

## ASSESSMENT OF BUSINESS EDUCATION STUDENTS' PERCEPTION OF BENEFITS AND CHALLENGES OF USING E-LEARNING SYSTEM IN TERTIARY INSTITUTIONS IN THE NORTH-WESTERN, NIGERIA

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### Abstract

*The study assessed the business education students' perception on benefits and challenges of using e-learning system in tertiary institutions in the North-western Nigeria. The research has five specific objectives, five research questions and five null hypotheses which were tested at 0.05 level of significance. The study adopted a descriptive survey research design which is purely quantitative, using a structured questionnaire which was administered to 300 final year students of eleven (11) tertiary institutions teaching business education programme in the North-western, Nigeria. Data collected was analyzed using descriptive statistics while independent samples t-test was used in testing the hypotheses. The study revealed that business education students believe that e-learning system has many benefits but associated with many challenges. By implications, the students' participation in e-learning system would be improved when the challenges associated with e-learning system are fully addressed. Likewise, Tertiary institutions offering business education programme should educate students well about more benefits of using e-learning system and address all the students' challenges associated with the use of e-learning system to ensure everything is available and working as expected.*

**Keywords:** e-learning system, benefits of using e-learning system, challenges of using e-learning system

### Introduction

In Nigeria like many developing countries, electronic learning (e-learning) and Information Communication Technology (ICT) have become important part of a national effort to improve education. Students learning in tertiary institutions all over the world have undergone tremendous transformation, especially since the advent of ICT (Bassey *et al.*, 2017). There is a shift from traditional approach of teacher directed to modern methods where computer technology plays a significant role. ICT has promoted learning and made it more meaningful, where students can stay even in their homes or classrooms and receive lectures without seeing the teacher or instructor. The aspect of ICT that has brought about this revolution in students' learning is e-learning (Bassey *et al.*, 2017). E-learning in its broadest sense refers to any learning that is electronically enabled (Adewole-Odeshi, 2018). The application of e-learning in developing countries has gradually advanced in recent years with an improved availability of internet connections, local area networks, and IT support (Omidinia *et al.*, 2015).

E-learning systems are rapidly becoming an integral part of the teaching and learning process in many schools. To most learners, online instruction offers the flexibility and convenience to complete learning units when and where a learner desires (Zhang & Bhattacharyya, 2018) as the issues of location and time are no longer a limitation to study. In other words, it enables improvements in communication efficiency, both between student and teacher, as well as among students. According to Omidinia et al. (2015), online instruction can potentially enhance learning compared to what can be accomplished using a classroom only approach. Additionally, online education can result in cost reduction and improvements in efficiency through a standardized way to deliver content (Adewole-Odeshi, 2018). Similar studies have also identified similar benefits and opportunities. For example, Zhang & Bhattacharyya (2018); Abdullahi *et al* (2020) noted that e-learning provides institutions with the opportunity to have learner-centered and self-paced courses, flexibility in time and location, and cost-effective options for learners. They present strategic opportunities for these schools to extend their offerings and reach across geographical borders and regions (Zhang & Bhattacharyya, 2018). E-learning is carried out through the use and integration of electronic medium, such as email, portal, downloadable-executable-file, social networking sites, web platforms, electronic dissertations and e-portfolios, among others (Wells, de Lange & Fieger, 2018). E-learning has been identified as critical to the success of education, because with e-learning students can access contents anywhere and anytime (Zhang & Bhattacharyya, 2018). The author further stated that with e-learning students are able to grasp information more effectively.

In the developing countries Nigeria inclusive, the active, participative students who are required for online or interactive learning are rare, and the traditional methods are widely used in teaching and learning (Evans, 2015; Andersson & Gronlund, 2019). Similarly, Abdullahi *et al* (2020) observed business education students of tertiary institutions in Nigeria are still left behind in terms of e-learning and this could be due challenges associated with use of e-learning and lack of proper knowledge about the benefits of e-learning system (Abdullahi et al., 2020). It is in view of these arguments that this paper intends to assess business education students' perception on benefits and challenges of using e-learning system in tertiary institutions in the North-west Nigeria. The study's outcome will be relevant to the business education students of tertiary institutions in terms of identifying the benefits and challenges of using e-learning system.

### **Concept of E-Learning**

With the rapid growth of technology, many definitions have been given to e-Learning such as: Web-Based Learning (WBL), Web-Based Instruction (WBI), Web-Based Training (WBT), Internet-Based Training (BT), Distributed Learning (DL), Advanced Distributed Learning (ADL), On-line Learning (OL), Mobile or m-Learning, Nomadic Learning, Remote Learning, Off-site learning, and a-learning: anytime, anyplace, anywhere learning (Khan, 2007). Further, Keegan (2005) points out that e-Learning comprises the following terms: distance education, distance teaching, distance learning, online learning, online education, web-enabled education, distributed learning among others. Also, terms like "electronic learning" are used at the present time (Macpherson & Homan, 2015). Khan (2007) added that "e-Learning is intended to deliver information to the learner in the shortest time". In the same context, Begicevic et al (2016) argue that e-Learning is: "a type of learning supported by information and communication technology (ICT) that improves quality of teaching and learning". E-learning as any form of education that is facilitated by the internet and its technologies, and encompasses the use of the world wide web (www) to support instruction and to deliver course content (Masrom, 2017). Similarly, Andersson and Gronlund (2019) point out that "e-Learning refers in this stage to the effective integration of a range of support to

traditional teaching and learning". Hadjiathanasiou (2009) states that e-Learning can occur in the halls of the universities, from home and at the work place, not limited to one place. E-learning is further defined as instruction delivered via a computer that is intended to promote learning (Clark & Mayer, 2018).

From the above definitions, it can be assumed that there are numerous definitions of e-Learning and the most common feature is that it is a type of a teaching method that uses the mechanisms of modern communication, computer networks, multiple modes of voice and picture, the drawings, and electronic libraries, as well as Internet portals, either remote or in the classroom. Furthermore, it is supported by communications technology such as television, videotape, computers, e-mail, and mail. It relies upon the Internet /World Wide Web. It can be formal and informal and or can be used for teaching and professional development via any electronic methods involved but not limited to the internet, CD-Rom, videotape, and DVD. Thus, e- Learning enables students to learn whenever and wherever they want. It provides flexible access to the teaching materials at the learners' convenience'. Based on the above it seems valid to explore the potential advantages of e-Learning in detail.

### **The Advantages and the Importance of E-Learning**

E-Learning is one of the most important systems that have many useful applications for improving the quality of teaching and learning. This argument is much supported by Bates (2015) who pointed out that e-Learning comprises different teaching methods such as information management, creative thinking, critical thinking, problem solving and collaborative learning. Likewise, Karmakar and Wahid (2016) highlight that expanding e-Learning applications brings many attractive opportunities for organizations, such as (1) saving time, cost and effort, (2) satisfying educative needs of learners from remote areas, (3) providing self-education opportunities, (4) providing positive impact on learning process, (5) broadening opportunities to present the course content in a way that better suits the needs of the learners, (7) overcoming learning problems in certain subjects such as languages and sciences, (8) providing mechanism of collaborative learning. Furthermore, Harriman (2007) outlined nine advantages of applying e-Learning in education as follows: (1) the accommodation of multiple learning styles, (2) offering individualized instruction, (3) providing self-paced instruction, (4) offering on-demand access, (5) allowing collaborative learning, (6) engaging users, (7) increasing retention, (8) increasing consistency and (9) tracking learners.

Reflecting on the advantages of e-Learning, we can realize its importance and usefulness. To overcome the limitations of time and space, e-Learning is aimed at ensuring high levels of higher education for students in their residential places through the creation of an integrated e-Learning environment through the World Wide Web of the Internet. e-Learning does not need classrooms or directly face to face instruction from the tutor; it allows students to exchange information through a special site on the Internet. So, it offers solutions to several challenges such as lifelong learning, and the ongoing demands for continuous Professional development, and the drive to widen participation (Haverila & Barkhi, 2009). Also, e-Learning can help academic staff to support and enhance learning (Contino, 2015). Moreover, it is a formal learning activity, which occurs when students and instructors are separated by geographical distance or by time (Haverila & Barkhi, 2009). Thus, e-Learning improves the flexibility and quality of learning (Nyvang, 2016). According to Bouchard (2019) E-Learning is considered, by many, as the only viable solution to the problem of delivering the resources required to facilitate lifelong learning. On the other hand, e-Learning is carried out within scheduled start- and end-dates, and assignment timelines.

However, the times chosen to work are entirely up to learners. So, it is flexible and convenient without geographical barriers (Bigg, 2014).

Additionally, the role of e-Learning in the classroom can support teaching – although it will not replace teachers and textbooks, it makes them more effective. The design of distributed e-Learning is different from traditional classroom instruction in teaching and learning process, the traditional classrooms are space bound and a closed system, but e-Learning are more flexible in this process (Khan, 2007). Furthermore, Amer (2005) pointed out that e-Learning is useful in the development of vocational teachers, in particular, who find it difficult to attend university classes. It is according to change in the way and method of collection of scientific research for the students in the performance of their duties. E-Learning can help to communicate with other foreign languages and learning process. Students of special needs can benefit from e-Learning with very minimum effort and cost. Society's provision of money to support research on e-Learning is very helpful in order to speed up the process in finding the best e-Learning solutions and more benefits can be gained, and it would give the staff more time to spend on research (Fogerson, 2015). Baker (2016) pointed out that e-learning reduces costs. Similarly, Stockley (2014) stated that a good e-Learning project can save a lot of money. In a report published in 1997 in England, Lord Dearing proposed that more and more e-Learning should be used, and not only to resolve some problems arising from growing numbers of students and decreasing funding of universities (Woodfine & Nunes, 2006). Given that, the e-Learning program can be positive when it is used to save money or reduce the overall cost (Fogerson, 2015). It is worth mentioning that, e-Learning should not be viewed as an alternative for the traditional classroom; however, it provides a good level of knowledge, it offers flexibility for learners (Haverila & Barkhi, 2009). In the following paragraphs, we are going to explore how e-Learning can be a key element in providing successful education.

### **E-Learning in Education**

Technology has changed many aspects in our lives; the way people live, work, and learn among others. That means there are many educational benefits that help individuals to reach an output value of education greater than traditional education system (Andersson & Gronlund, 2019). e-Learning is a consequence of the huge evolution in the sector of information technology, particularly, in the computer science. Therefore, it is essential to introduce the use of technology in the educational institutions as an important tool to improve the education process. Daniel (2006) mentioned that while technology alone might not be the answer to all of the university's problems, e-Learning can certainly play a key role regarding education problems. In this regard, educational means have been re-evaluated, and necessary improvements have been adopted. Internet has been allowed as a mean of learning or the so called flexible e-Learning, where flexibility comes from the physical environment surrounding the student. So student can choose the right time and place for learning. There are also other e-Learning methods including open e-Learning, distance learning (Woodfine & Nunes, 2006).

According to Watkins (2015) most teachers -of all ages- are not adequately prepared to effectively benefit from the technology-rich training opportunities offered by organizations. Additionally, before starting with this system (e-Learning), we need to have a clear vision of education and innovation and the purpose of e-Learning implementation, this matter is indisputable, if we only knew the importance of implementation in education sector (Jochems & Merrieboer, 2014). A lot of researchers and educators devoted enough attention to the importance of the introduction of computers in the education process on a basis that, it is an excellent tool in the delivery of information; however, a number of researchers discussed such related ideas (Clark, 2008). Identifying practical e-Learning and technical skills is needed before implementing this system

(Watkins & Leigh, 2013). The critical factors for successful implementation of e-Learning systems at the educational departments are: previous experience of using technology; availability of technological infrastructure are the new key elements to succeed with the e-Learning experience by the lecturer. Two essential skills for success in e-Learning are adapting old skills and habits from the traditional classroom to suit e-Learning and developing and applying new e-Learning skills and habits for e-Learning. From building a robust vocabulary of technology-related terms to adequately preparing for a debate in online discussion board and building the skills for e-Learning typically takes many of the study habits from the traditional classroom and applies them in new ways using technology. For example, learners can apply the cornell note-taking system even when they're reading a PDF file they downloaded from the organization's training (Watkins, 2015).

According to Blinco and Curtis (2004), the e-Learning implementation process is composed of many considerable and important components to achieve a successful process: portal application, web application, client application, software agents, web service providers, web service enabled tools, standards based services, repositories and web services management tools. Therefore, the implementation of the e-Learning process goes through some phases namely, system design and academic standards, management of programmer delivery, student development and support, staff communication and representation, and staff assessment (Quality Assurance Agency, 2009).

The recent developments have been aimed to explore the use of technology in the educational programs, especially in universities which serve in the role of major generations (Gurr, 2007). According to Watkins (2015), the success of online learning in higher education may be attributed to the following factors: sustainable government sponsorship, total commitment and support from top management, participation, cooperation and support from major universities, advanced technical skills, technical support, expertise in instructional design, marketing experience and skills.

The teaching style and teaching material must reflect the change in the real world. It has become universally recognized that education in all forms has developed to be the basic platform and the main tool to achieve the hopes and aspirations of every human being and every nation (Arsham, 2012). Thus, the major change is that we have broadened the change perspective introduced. The primary emphasis continues to be on the concerns-based view; other perspectives are introduced to add to your overall understanding of change" (Hall & Hord, 2006). Additionally, since the introduction of the World Wide Web and increasing global access to the internet, educational institutions from various educational sectors, universities particularly, have experimented to what is known as e-Learning process, while much has been accomplished, e-Learning process has been very important in our lives (Khan, 2007). With the advent of the internet and the related technology, including the use of e-Learning, the educational institutions have been active in the production and development of learning materials needed for this type of e-Learning, particularly since the success of this system requires a planning and design, not just making it available to educated people (Khan, 2007).

### **Research Design**

In the present study, a descriptive survey research design was adopted to assess business education students' perception on the benefits and challenges of using e-learning system in tertiary institutions in North-west Nigeria.

## Population and Sampling

The population of this study consisted of 1455 final year business education students of eleven (11) tertiary institutions offering business education programme in North-west, Nigeria (Table 1). The sample size for this study consist of 300 final year business education students of eleven (11) tertiary institutions offering business education programme in North-west, Nigeria. The sample was statistically determined using GPower, a statistical procedure used for determining the appropriate minimum sample size required for a study. Proportional random sampling technique was used to select the sample in each tertiary institution in proportion to the population.

**Table 1: Population Distribution of Business Education Students**

| S/N | Name of Institution | State   | NO. of Students |
|-----|---------------------|---------|-----------------|
| 1   | A.B.U Zaria         | Kaduna  | 152             |
| 2   | FCE, Katsina        | Katsina | 210             |
| 3   | FCE (T), Gusau      | Zamfara | 78              |
| 4   | COE, BirninKebbi    | Kebbi   | 72              |
| 5   | COE Tambuwal        | Sokoto  | 60              |
| 6   | COE, Kazaure        | Jigawa  | 75              |
| 7   | FCE, Bichi          | Kano    | 220             |
| 8   | FCE, Kano           | Kano    | 180             |
| 9   | COE, Kumbotso       | Kano    | 91              |
| 10  | FCE, Zaria          | Kaduna  | 221             |
| 11  | COE, GidanWaya      | Kaduna  | 96              |
|     | Total               |         | <b>1455</b>     |

**Source:** Office Head of Department of respective institution (2021).

## Instrument for Data Collection

The variables of present study were measured using Business Education Students' Perception on E-Learning System Questionnaire. The study adapted questionnaire base on the previous studies (Vululleh, 2018; Humida, Mamun, & Keikhosrokiani, 2022). This was done because Sekaran and Bougie (2013) recommended that a researcher can adopt or adapt questionnaire from the prior studies relevant to the current research. The research consists of two (2) constructs: benefits of using e-learning system (10 items) and challenges of using e-learning system (7 items). In this study, the Likert scale was adopted for all the items, the respondents were asked to indicate their responses to each question on a five-point scale. Sekaran and Bougie (2013) opined that a scale between five and seven points is more reliable than higher or lower scales and a scale with no midpoint may increase the measurement error. Similarly, Hair et al. (2017) states that a five or seven scale is likely to produce better results. The five-point likert scale used in this study is as follows: Strongly Disagree (SD) = 1, Disagree (D) = 2, Undecided (UD) = 3, Agree (A) = 4, and Strongly Agree (SA) = 5. To ensure the reliability of instrument of the present study, the pilot test was conducted with 30 final year business education students of tertiary institutions offering business education programme in North-east, Nigeria. Because zone is outside the study area but the respondents have similar characteristics with the sample of this study. The 30 students satisfied the recommended pilot test range from 25-75 (Sekaran & Bougie, 2013). In this study, the reliability of the instrument was assessed using Cronbach alpha, the reliability coefficients of the three constructs are; benefits of using e-learning system (.88) and challenges of using e-learning system (.87). The results suggested that the instrument is reliable based on the

recommendation given by Hair et al. (2017). According to them Cronbach alpha coefficient of at least .70 is considered satisfactory and acceptable.

### Method of Data Analysis

Finally, for cleaning of data and analysis, SPSS 23 was used throughout the process to run the mean and independent samples t-test.

### Findings

The results of descriptive statistics (Table 1) indicate that the grand means of e-learning system benefits among students of university and college of education are 4.09 and 4.01 respectively. The results revealed that business education students in both university and college of education perceive e-learning system as good in exchanging ideas and comments, asking questions and receiving answers, discussing with course mates among other. This suggested that e-learning system has many benefits on students' activities. The result of test of hypothesis one also reveals no significant difference in the mean perceptions of business education students in university and college of education on benefits of using use e-learning system  $t(290) = 1.689, p = .092$ . Again, evidence from the descriptive statistics in Table 1 revealeds that the grand means of university and college of education are 3.79 and 3.62 respectively. The results indicates that business education students in university and college of education in North-west Nigeria have many challenges of using e-learning system which include among others; poor internet connectivity and network system, IT people working in the lab do not provide adequate help to students, not having personal laptops/ tablets for easy studying. The results further imply that business education students of tertiary institutions in North-west Nigeria have both personal and institutional challenges of using e-learning system. The finding was confirmed by the result of second hypothesis which indicates no existence of significant difference in the mean perceptions of business education students in university and college of education on challenges of using e-learning system  $t(290) = .802, p = .423$

**Table 1:** Independent samples t-test of students' perception on benefits and challenges of using e-learning system.

| Variable   | Groups     | N   | t-value | Mean | SD   | Sig. (2-tailed) |
|------------|------------|-----|---------|------|------|-----------------|
| Benefits   | University | 29  | 1.689   | 4.09 | .583 | .092            |
|            | COE        | 263 |         | 4.09 | .728 |                 |
| challenges | University | 29  | .802    | 3.79 | .846 | .423            |
|            | COE        | 263 |         | 3.62 | .762 |                 |

### Discussion

The findings of this study indicates that business education students in both university and college of education perceives e-learning system as good as it has many benefits on students learning activities. The finding was consistent with the argument of the prior study of Asif et al. (2022), revealing that e-learning has been very useful throughout the pandemic period among selected Saudi Arabian universities. The students have a positive view of the online system of education, which has many benefits, including flexibility, low cost, self-learning, and convenience. This was supported by Tolentino et al. (2022) who investigated the multinational perspective of online learning using data gathered from college students in the Philippines, Kingdom of Saudi Arabia, and the Sultanate of Oman. The findings of the study revealed that students from the three

countries generally perceived online classes as effective, convenient, practical and, on the whole, better than face-to-face instruction. In addition, the study revealed that business education students in university and college of education in North-west Nigeria have many challenges of using e-learning. The finding is consistent with Shahmoradi et al. (2018) in the context of Iran. The findings of their study indicated that about half students investigated had problems of accessing the technology for learning activities. Similar finding was reported by Madu (2020) in his study of challenges of e-learning during COVID-19 pandemic in colleges of education in south east states, Nigeria. The study revealed several challenges associated with e-learning during COVID-19 pandemic in colleges of education in south east states which include: epileptic power supply, high cost of procurement of electronic devices, high cost of maintenance of ICT equipment for e-learning, poor internet connectivity, shortages of relevant software, low level of incentive to lecturers, low level of student accessibility to internet facilities, poor technical support from management and high cost of data bundle to connect e-learning platform.

### **Conclusion**

This study provided empirical evidence on business education students' perception on benefits and challenges of using e-learning system in tertiary institutions in the North-western Nigeria. The study proved that e-learning system has many benefits but associated with many challenges. Therefore, the tertiary institutions offering business education programme in the North-west, Nigeria should address the identified challenges such as internet connectivity and network system, IT people working in the lab, adequate investment in infrastructure to support e-learning system, provision of visual and audio tutorials on e-contents as these will help in improving students' participation in e-learning system.

### **Recommendations**

Based on the findings of the study the following recommendations were made:

- i. Tertiary institutions offering business education programme should educate business education students well about more benefits of using e-learning system.
- ii. Tertiary institutions offering business education programme should address all the students' challenges associated with the use of e-learning system to ensure everything is available and working as expected.

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