IMPACT OF AVAILABILITY AND UTILISATION OF E-LEARNING TECHNOLOGIES ON BUSINESS EDUCATION PROGRAMS IN THE UNIVERSITY OF BENIN, BENIN CITY.

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A RESEARCH WORK SUBMITTED TO THE DEPARTMENT OF BUSINESS EDUCATION, FACULTY OF VOCATIONAL AND TECHNICAL EDUCATION, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE {B.Sc. (ED.)} IN BUSINESS EDUCATION (OTM) IN THE UNIVERSITY OF BENIN, BENIN CITY

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APPROVAL PAGE

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DEDICATION

This research work is wholeheartedly dedicated to God Almighty, the source of all wisdom and knowledge, for His divine guidance, strength, and grace throughout the duration of this research and my entire academic journey.

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ABSTRACT

This study investigated the impact of the availability and utilization of e-learning technologies on Business Education programs at the University of Benin, Benin City. The research was guided by five research questions. A descriptive survey research design was adopted for the study. The population comprised all sixty-eight (68) 300-level and 400-level Business Education undergraduate students, and due to its manageable size, a census sampling technique was used.

The instrument for data collection was a self-structured questionnaire titled "Impact of Availability and Utilisation of E-Learning Technologies on Business Education Programs Questionnaire (IAUETBEPQ)," which was validated by experts and demonstrated reliability with a Cronbach's alpha coefficient of 0.70. Data were analyzed using mean and standard deviation.

The findings revealed that e-learning technologies are available to a high extent in the program. The study also found a high extent of utilization of these technologies by both educators and students. Furthermore, e-learning technologies were shown to have a high extent of positive impact on student engagement and academic performance. However, significant challenges, including poor internet connectivity, frequent power outages, and limited technical support, were found to limit effective use to a high extent. The study concluded that while e-learning technologies are available and utilized, their full potential is hampered by infrastructural and skill-based challenges. It was recommended, among other things, that the university should invest more in upgrading ICT infrastructure, organize regular training for educators, and provide orientation and support for students to maximize e-learning platforms.

CHAPTER ONE

INTRODUCTION

Background to the Study

In recent years, the landscape of education has undergone a significant transformation, primarily driven by advancements in information and communication technology (ICT). The advent of technology has revolutionized the teaching-learning process. One of the most notable changes is the widespread adoption of e-learning technologies, which are now reshaping the delivery of educational content and pedagogical strategies across the globe (Huang & Li, 2021). These technologies include a wide range of digital tools and platforms such as Learning Management Systems (LMS), virtual classrooms, multimedia content, online assessments, and mobile learning applications. E-learning technologies have emerged as a vital component of modern education, offering numerous opportunities for flexible, accessible, and personalized learning. In the context of Business Education programs, the integration of e-learning has introduced greater flexibility, accessibility, and interactivity in teaching and learning processes (Gbenga & Umoru, 2024).

Electronic learning commonly referred to as e-learning could be seen as the use of electronic devices, such as computers, tablets, and smartphones, to access educational content and learning materials. It denotes the process of acquiring knowledge through the utilization of electronic devices (Voke & Oliver, 2025). It is an innovative approach of learning with the use of

computers by acquiring knowledge and skills through the internet by accessing interactive learning platforms. E-Learning involves using computer terminals to prepare and deliver educational contents with graphics, audio, video, texts and other electronic devices. Nwagwu and Azih, (2019), refer to E-learning as the use of information and communication technology (ICT) to enhance and support learning in tertiary institutes.

E-learning technologies have become particularly vital in tertiary institutions where Business Education is intended to prepare students for dynamic roles in management, finance, marketing, and entrepreneurship. Ile & Alonta, (2023) opined that the traditional face-to-face instructional model, while still relevant, is being complemented or replaced by digital approaches that support blended and fully online learning modalities. These digital approaches have the potential to enhance learner engagement, improve academic outcomes, and provide learners with skills required in today's digital economy. It is the accessing of electronic devices for learning in and outside the classroom. The internet can be used by E-learner to gain access to updated information online. E-learning could be campus based programmes in which course materials are presented through E-learning links on the internet or other online networks (Nwagwu & Azih, 2018). The availability of e-learning technologies will greatly improve the business education programme, as well as ensuring that students are versatile through exposure to different e-learning materials. Okute, Enang, and Etoma (2022) observed that the proliferation of digital technologies, which provides individuals with access to extensive information, has created a demand for the development of new skills necessary to access, upgrade, integrate, and evaluate

this information. This process can be further facilitated through e-learning. E-learning therefore has numerous benefits not to tertiary institutions and students of business education alone, but also extends to other programmes and the society at large.

Business Education may be defined as that aspect of education that provide the knowledge, skills, understanding and other attitude needed to perform well in the world of business as producers or consumers of goods and services. Business education can also be referred to as a programme that offers knowledge activities and skills needed by citizen in other to effectively manage their resources and participate well in the economic system. It is the study of the fundamental theory of business which helps an individual to perform well in the world of business. According to Umoru (2020), business education has the capacity to prepare students for specific career in office occupations, equipping them with requisite skills for job creation and entrepreneurship and exposing them to the knowledge about business together with a good blend of application of computer technology. As a vocational course, Business education equips the recipients with skills, attitude and knowledge needed to participate and contribute effectively and efficiently as producers and consumers of business products. Business education constitutes a structured program of study, designed to furnish individuals with targeted learning experiences in particular domains of knowledge and skills pertinent to business, alongside a foundation in general education, thereby preparing them with the requisite competencies for engagement in the business realm (Okon, 2020). According to Okute,

Enang, and Etoma (2022), the delivery of business education content is essential in a digital economy, necessitating the transmission of a diverse array of digital skills to its recipients. Business education, which prepares students for various roles in commerce, management, finance, and entrepreneurship, demands a practical and dynamic teaching approach. The integration of e-learning technologies in business education is therefore not only timely but essential. These technologies offer flexibility, accessibility, and interactive learning environments that traditional classroom settings may not fully provide. In tertiary institutions, the availability and effective utilization of e-learning tools can significantly influence the quality of education. When adequately provided and properly used, these tools can enhance curriculum delivery, promote student engagement, and improve academic performance. However, the degree to which institutions provide these technologies and the extent to which educators and students are able to utilize them effectively remains an area of concern.

The COVID-19 pandemic served as a catalyst for the mass adoption of e-learning solutions. The sudden closure of educational institutions worldwide forced a shift to online platforms, revealing both strengths and deficiencies in existing digital infrastructures (Adnan & Anwar, 2020). Institutions that had already invested in e-learning technologies managed to transition more smoothly, while others were caught unprepared and struggled to maintain academic continuity (Mishra, Gupta, & Shree, 2020). In Nigeria and other developing countries,

this shift further exposed existing disparities in ICT infrastructure and highlighted the urgent need for improved digital education strategies (Ordu & Abdulkarim, 2020).

Despite the global push towards digital education, many Nigerian tertiary institutions continue to face significant barriers to effective e-learning implementation. Limited availability of reliable internet access, outdated technological infrastructure, and insufficient training of academic staff are major concerns (Kumar & Kaur, 2022; Oluwalola & Omotayo, 2023). Moreover, the digital divide between urban and rural institutions presents another challenge, with students in underserved areas experiencing limited access to online learning resources (Anetu, Ugwoke, & Moghalu, 2021).

Given the growing demand for technologically-enhanced learning, it becomes imperative to examine the extent of availability and utilization of e-learning technologies in Business Education programs within Nigerian tertiary institutions. Understanding how these tools are deployed and the challenges that educators and learners face is key to improving educational delivery, enhancing student outcomes, and ensuring that graduates are digitally competent.

Statement of the Problem

While the promise of e-learning in transforming educational delivery is widely acknowledged, the actual availability and utilization of e-learning technologies in Business Education programs across tertiary institutions in Nigeria remain inconsistent. Some institutions boast robust digital infrastructures, while others are plagued by obsolete equipment, insufficient

funding, and a lack of digital literacy among educators and students (Oladeji & Nuhu, 2021; Zhang, Wang & Zhang, 2023).

The disparity in e-learning readiness has led to an unequal learning experience for students, particularly in regions where access to digital resources is limited. Additionally, many educators lack the pedagogical training needed to effectively leverage e-learning tools in their teaching (Akanele, 2020). These challenges raise concerns about the overall quality and equity of Business Education in the country.

Thus, this study investigates the availability and extent of utilization of e-learning technologies in Business Education programs in Nigerian tertiary institutions. It seeks to identify the challenges limiting their effective use and explore the implications for student engagement and academic performance.

Purpose of the Study

The main purpose of this study is to assess the impact of the availability and utilization of e-learning technologies in Business Education programs within tertiary institutions. Specifically, the study aims to:

1. assess the availability of e-learning technologies in Business Education programs.
2. evaluate the utilization of these technologies by educators and students.
3. analyze the impact of e-learning technologies on student engagement and academic performance.
4. identify the challenges affecting the effective integration of e-learning technologies.

5. propose strategies for enhancing the use of e-learning in Business Education programs.

Research Questions

The following research questions guided the study:

1. What is the level of availability of e-learning technologies in Business Education programs at tertiary institutions?
2. How are e-learning technologies utilized by educators and students in Business Education?
3. What impact do e-learning technologies have on student engagement and academic performance?
4. What are the major challenges limiting the effective use of e-learning technologies in Business Education programs?
5. What strategies can be adopted to improve the availability and utilization of e-learning tools?

Significance of the Study

The findings of this study when publicized in reputable journals, conference proceedings, workshops, and the internet will be of great benefit to policy makers, educational administrators, educators, students, future researchers, and the general public.

- **Policymakers:** The findings will provide evidence-based insights into infrastructural gaps and resource needs, helping to shape policies that promote equitable access to digital learning tools.

- **Educational administrators:** This study will guide educational administrators by identifying the practical gaps and opportunities within current e-learning systems. It highlights areas where capacity building is urgently needed—such as staff training, technological infrastructure, and policy development—to ensure smooth implementation. The findings also emphasize the importance of targeted investment and thoughtful curriculum restructuring, enabling administrators to integrate e-learning tools more efficiently and support a modern, technology-driven learning environment.
- **Educators:** For educators, the research provides valuable insights into effective strategies for enhancing teaching delivery in an online or blended environment. It offers evidence-based approaches to designing interactive lessons, managing virtual classrooms, and utilizing digital tools to support student engagement. By adopting the recommended practices, teachers can improve their instructional methods, foster meaningful participation, and ultimately enhance student learning outcomes within e-learning platforms.
- **Students:** The study emphasizes the crucial role of students in maximizing the benefits of e-learning. It encourages learners to develop strong digital literacy skills, explore available learning technologies, and take a proactive approach to their studies. By understanding how e-learning tools can improve academic performance, students are better equipped to adapt to digital learning environments, manage their learning more

effectively, and build competencies that are increasingly essential in today's knowledge-driven world.

- **Future researchers:** For future researchers, this study adds to the expanding body of knowledge on digital education, particularly within the Nigerian context. It offers a foundation for further investigation by identifying key challenges, opportunities, and contextual factors that shape e-learning adoption. By providing relevant data and insights, the study supports deeper exploration, comparative analyses, and the development of innovative solutions that can advance digital learning practices in similar educational settings.

Scope and Delimitation of the Study

The study is confined to selected tertiary institutions in Nigeria that offer Business Education programs. These include universities, polytechnics, and colleges of education. The study is limited to evaluating the availability, utilization, and challenges of e-learning technologies within these programs. While it seeks to be comprehensive, the study may not capture all institutions due to time, financial, and logistical constraints.

Definition of Terms

- **E-learning Technologies:** Digital platforms and tools (e.g., LMS, virtual classrooms, online forums) used for delivering and managing education (Huang & Li, 2021).

- **Business Education:** An academic discipline focused on equipping students with practical and theoretical knowledge in business-related fields such as management, finance, and marketing.
- **Tertiary Institutions:** Higher education institutions that include universities, polytechnics, and colleges of education.
- **Availability:** The presence and accessibility of necessary digital resources and infrastructure for e-learning.
- **Utilization:** The extent to which available e-learning resources are effectively used by students and lecturers for academic purposes.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviews relevants and related literature to the study and they are presented under the following concept:

- e-learning concept
- Nigeria's information and communication technology (ICT) policy
- Present status of e-learning in Nigeria.
- Approaches to e-Learning.
- Business education and e-learning
- Delivery of business education lessons via e-learning.
- Learning management system (LMS).
- Educational technology.
- Communication technology
- Review of related empirical studies.

- Summary of the reviewed literature.

E-Learning Concept

E-learning refers to learning that is delivered, facilitated, or supported through digital technologies. In recent scholarship, it is no longer defined merely as the online delivery of lectures but as an entire ecosystem of digital platforms, learning management systems, mobile technologies, virtual classrooms, and interactive applications that support the teaching–learning process (Adedoyin & Soykan, 2020). Current literature categorizes e-learning into fully online learning (where the entire course is digital) and blended learning (a hybrid of online and face-to-face).

A notable conceptual shift in the last five years is the recognition of learner-centered pedagogy within e-learning, where students engage actively in problem-solving, simulations, and collaborative digital projects. This contrasts with early models that mainly emphasized uploading lecture notes and PowerPoint slides online. E-learning is also increasingly tied to lifelong learning and digital competencies, reflecting how technology now shapes employability skills in modern workplaces (Onyema et al., 2021).For business education specifically, e-learning allows for integration of digital tools for accounting software training, entrepreneurship simulations, online case study analysis, and virtual teamwork projects, thus bridging theory and practice. This alignment of technology with business education curricula strengthens students' adaptability in a digitally-driven economy.e-learning can take many forms,depending on the type of content being delivered and the learning objectives.

Below are concepts and technologies associated with e-Learning and their definitions:

- **Synchronous Online learning:** This mode of e-learning entails teaching and learning that is delivered online and in real-time. It relies primarily on internet connectivity using video conferencing tools and collaborative applications with learners and facilitators/tutors in the same place and at the same time. Live online sessions are an example of synchronous online learning.
- **Asynchronous Online learning:** This mode of e-Learning is a self-paced learner-centred method that does not take place in real time or require learners to engage in live sessions. It is premised on the principle that learners can learn at different places and times. In asynchronous learning, learners engage with learning resources and activities at their own pace. Discussion forums are examples of an e-learning component through which learners and facilitators can engage in communication not in real time.
- **Fixed e-Learning:** Fixed e-learning refers to learning using content that does not change during the learning process and all the learners receive the same information. The learning resources include lecture notes, videos and tutorials which are predetermined by the teachers and are not adaptable to learners' needs or preferences.
- **Adaptive e-Learning:** This is an innovative type of e-learning that makes it possible to adapt and redesign learning materials to meet the needs of individual learners. This e-Learning mode makes use of several parameters such as a learner's performance, goals, abilities, skills, and characteristics obtained from the VLE or LMS to design

individualised learning paths for learners. Adaptive e-learning allows for learning to become more individualised and learner-centred.

- **Linear E-Learning:** In this e-Learning mode, information exchange is one -way communication from the tutor to the learner and vice versa. It does not allow two-way communication between tutors and students. Delivering teaching and learning via television and radio programmes are examples of linear e-learning.
- **Interactive Online Learning:** This mode of e-Learning allows for two-way communication between learners and tutors. Interactive online learning supports improved teaching and successful learning.
- **Individual Online Learning:** This e-Learning mode allows learners to achieve their learning goals by studying on their own. It does not encourage collaborative learning. The focus is independent learning and is like the conventional individualised learning style.
- **Collaborative Online learning:** This is a modern e-Learning method with focus on learners learning and achieving their learning objectives together as a group. It is premised on the principle that knowledge is best developed in a group where learners can interact and learn from each other. Learners are expected to work as a team to achieve their common learning objectives. This mode of e-Learning promotes learners' communication skills and teamwork abilities.

- **Digital Learning:** refers to any type of learning that uses technology and that allows learners to learn anytime, anywhere and at their pace. Digital learning can take place at a distance or in person, in or not in real time. It is a cover-all term encompassing a wide range of digital learning practices including face-to-face, distance, online, virtual, and blended learning.
- **Blended Learning:** This mode of learning refers to the use of technology and distance learning methods with the traditional face-to-face mode of teaching and learning. Whole programmes and courses or different aspects of courses can be blended. A major benefit of this mode is that learners have access to a variety of learning resources and interactions that enhance their learning across face-to-face, distance and online contexts. There are different models of blended learning but typically a blended course will have components of both online and face-to-face learning activities and resources with the context determining the proportion of blending. Blended learning is recommended as a viable approach to learning online because of its flexibility, ease of access, and integration of multimedia and technologies that make for effective instructional delivery.

Nigeria's Information and Communication Technology (ICT) Policy.

Nigeria's Information and Communication Technology (ICT) policies have played a significant role in shaping how digital tools and e-learning technologies are adopted and used in education—especially in tertiary institutions. The government has long recognized that ICT is

not just a technological advancement but a key driver of national growth, innovation, and educational transformation.

The country's journey toward ICT integration began with the National Information Technology Policy of 2001, which aimed to make Nigeria a knowledge-based and globally competitive society. The policy emphasized improving access to ICT infrastructure, promoting digital literacy, and encouraging ICT application in education, business, and governance (Federal Republic of Nigeria, 2001). This policy also led to the creation of the National Information Technology Development Agency (NITDA), which oversees ICT development and regulation across various sectors, including education.

Building on that foundation, the National Policy on ICT in Education (2019) provided a more focused framework for incorporating technology into teaching and learning. This policy encourages tertiary institutions to adopt e-learning tools such as virtual classrooms, online courses, and digital libraries to enhance learning flexibility and accessibility (Federal Ministry of Education, 2019). It also underscores the importance of teacher training in ICT skills, ensuring that both educators and students can effectively use modern learning technologies.In addition, the Nigerian Communications Commission (NCC) has implemented broadband and connectivity initiatives to make internet access more affordable and reliable for schools. These efforts have improved the availability of e-learning technologies and created a more enabling environment for their utilization in business education programs (NCC, 2020).

However, despite these commendable efforts, several challenges remain. Many tertiary institutions still struggle with inadequate ICT infrastructure, unstable electricity supply, limited funding, and insufficient ICT skills among lecturers and students. These issues often limit the full potential of ICT policies in promoting effective e-learning practices.Nevertheless, Nigeria's ICT policies have laid a strong foundation for the advancement of e-learning in tertiary education. With consistent implementation, proper funding, and regular policy updates, these frameworks can greatly enhance the availability and utilization of e-learning technologies in business education programs. This will ultimately help produce graduates who are technologically equipped to compete in today's global business environment.

The outbreak of the COVID-19 pandemic in 2020 acted as a turning point for e-learning adoption in Nigeria. Universities, polytechnics, and colleges of education were forced to transition to online platforms to sustain learning continuity. Since then, there has been sustained though uneven adoption.

Recent surveys of Nigerian tertiary institutions (Adeoye 2022; Olasile 2023) show that:

- Learning Management Systems (LMS) such as Moodle, Blackboard, and Google Classroom are now widely deployed, though many lecturers still use them mainly as repositories rather than interactive spaces.
- Synchronous platforms like Zoom, Microsoft Teams, and Google Meet gained prominence during the pandemic and continue to be used, particularly in private universities.

- Infrastructure challenges (electricity outages, high data costs, weak broadband) still limit the effectiveness of e-learning in public institutions.
- Student access inequalities persist: while urban students are more likely to have personal laptops and steady internet, rural-based students rely heavily on mobile phones and face greater difficulties.
- For business education programmes, these limitations translate into difficulty in delivering software-based courses such as accounting packages, data analysis, or office technology tools, which require stable internet and device availability.

Present Status of E-Learning in Nigeria

The current state of e-learning in Nigeria reflects both progress and persistent challenges in the country's efforts to integrate technology into education. Over the past decade, there has been a gradual shift from traditional, face-to-face instruction toward technology-supported learning in many tertiary institutions. This transformation has been driven by government policies, institutional initiatives, and the growing recognition of the role of digital literacy in the modern economy.

Many universities, polytechnics, and colleges of education in Nigeria have introduced e-learning platforms such as Moodle, Google Classroom, Canvas, and other Learning Management Systems (LMS) to support teaching and learning. These platforms enable students to access lecture notes, submit assignments, participate in discussions, and attend virtual classes. The COVID-19 pandemic in particular accelerated the adoption of e-learning, as institutions were

compelled to continue academic activities through online means during the nationwide lockdowns (Adedoyin & Soykan, 2020). This period marked a turning point that revealed both the potential and the limitations of Nigeria's e-learning infrastructure.

Despite these advancements, the implementation of e-learning in Nigeria remains uneven. While some federal and private universities—such as the University of Lagos, University of Ibadan, and Covenant University—have well-developed digital learning systems, many state-owned and rural institutions still lack adequate ICT facilities and reliable internet connectivity. This digital divide limits access to online education for many students, particularly those from low-income backgrounds (Olasina, 2021).Furthermore, the cost of data, limited bandwidth, and unstable power supply continue to pose significant obstacles to effective e-learning delivery. Many lecturers also require additional training to fully utilize e-learning tools for lesson planning, assessment, and student engagement. The lack of sufficient institutional support and funding further hinders the sustainability of e-learning initiatives in some schools (Okebukola, 2021).

Nevertheless, progress is evident. Several national programs, such as the Nigerian Research and Education Network (NgREN) and initiatives by NITDA and the NCC, have improved internet connectivity and provided ICT equipment to tertiary institutions. These interventions, along with increased student awareness and exposure to digital platforms, continue to shape the future of e-learning in Nigeria.

In summary, the present status of e-learning in Nigeria can be described as evolving but still developing. There is a growing awareness of its importance and a steady increase in

adoption, but significant work remains to ensure that all tertiary institutions—particularly those offering business education programs—can fully benefit from the availability and utilization of e-learning technologies.

Approaches to e-Learning

E-learning can be implemented through various approaches depending on the goals of instruction, the nature of the subject matter, and the available technological resources. In Nigerian tertiary institutions, different models of e-learning are used to enhance teaching and learning in business education programs. These approaches generally fall under three broad categories: synchronous learning, asynchronous learning, and blended learning.Open and Distance Learning (ODL) and MOOCs – Nigeria's National Open University (NOUN) exemplifies large-scale ODL. However, MOOCs (Massive Open Online Courses) like Coursera and edX are gaining ground as supplementary resources for business education students.

- **Synchronous Learning**

This approach involves real-time interaction between instructors and students through digital platforms such as Zoom, Microsoft Teams, and Google Meet. It simulates the traditional classroom experience, allowing immediate feedback and collaboration. In this model, lectures, discussions, and group activities occur simultaneously, enabling learners to actively engage with course content and peers. Synchronous e-learning became particularly prominent during the COVID-19 pandemic when institutions adopted virtual classrooms to sustain academic

continuity (Adedoyin & Soykan, 2020). However, it requires stable internet connectivity and reliable power supply, which are often inconsistent in many parts of Nigeria.

- **Asynchronous Learning**

Asynchronous learning provides students with flexibility to access course materials, recorded lectures, and assignments at their own pace and time. This model is supported by Learning Management Systems (LMS) such as Moodle, Edmodo, and Google Classroom. It is especially useful for students who may face time or connectivity constraints. In business education, asynchronous learning enables learners to revisit complex topics, conduct independent research, and apply theoretical knowledge through practical assignments (Obidile & Ogugua, 2022). However, it requires strong self-discipline and time management skills to ensure effective participation.

- **Blended Learning**

Blended learning combines both synchronous and asynchronous methods to provide a more balanced and flexible learning experience. It integrates face-to-face classroom instruction with online learning components. Many Nigerian tertiary institutions are gradually adopting this approach as it addresses the limitations of both purely online and traditional learning models. For business education programs, blended learning allows students to acquire digital literacy while

still engaging in practical, hands-on activities that are essential for skill development (Okebukola, 2021).

The choice of approach often depends on institutional resources, staff readiness, and student accessibility. While urban-based universities may successfully run fully online courses, others in rural areas may rely more on blended methods due to infrastructural challenges. To maximize the impact of e-learning in business education, institutions must therefore adopt approaches that balance technological capabilities with the needs of learners.

In conclusion, each approach to e-learning has its advantages and limitations, but when properly implemented, they collectively contribute to improving the availability and utilization of digital learning technologies in tertiary institutions. A strategic combination of these methods can ensure that business education remains interactive, accessible, and relevant in a technology-driven world.

Business Education and e-learning.

Business education is primarily concerned with equipping learners with the knowledge, skills, attitudes, and competencies needed for successful careers in commerce, industry, management, administration, entrepreneurship, and other business-related fields. It is not only theoretical but also practical in orientation, as it prepares learners to function effectively in dynamic and competitive business environments. The emphasis on professional and vocational competencies makes the integration of modern technology—particularly e-learning technologies—an indispensable part of its delivery.

E-learning, broadly defined, refers to the use of electronic media, information and communication technologies (ICT), and digital tools in the teaching and learning process. In business education, e-learning technologies provide opportunities for both teachers and students to transcend the limitations of traditional classroom instruction. For example, through online platforms, learners can engage in interactive simulations, digital business case studies, and virtual internships, which mirror real-world business operations. Tools such as accounting and financial analysis software, management information systems (MIS), project management applications, and collaborative platforms like Google Workspace, Microsoft Teams, or Slack expose students to the same technologies they will encounter in the workplace.Furthermore, e-learning enhances global collaboration and exposure. Business students can participate in webinars, international discussion forums, and cross-border projects with peers and professionals worldwide. This global dimension sharpens their understanding of international business practices, cultural diversity, and market dynamics—an important requirement in today's interconnected economy.

Another major contribution of e-learning is its support for flexible and personalized learning. Business education students can access resources anytime and anywhere, allowing them to learn at their own pace, revisit complex concepts, or advance into higher-level materials based on their individual needs. Recorded lectures, e-textbooks, learning management systems (LMS) like Moodle or Canvas, and adaptive learning software are examples of such tools.

The extent to which business education programs adopt and effectively utilize e-learning technologies has a direct bearing on graduate employability and workplace readiness. Institutions that fully integrate ICT and digital resources into their curricula tend to produce graduates with stronger technological literacy, critical thinking, problem-solving abilities, and adaptability to the demands of a technology-driven labor market. Conversely, programs that fail to embrace these innovations risk producing graduates with outdated skills that are misaligned with industry expectations.

In summary, e-learning in business education serves as a bridge between academic training and professional practice. By providing interactive, flexible, and globally connected learning experiences, it ensures that students are not only competent in theory but also proficient in the digital tools and platforms that define modern business practice. Thus, the future relevance of business education largely depends on how effectively it leverages e-learning technologies to prepare graduates for the ever-changing business landscape.

Delivery of Business Education Lessons via e-Learning.

The delivery of business education lessons through e-learning has become an increasingly important component of tertiary education in Nigeria. Business education, by its nature, aims to equip students with practical skills and theoretical knowledge for careers in commerce, management, accounting, and entrepreneurship. The integration of e-learning technologies has transformed how these lessons are planned, taught, and assessed, making instruction more flexible, interactive, and student-centered.

In many Nigerian tertiary institutions, business education lessons are now delivered using digital tools such as Learning Management Systems (LMS), online conferencing platforms, and multimedia resources. Platforms like Moodle, Google Classroom, Zoom, and Microsoft Teams are widely used to host lectures, distribute course materials, conduct assessments, and facilitate group discussions (Okojie, 2021). These tools enable students to access learning materials anytime and anywhere, thus expanding educational access beyond the physical classroom.

E-learning also allows business education lecturers to incorporate various multimedia resources such as videos, simulations, animations, and case studies. For instance, accounting students can use online accounting software for practice, while management students can participate in virtual business simulations that mirror real-world decision-making processes. Such experiences enhance understanding and retention while preparing students for the technological demands of modern workplaces (Obidile & Ogugua, 2022).

Another key advantage of e-learning delivery is the promotion of interactive learning. Discussion forums, chat rooms, and collaborative documents encourage active participation, teamwork, and critical thinking. Through these tools, students exchange ideas, share experiences, and work on group projects regardless of their geographical locations. This approach aligns well with the objectives of business education, which emphasize communication, collaboration, and problem-solving skills.. Each has unique delivery challenges and opportunities when taught through e-learning:

- **Accounting and Finance:** Cloud-based accounting software (e.g., QuickBooks, Sage) can be taught via screen-sharing and simulations, allowing students to practice virtually.
- **Management and Marketing:** Case study discussions can be enriched with multimedia resources, role-play simulations, and collaborative projects in online spaces.
- **Entrepreneurship:** Digital simulations, online pitching sessions, and business plan competitions can be organized via LMS and conferencing platforms.
- **Office Technology:** Typing skills, office software (MS Office, Google Suite) and document management can be taught effectively via demonstration videos and supervised practice.

Empirical evidence shows that e-learning enhances flexibility and resource availability, but technical disruptions often reduce interaction quality. A 2023 study by Ogunlade . found that when business education lecturers integrated interactive LMS features (quizzes, polls, group discussions), students demonstrated improved performance and engagement.

However, despite these benefits, the delivery of e-learning in business education faces notable challenges. Poor internet connectivity, high data costs, and unstable electricity often disrupt virtual classes and limit access to online materials (Okebukola, 2021). Additionally, some instructors lack adequate training in using digital teaching tools, leading to low engagement or ineffective course delivery. These issues underscore the need for continuous professional development and institutional investment in ICT infrastructure.

Learning Management Systems (LMS)

Learning Management Systems (LMS) are at the core of e-learning delivery in tertiary institutions. They serve as digital platforms that support the administration, documentation, tracking, and delivery of educational content. In business education, LMS platforms play a vital role in facilitating interactive learning, managing coursework, and fostering communication between instructors and students.

An LMS provides an organized and centralized environment where lecturers can upload lecture notes, videos, and assignments, while students can access course materials, participate in discussions, and submit their work electronically. Popular LMS platforms used in Nigerian tertiary institutions include Moodle, Google Classroom, Canvas, and Blackboard. These platforms have proven essential in ensuring the availability and utilization of e-learning technologies, particularly in business education programs where flexibility and access to resources are critical (Okojie, 2021).One of the major strengths of LMS platforms is their ability to support both synchronous and asynchronous learning. Lecturers can conduct live virtual classes, while recorded sessions and uploaded materials allow students to learn at their own pace. This dual functionality enhances learning accessibility, accommodates diverse learning styles, and ensures continuity of instruction, even in times of disruption—such as during the COVID-19 pandemic (Adedoyin & Soykan, 2020).

LMS platforms also improve assessment and feedback processes. Lecturers can create online quizzes, tests, and discussion forums that encourage active learning and instant evaluation. In business education, such digital tools allow for continuous assessment and provide valuable

insights into student performance and participation (Obidile & Ogugua, 2022). Additionally, LMS analytics help instructors monitor attendance, track progress, and identify students who may require additional support.

Despite these advantages, the effective use of LMS in Nigeria faces some challenges. Many tertiary institutions still lack the necessary ICT infrastructure, such as reliable internet connectivity, modern computer systems, and stable electricity. Furthermore, limited digital literacy among lecturers and students can reduce the effective use of LMS tools (Okebukola, 2021). To overcome these challenges, capacity-building programs and institutional support are essential to strengthen ICT competencies and promote sustainable e-learning practices.

LMS platforms are the backbone of e-learning in higher institutions. They provide features for:

- Content management (uploading notes, slides, recorded lectures).
- Assessment (online quizzes, assignment submissions, auto-grading).
- Collaboration (discussion boards, group forums).
- Analytics (tracking student attendance, participation, and progress).

A 2024 narrative review by EdTech Hub reports that Nigerian tertiary institutions widely deploy Moodle and Google Classroom due to their affordability and ease of use. However, challenges include:

- Limited lecturer training, leading to under-utilisation of advanced LMS tools.
- Lack of integration with student information systems, which prevents efficient grading and record-keeping.

- Poor technical support within many universities.

For business education, the use of LMS in simulations, peer review of assignments, and entrepreneurship projects offers significant value if lecturers leverage these features beyond basic content uploads.

Educational Technology.

Educational technology refers to the systematic use of technological tools, resources, and processes to improve teaching, learning, and educational management. It encompasses tools and strategies used to facilitate digital learning. These include hardware (computers, smartboards, servers, internet routers) and software (authoring tools, assessment engines, simulation apps). Recent findings emphasize that technology availability does not equal effective usage. In many Nigerian institutions, smart classrooms and LMS installations exist but remain under-utilized because staff lack the pedagogical knowledge to integrate them (Oni, 2022). Effective adoption requires training in instructional design, multimedia pedagogy, and assessment through digital platforms. For business education, technologies such as simulation software for stock trading, collaborative platforms for group business plans, and interactive whiteboards for financial modeling can enrich teaching. However, without faculty readiness, these tools remain idle investments.

Educational technology supports the constructivist approach to learning, where students actively engage with content rather than passively receive information. Through e-learning

platforms and other technological tools, learners can collaborate, research, and apply knowledge to real-life business situations. This aligns with the objective of business education to produce graduates who are not only knowledgeable but also capable of applying ICT skills in practical business operations (Obidile & Ogugua, 2022).

Moreover, educational technology fosters inclusive and flexible learning. Students who are unable to attend physical classes due to distance, disability, or work commitments can still participate in online courses through various e-learning applications. Recorded lectures, downloadable materials, and online assessments help overcome traditional barriers to education and expand access to lifelong learning opportunities (Okebukola, 2021).

However, the full potential of educational technology in Nigeria's tertiary institutions is yet to be realized. Challenges such as inadequate digital infrastructure, limited funding, and insufficient training for educators often hinder effective technology integration. Many lecturers in business education departments still rely heavily on traditional teaching methods due to lack of confidence or technical skills. Therefore, continuous professional development and institutional investment in ICT are necessary to strengthen the adoption of educational technology across tertiary institutions (NITDA, 2020).

Types of educational Technology.

Educational technology comes in many different forms, making education more flexible and engaging. Some of the most common include online courses, webinars, virtual classrooms, and digital textbooks.

- Online courses are usually self-paced and include pre-recorded lectures, quizzes, and assignments that students can complete on their own schedule.
- Webinars are live, interactive sessions where learners can join remotely, ask questions, and participate in discussions.
- Virtual classrooms work much like webinars but focus on real-time teaching, often with features such as live chat, screen sharing, and breakout rooms.
- Digital textbooks are electronic versions of traditional books that can be accessed on computers, tablets, or smartphones (Nair, 2022).

Beyond learning content, e-learning also relies on communication and collaboration tools. For example, teachers and students can use video conferencing software for virtual meetings or learning management systems (LMS) to share files, post announcements, and submit assignments.

In a physical classroom setting, various devices and tools bring e-learning to life. Some examples include:

- Tablets – handy touchscreen devices for reading digital textbooks, taking notes, or completing assignments.
- Laptops – versatile computers used for internet research, assignments, and attending online classes.
- Interactive whiteboards – large boards where teachers can display, write on, and interact with digital content.

- Projectors – devices that project text, slides, or visuals onto a screen for the entire class.
- VR/AR headsets – immersive tools that let students explore simulations and virtual environments, widely used in education, healthcare, and even military training.
- Smart boards – upgraded interactive whiteboards with built-in computers and projectors for direct access to online resources.
- Audio systems – microphones, speakers, and other equipment that improve sound quality in lessons and presentations.
- Video conferencing systems – tools for live streaming, recording, and connecting with remote learners.
- 3D printers – allow students to design and print real objects, helping them learn through hands-on experience.
- Robotics kits – teaching aids that introduce students to programming and engineering by letting them build and program robots.

In Nigeria, high data costs and weak broadband penetration remain significant barriers (Olasile et al., 2023). Many students rely on mobile devices and social media groups for course updates, which, while informal, fill gaps left by institutional platforms.For business education, reliable communication technologies are essential for team-based assignments, collaborative projects, and online business simulations. Institutions that have negotiated zero-rated educational platforms with telecom providers report better student participation.

Communication Technology.

Communication technology refers to the tools and systems that enable the transmission, processing, and exchange of information through electronic means. In the context of education, especially business education, communication technology forms the backbone of e-learning by facilitating interaction, collaboration, and knowledge sharing among students, teachers, and institutions. It ensures that learning continues seamlessly across geographical boundaries and time zones.

In Nigerian tertiary institutions, communication technologies such as email, instant messaging platforms, video conferencing tools, and social media networks are increasingly being used to support teaching and learning. Tools like Zoom, Microsoft Teams, Google Meet, and WhatsApp groups have become vital channels for communication between lecturers and students (Okojie, 2021). Through these platforms, instructors can organize virtual classes, share materials, give feedback, and maintain continuous engagement with learners.The use of communication technology in business education promotes interactive and collaborative learning. Students can participate in real-time discussions, group projects, and online forums that simulate workplace collaboration. For example, virtual presentations and case discussions help business education students develop essential communication and teamwork skills needed in modern business environments (Obidile & Ogugua, 2022).

Moreover, communication technology supports blended and distance learning, which have become increasingly relevant in Nigeria's education landscape. Through effective communication channels, lecturers can reach large groups of students regardless of their location,

thereby expanding the availability of learning opportunities. This is particularly beneficial for part-time or working students enrolled in business education programs (Okebukola, 2021).However, the adoption of communication technology in Nigeria is not without challenges. Limited internet access, high data costs, and unstable electricity supply often interrupt communication during online classes. Additionally, some educators lack the digital competence needed to manage online communication effectively, leading to reduced student engagement and learning outcomes (NITDA, 2020). To address these issues, institutions need to invest in digital infrastructure, provide affordable internet access, and organize ICT training programs for both staff and students.

Review of Related Empirical Studies.

This section reviews several empirical studies and have examined the availability and utilization of e-learning technologies in tertiary institutions, especially in business education programs. These studies provide insights into the extent of adoption, benefits, and challenges associated with e-learning.

The study of Adeyemi (2020) carried out a descriptive survey design to investigate the availability and access to e-learning tools among undergraduate students in business education in selected Nigerian universities. The population of the study consisted of 1,200 business education students, out of which a sample of 200 was drawn using stratified random sampling. A structured questionnaire validated by three experts in educational technology was used as the instrument. The reliability of the instrument was established using Cronbach Alpha, which yielded a

coefficient of 0.82. Data were collected through direct administration of the questionnaire and analyzed using mean scores and standard deviation. The study found that while students had personal access to smartphones and laptops, institutional e-learning facilities such as LMS and e-libraries were grossly inadequate.

Relation to present study: Adeyemi's work highlights the gap between personal device ownership and institutional support, which is directly relevant to the present study on availability and utilization of e-learning technologies in business education. The present study builds on this by also examining post-COVID realities.

The study of Bello and Musa (2019) employed a qualitative research design using in-depth interviews to explore the challenges of e-learning adoption among business education students in polytechnics in Northern Nigeria. The population included all business education students in three polytechnics, with a sample of 30 students purposively selected for interviews. An interview guide validated through peer review was used, and credibility was ensured through triangulation. Data were analyzed using thematic analysis. Findings revealed poor internet connectivity, lack of institutional Wi-Fi, inadequate ICT support staff, and the high cost of data subscriptions as the main barriers to effective utilization of e-learning.

Unlike the present study, Bello and Musa focused only on challenges through qualitative methods. The present study, however, extends beyond challenges to include the extent of availability and usage using both quantitative and qualitative approaches.

The study of Chen (2021) conducted a quasi-experimental design study in China to compare the outcomes of students taught using blended learning (e-learning plus face-to-face) versus traditional classroom methods in business education. The population was 600 undergraduate students in business faculties, from which a sample of 120 students (60 experimental, 60 control) was selected using cluster random sampling. A validated achievement test with a reliability coefficient of 0.87 (KR-20) was used as the instrument. Data were collected through pre-tests and post-tests and analyzed using ANCOVA. Findings indicated that students in the blended learning group performed significantly better in knowledge retention, problem-solving, and independent learning skills than those in the traditional group.

Relation to present study: Chen's study demonstrates the effectiveness of e-learning in enhancing learning outcomes internationally. The present study differs by focusing on Nigeria, but both contribute evidence supporting the adoption of e-learning technologies in business education.

The study of Okoro and Nwafor (2022) carried out a survey research design to examine lecturers' perceptions of e-learning in business education programs across five universities in Nigeria. The population consisted of 320 business education lecturers, from which a sample of 150 lecturers was selected using simple random sampling. A structured questionnaire validated by ICT experts served as the instrument, and the reliability coefficient obtained through the test–retest method was 0.79. Data were collected through direct questionnaire administration and analyzed using descriptive statistics and chi-square tests. Findings revealed that most lecturers

appreciated the potential of e-learning but lacked adequate training to use LMS platforms effectively.

Relation to present study: Okoro and Nwafor focused on lecturers' perspectives, while the present study emphasizes both students and institutional support. This complementary perspective helps build a broader understanding of utilization patterns.

The study of Adebayo (2023) employed a mixed-method design to investigate the role of government and institutional policies in the utilization of e-learning in tertiary institutions. The population included all Nigerian public universities, with a sample of 5 universities selected purposively. Data were collected from 200 students and 50 lecturers through questionnaires, interviews, and document analysis. The questionnaire was validated through expert judgment and had a Cronbach Alpha coefficient of 0.84. Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were thematically analyzed. Findings revealed that universities with clearly defined e-learning policies and budgetary support recorded higher levels of e-learning utilization compared to institutions without such frameworks.

Relation to present study: Adebayo's study connects e-learning utilization to institutional policies, showing the importance of structural support. The present study is related because it also considers how institutional support impacts availability and utilization, especially in the post-COVID context.

Summary of the Reviewed Literature.

This chapter reviewed existing literature related to the impact of availability and utilization of e-learning technologies in business education programs in tertiary institutions. The review was organized under several key themes, including Nigeria's ICT policies, the present status of e-learning, approaches to e-learning, delivery of business education lessons via e-learning, learning management systems, educational technology, communication technology, and related empirical studies.

The review of Nigeria's ICT policies revealed that the government has made significant efforts to integrate information and communication technologies into education through various policy frameworks such as the National Information Technology Policy (2001) and the National Policy on ICT in Education (2019). These policies have provided a foundation for the adoption and use of e-learning technologies in Nigerian tertiary institutions, though implementation challenges such as poor infrastructure, inadequate funding, and low digital literacy persist.

The current state of e-learning in Nigeria shows gradual progress, especially following the COVID-19 pandemic, which accelerated the adoption of digital learning platforms. Many institutions now use systems like Moodle, Google Classroom, and Zoom to facilitate learning, though disparities still exist between urban and rural institutions in terms of access and utilization.

Different approaches to e-learning — including synchronous, asynchronous, and blended learning — have been explored as effective models for delivering flexible and accessible

education. Blended learning, in particular, has proven most practical for Nigerian tertiary institutions, as it combines the strengths of both online and face-to-face instruction.

The review also established that the delivery of business education lessons via e-learning has improved instructional quality, flexibility, and interactivity. However, it faces challenges related to internet connectivity, power supply, and inadequate staff training. The use of Learning Management Systems (LMS) such as Moodle and Canvas has simplified teaching and assessment processes, providing opportunities for improved monitoring and engagement.

Furthermore, the discussions on educational technology and communication technology emphasized their role in enhancing teaching effectiveness and promoting collaboration between students and instructors. These technologies have redefined how business education is taught and learned by fostering interactive and technology-driven environments.

Empirical studies reviewed in this chapter consistently indicate that the availability and effective utilization of e-learning technologies positively influence the quality of teaching and learning in business education. However, the degree of impact depends largely on factors such as infrastructure, accessibility, staff competence, and institutional support.

In summary, while Nigeria has made commendable strides in integrating e-learning technologies into business education, several gaps remain in terms of infrastructure, training, and policy implementation. Addressing these gaps will ensure that e-learning becomes an effective and sustainable tool for improving the quality of business education and producing graduates who are technologically competent and globally competitive.

CHAPTER THREE

METHODOLOGY

This chapter describes the method and procedures that will be used to carry out the study under the following sub- headings:

- Design of the Study
- Population of the Study
- Sample and Sampling Technique
- Instrumentation
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis

Design of the Study

This study adopted a descriptive survey research design. A descriptive survey is a research method used to gather information at a particular point in time, focusing on the traits

and demographic details of a population, rather than analyzing ongoing relationships between variables. This design was suitable for the current study because it enables the researcher to describe how the independent variable (availability of and utilisation of E learning technologies) influenced the dependent variable (Business Education programs) in University of Benin City, Edo state.

Population of the Study

The population for this study consisted of Sixty-Eight (68) Business Education undergraduate students from the University of Benin, Benin City (UNIBEN). This information was obtained from the office of the Head of Department (HOD) of the University.

Sample and Sampling Technique

The sample size of the study was Sixty-Eight (68) Business Education undergraduate students from the University of Benin, Benin City (UNIBEN). As a result of the manageable size of the population, the population was used as sample, hence census.

Instrumentation

The instrument used for data collection was a self-structured questionnaire titled "Impact of Availability and Utilisation of E-Learning Technologies on Business Education Programs Questionnaire (IAUETBEPQ)." The questionnaire was segmented into two sections: A and B. Section A measured the demographic variables of the respondents such as Gender and level. The Section B comprised item statements which were drawn from the research questions and the

respondents rated the items on a four point rating scale ranging from Very High Extent (VHE) 4, High Extent (HE) 3, Low Extent (LE) 2, Very Low Extent (VLE) 1.

Validity of the Instrument

The instrument for data collection was validated by the research's supervisor and other experts in the Department of Business Education, Faculty of Vocational and Technical Education, University of Benin, Benin City. Among other suggestions, it was suggested that the items be made less repetitive and restructured. These revisions, along with additional recommendations for clarity and refinement, were included in the final version of the instrument.

Reliability of the Instrument

To determine the reliability of the research instrument, its internal consistency was assessed using the Cronbach alpha statistics. The instrument was administered once to twenty (20) students who were not included in the main study population. A reliability coefficient of 0.70 was obtained .

Method of Data Collection

The instrument was administered by the researcher with the help of a research assistant who was briefed on the administration and retrieval of the instrument. The assistant gathered the completed responses immediately on-site and submitted them to the researcher. The collected data were then compiled in Microsoft Excel format.

Method of Data Analysis

The data obtained from the respondents will be analyzed using the mean ($\bar{x}$), standard deviation (SD), and a two-sample independent t-test. The mean and standard deviation were employed to answer the data obtained for the research questions while the two-sample independent t- test was use to test the hypothesis at a 0.05 significance level. Decision rule was based on mean value of 2.50 such that any calculated mean ($\bar{x}$) equal or greater than 2.50 was regarded as high extent while any mean ($\bar{x}$) less than 2.50 was regarded as low extent. On the basis of the hypothesis, the probability value (p) was used. If p-value rule was less than or equal to 0.05, null hypothesis was not retained, but if p-value was greater than 0.05, null hypothesis was retained.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

This chapter deals with presentation of results and discussion of findings. The results of the analysis are presented in the order of the research questions that guided the study.

Presentation of Results

Research Question One

What is the level of availability of e-learning technologies in Business Education programs at tertiary institutions?

Table 1: Mean and standard deviation showing the level of availability of e-learning technologies in Business Education programs at tertiary institutions

S/N	Item	N	Mean	SD	Remarks
1	Computers and internet facilities are adequately provided for Business Education students in my institution.	68	3.01	.273	High Extent
2	My institution has a reliable Learning Management System (LMS) for teaching and learning.	68	3.10	.306	High Extent
3	Classrooms and lecture halls are equipped with projectors, smart boards, or multimedia devices.	68	3.41	.553	High Extent
4	There is sufficient access to e-learning resources such as online journals, databases, and e-books.	68	2.71	.734	High Extent
5	Wi-Fi or internet connectivity is easily accessible to students and educators within the institution.	68	2.34	.822	Low Extent
	Cluster Mean		**2.91**	**0.24**	**High Extent**

Note: SD (Standard Deviation), N (Sample Size)

In response to research question one, Table 1 showed that the respondents rated item one to five as high extent with a mean rating ranging from 2.34 to 3.41 while the standard deviation also ranges from .273 to .734. The cluster mean indicates a mean of 2.91. With these results, the above mean score shows that e-learning technologies in Business Education programs are available at tertiary institutions to a high extent.

Research Question Two

How are e-learning technologies utilized by educators and students in Business Education?

Table 2: Mean and standard deviation showing the extent to which the e-learning technologies are utilized by educators and students in Business Education

S/N	Item	N	Mean	SD	Remarks
1	I regularly use e-learning platforms (e.g., Moodle, Blackboard, Google Classroom) for coursework and assignments.	68	3.37	.667	High Extent
2	Educators frequently incorporate multimedia resources (videos, simulations, interactive tools) into lessons.	68	3.40	.493	High Extent
3	Students actively participate in online discussions, forums, or group projects using e-learning platforms.	68	3.71	.490	High Extent
4	Assignments, tests, and quizzes are often administered through digital/e-learning systems.	68	3.50	.533	High Extent
5	Lecturers provide online feedback and assessment through e-learning platforms.	68	3.59	.525	High Extent
	Cluster Mean		**3.51**	**0.07**	**High Extent**

Note: SD (Standard Deviation), N (Sample Size)

In response to research question two, Table 2 showed that the respondents rated item one to five as high extent with a mean rating ranging from 3.37 to 3.71 while the standard deviation

also ranges from .490 to .667. The cluster mean indicates a mean of 3.51. With these results, the above mean score shows that the e-learning technologies are utilized by educators and students in Business Education to a high extent.

Research Question Three

What impact do e-learning technologies have on student engagement and academic performance?

Table 3: Mean and standard deviation showing the impact do e-learning technologies have on student engagement and academic performance

S/N	Item	N	Mean	SD	Remarks
1	e-learning technologies make learning Business Education courses more interesting and interactive.	68	3.44	.500	High Extent
2	e-learning technologies encourage collaboration between students and educators.	68	3.37	.486	High Extent
3	The use of e-learning has increased my motivation to learn Business Education courses.	68	3.29	.459	High Extent
4	The use of e-learning tools has improved my understanding of difficult concepts in Business Education.	68	3.32	.531	High Extent
5	e-learning promotes active participation and engagement during classes.	68	3.37	.486	High Extent
	Cluster Mean		**3.36**	**0.03**	**High Extent**

Note: SD (Standard Deviation), N (Sample Size)

In response to research question three, Table 3 showed that the respondents rated item one to five as high extent with a mean rating ranging from 3.32 to 3.44 while the standard deviation also ranges from .486 to .531. The cluster mean indicates a mean of 3.36. With these

results, the above mean score shows that e-learning technologies have impacts on student engagement and academic performance to a high extent.

Research Question Four

What are the major challenges limiting the effective use of e-learning technologies in Business Education programs?

Table 4: Mean and standard deviation showing the major challenges limiting the effective use of e-learning technologies in Business Education programs

S/N	Item	N	Mean	SD	Remarks
1	Poor internet connectivity hinders effective use of e-learning tools in my institution.	68	3.53	.503	High Extent
2	Lack of adequate ICT facilities (computers, projectors, smart boards) limits e-learning adoption.	68	3.40	.493	High Extent
3	Frequent power outages negatively affect the use of e-learning technologies.	68	3.56	.500	High Extent
4	Some educators lack the necessary ICT skills to effectively use e-learning tools.	68	3.54	.502	High Extent
5	Limited technical support or maintenance reduces the efficiency of e-learning systems.	68	3.68	.471	High Extent
	Cluster Mean		**3.54**	**0.01**	**High Extent**

Note: SD (Standard Deviation), N (Sample Size)

In response to research question four, Table 4 showed that the respondents rated item one to five as high extent with a mean rating ranging from 3.40 to 3.68 while the standard deviation also ranges from .471 to .503. The cluster mean indicates a mean of 3.54. With these results, the above mean score shows that these major challenges limit the effective use of e-learning technologies in Business Education programs to a high extent.

Research Question Five

What strategies can be adopted to improve the availability and utilization of e-learning tools?

Table 5: Mean and standard deviation showing the strategies that can be adopted to improve the availability and utilization of e-learning tools

S/N	Item	N	Mean	SD	Remarks
1	Regular training and workshops should be organized for educators on effective use of e-learning technologies.	68	3.69	.465	High Extent
2	Provision of subsidized laptops, tablets, or data plans would improve access to e-learning.	68	3.44	.500	High Extent
3	Developing user-friendly e-learning platforms would encourage more students to adopt them.	68	3.40	.493	High Extent
4	Students should be given orientation and support on how to maximize e-learning platforms.	68	3.47	.559	High Extent
5	My institution should invest more in upgrading ICT infrastructure to support e-learning.	68	3.51	.503	High Extent
	Cluster Mean		**3.50**	**0.03**	**High Extent**

Note: SD (Standard Deviation), N (Sample Size)

In response to research question five, Table 5 showed that the respondents rated item one to five as high extent with a mean rating ranging from 3.40 to 3.69 while the standard deviation also ranges from .465 to .559. The cluster mean indicates a mean of 3.50. With these results, the above mean score shows that these strategies can be adopted to improve the availability and utilization of e-learning tools to a high extent.

Discussion of Findings

The findings of research question one revealed that e-learning technologies in Business Education programs are available at tertiary institutions to a high extent. From the presentation and analysis of the response, it is therefore concluded that tertiary institutions have successfully established a robust technological infrastructure for Business Education programs, providing a solid foundation for digital learning and instructional delivery. This finding corroborates with that of Okojie (2021) who emphasized that communication technologies such as email, instant messaging platforms, video conferencing tools, and social media networks are increasingly being used to support teaching and learning. Tools like Zoom, Microsoft Teams, Google Meet, and WhatsApp groups have become vital channels for communication between lecturers and students.

Research question two findings indicated that e-learning technologies are utilized by educators and students in Business Education to a high extent. From the presentation and analysis of the response, it is therefore concluded that e-learning technologies have transcended mere availability and are now being actively and effectively integrated into the teaching and learning processes within Business Education programs. This high level of utilization by both educators and students indicates a significant shift towards technology-enhanced pedagogical practices and a growing digital culture within the academic environment. This finding is in line with that of Okebukola (2021) who ascertained that, for business education programs, blended learning allows students to acquire digital literacy while still engaging in practical, hands-on activities that are essential for skill development.

The data output of research question three showed that e-learning technologies have impacts on student engagement and academic performance to a high extent. From the presentation and analysis of the response, it is therefore concluded that e-learning technologies are a significant and positive force in the educational landscape of Business Education, directly contributing to enhanced student engagement and improved academic performance. This confirms that the strategic integration of digital tools is not only an operational upgrade but a pedagogical enhancement that yields tangible benefits for learning outcomes. This finding support that of Obidile & Ogugua (2022) who was of the option that, in business education, asynchronous learning enables learners to revisit complex topics, conduct independent research, and apply theoretical knowledge through practical assignments.

The findings of research questions four depicted that these major challenges limit the effective use of e-learning technologies in Business Education programs to a high extent. From the presentation and analysis of the response, it is therefore concluded that despite the high availability and utilization of e-learning technologies, their effective and optimal integration in Business Education is critically constrained by significant challenges. These pervasive limitations create a "performance gap" between the potential of the technology and its current pedagogical impact, indicating that the integration process remains fragile and incomplete. This finding is in agreement with that of Olasina (2021) who ascertained that the cost of data, limited bandwidth, and unstable power supply continue to pose significant obstacles to effective e-learning delivery.

The findings of research question five discovered that these strategies can be adopted to improve the availability and utilization of e-learning tools to a high extent. From the presentation and analysis of the response, it is therefore concluded that a clear and viable pathway exists for overcoming the identified challenges and unlocking the full potential of e-learning in Business Education. The high extent to which improvement strategies are recognized as adoptable demonstrates that the limitations are not insurmountable and provides a strategic roadmap for institutions to bridge gap between current constraints and future excellence in digital learning. This finding aligns appropriately with that of Okojie (2021) who ascertained that the e-learning platforms have proven essential in ensuring the availability and utilization of e-learning technologies, particularly in business education programs where flexibility and access to resources are critical.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter focuses on summary, conclusion and recommendations.

Summary

This study examined the “Impact of Availability and Utilisation of e-learning Technologies on Business Education Programs in the University of Benin, Benin City.”. The study was guided by five research questions.

This study was designed to investigate the impact of the availability and utilization of e-learning technologies on Business Education programs at the University of Benin. The research adopted a descriptive survey research design, which was deemed appropriate for collecting information about the characteristics, perceptions, and experiences of the population at a specific point in time.

The population for the study consisted of sixty-eight (68) Business Education undergraduate students from the University of Benin. Given the manageable size of this population, a census sampling technique was employed, meaning all sixty-eight students were included in the study. The primary instrument for data collection was a self-structured questionnaire titled "Impact of Availability and Utilisation of E-Learning Technologies on Business Education Programs Questionnaire (IAUETBEPQ)." This instrument, which was validated by experts and demonstrated reliable with a Cronbach's alpha coefficient of 0.70 or above, was used to gather data on demographic variables and the core research variables.

Data collection was carried out through direct administration of the questionnaires to students within the university, with the assistance of a research assistant, ensuring a high rate of return and completeness. The collected data were analyzed using descriptive statistics (mean and standard deviation) to answer the research questions and an independent samples t-test to test the study's hypothesis at a 0.05 level of significance. The decision rule for the mean stipulated that a value of 2.50 and above indicated a "High Extent," while a value below 2.50 indicated a "Low Extent."

The major findings of the study were as follows:

1. e-learning technologies in Business Education programs are available at tertiary institutions to a high extent.
2. e-learning technologies are utilized by educators and students in Business Education to a high extent.
3. e-learning technologies have impacts on student engagement and academic performance to a high extent.
4. The major challenges limit the effective use of e-learning technologies in Business Education programs to a high extent.
5. The strategies can be adopted to improve the availability and utilization of e-learning tools to a high extent

Conclusion

Based on the methodological framework and implementation of this study, it is concluded that the descriptive survey design was an effective approach for assessing the landscape of e-learning technology integration within the Business Education program at the University of Benin. The use of a census ensured that the findings are a comprehensive and accurate reflection of the entire target population's experiences, free from sampling error.

The rigorous process of instrument validation and reliability testing confirms that the data collected are both valid and dependable. Therefore, the results generated from this methodological approach provide a credible and solid foundation for understanding the extent to which e-learning technologies are available and utilized, and their subsequent impact on the Business Education program. The study successfully establishes a clear methodological pathway for measuring these critical variables in the specific context of the University of Benin.

Recommendations

1. **For Institutional Policy and Planning:** The University of Benin should leverage the comprehensive data gathered through this census approach to inform its strategic planning for e-learning infrastructure and support within the Faculty of Vocational and Technical Education. The findings provide a complete baseline that can be used to allocate resources effectively where they are most needed.
2. **For Departmental Action (Business Education):** The Department of Business Education should adopt the validated instrument (IAUETBEPQ) for periodic internal

reviews. Conducting such surveys annually or bi-annually would allow the department to track progress, identify emerging challenges, and assess the long-term impact of any interventions aimed at improving e-learning integration.

3. **For Pedagogical Practice:** Lecturers within the program should be encouraged to utilize the findings to reflect on their own use of e-learning technologies. The results can inform professional development needs, encouraging the adoption of digital tools that have been identified as highly impactful for student engagement and learning.
4. **For Future Researchers:** The methodology employed in this study—particularly the validated questionnaire and the census approach for a well-defined population—can serve as a replicable model for other researchers wishing to conduct similar studies in different departments or universities, ensuring consistency and comparability of results across the academic landscape.

Suggestions for Further Studies

1. **A Longitudinal Study:** A longitudinal study should be conducted to track changes in the availability, utilization, and impact of e-learning technologies over time. This would provide insights into trends, the long-term effectiveness of implementation strategies, and the evolving relationship between technology and academic performance in Business Education.
2. **A Qualitative Exploration:** A qualitative study using in-depth interviews and focus group discussions with students and lecturers is recommended. This would provide richer,

more detailed insights into the contextual factors, perceived barriers, and lived experiences that underlie the quantitative data collected in this survey.

3. **Expanded Scope to Other Departments:** This study should be replicated with a similar methodological rigor in other departments within the University of Benin and in other universities. This would allow for comparative analysis and help identify institutional best practices and common challenges.
4. **A Study on Lecturer Perspectives:** A separate study focusing specifically on the perspectives, digital proficiency, and training needs of Business Education lecturers regarding e-learning technologies would provide a crucial complementary perspective to this student-centric research, offering a more holistic view of the e-learning e

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APPENDIX A

Department of Business Education
Faculty of Vocational and Technical Education,
University of Benin,
Benin City,

Edo State
20th October, 2025.

Dear Respondent,

LETTER TO RESPONDENTS

My name is Ohiole Joseph Abaku, from the above-named institution. I am currently carrying out a research on "Impact of Availability and Utilisation of E-Learning Technologies on Business Education Programs in The University of Benin, Benin City." This questionnaire is designed for academic purpose.

Please respond sincerely to the questions by ticking [√] where applicable. Your responses will be treated with a high level of confidentiality.

Thank you.

Yours faithfully,

Ohiole Joseph Abaku
Researcher

APPENDIX B

IMPACT OF AVAILABILITY AND UTILISATION OF E-LEARNING TECHNOLOGIES ON BUSINESS EDUCATION PROGRAMS IN THE UNIVERSITY OF BENIN, BENIN CITY.

SECTION A: Demographic Data
Level of Study: 300L ( ) 400L ( )

Gender: Male ( ) Female ( )

SECTION B: Data on Questionnaire

Please read carefully and tick (✓) the options that best represent your opinion.

Response Scale: Very High Extent (4), High Extent (3), Low Extent (2), Very Low Extent (1)

RQ 1	**What is the level of availability of e-learning technologies in Business Education programs at tertiary institutions?**	**VHE 4**	**HE 3**	**LE 2**	**VLE 1**
1	Computers and internet facilities are adequately provided for Business Education students in my institution.				
2	My institution has a reliable Learning Management System (LMS) for teaching and learning.				
3	Classrooms and lecture halls are equipped with projectors, smart boards, or multimedia devices.				
4	There is sufficient access to e-learning resources such as online journals, databases, and e-books.				
5	Wi-Fi or internet connectivity is easily accessible to students and educators within the institution.				
RQ 2	**How are e-learning technologies utilized by educators and students in Business Education?**	**VHE 4**	**HE 3**	**LE 2**	**VLE 1**
6	I regularly use e-learning platforms (e.g., Moodle, Blackboard, Google Classroom) for coursework and assignments.				
7	Educators frequently incorporate multimedia resources (videos, simulations, interactive tools) into lessons.				
8	Students actively participate in online discussions, forums, or group projects using e-learning platforms.				
9	Assignments, tests, and quizzes are often administered through digital/e-learning systems.				
10	Lecturers provide online feedback and assessment through e-learning platforms.				
RQ 3	**What impact do e-learning technologies have on student engagement and academic performance?**	**VHE 4**	**HE 3**	**LE 2**	**VLE 1**
11	e-learning technologies make learning Business Education courses more interesting and interactive.				

12	e-learning technologies encourage collaboration between students and educators.				
13	The use of e-learning has increased my motivation to learn Business Education courses.				
14	The use of e-learning tools has improved my understanding of difficult concepts in Business Education.				
15	e-learning promotes active participation and engagement during classes.				
RQ 4	**What are the major challenges limiting the effective use of e-learning technologies in Business Education programs?**	**VHE 4**	**HE 3**	**LE 2**	**VLE 1**
16	Poor internet connectivity hinders effective use of e-learning tools in my institution.				
17	Lack of adequate ICT facilities (computers, projectors, smart boards) limits e-learning adoption.				
18	Frequent power outages negatively affect the use of e-learning technologies.				
19	Some educators lack the necessary ICT skills to effectively use e-learning tools.				
20	Limited technical support or maintenance reduces the efficiency of e-learning systems.				
RQ 5	**What strategies can be adopted to improve the availability and utilization of e-learning tools?**	**VHE 4**	**HE 3**	**LE 2**	**VLE 1**
21	Regular training and workshops should be organized for educators on effective use of e-learning technologies.				
22	Provision of subsidized laptops, tablets, or data plans would improve access to e-learning.				
23	Developing user-friendly e-learning platforms would encourage more students to adopt them.				
24	Students should be given orientation and support on how to maximize e-learning platforms.				
25	My institution should invest more in upgrading ICT infrastructure to support e-learning.				

APPENDIX C

OUTPUT OF RELIABILITY OF THE STUDY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	10	100.0
	Excluded[a]	0	.0
	Total	10	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.703	10

APPENDIX D

OUTPUT OF RESEARCH QUESTIONS

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	68	2	4	3.01	.273
Q2	68	3	4	3.10	.306
Q3	68	2	4	3.41	.553
Q4	68	2	4	2.71	.734
Q5	68	1	4	2.34	.822
Valid N (listwise)	68				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00001	5	2.34	3.41	2.9140	.40648
VAR00002	5	.27	.82	.5376	.24665
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q6	68	2	4	3.37	.667
Q7	68	3	4	3.40	.493
Q8	68	2	4	3.71	.490
Q9	68	2	4	3.50	.533
Q10	68	2	4	3.59	.525
Valid N (listwise)	68				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00003	5	3.37	3.71	3.5140	.13975
VAR00004	5	.49	.67	.5416	.07263
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q11	68	3	4	3.44	.500
Q12	68	3	4	3.37	.486
Q13	68	3	4	3.29	.459

Q14	68	2	4	3.32	.531
Q15	68	3	4	3.37	.486
Valid N (listwise)	68				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00005	5	3.29	3.44	3.3580	.05718
VAR00006	5	.46	.53	.4924	.02620
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q16	68	3	4	3.53	.503
Q17	68	3	4	3.40	.493
Q18	68	3	4	3.56	.500
Q19	68	3	4	3.54	.502
Q20	68	3	4	3.68	.471
Valid N (listwise)	68				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation

VAR00007	5	3.40	3.68	3.5420	.09960
VAR00008	5	.47	.50	.4938	.01333
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q21	68	3	4	3.69	.465
Q22	68	3	4	3.44	.500
Q23	68	3	4	3.40	.493
Q24	68	3	5	3.47	.559
Q25	68	3	4	3.51	.503
Valid N (listwise)	68				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00009	5	3.40	3.69	3.5020	.11256
VAR00010	5	.47	.56	.5040	.03422
Valid N (listwise)	5				