ASSESSMENT OF AVAILABILITY AND UTILIZATION OF E-LEARNING TECHNOLOGIES IN ACADEMIC PERFORMANCE OF BUSINESS EDUCATION STUDENTS IN THE UNIVERSITY OF BENIN

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NOVEMBER 2025

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A RESEARCH STUDY SUBMITTED TO THE DEPARTMENT OF BUSINESS EDUCATION, FACULTY OF VOCATIONAL AND TECHNICAL EDUCATION, UNIVERSITY OF BENIN, BENIN CITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF B.Sc (Ed) DEGREE IN BUSINESS EDUCATION

NOVEMBER 2025

APPROVAL PAGE

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DEDICATION

This work is dedicated to God Almighty for His Love, care, grace, wisdom and tender mercy.

ACKNOWLEDGEMENTS

The researcher sincerely appreciates his project supervisor, Dr.(Mrs.) Ihensekhien, whose motivation and thoroughness gave this study a solid foundation. Furthermore, the researcher thanks him for his constant support, kindness, concern, and exceptional guidance throughout the research.

In addition, the researcher acknowledges the dedication and support of his hardworking Project Coordinator Dr. (Mrs.) L. E. Oshio for her moral support and assistance.

The researcher also extends his heartfelt gratitude to his parents, Mr. and Mrs. Eshiokhai, for their unwavering support, steadfast prayers, love, and financial assistance throughout the duration of this programme.

Lastly, the researcher wishes to thank his siblings Blessing, Happy, Faith, Glory, Godsent and other family members and friends for their continuous support. Much love to you all.

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ABSTRACT

This study examined the “Assessment of the Availability and Utilization of E-learning Technology in Academic Performance of Business Education Students in University of Benin”. The study was guided by six research questions.

This study was designed to assess of the availability and utilization of e-learning technology in academic performance of Business Education Students in University of Benin. The research adopted a descriptive survey research design, which was deemed appropriate for collecting information about the characteristics and perceptions of the population at a specific point in time.

The population for the study consisted of sixty-eight (68) 300- and 400-level Business Education students. Due to the manageable size of this population, a census sampling technique was employed, resulting in a final sample of thirty (30) students who participated in the study. The primary instrument for data collection was a self-structured questionnaire titled "Assessment of Availability and Utilization of E-learning Technology in Academic Performance of Business Education Students Questionnaire (AAUETEAPBEQ)." It was segmented into two (2) sections. Section A consisted of questions on the demographic characteristics of respondents such as gender and level of study while Section B contained of 30 question items in which items were raised from each research questions. The instrument for data collection was based on face validity by the researcher's supervisor and two experts from the Department of Business Education ,Faculty of Vocational and Technical Education,University of Benin, Benin City.

The findings revealed that the availability and effective utilization of e-learning technologies such as virtual learning platforms, learning management systems (LMS), online assessment tools, educational video platforms, and collaborative tools (e.g., Zoom, Google Classroom) significantly influence the academic performance of Business Education students in the University of Benin. From the findings of the study, it was concluded that students who actively engage with these e-learning technologies tend to perform better academically due to improved access to resources, flexibility in learning, and enhanced interaction with course content.

CHAPTER ONE

INTRODUCTION

Background to the Study

Business education refers to the structured learning and training that equips individuals with the knowledge, skills, and competencies needed to operate effectively in commercial and organizational environments. It focuses on developing practical abilities in areas such as leadership, communication, problem-solving, financial literacy, and strategic thinking, preparing students for careers in business or entrepreneurship.

According to Amuchie and Matsayi (2018) business education is an 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 that business offers.

In other words, business education teaches knowledge and competencies required in business.

According to Chigozie Nwanaka (2023), Business Education is "an educational program which involves acquisition of skills, knowledge and competencies which makes the recipient/beneficiary proficient". This definition underscores the comprehensive nature of Business Education, emphasizing its role in developing proficiency across various business domains.

Business education is considered as the pedagogical knowledge and business competencies necessary for teaching business attitude, concept, skills and knowledge.

This could be for personal or vocational usage or career as an administrator, manager or teacher. Business education is seen as a programme that has promoted skills which enable an individual to function effectively and efficiently, as an employee, or employer.

In Nigeria, business education is recognized as an integral part of vocational education, emphasizing the acquisition of practical skills, attitudes, and knowledge related to various occupations in the economy and social life.

The Federal Government of Nigeria has reaffirmed its commitment to strengthening business education by establishing institutions like the Chartered Institute of Business Education and enhancing the role of the National Business and Technical Examination Board (NABTEB) .In summary, business education serves as a crucial foundation for individual and national development, providing the necessary tools for effective participation in the business world.E-learning is a method of delivering educational content through electronic technologies, enabling learning to occur outside traditional classroom settings. It encompasses a variety of digital tools and platforms, including online courses, virtual classrooms, video lectures, and interactive quizzes. E-learning can be synchronous (real-time) or asynchronous (self-paced), offering flexibility to learners.

E-learning facilities refer to the technological resources and digital infrastructure that support teaching and learning through electronic means. These facilities include platforms that allow lecturers to organize course materials, conduct assessments, and track student progress in a centralized online space. Through tools like learning

management systems, educators can share lecture notes, videos, assignments, and quizzes, all while maintaining communication with students.

Additionally, video conferencing applications enable real time interaction during virtual classes, while recorded lectures and digital content provide students with flexible access to learning materials. These facilities also enhance engagement through interactive elements like online quizzes and discussion boards. Furthermore, strong internet connectivity, access to digital devices, and reliable technical support are key parts of the e-learning environment. These resources help ensure that both students and lecturers can effectively participate in online education without unnecessary disruptions.

Ochefu(2024),he emphasized the transformative nature of e-learning in a 2024 lecture. He described e-learning as "a transformative tool that benefits all stakeholders, fostering innovation and inclusivity in education," and highlighted that "blended e-learning combines the strengths of traditional and digital education, making it a powerful approach to meet the evolving needs of all stakeholders in academia" .

If incorporated into a business education program, e-learning could help students, instructors, and other business education stakeholders in the following ways:

- To promote professionalism in business education, make information accessible using the newest technologies.
- Enhance the creation of standards through innovative curriculum design and development that will establish suitable instructional materials and human resources for efficient teaching and learning.

- Encourage students to participate in the learning process and acquire skills that will benefit them in both the social and professional spheres. It encourages instructors and students to conduct research in order to gain more understanding about general education, business education, and information and communication technology.

Statement of the Problem

The world is technologically getting advanced. It is sometimes referred to as a global village. The reason for this assertion is attributed to the influence of information and communication technology. Pedagogic application of ICT involves effective learning with the aid of computer and other information technologies serve as learning aids, which play complementary roles in teaching and learning situations. Technologies such as e-learning necessitate and facilitate learning.

E-learning technologies help business education students perform better by making learning more flexible, interactive, and accessible. Students can study anytime, anywhere, and at their own pace. Online tools like videos, quizzes, and business simulations make learning more engaging and practical. E-learning also makes it easier for students to communicate with teachers and classmates, get feedback quickly, and access a wide range of learning resources. All of these improve their understanding, skills, and academic results.

The use of new methods promotes learning at a distance, and on one's own and pace possible. Modeling, simulation, use of data base, guided instruction, closed world exploration results, in changes in terms of teaching strategy, instructional content, role of

the teachers and context of the curricular is made obvious and inevitable. Furthermore, utilization of e-learning tools and technologies enhances motivation, help recall previous learning, and provide new instructional stimulus for the learners.However, there is dearth of enough e-learning tools and technologies that are required for teaching and learning. In addition, many teachers and students do not have the required skills and competency in the utilization of e-learning for impacting business education students.

Purpose of the Study

The main purpose of this study is to investigate the availability and utilization of e-learning technologies in academic performance of business education students. Specifically, the study will determine:

1. The types of E-learning technologies available.
2. The extent to which e-learning technologies are available to students for use in business education.
3. The extent to which e-learning technologies are utilized by students in business education.
4. The major problems and constraints against the use of e-learning technologies for pedagogical application in business education.
5. The strategies for improving the availability of e-learning technologies for teaching and learning of business education.
6. The strategies for improving the utilization of e-learning technologies in business education.

Research Questions

The following research questions were raised to guide the study:

1. What are the types of e learning technologies available?
2. To what extent are e-learning technologies available to students in business education?
3. To what extent are e-learning technologies utilized by business education students?
4. What are the major constraints against the use of e-learning technologies in business education?
5. What are the strategies for improving the availability of e-learning technologies for business education?
6. What are the strategies for improving the utilization of e-learning technologies for business education students?

Hypothesis

1) The null hypothesis was formulated and tested at 0.05 level of significance.
2) There is no significant difference between male and female Business Education students at the University of Benin in the availability and utilization of e-learning technology for academic performance.

Significance of the Study

The findings of this research, when shared through reputable academic platforms, will be valuable to business education students, lecturers, university administrators, and other education stakeholders. Specifically,business education students in the University

of Benin will benefit through improved access to e-learning technologies that offer personalized and interactive learning experiences. These tools can adapt to individual learning styles and pace, making complex business education concepts easier to understand. E-learning technologies that provide instant feedback and support will enable students to identify their academic weaknesses early and work towards improvement. Their use will also expose students to modern digital tools, helping them develop essential skills needed in today's tech driven business world.

Lecturers will gain insights into how the availability and effective use of e-learning tools such as learning management systems, automated grading software, and virtual tutors can enhance their teaching strategies. These technologies reduce manual tasks, allowing lecturers to dedicate more time to mentorship and meaningful engagement with students. AI powered analytics embedded in these systems can help track student progress and support targeted interventions where needed. Additionally, tools like content creation software and virtual assistants allow lecturers to tailor course content to different learning preferences, enhancing the overall educational experience and promoting the integration of current technological innovations in teaching.

Furthermore, university administrators can use the results of this study to better understand how investing in and supporting the use of e-learning technologies can improve teaching quality and student academic outcomes in the Business Education programme.This study is significant as it provides valuable insights into how the availability and utilization of e-learning technologies can impact the academic

performance of Business Education students at the University of Benin. With the use of digital platforms like Learning Management Systems (LMS), performance monitoring tools, and automated scheduling systems, university administrators will be able to analyze students academic progress, allocate resources more efficiently, and improve instructional methods. These technologies can also help reduce operational costs by streamlining administrative processes such as student support, course scheduling, and admissions. Ultimately, this research will assist university authorities in making data-driven decisions to enhance institutional efficiency and educational competitiveness.

Furthermore, employers and industry stakeholders will benefit by understanding how e-learning technologies equip Business Education graduates with relevant digital and professional skills. Integrating such tools into academic programs ensures that students are not only grounded in business knowledge but are also proficient in the use of technology, making them more employable and industry ready. These competencies align with current workplace demands, supporting innovation and improved productivity.

Lastly, this study will contribute to academic research by offering evidence on how e-learning tools influence learning outcomes. It will serve as a foundation for further investigations into e-learning's role across different disciplines and educational contexts, while also encouraging new studies into its broader application and effectiveness in higher education.

Scope of the Study

This study focuses on assessing the availability and utilization of e-learning technologies and their impact on the academic performance of business education students in university of Benin. It will be restricted to selected students offering Business Education programs in university of Benin. The study will examine various e-learning tools such as Learning Management Systems (LMS), online course platforms, virtual classrooms, and multimedia instructional resources.The population includes undergraduate Business Education students and their lecturers. The study will analyze the extent to which these technologies are accessible, the frequency and manner of their usage, and how these factors influence students' academic outcomes. It will not cover students outside the Business Education discipline without structured e-learning support systems. The time frame for data collection and analysis will be limited to the current academic session.

CHAPTER TWO

LITERATURE REVIEW

This chapter presents a review of the relevant literature related to the study. The discussion is organized and structured under the following subheadings:

- Concept of E-learning Technologies
- Concept of Academic Performance
- Overview of Business Education
- Availability of E-learning Technologies in University of Benin
- Utilization of E-learning Technologies by Business Education Students
- Impact of E-learning Technologies on Academic Performance
- Teachers' Role in the Use of E-learning Technologies
- Challenges in the Use of E-learning Technologies
- Strategies for Enhancing the Use of E-learning Technologies
- Review of Related Empirical Literature
- Summary of Reviewed Literature

Concept of E-Learning Technologies

E-learning technologies refer to digital tools, platforms, and systems designed to support teaching and learning through electronic media and the internet. They enable course delivery, interaction, assessment, personalization, and analytics in virtual or blended learning environments. According to Fabriz et al. (2021),he defined e-learning as using information and communication technologies (ICT) to enable access to educational

resources and support both synchronous and asynchronous learning anywhere over the internet.

Sangrà, Vlachopoulos & Cabrera (2021) defined e-learning as electronically supported learning,a systematic approach delivered via computers and communication tools including internet, email, forums, and collaborative software.

E-learning technologies refer to the digital tools, platforms, and systems that facilitate the creation, delivery, management, and evaluation of learning through electronic means. These technologies allow educators and learners to interact and engage with content, assignments, and assessments remotely via computers, smartphones, or other connected devices. E-learning eliminates geographical and time barriers, making education more accessible and flexible.

In a broader sense, e-learning technologies support various instructional approaches such as synchronous (real-time), asynchronous (self-paced), blended (a mix of online and face-to-face), and mobile learning.

Abdelfattah (2023) defines e-learning as the delivery of educational content through digital technologies", enabling flexible, scalable instruction that can reach diverse populations across geographic and social boundaries.

Evolution of E-Learning Technologies

E-learning technologies have undergone significant transformation over the decades, evolving from basic computer-based instruction to highly interactive, intelligent, and personalized learning ecosystems. In the early stages between the 1960s and 1980s, the

focus was on standalone computer programs like CBTs, which offered linear and static learning experiences. These systems lacked interactivity and were primarily used in corporate or military settings. One of the most notable innovations during this time was PLATO, which introduced foundational concepts like online forums and learning modules, far ahead of its time.

As internet connectivity expanded during the 1990s and 2000s, the shift toward web-based learning began. Learning Management Systems emerged, enabling institutions to deliver, track, and manage educational content online. Asynchronous tools such as email and discussion boards allowed for more flexible communication between instructors and students. Platforms like Blackboard and Moodle became key players, standardizing the way content was organized and delivered. With the advent of Web 2.0 in the mid-2000s, e-learning became more dynamic and social. Tools that encouraged interaction such as blogs, wikis, and forums,enabled collaborative learning and user-generated content. Social media platforms also began to play a role in education, with educators and learners using YouTube for tutorials, Twitter for academic discussions, and Facebook for study groups. The pedagogical shift moved toward learner-centered designs, emphasizing engagement, peer learning, and autonomy.

From 2016 onward, modern e-learning has been shaped by rapid technological advancements. AI driven platforms now analyze learner behavior to tailor content and pacing, making education more personalized and efficient. The rise of MOOCs made quality education more accessible globally, breaking traditional barriers of cost and

geography. Immersive technologies like AR and VR introduced experiential learning opportunities, while gamification strategies increased motivation and retention. Mobile learning allowed for on-the-go access, aligning with the habits of digital-native learners.

The COVID-19 pandemic acted as a major inflection point, forcing rapid adoption of online learning solutions across all educational levels. Institutions had to adapt quickly, leading to a broader acceptance of e-learning as a legitimate and often preferable alternative to traditional methods. The current landscape continues to evolve, with hybrid learning models, real-time collaboration tools, and advanced data analytics becoming central to modern education strategies.

Types of E-learning Technologies

Learning Management Systems (LMS)

A Learning Management System (LMS) is a digital platform or software used to design, deliver, and manage educational content. It enables instructors to structure lessons, upload multimedia materials, and provide learning objectives while giving students access to personalized content across various devices. Through tools like assessments, grading systems, and performance tracking, instructors can monitor student progress and provide timely feedback. An LMS also supports communication between educators and learners through features like messaging, announcements, and discussion forums. This makes it easier to collaborate, stay engaged, and identify areas for improvement. Examples of commonly used LMS platforms include Moodle, Canvas, Blackboard, and Google Classroom.

Video Conferencing Tools

Video conferencing tools in e-learning are essential technologies that support real-time, face-to-face interaction between instructors and learners, regardless of physical distance. These tools create a virtual classroom environment where both parties can engage in synchronous communication, enhancing the overall learning experience by fostering collaboration, active participation, and accessibility.

They simulate the dynamics of a physical classroom through features that allow users to see and hear each other, promoting social connection and immediate feedback. Visual demonstrations and explanations become more effective as presenters can display their screens, making complex ideas easier to understand and more interactive.

Additionally, these tools support collaborative learning by enabling smaller group discussions within the session, helping learners to engage more deeply with the content and with each other. Learners can also revisit sessions later through recordings, while in-session chat allows for simultaneous interaction without interrupting the flow of teaching. This flexibility and inclusivity contribute significantly to learner engagement and comprehension in an online setting.

Massive Open Online Courses (MOOCs)

Massive Open Online Courses (MOOCs) are digital learning platforms that provide widespread access to structured educational content, often created by universities or professional institutions. These courses are designed to accommodate a large number of participants at once, making education more inclusive and accessible across the globe.

Learners engage with materials such as video lectures, readings, and assignments entirely online, allowing them to study at their own pace from any location.

MOOCs also promote a sense of community by enabling interaction among learners through online discussion forums and collaborative activities, despite the scale of enrollment. Participants often have the opportunity to receive certificates upon successful completion, which serve as evidence of their acquired skills and can enhance their professional profiles. Platforms like Coursera, edX, Udemy, and FutureLearn are examples of MOOCs that have helped bridge the gap between learners and world-class education.

Relevance of E-Learning Technologies to Higher Education

E-learning technologies continue to redefine higher education by not only supporting core functions like accessibility, flexibility, and scalability but also by enabling a more holistic and responsive educational ecosystem. Recent research highlights that their integration has moved beyond mere content delivery into realms such as predictive analytics, artificial intelligence (AI), immersive learning environments, and responsible data use.

A major development has been the use of generative AI to support both teaching and learning. AI enhanced platforms now interpret students' emotional and cognitive engagement, allowing educators to adapt their teaching strategies in real time. This goes beyond static personalization,offering dynamically evolving learning paths based on behavioral patterns and performance analytics, as shown in studies by Yan, Maldonado,

and Gašević (2023). These platforms don't just tailor instruction; they also help identify subtle indicators of learner fatigue, disengagement, or confusion, enabling earlier and more effective interventions.

Moreover, the convergence of technologies such as virtual and augmented reality has begun to transform learning spaces. Especially in STEM, medicine, and technical fields, immersive simulations help students build spatial understanding and procedural fluency in ways that traditional instruction cannot. Lampropoulos et al. (2023) emphasized how augmented reality, when aligned with gamified strategies, significantly enhances motivation and content retention.

The evolving nature of the global job market also puts pressure on higher education to equip students with practical and transferable skills. E-learning platforms are increasingly being embedded with collaborative tools, peer review features, and project-based assessment methods. However, research from Australia's 2023 employer satisfaction survey suggests that purely online graduates may still lag behind in interpersonal and collaborative competencies unless the platforms are deliberately designed to simulate real-world team-based tasks.

Institutional uptake of e-learning is also driven by strategic goals such as global outreach and life-long learning. Modular and micro-credential models, supported by flexible online infrastructure, are enabling institutions to serve not only traditional undergraduates but also mid-career professionals and adult learners. These models are

often paired with AI to assess competency and progression in non-linear, skill-based programs, offering a more personalized and relevant educational experience.

In parallel, learning analytics has become more sophisticated. Instead of simply tracking logins or quiz scores, modern systems analyze discourse in discussion forums, clickstream data, and even tone in written submissions to create actionable insights. These are not only used to enhance learner performance but also to inform curriculum design and teaching effectiveness, making higher education more responsive and data-informed.

Crucially, the rise of powerful technologies has raised ethical considerations. Institutions are now expected to implement Responsible AI principles,ensuring transparency, bias mitigation, and student privacy in all analytics and AI driven systems. Morales Tirado et al. (2024) stress the need for accountability structures and co design practices that involve educators and learners in the development and deployment of digital tools.

Ultimately, the relevance of e-learning technologies is no longer confined to convenience or cost effectiveness. They are reshaping pedagogy itself, enabling deeper engagement, broader access, and a shift toward lifelong, personalized, and data informed education while simultaneously demanding new ethical frameworks and faculty competencies to sustain these advances.

Concept of Academic Performance

Definition of Academic Performance

Academic performance refers to the extent to which a student, teacher, or institution has achieved their short or long term educational goals. It is a measure of a learner's academic achievement in various educational tasks, often assessed through formal evaluations such as tests, assignments, projects, and overall classroom participation.

In simple terms, academic performance indicates how well a student is doing in their studies. It reflects the outcomes of educational efforts and serves as a benchmark for assessing learning progress, effectiveness of teaching, and school quality.

Kumar et al. (2021) define academic performance as "the knowledge that is achieved by the student and that is evaluated through grades assigned by the teacher and/or by educational goals established in a specific period of time." They further emphasize that it encompasses both performance and the learner's affective, cognitive, and behavioral development .

Tran (2021) characterizes academic performance as "the product outcome portrayed by the students as a result of exposure to learning and training," usually expressed through grades or evidence of course work. Tran also frames it in terms of student persistence, considering academic progression toward degree completion as a valid measure.

Common Metrics Used to Measure Academic Performance

Academic performance is a multifaceted concept that encompasses a wide range of indicators designed to measure how well a student is achieving in their educational journey. These indicators, both quantitative and qualitative, serve various purposes,from tracking individual progress to making decisions about advancement, intervention, or recognition. Among the most commonly employed measures is the Grade Point Average (GPA), which offers a cumulative numerical snapshot of a student's academic achievement across all subjects over a specific period. Typically calculated on a 4.0 scale, GPA simplifies a complex academic record into a single value, making it easier for institutions to compare applicants, determine eligibility for honors or scholarships, and evaluate readiness for advanced studies. While convenient and widely used, GPA can sometimes mask disparities in course difficulty, teacher grading practices, or the rigor of individual programs, leading to debates about its fairness and reliability.

Standardized and in class test scores are another cornerstone of academic evaluation. These scores provide detailed insights into a student's mastery of specific subject areas such as mathematics, reading comprehension, writing, science, or language proficiency. Standardized exams like the SAT, ACT, GRE, or national assessment tests are designed to benchmark students' knowledge and skills against a broader population, offering a uniform metric for comparison across schools, regions, or countries. In contrast, classroom exams are tailored to a particular curriculum and provide more immediate feedback on a student's understanding of recently taught content. Test scores play a

critical role not only in admissions and placements but also in guiding curriculum adjustments and educational policy decisions. However, critics argue that overreliance on test scores can narrow the curriculum, increase student stress, and fail to capture higher order thinking or creativity.

Another important dimension of academic performance is course completion rate. This measure focuses on whether students are successfully finishing the courses they enroll in, which serves as an indirect indicator of persistence, motivation, and academic endurance. High completion rates generally reflect strong student engagement and institutional support, whereas low rates may signal challenges such as poor academic preparation, lack of interest, or external life pressures interfering with learning. Completion rates are particularly vital for tracking progress toward graduation and for evaluating the effectiveness of academic programs, especially in higher education and online learning contexts.

Class rank adds a comparative element to the evaluation process by situating a student's performance relative to their peers within the same cohort. This ranking can provide additional context for interpreting GPA, especially in schools with grade inflation or different grading standards. For example, a student with a high GPA in a highly competitive class may rank lower than a peer in a less rigorous environment. While class rank can be a useful differentiator in competitive college admissions, its emphasis on relative rather than absolute performance may inadvertently create unhealthy competition and stress among students.

Complementing these quantitative metrics are qualitative evaluations such as teacher assessments and narrative reports. These forms of evaluation offer a more nuanced picture of a student's academic performance by considering factors that numbers often overlook,such as class participation, creativity, collaboration, critical thinking, and behavioral development. Especially valuable in primary and secondary education, teacher evaluations provide context and depth, revealing how students engage with content, relate to peers, and grow socially and emotionally over time. These insights are essential for forming a holistic understanding of a learner's development and for tailoring instruction to meet diverse needs.

Together, these diverse methods of measuring academic performance provide a more complete and balanced picture of student achievement. Each metric has its strengths and limitations, and their combined use allows educators, institutions, and policymakers to make informed decisions that support both individual student growth and systemic improvement in education. A truly effective assessment strategy is one that integrates these varied approaches, ensuring that academic success is not narrowly defined but is instead reflective of the full range of skills, knowledge, and potential that students bring to their educational experiences.

Factors Influencing Academic Performance

Academic performance is shaped by a dynamic interplay of personal, familial, institutional, and broader environmental elements, each reinforcing or mitigating the others. While cognitive ability and motivation are frequently emphasized, recent research

suggests that emotional intelligence, grit, and resilience are just as crucial. These non cognitive skills enable students to navigate academic challenges, persist through failure, and manage stress factors increasingly recognized as predictive of long term success.

Mental health, once peripheral in academic discussions, has emerged as a central determinant. Rising levels of anxiety, depression, and burnout among students exacerbated by social media use, academic pressure, and post pandemic uncertainties have been linked to decreased concentration, attendance, and academic outcomes. Institutions that provide robust psychological services and foster a culture of openness around mental well being tend to see higher retention and performance rates.

Within the family context, beyond economic resources, the quality of parental engagement matters deeply. Students with parents who communicate high educational expectations, provide encouragement, and model effective coping strategies often exhibit greater academic confidence and goal orientation. However, economic hardship can undermine even the most supportive home environments, highlighting the compounded impact of socioeconomic inequalities.

At the institutional level, the shift toward learner centered teaching has drawn attention to the importance of pedagogical style and classroom climate. Research underscores that when students perceive their instructors as approachable, fair, and invested in their success, they tend to perform better academically. In addition, the integration of technology when guided by sound pedagogy rather than novelty can

deepen understanding and provide timely feedback, thereby supporting continuous improvement.

Social and environmental factors are often overlooked but significantly influential. Belongingness, for instance, has emerged as a critical driver of academic engagement. Students from marginalized or minority backgrounds who do not feel culturally or socially affirmed within academic settings may struggle to perform to their potential, despite having strong individual capabilities. Language proficiency, especially in contexts where instruction is delivered in a second language, also affects comprehension and assessment outcomes.

Furthermore, the digital divide has become increasingly consequential. While access to the internet and digital devices is now considered essential, disparities in digital literacy, how effectively students use these tools for academic purposes can influence learning quality. Technological access alone is insufficient without the skills and support to use it meaningfully.

In short, academic performance is not the product of isolated traits or conditions. It emerges from a complex system of interactions between the learner, their social and familial supports, institutional practices, and the broader cultural and technological landscape. Understanding this interdependence is key for educators and policymakers aiming to create equitable and effective learning environments.

Importance of Academic Performance

Academic performance plays a central role not just in shaping individual futures but also in influencing broader societal outcomes. Beyond the obvious benefits of gaining access to quality education and competitive career paths, consistent academic achievement fosters a mindset geared toward lifelong learning and adaptability. These are qualities essential in today's rapidly evolving world. It instills resilience and perseverance, as students learn to manage time, set goals, and overcome challenges. These habits, formed through academic effort, often translate into personal and professional success later in life.

Moreover, strong academic outcomes serve as a benchmark for educational institutions to refine and enhance their teaching strategies. When students perform well, it can be an indicator of effective instructional practices, curriculum alignment, and supportive learning environments. This feedback loop enables schools and universities to innovate and maintain high standards.

On a societal level, academically successful individuals are more likely to engage in informed decision-making, civic participation, and leadership roles. Their contributions can lead to scientific advances, economic innovation, and more effective public policy. In this way, academic performance is not merely a personal milestone; it is a building block of collective progress and national development.

Overview of Business Education

Meaning of Business Education

Business education refers to the teaching and learning process focused on skills, knowledge, and attitudes necessary for success in the business world. It encompasses a wide range of disciplines including accounting, finance, marketing, management, entrepreneurship, and economics. Business education prepares individuals to effectively operate in commercial and non-commercial sectors by understanding organizational processes, economic systems, and decision-making strategies.

It can be delivered at various levels: secondary, tertiary, and professional, and is often designed to develop both theoretical understanding and practical skills that can be applied in real-life business situations.

For instance, Osiesi et al. (2024) emphasize that modern business education programs must equip students with digital and entrepreneurial competencies, such as proficiency in data analytics, online collaboration tools, and generation of business content skills considered part of the core employability toolkit in today's tech driven job market.

Bolarinwa and Sofolahan (2025) provide a current overview of the Business Education programme in Nigeria, including its objectives, evolving role in the economy, and structural challenges. Their study gives a fresh lens on how business education is being reshaped to meet industry demands and national development goals.

Objectives of Business Education

The primary objective of business education is to equip students with a broad range of essential skills that are crucial for success in both academic and professional settings. These skills include effective communication both verbal and written,along with leadership, critical thinking, decision making, and problem solving abilities. By engaging in collaborative projects, case studies, and presentations, students learn to express their ideas clearly, lead teams with confidence, and analyze complex issues from multiple perspectives. These foundational skills not only enhance individual performance but also foster adaptability and innovation in dynamic business environments.

Business education also serves to prepare individuals for specific vocational pathways. Whether students aim to become entrepreneurs, work in corporate management, or serve in public administration, business education offers them the practical knowledge and hands on experiences needed to thrive. This includes exposure to core business disciplines such as finance, marketing, operations, and human resources. Through internships, simulations, and project-based learning, students gain insights into real world business challenges and develop the confidence to perform in professional roles immediately upon graduation.

A comprehensive understanding of economic principles is another fundamental aim of business education. Students are taught how businesses function within local, national, and global economies. They explore how supply and demand, inflation, taxation, international trade, and government policies influence the operation and success of

businesses. This economic literacy enables them to make informed decisions and understand the broader impact of business activities on society and the economy at large.

In addition to technical and analytical training, business education places a strong emphasis on ethical awareness and social responsibility. Students are encouraged to uphold high moral standards and act with integrity in all business dealings. They learn to recognize ethical dilemmas, evaluate the consequences of business decisions, and prioritize transparency, fairness, and accountability. This focus on ethics ensures that future business leaders are not only competent but also principled and trustworthy.

Business education also seeks to instill an entrepreneurial mindset in learners. Students are encouraged to think creatively, take calculated risks, and identify opportunities for innovation and self-employment. They are guided through the process of developing business plans, securing funding, and managing new ventures, which prepares them to launch and sustain their own enterprises if they choose to pursue entrepreneurship.

Finally, business education aims to foster adaptability, preparing students to navigate the constantly evolving landscape of modern business. With rapid advancements in technology, globalization, and shifts in consumer behavior, it is essential for learners to be flexible, forward thinking, and resilient. Business education ensures that students are not only aware of these changes but are also capable of responding to them proactively, positioning themselves as lifelong learners and leaders in a changing world.

Scope of Business Education

The scope of business education is broad and dynamic, evolving continuously to meet the demands of modern economies and global markets. At its core, it encompasses a range of academic subjects, such as accounting, finance, marketing, management, business law, economics, business communication, and human resource management. These foundational disciplines equip students with theoretical knowledge and practical tools for decision-making, strategic planning, resource allocation, organizational leadership, and regulatory compliance. Emphasis is placed on both quantitative and qualitative aspects, fostering analytical thinking, ethical reasoning, and an understanding of the interconnectivity within business functions.

Beyond traditional academics, professional development plays a critical role. Business education often integrates preparation for professional certifications like CPA (Certified Public Accountant), CFA (Chartered Financial Analyst), and MBA (Master of Business Administration), among others. These credentials not only validate expertise but also enhance employability, leadership opportunities, and global mobility. The curriculum may involve case studies, simulations, internships, and exposure to real world challenges, thereby bridging theory with practice and fostering continuous learning.

Entrepreneurship training is another vital component, emphasizing innovation, resilience, and strategic risk taking. Students learn how to ideate, validate, and operationalize business concepts. Training often includes writing detailed business plans, understanding startup financing, navigating legal requirements, and pitching ideas to

potential investors. Moreover, it nurtures soft skills like networking, adaptability, and problem-solving, essential for sustaining new ventures in competitive environments.

With the increasing interconnectedness of global economies, global business understanding has become indispensable. Business education now includes comprehensive insights into international trade regulations, foreign exchange markets, global supply chains, and cultural intelligence. This global perspective prepares students to work effectively across borders, adapt to diverse business environments, and engage in strategic partnerships that span countries and continents.

Lastly, the digital transformation of the business landscape has brought digital business education to the forefront. This area covers critical topics such as e commerce infrastructure, digital marketing strategies, search engine optimization, data analytics for decision making, and the use of CRM and ERP systems. It also touches on the importance of cybersecurity in protecting corporate data and ensuring digital trust. As businesses increasingly rely on technology, fluency in digital tools and platforms has become a crucial competency for both managers and entrepreneurs.

Alignment with Technological Advancements

The integration of technology into business education has not only modernized delivery methods but also deeply reshaped the content and competencies expected of graduates. For example, the rise of digital learning platforms has transformed how business knowledge is consumed. Through robust Learning Management Systems (LMS), students now engage with modular content, interactive assessments, recorded lectures,

and peer discussions on demand. This flexibility allows learners across diverse geographies and life situations to access top-tier business education, encouraging lifelong learning and self-paced study.

In parallel, data analytics and business intelligence have become fundamental components of modern curricula. No longer confined to spreadsheets, students now engage with advanced tools like Python, R, Tableau, and Power BI to interpret complex datasets, model scenarios, and inform strategy. The focus is not just on mastering tools, but on building analytical thinking developing the ability to translate raw data into actionable business insights that support performance evaluation, market forecasting, and customer behavior analysis.

The use of simulation and virtual learning environments has added an experiential layer to business education. Students participate in real time decision making exercises, such as managing virtual companies, launching products in simulated markets, or balancing budgets in competitive scenarios. These tools replicate the consequences of strategic choices in controlled settings, offering learners the chance to fail safely and reflect critically. This practical exposure builds confidence, enhances critical thinking, and strengthens collaborative skills in business contexts.

In the realm of e commerce and digital marketing, the focus has shifted toward understanding customer journeys across digital touchpoints. Instruction now includes hands on experience with SEO optimization, content management systems, customer analytics tools, and paid advertising platforms like Google Ads. By exploring algorithm

driven reach and engagement strategies, students learn how to drive business growth through personalized, data informed digital campaigns that respond to rapidly changing consumer behaviors.

The integration of artificial intelligence and automation into coursework underscores how machines are reshaping core business functions. Students explore how chatbots enhance customer service efficiency, how predictive analytics inform inventory management, and how AI driven tools streamline recruitment and talent acquisition. Discussions also address the displacement of human roles, ethical dilemmas in automated decision making, and the necessity of human oversight in high stakes processes.

Understanding and applying remote collaboration tools has become a key competency, especially as hybrid and remote work models dominate global industries. Business education increasingly incorporates platforms like Zoom, Microsoft Teams, Slack, and shared document environments (e.g., Google Workspace) not just for communication, but for project coordination, agile workflows, and cross functional teamwork simulations. Students learn digital etiquette, asynchronous communication strategies, and how to lead and manage distributed teams effectively.

Finally, with technology comes increased exposure to risk, making cybersecurity and ethical technology use a critical area of focus. Business programs now address the principles of data governance, encryption, privacy compliance (such as GDPR), and digital ethics. Students are challenged to consider the societal impact of surveillance capitalism, algorithmic bias, and tech-enabled misinformation. They are taught not only

how to protect digital assets but also how to make technology choices that align with organizational values and stakeholder trust.

Through these technological integrations, business education prepares learners not only to understand and manage current tools but to critically engage with emerging technologies in a way that ensures relevance, adaptability, and ethical leadership in the digital age.

Availability of E-Learning Technologies in Universities

Imasuen and Aibinuono (2024) examined the availability of e-learning facilities for undergraduate students and academic staff within universities in the Benin Metropolis, including University of Benin. They found a moderate level of facility provision such as e-libraries and interactive platforms, but noted significant gaps in infrastructure and technical support. This highlights that while some availability exists, true full availability for optimal learning is still a challenge.

The landscape of e-learning infrastructure in universities continues to evolve rapidly, shaped by both technological innovation and pedagogical shifts. As institutions expand their digital offerings, there's a growing emphasis on creating more cohesive ecosystems where hardware, software, and user experience are seamlessly integrated. This means that infrastructure planning now often includes not just the deployment of tools, but also long-term strategies for interoperability and sustainability.

The University of Benin is also investing in smart technologies that enhance the interactivity of learning spaces. Beyond just having smartboards or projectors, many

institutions are experimenting with AI-powered lecture capture systems that automatically transcribe and tag content for easy retrieval. These systems help in archiving lectures and making them accessible asynchronously, which is particularly beneficial for diverse learning schedules and global student cohorts.

Simultaneously, the distinction between on-campus and off-campus learning environments is becoming increasingly blurred. With the proliferation of mobile first designs and cloud hosted applications, learning is now a continuous activity that can occur across devices, time zones, and physical locations. This has led to the adoption of responsive platforms that adjust content delivery based on the learner's device or bandwidth capacity, improving inclusivity and engagement.

Another growing area is the use of virtual and augmented reality in subject specific training. For example, medical, engineering, and architecture programs are incorporating VR labs and AR simulations that allow students to engage in practical exercises without needing physical equipment. This not only saves costs but also provides a safer and more scalable way to deliver hands-on training.

From an administrative perspective, university of Benin is increasingly leveraging data to inform infrastructure decisions. Real-time dashboards and analytics allow the institution to monitor LMS usage, identify bottlenecks, and proactively address technical or pedagogical challenges. These insights also help in refining course design, identifying student support needs, and improving retention.

Digital inclusion remains a critical consideration, particularly in regions where infrastructure investment is uneven. Institutions are prioritizing the development of lightweight apps and downloadable course packs to ensure that students in areas with limited connectivity can still access learning materials. There's also a noticeable shift toward community based access points, where universities set up satellite learning hubs in remote locations equipped with internet and digital tools.

In terms of governance, the university have begun forming dedicated e-learning committees or digital transformation task forces to oversee infrastructure rollouts, assess emerging technologies, and ensure alignment with academic goals. These groups often work in collaboration with academic departments, IT teams, and external consultants to ensure that investments are both technologically sound and pedagogically effective.

Overall, the move toward digitization in higher education is not just about tool adoption, but about reimagining how education is delivered, accessed, and experienced. Infrastructure, in this context, is a dynamic framework that must continuously adapt to technological advances, student needs, and the broader mission of inclusive, high-quality learning.

Utilization of E-learning Technologies by Business Education Students

Chukwuemeke and Igbinedion (2021) found that although e-learning technologies are increasingly available to Business Education students, their actual utilization remains low. Their study emphasized that factors such as inadequate infrastructure, limited

training, and low digital literacy impede frequent use of e-learning tools which in turn affects students' learning outcomes in Business Education programs.

The integration of e learning technologies in Business Education has significantly reshaped how students access knowledge, engage with peers, and develop career ready skills. For business education students, the use of digital platforms is more than a matter of convenience, it reflects a necessary adaptation to the evolving demands of both academic instruction and the global business environment. These technologies are embedded in their educational routines in ways that align closely with the nature of business studies, which often require both analytical thinking and collaborative work.

The extent to which students utilize e-learning tools varies considerably, shaped by factors such as the structure of their courses, the technological infrastructure available to them, and their own levels of motivation and digital competence. In institutions where courses are delivered fully online or through blended learning models, students tend to rely heavily on digital platforms not only for accessing lectures and submitting assignments but also for attending virtual classes and completing assessments. Even in face to face programs, e learning tools serve as a critical supplement, allowing students to revisit material, prepare for exams, and work on projects outside of the classroom.

Beyond simply using these platforms to meet course requirements, business education students also turn to e learning for broader educational and professional development. Online resources enable them to participate in simulations that mimic real world business environments, explore case studies, and develop data literacy through the

use of tools like Excel, Tableau, or Google Sheets. This not only reinforces theoretical knowledge but also builds the practical skills that employers expect. In addition, students often take advantage of platforms offering micro credentials or certification courses in areas like digital marketing, project management, or financial modeling, seeing them as valuable additions to their CVs.

The digital proficiency among students tends to span a broad spectrum, ranging from those with only foundational skills,such as navigating a learning management system to others who are adept at using advanced analytical tools and collaborative software. These differences often reflect disparities in background, such as access to technology during earlier stages of education or personal exposure to digital environments. Despite the institutional efforts to offer training or orientation, some students still face a steep learning curve, particularly when introduced to new tools or platforms that require more complex interaction.

Student attitudes toward e-learning technologies are similarly diverse. A significant portion of business education students embrace digital learning with enthusiasm, valuing the flexibility it provides in managing their time and balancing academic responsibilities with part time jobs or internships. They appreciate the autonomy and convenience of learning at their own pace and recognize the value of being able to access global learning resources instantly. However, a number of students remain ambivalent while they acknowledge the utility of online tools, they express a preference for traditional classroom dynamics, citing a loss of social interaction and a diminished

sense of engagement in virtual discussions. Some students even report feeling disconnected or less motivated in online environments, particularly when the learning experience is overly asynchronous or lacks interactive components.

In a smaller yet significant group, negative perceptions persist. For these students, navigating e learning platforms can be frustrating or intimidating, especially when they encounter technical problems without sufficient support. Concerns about the credibility and fairness of online assessments, as well as feelings of digital fatigue, contribute to a broader resistance toward e-learning. Such attitudes can hinder participation and negatively affect academic outcomes if not properly addressed through inclusive design and continuous support.

Overall, the utilization of e learning technologies by business education students is a complex and evolving process. While the tools themselves continue to improve, their effectiveness ultimately depends on how well they are integrated into pedagogical strategies, supported by institutions, and embraced by students. Creating a positive and equitable e learning experience requires not only access to technology but also intentional effort to foster digital fluency, engagement, and adaptability within the learning community.

Impact of E-learning Technologies on Academic Performance

E learning technologies continue to evolve, and their influence on academic performance is multifaceted, extending beyond the commonly discussed benefits and drawbacks. A significant dimension is the shift in how knowledge is constructed and

consumed. Unlike traditional classroom environments where learning is linear and structured, e learning fosters a more exploratory and self guided approach. This freedom can empower motivated learners but may leave others behind without proper guidance or scaffolding.

Another important consideration is the psychological impact of continuous screen exposure. Prolonged use of digital devices can contribute to eye strain, fatigue, and reduced attention span, potentially affecting cognitive processing and academic outcomes over time. Similarly, the absence of physical classroom boundaries can blur the line between learning and leisure, creating difficulties in maintaining discipline and routine.

From an instructional standpoint, the transition to e-learning has required a shift in pedagogical strategies. Educators must not only redesign content for digital delivery but also learn to manage virtual classrooms, monitor engagement, and use analytics effectively. This transformation demands ongoing professional development, which may be lacking in under resourced institutions.

Moreover, the anonymity and lack of supervision in online learning can sometimes facilitate academic dishonesty. Cheating on online tests, plagiarism, and reliance on unauthorized aids are more challenging to detect, which can undermine the integrity of assessments and lead to discrepancies in grading and learning outcomes.

There's also the issue of learner autonomy. While some students thrive in self directed environments, others struggle without immediate oversight and structure. E-

learning can widen the gap between high achieving and underperforming students if support mechanisms are not integrated thoughtfully.

E-learning technologies also change the social dynamics of learning. Peer learning, informal conversations, and spontaneous discussion all integral to deeper understanding and motivation are harder to replicate in virtual environments. While discussion forums and breakout rooms offer alternatives, they often lack the immediacy and richness of in person interaction.

Furthermore, cultural and linguistic barriers can be amplified in digital spaces. Instructional materials may not always be culturally inclusive or available in diverse languages, making it harder for certain student populations to engage fully. Likewise, students with disabilities may face additional challenges if digital content and platforms are not designed with accessibility in mind.

Despite these concerns, e learning technologies hold immense potential if implemented thoughtfully. Blended learning models, which combine face to face instruction with online resources, often provide the best of both worlds, allowing flexibility while maintaining structure. Continuous feedback from students and data-driven refinement of platforms can help educators create more effective learning experiences that truly enhance academic performance.

Uwah and Ododo (2022) examined how e-learning tools influenced academic performance among university students and found that the use of these tools significantly

improved students' independent study skills, participation levels, and overall academic outcomes.

Teachers Role in the Use of E-Learning Technologies

E-learning technologies have transformed the educational landscape by offering more flexible, accessible, and student-centered learning environments. However, the effective adoption of e learning especially among business education students is largely dependent on the role played by instructors (teachers). Instructors can either be facilitators of change or barriers to innovation, depending on their attitudes, competence, and willingness to adapt.

Agbo et al. (2024) highlight the critical role teachers play in integrating and utilising e-learning tools. They found that while teachers are becoming more aware of emerging ICT tools, actual use in vocational and technology courses depends on ongoing training, willingness to adapt pedagogic methods, and institutional support. This emphasizes how teacher readiness can significantly influence the effectiveness of e-learning technologies on students' academic performance.

Nweke and Ajikere (2022) found that the effectiveness of e-learning technologies substantially depends on teachers' proficiency in internet usage and their readiness to integrate digital resources into instruction. Their study highlighted that gaps in teacher skills and inadequate support systems impede effective e-learning implementation, suggesting that strengthening teacher competencies is essential for improving academic performance in technology supported learning environments.

Below is a comprehensive discussion on how teachers influence the use of e-learning technologies in business education:

Acting as Facilitators of Digital Learning

Teachers play a central role in embedding e-learning into the classroom environment. When they actively use and demonstrate enthusiasm for digital tools, they set a positive example for students. Their comfort and fluency with platforms like Learning Management Systems, video conferencing, and collaborative tools can demystify technology for learners and encourage its routine use. By integrating these platforms into regular instruction, educators cultivate not only subject understanding but also digital literacy. This, in turn, prepares students for a workforce that increasingly depends on remote communication, digital collaboration, and cloud-based tools.

Providing Technical and Moral Support

Students in business education may struggle with digital adoption due to a lack of foundational computer skills, limited access to reliable technology, or low motivation to engage with online learning independently. Teachers who offer not just technical instructions but also moral encouragement can bridge this gap. Guiding students patiently through digital processes, offering positive reinforcement, and providing flexible support helps build their confidence. Furthermore, when instructors acknowledge the real-world challenges students face, such as data limitations or device constraints, and advocate for equitable solutions, they contribute significantly to sustained student engagement in digital learning.

Curriculum Integration and Innovation

E-learning should not be treated as an add-on but as an integral part of modern pedagogy. Teachers are uniquely positioned to reimagine curriculum design by embedding digital experiences into the learning process. Virtual simulations, online business case analyses, and digital platforms for debates and discussions not only make content more engaging but also mirror real-world business scenarios. Such innovations ensure that the curriculum remains relevant and aligns with current industry practices. Teachers who take the initiative to adapt and customize their content for online delivery create a dynamic and interactive learning environment that resonates with digitally native students.

Challenges in the Use of E-learning Technologies

The challenges in implementing and sustaining e-learning technologies are deeply interconnected with broader educational, social, and psychological factors. One of the more subtle but significant barriers is the lack of a supportive learning culture in digital environments. Unlike traditional classrooms that foster interpersonal relationships and immediate feedback, online platforms often lack mechanisms for building a sense of community. This absence can reduce learner motivation, lead to disengagement, and hinder collaboration. Without peer interaction or visible instructor presence, many students feel isolated, which can impact both academic performance and mental well-being.

Another aspect that complicates the effectiveness of e-learning is the variability in content quality. Not all digital materials are created with pedagogical rigor. Some platforms emphasize flashy visuals or gamification over substance, while others offer poorly structured or outdated information. This inconsistency can cause confusion and dilute the learning experience, particularly when students are expected to navigate these materials independently. Moreover, when content is not aligned with curriculum standards or fails to accommodate different learning styles, students may struggle to meet learning objectives.

The role of parents and guardians, especially in the context of younger learners, also becomes more prominent in e-learning scenarios. Many families, particularly those in low-income or low-literacy households, may lack the time, skills, or resources to support children's digital learning at home. This creates another layer of inequity, where some students receive strong home support while others are left to manage independently, often with limited success.

Moreover, rapid digitalization in education has outpaced the development of comprehensive policies to govern its use. Issues such as data security, ethical use of artificial intelligence in education, digital well-being, and intellectual property remain under-regulated in many regions. This regulatory vacuum can leave educational institutions vulnerable to legal and ethical dilemmas, and it exposes students and educators to potential harm.

Even when technologies are available and accessible, their integration into daily learning routines requires a fundamental shift in pedagogical approach. Many educators, despite being open to innovation, lack continuous professional development opportunities that focus on effective digital pedagogy. Teaching with technology requires more than just platform familiarity, it demands an understanding of online engagement strategies, digital content creation, and assessment design suited for virtual learning. Without these skills, technology becomes a superficial layer rather than a transformative force.

Ultimately, the challenge lies not only in overcoming logistical and technical barriers but also in rethinking how education is delivered, supported, and evaluated in the digital age. Effective e-learning requires sustained investment in human capital, responsive policy frameworks, and inclusive design that prioritizes equity, accessibility, and long-term educational outcomes.

Akinyemi and Adeniran (2020) identified several challenges limiting the effective use of e-learning technologies in Nigerian universities. These include poor internet connectivity, inadequate access to digital devices, lack of ICT skills among both students and lecturers, erratic power supply, and insufficient institutional support. They emphasized that without addressing these barriers, the impact of e-learning on students' academic performance particularly in practical fields like Business Education may remain limited.

Strategies for Enhancing the Use of E-learning Technologies

To further enhance the use of e-learning technologies, university of Benin must also focus on fostering a culture that embraces innovation and continuous improvement. This means not only introducing technology but ensuring its sustained and meaningful integration into teaching and learning practices. A commitment to user-centric development where feedback loops are consistently maintained can lead to more responsive platforms and content that evolve with learners' needs.

Additionally, investing in robust technical infrastructure is non-negotiable. Reliable internet connectivity, up-to-date hardware, and scalable platforms form the backbone of any effective e-learning initiative. Support services such as 24/7 help desks, chatbots for common technical issues, and multilingual support can greatly reduce learner frustration and dropout rates.

Accessibility must also be prioritized. Designing content that adheres to universal design principles ensures inclusivity for learners with disabilities. Captioning, screen-reader compatibility, and adaptive interfaces make education more equitable. Equally important is addressing the digital divide; targeted interventions such as lending devices or partnering with internet service providers can support underserved communities.

Data analytics and learning management system (LMS) insights should be leveraged to track learner progress and personalize learning experiences. These tools can help educators identify struggling students early and adapt instruction accordingly.

Furthermore, gamification elements such as badges, leaderboards, and progress tracking, can boost motivation and engagement.

Collaboration with edtech companies, academic institutions, and non-profit organizations can accelerate innovation and allow for the sharing of resources and expertise. Joint ventures in research and pilot programs can test new technologies in real-world educational settings, providing valuable evidence for scaling successful models.

Finally, it is essential to maintain an ethical approach to technology use. Transparency in data collection, informed consent, and safeguarding student privacy must be central to all digital initiatives. Trust in the system encourages participation and promotes a safer, more supportive online learning environment.

Olumorin et al. (2018) emphasized that to enhance the use of e-learning technologies in University of Benin,, the institution must adopt specific strategies such as regular training and retraining of lecturers and students, integration of ICT tools into the curriculum, provision of reliable internet access on campuses, and adequate funding for ICT development. They also noted that effective policy implementation and technical support systems are crucial for encouraging consistent utilization of e-learning platforms.
According to Adeoye et al. (2020), effective strategies for enhancing e-learning technologies include improving digital infrastructure, training educators on the use of online platforms, and ensuring students have access to affordable internet and devices.
Gautam Yadav (2023),in the paper “Scaling Evidence based Instructional Design Expertise through Large Language Models”, Yadav explores how AI models like GPT-4

can be used to generate instructional materials, design assessments, and support evidence-based design practices in online learning, while emphasizing the necessity of human oversight to ensure quality.

Review of Related Literature

Oluwalola and Omotayo (2024) conducted a study titled "Availability and Utilization of E-Learning Facilities for Management and Business Courses in Universities in Kwara State, Nigeria." The study aimed to investigate the availability and extent of utilization of e-learning facilities in the teaching and learning of management and business courses in selected universities within Kwara State.

Employing a descriptive survey research design, the researchers focused on a population comprising 282 lecturers of management and business courses across universities in Kwara State. A stratified random sampling technique was utilized to select a sample of 100 lecturers for the study.

Data collection was carried out using a structured questionnaire, which was validated by experts and yielded a reliability coefficient of 0.80 through the Cronbach Alpha method. Descriptive statistics, including mean ratings, were used to answer the research questions, while one-way ANOVA was employed to test the hypotheses at a 0.05 level of significance.

The findings revealed that e-learning facilities were moderately available (mean = 96.64) and occasionally utilized (mean = 98.16) for teaching and learning activities in the

selected universities. Furthermore, the study found no statistically significant difference in the availability and utilization of e-learning facilities among the universities studied.

This study complements your current research by providing empirical evidence on the availability and utilization of e-learning technologies in the context of business education in Nigerian universities. While it focuses on Kwara State, the insights gained are valuable for understanding similar challenges and opportunities in other regions, such as Edo State.

Ohiaeri and Okolo (2024) conducted a study titled “Availability and Utilization of E-Learning Technologies for Business Education Programme in Federal Universities in South-East Nigeria.”

This study aimed to investigate the availability and utilization of e-learning technologies in the Business Education programmes of federal universities in Nigeria's South-East region. Employing a descriptive survey research design, the researchers formulated three research questions and corresponding null hypotheses to guide the study. The study's population comprised 50 Business Education lecturers from federal universities in the South-East, and due to the manageable size, the entire population was used without sampling. Data collection was facilitated through a structured questionnaire, which was validated by three experts from the Department of Business and Entrepreneurship Education and the Department of Computer and Science Education at Enugu State University of Science and Technology (ESUT). A reliability coefficient of 0.75 was obtained using Cronbach's alpha. Out of the 50 distributed questionnaires, 48

were correctly filled and returned, yielding a response rate of 96%. The collected data were analyzed using mean and standard deviation for the research questions, while independent t-test statistics were employed to test the hypotheses at a 0.05 level of significance.

Findings from the study revealed that while e-learning technologies were available to a high extent, their utilization by Business Education lecturers was low. The researchers recommended that government and philanthropists should provide relevant e-learning technologies for effective teaching of Business Education courses and that lecturers should be equipped with the latest e-learning technologies to enhance their instructional delivery.

Orim, Idike, and Atah (2024) conducted a study titled “Electronic Learning and Academic Performance of Business Education Students in University of Calabar.” This study aimed to investigate the influence of electronic learning on the academic performance of business education students at the University of Calabar. Employing a survey research design, the researchers formulated three research questions and corresponding null hypotheses to guide the study. The study's population comprised 145 business education students, all of whom participated in the research, negating the need for sampling.

Data collection was facilitated through a structured questionnaire titled "Electronic Learning and Academic Performance Questionnaire (ELAPQ)," which was validated by two experts from the Department of Vocational Education at the University

of Calabar. The collected data were analyzed using mean and standard deviation for the research questions, while independent t-test statistics were employed to test the hypotheses at a 0.05 level of significance.

Findings from the study revealed that the use of internet browsing, email, and PowerPoint presentations significantly influenced the academic performance of business education students. The researchers recommended that students be encouraged to utilize internet resources for academic purposes and that institutions should integrate electronic learning tools to enhance teaching and learning outcomes..

Gbenga and Umoru (2024) conducted a study titled “Utilization of E-learning Resources for Teaching and Learning Business Education Courses in South-West Universities, Nigeria.” This study aimed to assess the utilization of e-learning resources for teaching and learning business education courses in South-West universities of Nigeria. Employing a descriptive survey research design, the researchers formulated two research questions and two null hypotheses to guide the study. The study's sample comprised 41 business education lecturers and 316 final-year business education students from South-West Nigerian universities, totaling 357 respondents selected using simple random sampling techniques.

Data collection was facilitated through a 56-item structured questionnaire with a 4-point rating scale. The instrument's reliability was determined using Cronbach's alpha method, yielding a reliability coefficient of 0.87. Frequency counts, percentages, means, and standard deviations were used to analyze the data, while independent-samples t-test

and one-way analysis of variance (ANOVA) were employed to test the hypotheses at a 0.05 level of significance.

Findings from the study revealed that the majority of e-learning resources were known and utilized to a moderate extent for teaching and learning business education courses. The researchers recommended that the government and stakeholders in education should make adequate budgetary allocations for the provision of e-learning resources, and that identified barriers hindering effective utilization should be addressed.

Nwosu and Eze (2023) conducted a study titled "E-learning Resources and Academic Achievement of Business Education Students in Nigerian Universities."

This study investigated the relationship between the availability and utilization of e-learning resources and the academic achievement of Business Education students in selected Nigerian universities. Employing a descriptive survey research design, the study formulated three research questions and hypotheses to guide the investigation. The population comprised 300 Business Education undergraduates across three universities, with 240 respondents sampled using stratified random sampling.

Data collection involved a validated questionnaire with a reliability coefficient of 0.78 obtained via Cronbach's alpha. Descriptive statistics (mean and standard deviation) were used to answer the research questions, while Pearson correlation and regression analyses tested the hypotheses at a 0.05 significance level.

Findings indicated that while e-learning resources were moderately available, their utilization was significantly correlated with improved academic achievement among

Business Education students. The study recommended enhancing both access to and effective use of e-learning tools to boost students' academic performance.

Adetunji and Musa (2023) conducted a study titled "Availability and Utilization of E-learning Tools and Its Impact on Academic Performance of Business Education Students in Nigerian Universities."

This study sought to examine the extent to which e-learning tools are available and utilized by Business Education students and how these factors influence their academic performance. A descriptive survey research design was employed, with the study focusing on Business Education undergraduates across three Nigerian universities. The sample consisted of 300 students selected through stratified random sampling.

Data were collected using a structured questionnaire, validated by experts in educational technology, with a Cronbach's alpha reliability coefficient of 0.81. Descriptive statistics and multiple regression analysis were used to analyze the data and test the hypotheses at a 0.05 significance level.

The findings revealed moderate availability of e-learning tools but low utilization levels among students. Importantly, the study found a positive and significant relationship between the utilization of e-learning technologies and students' academic performance. The researchers recommended enhanced provision and training on e-learning tools to improve student engagement and outcomes.

Summary

University of Benin is enhancing their e-learning by adopting advanced, sustainable technologies like AI lecture capture and VR/AR for practical training. Mobile and cloud platforms blur the gap between on-campus and remote learning, while data analytics improve course design and support. To ensure digital inclusion, lightweight apps and community hubs are developed. E-learning committees guide technology use, helping universities create flexible, inclusive, and innovative education systems.

E-learning has transformed business education by providing flexible access to knowledge and skill-building tools like simulations and data software. Usage varies based on course design, infrastructure, and student digital skills. While many students value the flexibility and autonomy of online learning, others miss face-to-face interaction or struggle with technical issues. Success depends on effective integration, institutional support, and fostering digital skills and engagement among students.

E-learning changes how knowledge is acquired, promoting self-directed learning but risking disengagement without proper support. Continuous screen use may cause fatigue and attention issues, while blurred boundaries between study and leisure can affect discipline. Educators must adapt teaching methods and manage virtual classrooms, which requires ongoing training. Challenges include increased risk of academic dishonesty and difficulties in maintaining peer interaction and motivation. Cultural, linguistic, and accessibility barriers can limit engagement for some students. Despite

these challenges, blended learning models and data-driven improvements offer promising ways to enhance academic outcomes through thoughtful e-learning implementation.

Teachers play a crucial role in successfully integrating e-learning in business education. They act as facilitators by demonstrating digital tools and fostering digital literacy, which prepares students for the modern workforce. Providing both technical guidance and moral support helps students overcome challenges like limited skills or access. Moreover, teachers drive curriculum innovation by embedding digital experiences such as simulations and online discussions, making learning more engaging and relevant to real-world business contexts. Their attitudes and adaptability significantly influence students' adoption and success with e-learning technologies.

E-learning faces challenges like a lack of supportive online learning culture, leading to student isolation and low motivation. Content quality varies, often lacking alignment with curriculum and effective pedagogy. Parental support is uneven, increasing inequities, especially for younger learners. Rapid digitalization has outpaced policies on data security and ethical issues. Many educators lack training in digital teaching methods, limiting effective technology use. Addressing these issues requires investment in people, policies, and inclusive design to ensure meaningful learning.

The empirical review includes various studies investigating the availability, utilization, and impact of e-learning facilities and technologies on teaching and learning in Business Education across Nigerian universities. Oluwalola and Omotayo (2024) examined e-learning in Kwara State universities using a descriptive survey and a sample

of 100 lecturers. They found moderate availability (mean = 96.64) and occasional utilization (mean = 98.16) of e-learning tools, with no significant differences among institutions. Ohiaeri and Okolo (2024) studied federal universities in South-East Nigeria and found high availability but low utilization of e-learning technologies among 48 lecturers, recommending more support and training. Orim, Idike, and Atah (2024) explored the influence of e-learning on academic performance at the University of Calabar using a population of 145 students. They found significant positive impacts from internet use, email, and PowerPoint presentations. Gbenga and Umoru (2024) assessed the utilization of e-learning among 41 lecturers and 316 students in South-West Nigeria, revealing moderate use and calling for better funding and removal of barriers. Nwosu and Eze (2023) analyzed the relationship between e-learning and academic achievement among 240 students in three universities. Their findings showed a positive correlation between usage and academic performance. Similarly, Adetunji and Musa (2023) found that among 300 students, moderate availability but low utilization of e-learning tools still significantly enhanced academic outcomes. Collectively, these studies align with the present research by offering empirical insights into the role of e-learning in enhancing instructional delivery and academic success in Business Education, while highlighting persistent issues such as underutilization, inadequate training, and infrastructural challenges.

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 is suitable for the current study because it enables the researcher to describe how the independent variable (E_Learning technologies) influences the dependent variable (Academic performance) in university of Benin

Population of the Study

The population for this study consists of sixty-eight (68) 300- and 400-level 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).

Sample and Sampling Technique

The sample size of the study was thirty (30) Business Education undergraduate students from the University of Benin, Benin City. As a result of the manageable size of the population, the population was used as sample of the study, hence census.

Instrumentation

The instrument used for data collection was a self-structured questionnaire titled "Assessment of Availability and Utilization of E-learning Technology in Academic Performance of Business Education Students Questionnaire (AAUETEAPBEQ)." The questionnaire was divided 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 supervisor and other experts in the Department of Business Education, Faculty of Vocational and

Technical Education, University of Benin, Benin City. Based on their observations and suggestions, the research items were reviewed and adjusted to align appropriately with the subheadings of the study. These modifications ensured that each item accurately reflected the intended focus of the research and improved overall clarity and relevance. The final draft of the instrument incorporated all necessary corrections for better validity.

Reliability of the Instrument

To determine the reliability of the research instrument, its internal consistency was assessed using the Cronbach Alpha formula. The instrument was given to 20 students who were not included in the main study population. A reliability coefficient of 0.70 or above was deemed acceptable for this study.

Method of Data Collection

Once the research instrument was validated and its reliability confirmed, approval was obtained from the supervisor to proceed with data collection. The questionnaires were administered directly to Business Education students in University of Benin. The research assistants assisted in distributing the questionnaires during class sessions and other academic gatherings. Respondents completed the questionnaires on-site, and the completed forms were collected immediately to ensure accuracy and completeness. The data gathered were compiled using Microsoft Excel and prepared for statistical analysis to assess the availability and utilization of e-learning technologies in relation to the academic performance of Business Education students.

Method of Data Analysis

The data obtained from the respondents were 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

To what extent are these types of E-learning technologies available?

Table 1: Mean and standard deviation showing the extent to which these E-learning technologies are available

S/N	Item	N	Mean	SD	Remarks
1.	The University provides access to an official Learning Management System (e.g., Moodle, Google Classroom, Canvas).	30	3.60	.675	High Extent
2.	I have access to subject-specific e-learning software/tools for my Business Education courses.	30	3.53	.629	High Extent
3.	I can access online lecture videos provided by the University.	30	3.53	.629	High Extent
4.	The University provides digital libraries or e-resources for my academic use.	30	3.47	.776	High Extent
5.	I have access to communication tools (e.g., Zoom, Microsoft Teams, Google Meet) for online classes.	30	3.73	.450	High Extent
	Cluster Mean		**3.57**	**0.12**	**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 3.47 to 3.60 while the standard deviation also ranges from .450 to .776. The cluster mean indicates a mean of 3.73. With these results, the above mean score shows that these types of E-learning technologies are available a high extent.

Research Question Two

To what extent are the e-learning technologies available to students for use in business education?

Table 2: Mean and standard deviation showing the extent to which the e-learning technologies are available to students for use in business education

S/N	Item	N	Mean	SD	Remarks
1.	E-learning resources are provided for all Business Education courses.	30	3.80	.407	High Extent
2.	The University's e-learning platforms can be accessed at any time of the day.	30	3.60	.498	High Extent
3.	Students can log in to e-learning platforms both on and off campus without restrictions	30	3.70	.596	High Extent
4.	Internet service on campus is reliable for accessing e-learning resources.	30	3.60	.621	High Extent
5.	Course materials on e-learning platforms are updated regularly and remain relevant.	30	3.57	.626	High Extent
	Cluster Mean		**3.65**	**0.09**	**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 3.60 to 3.80 while the standard deviation also ranges from .407 to .626. The cluster mean indicates a mean of

3.65. With these results, the above mean score shows that the e-learning technologies are available to students for use in business education to a high extent.

Research Question Three

To what extent are the e-learning technologies utilized by students in business education?

Table 3: Mean and standard deviation showing extent to which the e-learning technologies are utilized by students in business education

S/N	Item	N	Mean	SD	Remarks
1.	The University's e-learning platforms are accessed daily by students.	30	3.80	.407	High Extent
2.	Lecture notes are downloaded and read regularly from e-learning platforms.	30	3.80	.407	High Extent
3.	Recorded online lectures are watched frequently during the semester.	30	3.57	.504	High Extent
4.	Participation in online class discussions or forums takes place often.	30	3.43	.679	High Extent
5.	E-learning resources are commonly used to prepare for assignments and tests.	30	3.70	.466	High Extent
	Cluster Mean		**3.66**	**0.11**	**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 3.43 to 3.80 while the standard deviation also ranges from .407 to .679. The cluster mean indicates a mean of 3.66. With these results, the above mean score shows that the e-learning technologies are utilized by students in business education to a high extent.

Research Question Four

To what extent are the strategies for improving e-learning technologies for teaching and learning of business education are available?

Table 4: Mean and standard deviation showing the extent to which the strategies for improving e-learning technologies for teaching and learning of business education are available.

S/N	Item	N	Mean	SD	Remarks
1	Poor internet connection limits the use of e-learning platforms	30	3.57	.626	High Extent
2	High internet data costs reduce students' ability to access e-learning resources.	30	3.27	.740	High Extent
3	Navigating the University's e-learning platform is difficult for some users.	30	3.20	.961	High Extent
4	Technical support for e-learning issues is inadequate.	30	3.27	.785	High Extent
5	Limited access to personal devices such as laptops or smartphones restricts e-learning use.	30	3.27	.583	High Extent
	Cluster Mean		**3.31**	**0.15**	**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 3.20 to 3.57 while the standard deviation also ranges from .583 to .785. The cluster mean indicates a mean of 3.31. With these results, the above mean score shows that the strategies for improving e-learning technologies for teaching and learning of business education are available to a high extent.

Research Question Five

To what extent are these major problems and constraints against the use of e-learning technologies for pedagogical application in business education?

Table 5: Mean and standard deviation showing the extent to which these major problems and constraints are against the use of e-learning technologies for pedagogical application in business education.

S/N	Item	N	Mean	SD	Remarks
1	Understanding of Business Education concepts has improved through e-learning.	30	3.53	.681	High Extent
2	Test and examination performance has increased with the use of e-learning resources.	30	3.67	.479	High Extent
3	Learning has become more engaging and interactive through online platforms.	30	3.60	.621	High Extent
4	The ability to study at one's own pace via e-learning has led to better grades.	30	3.63	.615	High Extent
5	Access to e-learning resources has boosted academic confidence.	30	3.57	.626	High Extent
	Cluster Mean		**3.60**	**0.07**	**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 3.53 to 3.67 while the standard deviation also ranges from .479 to .681. The cluster mean indicates a mean of 3.60. With these results, the above mean score shows that these major problems and

constraints are against the use of e-learning technologies for pedagogical application in business education to a high extent.

Research Question Six

To what extent are the strategies for improving e-learning technologies in business education are utilized?

Table 6: Mean and standard deviation showing the extent to which the strategies for improving e-learning in business education are utilized**.**

S/N	Item	N	Mean	SD	Remarks
1	Provision of free or subsidized internet access would enhance e-learning use.	30	3.53	.681	High Extent
2	More training programs should be offered on effective use of e-learning platforms.	30	3.67	.547	High Extent
3	Increasing the number of devices available for student use would improve accessibility.	30	3.57	.626	High Extent
4	E-learning content should be made more interactive and engaging.	30	3.50	.572	High Extent
5	Round-the-clock technical support should be provided for e-learning users.	30	3.73	.521	High Extent
	Cluster Mean		**3.60**	**0.06**	**High Extent**

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

In response to research question six, Table 6 showed that the respondents rated item one to five as high extent with a mean rating ranging from 3.50 to 3.73 while the standard deviation also ranges from .521 to .681. The cluster mean indicates a mean of 3.60. With these results, the above mean score shows that the strategies for improving the e-learning technologies in business education are utilized to a high extent.

Discussion of Findings

The findings of research question one revealed that these types of e-learning technologies are available to a high extent. From the presentation and analysis of the responses, it is therefore concluded that a strong foundational infrastructure for e-learning exists, positioning the institution favorably for the continued integration of technology in education This finding corroborates with that of Gbenga and Umoru (2024) who concluded that the majority of e-learning resources were known and utilized to a moderate extent for teaching and learning business education courses.

Research question two findings indicated that e-learning technologies are available to students for use in business education to a high extent. From the presentation and analysis of the response, it is therefore concluded that the high availability of e-learning technologies for students provides a solid platform for the effective integration of digital tools into the Business Education curriculum, thereby enhancing the learning experience and aligning it with the demands of the digital economy. This finding is in line with that of Imasuen and Aibinuono (2024) who examined the availability of e-learning facilities for undergraduate students and academic staff within universities in the Benin Metropolis, including University of Benin. They discovered a moderate level of facility provision such as e-libraries and interactive platforms

The data output of research question three showed that the e-learning technologies are utilized by students in business education to a high extent. From the presentation and analysis of the response, it is therefore concluded that e-learning technologies are being

utilized to a high extent by students, demonstrating successful integration into the Business Education curriculum and actively fostering the digital competencies essential for the contemporary business world. This finding support that of Uwah and Ododo (2022) who examined how e-learning tools influenced academic performance among university students and found that the use of these tools significantly improved students' independent study skills, participation levels, and overall academic outcomes.

The findings of research question four discovered that that the strategies for improving the availability of e-learning technologies for teaching and learning of business education to a high extent. From the presentation and analysis of the response, it is therefore concluded that the institution has a clear and viable roadmap for success. While significant constraints hinder the pedagogical application of e-learning, the high availability of improvement strategies coupled with the strong foundational infrastructure and high student utilization creates an optimistic outlook for systematically enhancing the quality and impact of Business Education through technology. This finding aligns appropriately with that of Nweke and Ajikere (2022) who ascertained that the effectiveness of e-learning technologies substantially depends on teachers' proficiency in internet usage and their readiness to integrate digital resources into instruction. Their study highlighted that gaps in teacher skills and inadequate support systems impede effective e-learning implementation, suggesting that strengthening teacher competencies is essential for improving academic performance in technology-supported learning environments.

The findings of research questions five depicted that these major problems and constraints are against the use of e-learning technologies for pedagogical application in business education 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 pedagogical application in Business Education is critically hampered by significant constraints. This indicates that the current integration is vulnerable and that strategic efforts must shift from simply providing tools to systematically removing these barriers to achieve meaningful, technology-enhanced learning. This finding is in agreement with that of Chukwuemeke and Igbinedion (2021) who emphasized that factors such as inadequate infrastructure, limited training, and low digital literacy impede frequent use of e-learning tools which in turn affects students' learning outcomes in Business Education programs.

The findings of research question six indicated that shows that the strategies for improving the e-learning technologies in business education are utilized to a high extent. From the presentation and analysis of the response, it is therefore concluded that the strategies for improving the e-learning technologies are merely theoretical concepts but are being actively implemented and utilized to a high extent within the Business Education Program. This indicates a proactive and responsive institutional environment that is already taking significant steps to overcome the identified constraints and optimize the e-learning ecosystem for teaching and learning. This finding corroborates with the findings of Olumorin et al. (2018) who was of the view that in order to enhance the use of

e-learning technologies in University of Benin, the institution must adopt specific strategies such as regular training and retraining of lecturers and students, integration of ICT tools into the curriculum, provision of reliable internet access on campuses, and adequate funding for ICT development. They also noted that effective policy implementation and technical support systems are crucial for encouraging consistent utilization of e-learning platforms.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter focuses on summary, conclusion and recommendations.

Summary

This study examined the “Assessment of the Availability and Utilization of E-learning Technology in Academic Performance of Business Education Students in University of Benin”. The study was guided by six research questions.

This study was designed to assess of the availability and utilization of e-learning technology in academic performance of Business Education Students in University of Benin. The research adopted a descriptive survey research design, which was deemed appropriate for collecting information about the characteristics and perceptions of the population at a specific point in time.

The population for the study consisted of sixty-eight (68) 300- and 400-level Business Education students. Due to the manageable size of this population, a census sampling technique was employed, resulting in a final sample of thirty (30) students who participated in the study. The primary instrument for data collection was a self-structured questionnaire titled "Assessment of Availability and Utilization of E-learning Technology in Academic Performance of Business Education Students Questionnaire (AAUETEAPBEQ)." This instrument, which demonstrated good reliability with a Cronbach's alpha coefficient above 0.70, 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, 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 are available to a high extent for Business Education students at the University of Benin.
2. Students utilize the available e-learning technologies to a high extent.
3. Despite the high availability and utilization, significant constraints hinder the effective pedagogical application of these technologies.
4. Nevertheless, strategies for improving the use of e-learning technologies are known and available to a high extent.

Conclusion

Based on the findings of this study, it is concluded that the University of Benin has successfully established a foundational infrastructure for e-learning within the Business Education program. The high availability and utilization of these technologies indicate a positive disposition towards technology-enhanced learning among students. However, the persistence of significant constraints, which may include issues like

inadequate training, technical support, or internet connectivity, prevents the full optimization of these tools for pedagogical purposes.

Ultimately, the study concludes that while the potential for e-learning to significantly enhance academic performance is present, this potential is not yet fully realized. The path to bridging this gap is clear, as evidenced by the high availability of recognized improvement strategies. Therefore, the current state of e-learning in the context of this study is one of robust potential awaiting more effective and strategic implementation to overcome existing barriers.

Recommendations

The following recommendations were made:

1. **For University Administration:** The university should move beyond mere provision of e-learning platforms and focus on addressing the specific constraints identified. This should include investing in robust and reliable internet infrastructure, providing ongoing technical support for both students and lecturers, and ensuring the e-learning platforms are user-friendly and pedagogically sound.
2. **For the Business Education Department:** The department should formally integrate the identified improvement strategies into its strategic plan. This could involve organizing regular training workshops for lecturers on effective e-learning pedagogical practices and for students on how to maximize these tools for their learning.

3. **For Lecturers:** Lecturers are encouraged to proactively adopt and creatively utilize the available e-learning technologies in their curriculum delivery. They should design interactive and engaging online activities that complement face-to-face teaching to create a blended learning environment that can enhance academic outcomes.
4. **For Future Policy:** University policy should be geared towards incentivizing the effective use of e-learning. This could be done by recognizing and rewarding innovative uses of technology in teaching and by making digital literacy a core competency for both staff and students.

Suggestions for Further Studies

To build upon the findings of this research, the following areas are suggested for further investigation:

1. **A Qualitative Exploration:** A qualitative study is recommended to conduct in-depth interviews and focus group discussions with students and lecturers. This would provide richer, more detailed insights into the specific nature of the constraints faced and the contextual factors influencing e-learning utilization, which a survey may not fully capture.
2. **Expanded Scope:** This study should be replicated with a larger sample size across multiple departments and faculties within the University of Benin, and in other universities, to enhance the generalizability of the findings and allow for comparative analysis.

3. **Impact on Specific Learning Outcomes:** Future research could employ a quasi-experimental design to directly measure the causal impact of specific e-learning tools or strategies on definite academic performance metrics, such as semester Grade Point Averages (GPA) or scores in standardized tests.
4. **Lecturer-Focused Study:** A separate study focusing specifically on lecturers' perspectives, their digital proficiency, their perceived challenges, and their training needs regarding e-learning would provide a crucial complementary perspective to the student-centric view of this research.

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APPENDIX A

Department of Business Education
Faculty of Vocational and Technical Education
University of Benin
Benin City,
Edo State
12/11/2025.

Dear Respondent,

LETTER TO RESPONDENTS

My name is Promise Eshiokhai, a student in the Department of Business Education, Faculty of Vocational and Technical Education, University of Benin. I am currently conducting a research study titled "Assessment of Availability and Utilization of E-learning Technologies in Academic Performance of Business Education Students in the University of Benin."

I kindly request your honest and sincere responses to the items in this questionnaire. Your input is highly valuable and will contribute significantly to the credibility and success of this academic research. The questionnaire is strictly for academic purposes.

Please read each question carefully and respond as accurately as possible. All responses will be treated with utmost confidentiality. I sincerely appreciate your anticipated cooperation.

Thank you for your support.

Yours faithfully,

Eshiokhai Promise
EDU2203686
(Research Student)

APPENDIX B

QUESTIONNAIRE

ASSESSMENT OF AVAILABILITY AND UTILIZATION OF E-LEARNING TECHNOLOGY IN ACADEMIC PERFORMANCE OF BUSINESS EDUCATION STUDENTS IN UNIVERSITY OF BENIN

Section A: Demographic Data

Gender: MALE ( ) FEMALE ( )

Level of Study: 300L ( ) 400L ( )

Section B: Data on Questionnaire

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

Response Scale: Very High Extent (VHE), High Extent (HE), Low Extent (LE), Very Low Extent (VLE)

RQ 1	**The types of E-learning technologies available.**	**VHE**	**HE**	**LE**	**VLE**
1.	The University provides access to an official Learning Management System (e.g., Moodle, Google Classroom, Canvas).				
2.	I have access to subject-specific e-learning software/tools for my Business Education courses.				
3.	I can access online lecture videos provided by the University.				
4.	The University provides digital libraries or e-resources for my academic use.				
5.	I have access to communication tools (e.g., Zoom,				

	Microsoft Teams, Google Meet) for online classes.				
RQ 2	**The extent to which e-learning technologies are accessible to students for use in business education.**	**VHE**	**HE**	**LE**	**VLE**
6.	E-learning resources are provided for all Business Education courses.				
7.	The University's e-learning platforms can be accessed at any time of the day.				
8.	Students can log in to e-learning platforms both on and off campus without restrictions				
9.	Internet service on campus is reliable for accessing e-learning resources.				
10.	Course materials on e-learning platforms are updated regularly and remain relevant.				
RQ 3	**The extent to which e-learning technologies are utilized by students in business education.**	**VHE**	**HE**	**LE**	**VLE**
11.	The University's e-learning platforms are accessed daily by students.				
12.	Lecture notes are downloaded and read regularly from e-learning platforms.				
13.	Recorded online lectures are utilized frequently during the semester.				
14.	Participation in online class discussions or forums takes place often.				
15.	E-learning resources are used to do assignments and tests by students				

RQ 4	**The major problems and constraints against the use of e-learning technologies for pedagogical application in business education.**	**VHE**	**HE**	**LE**	**VLE**
16.	Poor internet connection limits the use of e-learning platforms.				
17.	High internet data costs reduce students' ability to access e-learning resources.				
18.	Navigating the University's e-learning platform is difficult for some users.				
19.	Technical Support for e-learning issues is inadequate.				
20.	Limited access to personal devices such as laptops or smartphones restricts e-learning use.				
RQ 5	**The strategies for improving the availability of e-learning technologies for teaching and learning of business education.**learning	VHE	HE	LE	VLE
21.	Understanding of Business Education concepts has improved through e-learning.				
22.	Test and examination performance has increased with the use of e-learning.				
23.	Learning has become more engaging and interactive through online platforms.				
24.	The ability to study at one's own pace via e-learning has led to better grades.				
25.	Access to e-learning resource has boosted academic confidence.				

RQ 6	The strategies for improving the utilization of e-learning technologies in business education.	VHE	HE	LE	VLE
26.	Provision of free or subsidized internet access would enhance e-learning use.				
27.	More training programs should be offered on effective use of e-learning platforms.				
28.	Increasing the number of devices available for student use would improve accessibility.				
29.	E-learning content should be made more interactive and engaging.				
30.	Comprehensive technical support should be provided for e-learning users.				

APPENDIX C

OUTPUT OF RELIABILITY OF THE STUDY

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	20	100.0
	Excluded[a]	0	.0
	Total	20	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.820	20

APPENDIX D

OUTPUT OF RESEARCH QUESTIONS

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	30	1	4	3.60	.675
Q2	30	2	4	3.53	.629
Q3	30	2	4	3.53	.629
Q4	30	2	4	3.47	.776
Q5	30	3	4	3.73	.450
Valid N (listwise)	30				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00001	5	3.47	3.73	3.5720	.09960
VAR00002	5	.45	.78	.6318	.11803
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q6	30	3	4	3.80	.407
Q7	30	3	4	3.60	.498
Q8	30	2	4	3.70	.596
Q9	30	2	4	3.60	.621
Q10	30	2	4	3.57	.626
Valid N (listwise)	30				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00003	5	3.57	3.80	3.6540	.09529
VAR00004	5	.41	.63	.5496	.09498
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q11	30	3	4	3.80	.407
Q12	30	3	4	3.80	.407
Q13	30	3	4	3.57	.504
Q14	30	2	4	3.43	.679
Q15	30	3	4	3.70	.466
Valid N (listwise)	30				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00005	5	3.43	3.80	3.6600	.15953
VAR00006	5	.41	.68	.4926	.11207
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q16	30	2	4	3.57	.626
Q17	30	2	4	3.27	.740
Q18	30	1	4	3.20	.961
Q19	30	2	4	3.27	.785
Q20	30	2	4	3.27	.583

Valid N (listwise)	30				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00007	5	3.20	3.57	3.3160	.14519
VAR00008	5	.58	.96	.7390	.14875
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q21	30	2	4	3.53	.681
Q22	30	3	4	3.67	.479
Q23	30	2	4	3.60	.621
Q24	30	2	4	3.63	.615
Q25	30	2	4	3.57	.626
Valid N (listwise)	30				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00009	5	3.53	3.67	3.6000	.05385
VAR000010	5	.48	.68	.6044	.07491
Valid N (listwise)	5				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q26	30	2	4	3.53	.681
Q27	30	2	4	3.67	.547
Q28	30	2	4	3.57	.626

Q29	30	2	4	3.50	.572
Q30	30	2	4	3.73	.521
Valid N (listwise)	30				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00011	5	3.50	3.73	3.6000	.09695
VAR00012	5	.52	.68	.5894	.06424
Valid N (listwise)	5				