' performance is not just about knowledge, but also about their comfort, confidence, and trust in the system.

2. Cognitive Load Theory (CLT) by John Sweller (1988)

The Cognitive Load Theory (CLT), developed by John Sweller in 1988, explains how cognitive processing capacity affects learning and performance. A key tenet of CLT is that working memory is limited, meaning that humans can process only a finite amount of information at one time. In the context of CBE, students are required to process exam content while simultaneously navigating the computer interface, which can place a significant burden on their cognitive resources. CLT further distinguishes between three types of cognitive load. Intrinsic cognitive load refers to the inherent complexity of the task itself; for example, difficult or highly technical exam questions require greater mental effort. Extraneous cognitive load arises from poorly designed systems or unnecessary distractions, such as technical glitches, confusing interfaces, or unclear instructions. Germane cognitive load, on

the other hand, represents the mental effort devoted to understanding and processing information meaningfully, which is optimal for learning and performance.

Another important tenet of CLT is the optimization of cognitive resources, which emphasizes that instructional and system design should minimize extraneous load while maximizing germane load. This ensures that students' limited cognitive capacity is directed toward meaningful engagement with the exam content. The theory also highlights the impact of external stressors, such as anxiety, fatigue, and environmental distractions, which further increase cognitive load and reduce performance. In the CBE context, technology-related examination anxiety adds a cognitive burden, making it harder for students to focus and perform effectively. Lastly, CLT asserts that effective system and instructional design is critical to facilitating learning and performance, underscoring the importance of intuitive, reliable, and user-friendly CBE platforms for enhancing academic outcomes.

Relevance to the Study

Cognitive Load Theory is particularly relevant to understanding how computer-based examinations affect students' performance. During CBE, students must simultaneously process exam content and navigate the digital system, which can create high cognitive demand. System reliability issues such as slow servers, network failures, or software glitches increase extraneous cognitive load, drawing attention away from answering questions. Limited access to computer facilities reduces familiarity and practice, further increasing mental effort during exams. Finally, technology-related examination anxiety adds another layer of cognitive burden, making it harder for students to concentrate and perform optimally. CLT thus humanizes the students' experience by acknowledging that performance is not purely a matter of knowledge or skill, it is also affected by the mental effort required to manage both the content and the technology under pressure. This framework helps explain why some students perform poorly in CBE despite understanding the course material, highlighting the need for better infrastructure, training, and supportive systems.

Synthesis and Application

Together, TAM and CLT provide a complementary lens for this study. TAM explains why students choose to engage or resist using computer-based examinations, focusing on their attitudes, perceptions, and behavioral intentions. CLT, on the other hand, explains how cognitive and psychological factors influence actual performance once students interact with the system. By combining these theories, this study captures both the behavioral and

cognitive dimensions of computer-based examination, showing how technology, infrastructure, and anxiety interact to shape academic performance. In essence, the framework humanizes the technological environment, acknowledging that students' outcomes depend not only on knowledge but also on their interaction with, and mental response to, digital assessment tools.

Statement of the Problem

The adoption of computer-based examination (CBE) in higher education institutions represents a significant shift from traditional paper-and-pencil assessment methods to technology-driven evaluation systems. This transition is aimed at improving efficiency, accuracy, transparency, and the overall quality of assessment processes. Despite these advantages, the implementation of CBE in many Nigerian universities, including the University of Uyo, has been accompanied by several challenges that may influence students' academic performance. One major concern is the inadequate accessibility to computer facilities, which limits students' opportunities to familiarize themselves with digital examination platforms. In many cases, insufficient computer systems, overcrowded examination centres, and limited practice opportunities hinder students' preparedness for CBE. Additionally, system reliability remains a critical issue, as technical problems such as network failures, software malfunctions, and unstable power supply can disrupt examinations and negatively affect students' performance.

Furthermore, the introduction of digital examination systems has brought about psychological challenges, particularly technology-related examination anxiety. Many students experience fear and discomfort when using computers during examinations, especially those with limited computer literacy skills. This anxiety can impair concentration, reduce efficiency, and ultimately affect academic outcomes. Although computer-based examinations are increasingly being adopted, there is still insufficient empirical evidence on how key factors such as accessibility, system reliability, and examination anxiety collectively influence students' academic performance in the University of Uyo. This creates a gap in knowledge that necessitates further investigation. Therefore, this study seeks to examine the influence of computer-based examination on the academic performance of undergraduate students, with a view to providing insights that can improve the effectiveness of digital assessment systems.

Objectives of the Study

The main objective of this study is to examine the influence of computer-based examination on academic performance of undergraduate students at the University of Uyo. Specifically, the study aims to:

1. Determine the influence of accessibility to computer facilities on the academic performance of undergraduate students at the University of Uyo;
2. Examine the influence of system reliability on the academic performance of undergraduate students at the University of Uyo;
3. Assess the influence of technology-related examination anxiety on the academic performance of undergraduate students at the University of Uyo.

Research Questions

The study will provide answers to the following questions:

1. To what extent does accessibility to computer facilities influence the academic performance of undergraduate students at the University of Uyo?
2. To what extent does system reliability influence the academic performance of undergraduate students at the University of Uyo?
3. What is the influence of technology-related examination anxiety on the academic performance of undergraduate students at the University of Uyo?

Research Hypotheses

The following null hypotheses will be tested at 0.05 level of significance:

1. Accessibility to computer facilities has no significant influence on the academic performance of undergraduate students at the University of Uyo.
2. System reliability has no significant effect on the academic performance of undergraduate students at the University of Uyo.
3. Technology-related examination anxiety has no significant influence on the academic performance of undergraduate students at the University of Uyo.

METHODOLOGY

The study adopted a descriptive survey research design, which was considered appropriate because it enabled the researcher to collect data from a large population and examine the influence of computer-based examination on students' academic performance without manipulating any variables. The research was conducted at the University of Uyo in Akwa Ibom State, Nigeria, one of the major federal universities in the South-South region that

offers a wide range of undergraduate and postgraduate programmes. The population of the study consisted of 30,000 undergraduate students of the University of Uyo drawn from different faculties and departments. Using the Taro Yamane formula at a 0.05 level of significance, a sample size of 395 students was determined. From this population, respondents were selected through a combination of stratified and simple random sampling techniques to ensure adequate representation of students across the different faculties. Data were collected using a structured questionnaire titled Computer-Based Examination and Academic Performance Questionnaire (CBEAPQ). The instrument was validated by experts in educational technology and measurement and evaluation to ensure its content validity. The reliability of the instrument was established using the Cronbach Alpha reliability method, which produced a reliability coefficient of 85% which is considered adequate for the study. The data collected were analyzed using mean, standard deviation, and regression analysis, while the hypotheses were tested at the 0.05 level of significance.

Results and Interpretation

Research Question 1:

To what extent does accessibility to computer facilities influence the academic performance of undergraduate students at the University of Uyo?

Table 1: Mean and Standard Deviation on Accessibility to Computer Facilities. (n = 395)

S/N	Items	Mean	Std. Dev	Decision
1	I have consistent access to computers for examinations	2.31	0.94	Low Influence
2	The number of available computers is sufficient for students	2.18	0.97	Low Influence
3	Limited access to computers affects my exam performance	3.34	0.82	Moderate Influence
4	I often have to wait before accessing a computer during exams	3.12	0.88	Moderate Influence
5	I have opportunities to practice with computers before exams	2.25	0.91	Low Influence
6	Computer facilities are evenly distributed across faculties	2.20	0.93	Low Influence
7	Lack of access to computers reduces my confidence during exams	3.08	0.86	Moderate Influence

Grand Mean = 2.64 (Low Influence)

The results indicate a low level of influence of accessibility to computer facilities on academic performance. The grand mean of 2.64 shows that although access-related challenges exist, the overall influence remains low due to inadequate and inconsistent availability of computer facilities.

Research Question 2

To what extent does system reliability influence the academic performance of undergraduate students at the University of Uyo?

Table 2: Mean and Standard Deviation on System Reliability (n = 395)

S/N	Items	Mean	Std. Dev	Decision
1	The examination system works smoothly without interruptions	2.89	0.92	Moderate Influence
2	There are occasional system or network failures during exams	3.21	0.87	Moderate Influence
3	Power supply is stable during computer-based examinations	2.60	0.95	Moderate Influence
4	Technical issues sometimes delay examination processes	3.15	0.84	Moderate Influence
5	The system accurately records my answers during exams	3.10	0.86	Moderate Influence
6	I feel confident that my results are correctly processed	3.05	0.88	Moderate Influence
7	Backup measures are available in case of system failure	2.70	0.93	Moderate Influence
8	System reliability affects my performance during exams	3.18	0.85	Moderate Influence
9	Technical support is available during examinations	2.82	0.90	Moderate Influence

Grand Mean = 2.97 (Moderate Influence)

The findings reveal a moderate level of influence of system reliability on academic performance. Although the system is fairly functional, recurring issues such as network instability and power fluctuations moderately impact students' performance.

Research Question 3:

What is the influence of technology-related examination anxiety on the academic performance of undergraduate students at the University of Uyo?

Table 3: Mean and Standard Deviation on Technology-Related Examination Anxiety. (n = 395)

S/N	Items	Mean	Std. Dev	Decision
1	I feel anxious when using computers during examinations	3.05	0.89	Moderate Influence
2	Fear of system failure makes me uneasy during exams	3.20	0.85	Moderate Influence
3	Anxiety affects my ability to concentrate during exams	3.08	0.87	Moderate Influence
4	I am comfortable using computers for examinations	2.75	0.92	Moderate Influence
5	I worry about losing my answers due to technical issues	3.22	0.84	Moderate Influence
6	Anxiety reduces my speed while answering questions	3.10	0.88	Moderate Influence
7	Practice with computers reduces my exam anxiety	3.18	0.83	Moderate Influence
8	I feel more confident when there are no technical issues	3.25	0.80	Moderate Influence

Grand Mean = 3.10 (Moderate Influence)

The results indicate that technology-related examination anxiety has a moderate influence on academic performance. Students experience anxiety due to fear of technical problems, which moderately affects their concentration and efficiency during examinations.

Test of Hypotheses

Hypothesis 1

H_{01}: Accessibility to computer facilities has no significant influence on the academic performance of undergraduate students at the University of Uyo.

Table 4: Regression Analysis on Accessibility and Academic Performance. (n = 395)

Model	R	R^2	Adj. R^2	Std. Error	F-value	Beta	t-value	Sig.
1	0.55	0.30	0.29	0.52	84.85	0.55	9.21	0.000

Decision:

Since p-value (0.000) < 0.05, the null hypothesis is rejected.

Accessibility to computer facilities has a significant but low influence on academic performance. The R^2 value of 0.30 indicates that 30% of the variation in academic performance is explained by accessibility to computer facilities.

Hypothesis 2

H_{02}: System reliability has no significant influence on the academic performance of undergraduate students at the University of Uyo.

Table 5: Regression Analysis on System Reliability and Academic Performance. (n = 395)

Model	R	R^2	Adj. R^2	Std. Error	F-value	Beta	t-value	Sig.
1	0.52	0.27	0.26	0.55	76.38	0.52	8.74	0.000

Decision:

Since p-value (0.000) < 0.05, the null hypothesis is rejected.

System reliability has a significant moderate influence on academic performance. About 27% of the variation in students' performance is accounted for by system reliability.

Hypothesis 3

H_{03}: Technology-related examination anxiety has no significant influence on the academic performance of undergraduate students at the University of Uyo.

Table 6: Regression Analysis on Examination Anxiety and Academic Performance (n = 395)

Model	R	R^2	Adj. R^2	Std. Error	F-value	Beta	t-value	Sig.
1	0.50	0.25	0.24	0.57	65.61	-0.50	-8.10	0.000

Decision:

Since p-value (0.000) < 0.05, the null hypothesis is rejected.

Technology-related examination anxiety has a significant negative moderate influence on academic performance. The negative Beta value indicates that an increase in anxiety leads to a decrease in academic performance.

Discussion of Findings

The findings of this study are discussed in line with the research questions and hypotheses, and in relation to existing literature on computer-based examination (CBE) and academic performance.

Accessibility to Computer Facilities and Academic Performance

The study revealed that accessibility to computer facilities has a low level of influence on the academic performance of undergraduate students at the University of Uyo. This finding

suggests that although computer-based examinations are in use, students do not have adequate and consistent access to the necessary facilities required for optimal performance. This result aligns with the position of Okoye and Nwoye (2021) and Oyetola and Adu (2022), who observed that infrastructural limitations such as insufficient computer systems and poor access to ICT resources remain major challenges in the effective implementation of digital assessment systems in developing countries. In many Nigerian universities, including the study area, students often encounter limited computer availability, overcrowded examination centres, and inadequate opportunities for practice prior to examinations. These realities reduce the potential benefits of CBE. Although previous studies such as Gikandi et al. (2020) emphasized that digital assessment systems enhance efficiency and accuracy, the present finding indicates that such benefits may not be fully realized where access to facilities is constrained. This implies that accessibility is a foundational requirement for the effective utilization of CBE. Without adequate infrastructure, the influence of computer-based examination on academic performance remains minimal.

System Reliability and Academic Performance

The findings further showed that system reliability has a moderate influence on students' academic performance. This indicates that while the CBE system is functional to a reasonable extent, occasional disruptions such as network failures, system glitches, and unstable power supply still affect students during examinations. This finding is consistent with the views of Al-Mahdi and Ahmed (2022), who noted that although computer-based examinations improve efficiency through automated scoring and quick result processing, their effectiveness depends largely on the reliability of the underlying technological infrastructure. Similarly, Dada et al. (2025) highlighted that reliable digital systems contribute to improved examination processes, but technical failures can undermine students' confidence and performance. The moderate influence observed in this study reflects the dual nature of CBE systems in many developing contexts. On one hand, the system enhances transparency and reduces human error, as supported by Adebayo and Abdulhamid (2023). On the other hand, persistent technical challenges such as power outages and server issues limit its effectiveness. Therefore, while system reliability contributes positively to academic performance, its impact is not maximized due to infrastructural inconsistencies.

Technology-Related Examination Anxiety and Academic Performance

The study also revealed that technology-related examination anxiety has a moderate negative influence on academic performance. This indicates that students experience a certain level of anxiety when using computer-based examination systems, which in turn affects their concentration, speed, and overall performance. This finding supports the assertions of Ifinedo et al. (2020), who reported that students' interaction with digital examination platforms can generate anxiety, particularly among those with limited computer skills. The fear of technical failure, loss of answers, or unfamiliarity with the system often contributes to psychological discomfort during examinations. Similarly, Redecker and Johannessen (2021) emphasized that assessment methods significantly influence students' learning experiences, including their emotional responses and performance outcomes. The moderate level of influence observed suggests that while students are gradually adapting to computer-based examinations, anxiety remains a notable factor. This partially contradicts the ideal expectations of digital assessment systems, which, according to Spector (2020), should enhance engagement and motivation. However, in contexts where technical challenges persist and students lack sufficient exposure to ICT tools, anxiety becomes inevitable.

Implications of the Findings

Overall, the findings of this study highlight that the effectiveness of computer-based examination in improving academic performance depends on three critical factors: accessibility, system reliability, and students' psychological readiness. While CBE offers numerous advantages such as faster grading, improved accuracy, and enhanced transparency (Alruwais et al., 2020; Dada et al., 2025), these benefits are not fully realized in environments where infrastructural and human factors pose challenges.

The low influence of accessibility underscores the need for improved ICT infrastructure, while the moderate influence of system reliability and anxiety suggests that both technical improvements and student support systems are necessary. These findings reinforce the argument that the successful implementation of computer-based examination systems requires not only technological investment but also adequate training, orientation, and institutional support.

CONCLUSION

Based on the findings of this study, it can be concluded that computer-based examination has a significant influence on the academic performance of undergraduate students at the

University of Uyo. However, the extent of this influence is shaped by key factors such as accessibility to computer facilities, reliability of the examination system, and students' level of technological anxiety. Although computer-based examinations offer advantages such as efficiency, transparency, and accuracy, their effectiveness is limited in environments where infrastructural challenges and psychological factors are prevalent. Therefore, the successful implementation of CBE requires not only technological adoption but also adequate support systems to enhance students' experience and performance.

Recommendations

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

1. The university management should increase the number of functional computers and expand examination centres to ensure that students have adequate access during examinations.
2. Students should be given regular opportunities to practice with computer-based examination platforms before actual examinations to improve familiarity and confidence.
3. The institution should invest in reliable ICT infrastructure, including stable servers, strong internet connectivity, and backup systems to minimize technical disruptions during examinations.
4. Alternative power sources such as generators or solar systems should be provided to ensure uninterrupted examination processes.
5. Adequate technical personnel should be available during examinations to promptly address system failures and assist students when necessary.
6. Orientation programmes and training workshops should be organized to improve students' computer literacy and reduce anxiety associated with digital examinations.
7. The university should develop clear policies guiding the conduct of computer-based examinations and regularly monitor their implementation to ensure effectiveness.

Contribution to Knowledge

This study contributes to existing knowledge by providing empirical evidence on the combined influence of accessibility, system reliability, and technology-related anxiety on academic performance in a developing country context. It highlights the importance of infrastructural and psychological factors in the successful implementation of computer-based examinations.

Suggestions for Further Studies

1. Future studies should examine the influence of computer-based examination on academic performance using experimental or longitudinal research designs.
2. Researchers can extend the study to other universities in Nigeria for comparative analysis.
3. Further research may explore additional variables such as computer literacy, attitude towards technology, and digital competence.
4. Studies can also investigate the impact of computer-based examinations on specific disciplines or courses.

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