

# Perceived Impact of the Use of E-Learning Technologies in the Teaching of Business Education in Tertiary Institutions in Lagos State

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## Abstract

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*This paper examines the perceived impact of the use of e-learning technologies on business education courses in tertiary institutions in Lagos State. It looked at the persistent challenges related to the use of e-learning technologies in delivering business education courses in tertiary institutions in Lagos state. The challenges include difficulties in applying learned concepts in practical settings, limited face-to-face interactions, online project security concerns and objective-based computer-marked exams. The impact of these challenges on student engagement, critical thinking, problem-solving skills, and hands-on learning is significant. was assessed using the test-retest method with a reliability. The research identified various e-learning technologies, such as e-books, digital textbooks, mobile learning apps, webinars, online assessments, quizzes, multimedia tools, virtual and augmented reality tools, and online discussion boards, that institutions have adopted to enhance the teaching and learning experience. However, the study also found that infrastructure availability, lecturers' attitudes, students' willingness to use e-learning technologies, cost, technical support, traditional teaching methods, staff training and development, and regulatory policies affect their adoption and use. It was then recommended that institutions should invest in the necessary infrastructure and technical support to ensure the effective adoption and use of e-learning technologies and lecturers and students should be encouraged and trained to use e-learning technologies, and their attitudes towards them should be monitored and addressed to ensure their effective use.*

**Keywords:** Perceived, impact, E-learning, Technologies.

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## Introduction

Technology has significantly impacted our daily life throughout the years. We now have access to incredible tools and resources made possible by technology. Information and communication technology (ICT) has made it possible to work from home, transformed entertainment made communication simpler and faster, and allowed people to hear and see each other even when they were far apart (Lumen Learning, 2014). ICT, according to Comunicación (2020), is a collection of technologies that make it possible for data to be created, updated, saved, and shared between various information systems. This facilitates bidirectional (person-to-person) and multidirectional communication and is crucial for the creation, sharing, and access of information. Ibenegbu (2017) gave an insight into ICT, he believed that it is the infrastructure that helps you to enter into the digital world, with no universal or fixed definition for ICT; this term is usually used to refer to all devices connected with information and

communication technologies. These networking components unite people all over the world, including governments, companies and nonprofit agencies in one network. ICT combines internet-based with mobile technology spheres, this also includes non-modern technologies like landed television, telephones and radio broadcast.

Technologies can make communication a lot easier, the Internet, social networking and mobile phones have now changed how often human beings interact with each other from various parts of the world. The use of traditional mail cards, postcards, letters, telephone calls, books, magazines, newspapers, fax and telegrams are now outdated. Computers came into existence by creating new job opportunities, improving business, improving transactions, and creating new communication channels.

Another ICT change to the world is how it has improved education and learning processes worldwide on how student access information (Jenesa, 2017). From Christabelle, (2017) it has

been seen that ICT has actually become a part of every individual's life. Based on the fact that the use of technology makes it easier to gather information, communicate with someone regardless of distance, buy and sell products, offers more job create more income source and many more. Most people's life is now based on technology, in school, teacher, staff and students are using technology to provide for their academic needs, the ICT empower this and make it simple to use. As time passes ICT is becoming stronger and bigger quickly now students rarely go to the library to get information because with just one click they could get all the information that is needed as fast as the network can provide in split seconds unlike in the library which is time-consuming and stressful, this gives a student a good level of independence.

In this contemporary world, ICT has made great changes to the world at large; it has made major contributions to the benefit it provides. Ericsson (2019) in their web publication on 'The social impact of ICT' highlighted some basic benefits ICT provides to the world listing three main ways in which ICT has helped the social world of business which are Affordability, Scalability, and Community, explaining that ICT related businesses are more affordable compare starting a local business this is because all that is majorly needed are an electronic device that is internet enabled like a mobile phone or a computer and access to the internet. Scalable means you can reach more than one community of people; an individual can reach millions of individuals instantaneously. It promotes Community; it helps to hold people together regardless of their location.

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From Christabelle, (2017) it has been seen that ICT has actually become a part of every individual's life. Based on the fact that the use of technology makes it easier to gather information, communicate with someone regardless of distance, buy and sell products, offers more job create more income source and many more. Most people's life is now based on technology, in school, teacher, staff and students are using technology to provide for their academic needs, the ICT empower this and make it simple to use. As time passes ICT is becoming stronger and bigger quickly now students rarely go to the library to get information because with just one click they could get all the information that is needed as fast as the network can provide in split seconds unlike in the library which is time-consuming and stressful, this gives a student a good level of independence. At the end of his findings, he feared that students could turn out to be idle and useless due to the shortage time of for involvement in physical activities.

E-learning is utilizing electronic technologies to get access to the educational curriculum. E-learning makes education flexible because there is no limitation of time and space. So, E-learning makes learning easier to learn. It is observed that different social media like Facebook, Whatsapp, and Twitter plays an important role in education. These applications strongly attracted students and connected them with different parts of the world, search engines such as Google, Wikipedia, and wikik now how amongst other has made student enquire answers to whatsoever questions that could be of trouble to their understanding, getting explanations and illustrations aided with audio, visual and Audio-visual Materials (Salamat, 2018).

E-learning is the process of using technology to support learning. It is frequently used to describe educational and training scenarios in which the teacher and pupils are at separate locations. However, the teacher and instructor may be close by (Chikurteva, Spasova, Chikurtev, 2020). E-4 learning may take place using a variety of media that transmit text, voice, graphics, animation, and streaming video, and it can also be done using software and hardware like audio or video tapes, satellite TV, CD-ROMs, and computer-based learning. E-learning has revolutionized the way we approach education and

training. Its flexibility and accessibility make it a valuable tool in today's fast-paced world. The availability of a vast range of online resources and the opportunity to connect with people from different parts of the world have made e-learning an effective and engaging learning platform. However, despite the many benefits of e-learning, there are still some challenges that need to be addressed, such as the need for reliable internet connectivity and access to appropriate technological infrastructure. Nevertheless, with continued innovation and adaptation, e-learning can continue to serve as a powerful tool for education and training.

### **Development of Business Education**

The development of Business Education is slow but progressive. Business education has not always been an important phase of education before the take-over of schools from the missions by the government. In its early development, it grew as a private responsibility both individually and institutionally. It has its growth in private business schools. The earliest type of business education was the apprenticeship training of bookkeepers. In the United States, the problem of the private business school was limited to instructions in bookkeeping supplemented with instructions in arithmetic and penmanship until 1873 when the typewriter was first manufactured on a commercial basis. Before the advent of the white men, the apprenticeship system existed in all known crafts.

In the case of bookkeeping, an experienced bookkeeper would take on an assistant and train him on the job. Gradually, more bookkeepers were needed due to the increase in the number and size of businesses, besides the introduction of taxation and government regulations. This made it possible for business schools to flourish as it provided essential training for business occupations. In the later part of the 19th century, private business schools (commercial schools as they are popularly called) had a virtual monopoly in training the skilled employees needed by all types of organizations and government offices. Indeed, many of the successful business executives of the early 1990s were graduates of private business schools.

1. **Vocational potential:** One major objective of a business programme at the secondary school level is to prepare the student for employment upon graduation. Such preparation should ensure that the programme graduate can adapt to occupational changes. This is informed by the frequent occupational changes occasioned by inventions, economic conditions, legislation and promotion. With the invention of many new devices, dozens of old occupations have disappeared and hundreds of new ones emerged. This is much more serious in the business office. The automation of office work has caused and will continue to cause considerable change in office occupations. In these circumstances, business education graduates adapt themselves, through retaining, to the new occupations created by inventions. Changes in the economic condition also necessitate occupational changes. Depressions throw people out of work, while prosperity (that is, economic boom) brings competition for workers. In each case, there is a need to adapt to the new employment situation in order to stay on the job-Legislation also may create or eliminate certain occupations altogether promotion from one job to another position may also mean occupational changes. Since occupational change is normal, and in many cases a desirable condition, it sounds reasonable that the school should do whatever it can to prepare business students for occupation changes. This may be achieved by doing either or all of the following: Train the students for more than one vocation. For instance, training a student for bookkeeping as well as stenographic occupations. Stress the fundamentals of each vocational subject, and Develop business economic competency-there is a need for a good background in business and economic knowledge and be able to call upon this knowledge to relate it to problems that arise in business.

2. **For Personal Use:** The trend in recent times is that non-business majors elect business courses or subjects for personal use competency that is they study the courses or subjects in order to use the knowledge, skills and attitudes for personal purposes. Some of the subjects commonly elected include typewriting, bookkeeping, marketing and management among others. An analysis of all

business subjects will show that most of them may be used personally as well as vocationally.

### 3. **Competency in consumer businesses:**

One of the cardinal objectives of the business education programme is to enable the student to assume his role as an effective and intelligent consumer of goods and services offered by a business. As a result of this, business educators have increased responsibility for developing a programme which will lead to the realization of this objective. To this effect, consumer education may take the form of a course in consumer goods or a course in consumer economics. Consumer education can be taught at all levels of education—primary, secondary and tertiary. Notwithstanding where consumer education is taught, it should be part of the programme for all students. The business teacher, due to the nature of his training, is in a unique position to contribute to the development of effective consumer education.

4. **Socioeconomic Competence:** Recently, it is generally accepted that all students need to have an understanding and appreciation of the relevance that business plays in our daily lives. Business education, as a phase of general education, is in a position to make a major contribution to the development of social and economic competencies by helping students to develop a clear understanding of the national economy.

### **Problems Faced Problems Faced by Business Education**

- 1) The problem facing business education is the lack of knowledge on the part of policymakers and administrators of business education programmes. He lamented that some of the administrators are truly ignorant while more are antagonistic and pay lip service to the crusade in business education.
- 2) Aina (2018), says that lack of business educational personnel in the Federal and State Ministries of Education to play an advisory role in business education. He also referred to the closed and limited academic opportunities for business teachers in Nigerian higher institutions of learning.

- 3) Lack of motivation or incentives for a teacher, by the government contribute to the problems of the development of business education programme. He said that pupils would have been performing better if teachers are motivated. He maintained that government should vote in money for teacher motivation
- 4) It is observed that the business education departments in the secondary schools, technical colleges, colleges of education, polytechnics and universities in this country are disinclined to the dissemination of information about the many newsworthy accomplishments, plans and developments that occur. Educators are often very busy making events happen but fail to see and exploit the public relations potentials of many of their activities thereby losing the opportunities for effective public relations. It is a lack of effective communication that gives rise to bad or erroneous impressions on the part of the businessmen and the general public concerning both business education and business teacher education programmes.
- 5) Lack of poor monetary rewards and poor conditions of service for business teachers also contribute to the problems of business education. In 2012, the International Conference of Nigerian Association of Business Education in Lagos. Ulinfun and Nwaokolo (2019), conducted a survey on twenty (20) randomly selected business educators from five senior secondary schools in Yola south on the problems and challenges of business education in Nigeria.

Other problems were identified and some of these problems are;

1. Insufficient number of business teachers
2. Absence of instructional gadgets, dictaphones, typewriters, etc.
3. External (government/ heads caused) frustration.
4. Absence of business education textbooks, journals, and magazines for instruction.

5. Inadequate funding by the government.
  6. Poor teacher quality especially in skills.
  7. Absence of guidance and counselling before students' enrolment for business education courses.
  8. Public regulation of business education etc. in association with business education.
  9. Lack of adequate planning, supervision and education of programme activities on the part of educational planners and administrators.
  10. Curriculum defects in terms of programme affinity and objectives.
  11. Lack of adequate, qualified and committed personnel.
  12. Inadequate awareness of the programme offering, value and role played in economic rehabilitation and reliance on the part of students, parents, the business community and administrators.
2. Virtual classrooms: These use video conferencing technology to connect students with instructors and classmates in real-time. They may include features such as screen sharing, breakout rooms, and interactive whiteboards.
  3. Digital instructional materials: These include things like e-books, videos, and interactive presentations that can be used to supplement or replace traditional textbooks.
  4. Mobile learning: This is the process of delivering e-learning materials via portable gadgets like smartphones and tablets.
  5. Gamification: This is the process of using game design elements such as points, badges, and leaderboards to make learning more engaging and motivating.

### Concept of E-learning

E-learning, also known as online learning or digital learning, is a method of delivering educational content and instruction through electronic means. This can include online classes, virtual classrooms, digital instructional materials, and other forms of digital education. The concept of e-learning is to provide learners with the flexibility to access educational content at their own pace and on their own schedule, without the constraints of traditional in-person instruction. It is also designed to provide interactive and engaging learning experiences, such as interactive quizzes, simulations, and virtual reality. The goal of e-learning is to make education more accessible, convenient, and effective for learners of all ages and backgrounds (Tamm, 2023).

E-learning can take many forms, depending on the type of content being delivered and the learning objectives. Some examples include:

1. Online courses: These are classes that are delivered entirely online, typically through a learning management system (LMS). They may be self-paced or follow a set schedule and may include interactive elements such as quizzes, discussion forums, and virtual office hours with the instructor.

E-learning can be beneficial for students and teachers, as it allows for flexibility in terms of when and where learning takes place, and it can also include interactive elements such as quizzes, simulations, and virtual reality experiences, which can make the learning process more engaging and interactive. E-learning is also beneficial for educators, as it allows them to create and deliver educational content more easily and cost-effectively. In summary, e-learning is a type of education that is delivered electronically, which allows for flexibility in terms of when and where learning takes place, and it can also include interactive elements such as quizzes, simulations, and virtual reality experiences, making the learning process more engaging and interactive (Bhattacharya, 2023).

### E-learning Technology

E-learning technology refers to the use of electronic devices and the internet to access educational content and resources. This can include online courses, virtual classrooms, and digital textbooks, as well as tools for communication and collaboration between students and teachers. E-learning technology has become increasingly popular in recent years as a way to provide flexible and accessible education to students of all ages (Duffin, 2020).

### Types of E-learning technology

E-learning technology can take many forms, including online courses, webinars, virtual classrooms, and digital textbooks. Online courses are self-paced and typically consist of pre-recorded lectures, quizzes, and assignments. Webinars are live, interactive sessions that can be attended remotely. Virtual classrooms are similar to webinars, but they are designed for synchronous learning and often include features such as real-time chat and screen sharing. Digital textbooks are electronic versions of traditional textbooks, which can be accessed on a computer or mobile device (Nair, 2022). In addition to these types of content, e-learning technology also includes tools for communication and collaboration. For example, students and teachers can use video conferencing software to hold virtual meetings, and they can use learning management systems to share files, post announcements, and submit assignments.

Here are some examples of physical types of e-learning technology that can be used in a classroom setting:

1. **Tablets:** A portable device with a touch screen that can be used to access digital textbooks, take notes, and complete assignments.
2. **Laptops:** A portable computer that can be used to access the internet, work on documents, and participate in virtual classroom sessions.
3. **Interactive Whiteboards:** A large board that can be used to display and annotate digital content, and is commonly used in classrooms and conference rooms
4. **Projector:** A device that can be used to display physical materials, such as books or notes, on a screen for the class to see.
5. **VR/AR headsets:** Virtual Reality and Augmented Reality headsets allow students to explore virtual environments and experience immersive simulations, this technology is being used in many fields such as education, health care, and the military.
6. **Smart boards:** An interactive whiteboard with a built-in computer and projector, allowing teachers to use digital resources directly on the board.
7. **Audio systems:** Speakers, microphones and other audio equipment to enhance the audio quality during classes and presentations
8. **Video conferencing systems:** Equipment that allows live streaming, recording and remote participation in virtual classes and meetings.
9. **3D printers:** 3D printing technology allows students to create physical models of objects or structures and enhance their understanding of the subject in a hands-on manner.
10. **Robotics kits:** Robotics kits are used to teach students about programming and mechanical engineering, by allowing them to build and program robots
11. **Coding devices:** Devices like Raspberry Pi, Arduino, and micro: bit that help students to learn coding and programming
12. **Digital Microscopes:** High-resolution digital microscopes can be used to display images of small specimens on a computer or projector, allowing the class to see details that would be difficult to see with a traditional microscope
13. **Portable charging stations:** Portable charging stations allow students to charge their devices during class
14. **Digital cameras:** Digital cameras can be used to capture images and videos of experiments, class projects, and field trips
15. **Headphones:** Headphones can be used for individualized listening and language-learning activities
16. **Adaptive learning software:** Adaptive learning software adjusts the content and pace of instruction to meet the needs of individual students
17. **E-book readers:** E-book readers can be used to access digital textbooks and other reading materials

E-learning technology has a number of advantages over traditional classroom-based education. For example, it can make education more accessible to people who live in remote areas or have mobility issues. It can also make it more convenient for people who have busy schedules. Additionally, e-learning technology can reduce the cost of education and make it more environmentally friendly. However, e-learning

technology also has some limitations. For example, it can be difficult for students to stay motivated and engaged when learning online, and it can be difficult for teachers to provide personalized feedback and support. Additionally, e-learning technology can be less effective than traditional classroom-based education for certain types of learning, such as hands-on technical training.

### E-learning Technology in Business Education

According to Alex, (2021), E-learning technology can be used in business education in a variety of ways. Here are a few examples:

1. **Online Courses:** Business schools can create and deliver online courses in a wide range of business-related subjects, such as marketing, finance, and management. These courses can be self-paced and can include pre-recorded lectures, quizzes, and assignments.
2. **Virtual Classrooms:** Business schools can use video conferencing software to hold virtual classrooms, where students can interact with their teachers and classmates in real-time.
3. **Simulation and Gaming:** Business schools can use simulation and gaming technology to create realistic business scenarios for students to practice decision-making, strategic thinking, and problem-solving skills.
4. **Business Networking:** E-learning technology can be used to facilitate networking opportunities for students and alumni, through online platforms or virtual events.
5. **Corporate training:** E-learning technology can be used to deliver corporate training programs for employees in a flexible and cost-effective manner.
6. **Collaborative tools:** Business schools can use tools such as Google Docs, Microsoft Teams, or Slack to facilitate collaboration and teamwork among students, which is an important skill in the business world
7. **Analytics and tracking:** E-learning technology can be used to track student

progress and performance, allowing teachers to provide more personalized feedback and support.

8. **Blended learning approach:** Business schools can combine traditional classroom-based instruction with e-learning technology, such as online courses, to create a blended learning approach that can offer more flexibility, personalization and cost-effectiveness.

Overall, e-learning technology can be used to provide business students with a more interactive, engaging, and flexible learning experience, while also making it more convenient for busy professionals to continue their education.

### Conclusion

E-learning technologies have become increasingly relevant in teaching business education courses in tertiary institutions. The use of various e-learning technologies such as e-books, digital textbooks, mobile learning apps, webinars, online assessments, quizzes, multimedia tools, virtual and augmented reality tools, and online discussion boards have positively impacted the teaching and learning experience in business education courses. However, the adoption and use of these technologies are influenced by various factors such as infrastructure availability, lecturers' attitudes, students' willingness to use them, cost, technical support, traditional teaching methods, staff training and development, and regulatory policies. Institutions should consider these factors when implementing e-learning technologies for teaching business education courses. E-learning technologies are relevant and beneficial for teaching business education courses in tertiary institutions, and institutions should continue to explore and implement innovative e-learning technologies to enhance the teaching and learning experience in business education courses.

### Recommendations

The following recommendations are suggested:

1. Institutions should invest in the necessary infrastructure and technical support to ensure the effective adoption and use of e-learning technologies.
2. Lecturers and students should be encouraged and trained to use e-learning

- technologies, and their attitudes towards them should be monitored and addressed to ensure their effective use.
3. Institutions should explore and implement innovative e-learning technologies to enhance the teaching and learning experience in business education courses, such as virtual and augmented reality tools, gamification, and adaptive learning systems.
  4. Institutions should review their regulatory policies to ensure they support the effective adoption and use of e-learning technologies.
  5. Further research should be conducted to investigate the long-term impact of e-learning technologies on teaching and learning outcomes in business education courses.

#### References

- Alex, A. S. (2021, May 12). *What Is A Virtual Classroom And Why Is It The Future Of Online Learning?* eLearning Industry. <https://elearningindustry.com/virtual-classroom-why-future-online-learning>
- Bhattacharya, A. (2023, January 17). *Mobile learning localization*. <https://www.linkedin.com/pulse/mobile-learning-localization-avi-bhattacharya/>
- Boma, I. D., & Liah, P. B. (2021). Perceived Influence of E-Learning on Business Education Students' Academic Performance in Rivers State Universities. *International Journal of Innovative Information Systems & Technology Research*, 9(4), 33–40. <https://doi.org/10.1093/applin/aml004>
- Britannica. (2020). Programmed learning. Retrieved 22 August 2021, from <https://www.britannica.com/topic/programmed-learning>
- Chikurteva, A., Spasova, N., & Chikurtev, D. (2020). E-learning: technologies, application and challenges. *2020 XXIX International Scientific Conference Electronics (ET)*. <https://doi.org/10.1109/et50336.2020.9238176>
- Christabelle, K. (2017, March 1). How does ICT change the world? Retrieved 10 August 2021, from <https://welovekdrama.wordpress.com/2017/03/01/how-does-ict-changed-the-world/>
- Computer Hope. (2020, April 30). What is E-? Retrieved 11 August 2021, from <https://www.computerhope.com/jargon/e/e-.htm>
- Comunicación, Z. S. (2020, March 22). ICT. Retrieved 7 August 2021, from <https://www.zorraquino.com/en/dictionary/internet/what-is-ict.html>
- Duffin, E. (2020, February 6). *E-learning and digital education - Statistics & Facts*. Statista. <https://www.statista.com/topics/3115/e-learning-and-digital-education/>
- Ericsson. (2019, February 23). The social impact of ICT. Retrieved 9 August 2021, from <https://www.ericsson.com/en/reports-and-papers/networked-society-insights/social-business/social-impact-of-ict>
- Ibenegbu, G. (2017, November 7). Top 10 benefits of ICT in the education sector. Retrieved 8 August 2021, from <https://www.legit.ng/1134015-benefits-ict-education-sector.html>
- Jenesa, K. (2017, March 1). How does ICT changed the world? Retrieved 10 August 2021, from <https://welovekdrama.wordpress.com/2017/03/01/how-does-ict-changed-the-world/>
- Lumen Learning. (2014, December 14). Media and Technology in Society | Introduction to Sociology. <https://courses.lumenlearning.com/sociology/chapter/media-and-technology-in-society/>
- Salamat, P. A. G. E., Ahmad, L., Bakht, I. G., & Saifi, I. (2018, July 9). effects of e-learning on students' academic learning at university level. research gate. Nair, M. (2022, July 19). *Online Learning vs Classroom Learning: Online or Traditional Classes?* University of the People. <https://www.uopeople.edu/blog/online-learning-vs-classroom-learning/> [https://www.researchgate.net/publication/326293305\\_effects\\_of\\_e-learning\\_on\\_students%27\\_academic\\_learning\\_at\\_university\\_level](https://www.researchgate.net/publication/326293305_effects_of_e-learning_on_students%27_academic_learning_at_university_level)
- Tamm, S. (2023, January 12). *What is the Definition of E-Learning?* E-Student. <https://e-student.org/what-is-e-learning>