



ASSESSMENT OF UNDERGRADUATE BUSINESS AND ENTREPRENEURSHIP EDUCATION STUDENTS' PERCEPTION ON DIGITAL TECHNOLOGY USAGE IN CLASSROOM ACTIVITIES IN DELTA STATE UNIVERSITY, ABRAKA

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Abstract:

The study was carried out to assess undergraduate business and entrepreneurship education students' perceptions of digital technology usage in tertiary institutions in Delta State in Nigeria. Two research questions and two hypotheses guided the study. A sample of 100 students was randomly drawn using balloting and proportionate stratified random sampling techniques. A questionnaire was used to collect data. The reliability of the instrument was obtained through Cronbach's Alpha. A reliability coefficient of 0.88 was obtained as a measure of internal consistency. The data collected were analysed with the mean and Z-test. Mean was employed to answer research questions, while the Z-test was applied to test hypotheses at a 0.05 level of significance. The result showed a high perception of students on digital technologies in classroom activities in the tertiary institutions. There was no significant difference between male and female students, as well as 300-level and 400-level students, on digital technologies usage in classroom activities. Therefore, it was noted that digital technologies should be employed in the delivery of business and entrepreneurship education programmes in tertiary institutions in Nigeria.

Keywords: assessment, perception, teaching and learning, digital technologies

1. Introduction

The use of digital technologies in teaching students over the years, in other fields of study, has improved learning due to the implementation of digital software in education. However, this depends on their perception of digital technologies and software applications as in the case of this study. The digital technologies have not been fully used

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in teaching and learning in Nigerian tertiary institutions. Business Education is a subject area in the University that requires digital technologies in classroom activities. Some of the infrastructures used in digital technologies are already used in a similar way in Business Education, such as the keyboard in computers, as related to the typewriter in Business Education. It has been defined that information and communication technology is a scientific method of disseminating information within the quickest possible time (Okoro, 2019). It involves computers and other accessories that provide information. These would serve as good aids for classroom activities. Wikipedia (2020) has pointed out that digital technologies could be used in teaching a subject matter that enables a learner to understand the functions and their effective use. This implies that digital technology facilities could be applied to teach another subject, including business education.

Digital technologies could be employed for different purposes. In teaching, computers, projectors, television and other video and audio-visual aids could be used. The digital technologies support could also be used to teach students and monitor their learning progress. Students should also obtain information from the internet about the area taught or use it to do their assignment. Software could be obtained to provide information to the student. Digital technologies could be utilized to improve the efficiency and effectiveness of service delivery of business and entrepreneurship (Sibanda & Maposa, 2013). Students could be taught from a distance through digital technologies to support the classrooms where they receive lectures. Students would have the opportunity to see and listen to the teacher. A projector screen could be used to provide video and audio aid during teaching and research periods. Webcams in laptops could also be used to transmit teaching and learning. The students will have the opportunity to ask questions and interact. All these would help to improve behavioral change with the application of digital technologies in business education. Another advantage of digital technologies is the application of websites for learning. Students could obtain information from the website about their subject areas as well as do their assignment (Okoro, 2019). Digital technologies have a lot of advantages for teaching a. The perception of students would help them to improve when digital technologies is properly applied to instructional delivery. However, the greatest problems to digital technologies are power and network failures.

2. Literature Review

It has been pointed out that digital technologies are the use of the scientific method to provide and receive information faster and better. Many scholars and organization have supported the use of digital technologies in the teaching and learning process. These include: Kaka (2008), Wagner-Menghin and Master (2013), Maposa (2013), Osadebe (2014) and Joint Admission and Matriculation Board (2020). Digital technologies in education refer to the teaching and learning with a digital technology's infrastructure.

This should be applied to Business Education to improve teaching and learning. digital technologies serve as an infrastructure, as an agent of change, and as an alternative measure. The use of telephone, website, e-mail, and face-to-face infrastructures could be an alternative service (Edionwe, 2023).

In education, digital technologies infrastructure could be divided into three categories. These include input source, output source and others. The input sources include: visualize document camera, personal computers, a slate, software and a student's response system. The output sources include: projector, interactive whiteboard, monitor and TV. Other tools include Digital, switcher, and recorder. Digital technologies lead to improved student learning and better teaching methods. It has a positive impact on students' achievement, especially in business and entrepreneurship education, in terms of knowledge, comprehension and practical skills. Thus, through digital technologies, images can easily be used in teaching and improving the retention of students. Lecturers can easily explain complex instructions and ensure students' comprehension. Furthermore, lecturers are able to create more interesting classes and lessons that are more interesting, which could improve students' attendance and individual concentration. Therefore, with digital technologies, it is easy to see that the visualize or so-called document camera can be the most effective and efficient digital technology support for education. The visualize or camera document is a digital teaching aid that will allow lecturers and students to display and share a much wider range of information in the class and bring lectures or lessons to life.

Assessment of students' perception is necessary because it helps to determine how students see and feel about digital technologies in business and entrepreneurship education in schools. It has been defined that assessment is the use of valid and reliable instruments or techniques such as tests, observation, questionnaires, and interviews, among others, in obtaining information about a students' behaviour upon which judgement is made (Osadebe, 2014). The focus of assessment is to analyze information provided by test, observation, questionnaire, interview, among others and to combine the data to make complex and important judgments about an individual (Aiken, Gronlund, Murphy and Davidshofer, Eggens & Kauchuk, Osadebe, 2014). Assessment provides help to determine whether students' perception is low or high using digital technologies. Therefore, the problem of this study, if put in question form, is:

- What is the perception of business entrepreneurship education undergraduate students on the usage of digital technologies in the classroom?

3. Statement of the Problem

One of the recent problems in Nigeria is that undergraduate students in business and entrepreneurship education are used to the old method of instruction and delivery. These include the typewriter, telegram, and post office, which take a long time to deliver their message. All these problems call for the use of digital technologies, which deliver

messages in the shortest time (Okoro, 2019). Therefore, perceptions of undergraduate business and entrepreneurship education students should be assessed using digital technologies via the teaching and learning process. Knowledge of the students' perception would help to transmit the application of digital technologies. However, students' perceptions may not be the same. It could be high or low. Male students' perceptions may differ from those of females. The same may apply to rural and urban students.

3.1 Purpose of the Study

The primary purpose of this study is to assess undergraduate business and entrepreneurship education students' perception of digital technologies in tertiary institutions. Specifically, the study:

- 1) Assess the perception of male and female undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities.
- 2) Assess the perception of 300-level and 400-level undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities

3.2 Research Questions

The underlisted research questions were used to guide the study:

- 1) What is the assessment of the perception of male and female undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities?
- 2) What is the assessment of the perception of 300-level and 400-level undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities?

3.3 Hypotheses

The following null hypotheses were tested at the 0.05 level of significance:

- 1) There is no significant difference between the perception of male and female undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities.
- 2) There is no significant difference between the perception of 300-level and 400-level undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities.

4. Method

The study assessed the perception of undergraduate business and entrepreneurship education Students on digital technologies usage in classroom activities in tertiary

institutions. The dependent variable is perception. The independent variables include the sex and class level of students. Thus, the assessment of students' perception of digital technologies for classroom activities depends on sex and class level. Delta State University, Abraka, was used as a case study. The population consists of 300 and 400-level students who have taken courses related to digital technologies. A sample of 100 undergraduate Business Education students was randomly selected through simple random sampling of balloting and proportionate stratified random sampling techniques. The instrument used was a questionnaire on a 4-point scale. The instrument has face validity obtained through expert judgement, and construct validity verified through factor analysis. Cronbach's Alpha was used to determine the reliability. A reliability coefficient of 0.88 was obtained as a measure of internal consistency. The data collected were analyzed in line with the research questions and hypotheses. The summation method was used to obtain each respondent's score from the instrument. The score from each student's responses on items in the instrument was summed up to obtain a total score for each student. There were 20 items in the instrument, whose 4-point scale had a mean of 2.5. To answer each research question, a benchmark of 50 and above was considered as high perception. Then, a mark below 50 was considered as low perception. Each hypothesis was tested with a Z-test at a 0.05 level of significance.

5. Results

The results were presented in tables in line with the research questions and hypotheses.

Research Question 1: What is the assessment of the perception of male and female undergraduate business and entrepreneurship education students on the usage of digital technologies in classroom activities?

Table 1: Mean analysis of male and female undergraduate business and entrepreneurship education students' perception of digital technologies usage in classroom activities

Gender	N	Calculated Mean	Benchmark Mean	Assessment
Male	40	63.22	50	High
Female	60	65.01	50	High

Table 1 shows that the mean perception of male students was 63.22, while that of female students was 65.01. The mean score of both male and female students was above the benchmark mean of 50, indicating high perception. Therefore, the result revealed a high perception of male and female students on digital technologies for classroom activities in tertiary institutions.

Research Question 2: What is the assessment of the perception of 300 and 400-level undergraduate business and entrepreneurship education students on digital technologies usage in classroom activities?

Table 2: Mean analysis of 300 and 400 level undergraduate business and entrepreneurship education students' perception on digital technologies usage in classroom activities

Gender	N	Calculated Mean	Benchmark Mean	Assessment
300level	40	64.02	50	High
400level	60	66.12	50	High

Table 2 presents the mean score of the perception of 300 and 400 level students on digital technologies usage in classroom activities. The mean scores of both 300-level students were 64.02 and 66.12 for 400-level students. The mean score for both 300 and 400-level students was above the benchmark of 50, indicating high perception. Therefore, there was a high perception among 300 and 400-level students on the usage of digital technologies in classroom activities.

Hypothesis One: There is no significant difference between male and female undergraduate business and entrepreneurship education students' perceptions of digital technologies usage in classroom activities.

Table 3: Z-test analysis of the perception of male and female undergraduate business and entrepreneurship education students on digital technologies usage in classroom activities

Gender	N	Mean	SD	Calculated Z-Value	Critical Z-Value at 0.5	Decision
Male	40	63.22	6.02	0.95	1.96	Accepted
Female	60	65.01	7.33			

Table 3 showed that the calculated Z-value of 0.95 was less than the critical Z-value of 1.96 at the 0.5 level of significance. The null hypothesis was accepted. The result maintains that there was no significant difference between the perception of male and female undergraduate business and entrepreneurship education students on digital technologies usage in classroom activities.

Hypothesis Two: There is no significant difference between the perception of 300-level and 400-level undergraduate business and entrepreneurship education students on digital technologies in classroom activities.

Table 4: Z-test analysis on the perception of 300 and 400 level undergraduate business and entrepreneurship education students on digital technologies usage in classroom activities

Class level	N	Mean	SD	Calculated Z-Value	Critical Z-Value at 0.5	Decision
300 level	40	64.02	8.50	1.69	1.96	Accepted
400 level	60	66.12	9.11			

Table 4 indicates that the calculated Z-value of 1.69 was less than the critical Z-value of 1.96 at the 0.05 level of significance. The null hypothesis was accepted. The result revealed that there was no significant difference between the perception of 300 and 400 level

undergraduate Business Education Students on digital technologies usage in classroom activities.

6. Discussion

The results revealed high perception among undergraduate Business Education Students on digital technologies in classroom activities. The same applied to the perception of male and female as well as 300 and 400-level students. The results implied that students supported the usage of digital technologies in teaching business and entrepreneurship education in tertiary institutions. The result also showed no significant difference between the perception of male and female students as well as between 300 and 400 level students, on digital technologies in delivery business and entrepreneurship education in tertiary institutions.

The results supported the work of Osadebe (2014), who proposed that digital technologies should be used to assess education students only. This would help the students to be in line with current development. This includes a change from analogue to digital. Other scholars and establishments that supported the use of digital technologies in schools collaborate with findings of Kaka (2008), Wagner-Menghin and Master (2013), Sibanda and Maposa (2013) and the Joint Admission and Matriculation Board (2020).

The results are at variance with the University Policy in Nigeria, where digital technologies are only taught to students for knowledge, but not practically using the infrastructures for classroom management. The old method is still being implemented. Computer-based testing has not been fully introduced. The email and website have not been fully used for students' learning. However, the high perception of students has revealed that digital technologies infrastructures should be used in teaching and learning business and entrepreneurship education in Universities in Nigeria.

7. Conclusion

The study assessed the perception of undergraduate business and entrepreneurship education students on digital technologies usage in classroom activities in universities in the 21st century. Currently, digital technologies infrastructures are not being used to teach students. These infrastructures include internet connection, websites, visualizer, document camera, computers, software, students' response system, projector, interactive white board, monitor, TV, switcher, digital recorder, among others. The students need digital technologies infrastructures to be well informed and learn better. The result of the study revealed that students' perception was high in favour of digital technologies usage in teaching, learning and research activities in universities across Nigeria.

8. Recommendations

- 1) The government should provide Digital technologies infrastructure funds for teaching, learning and research in business and entrepreneurship education
- 2) The universities' management should make digital technologies infrastructure available in tertiary institutions for the skills acquisition process
- 3) The government should provide a constant power supply and a stable network to enable digital technologies infrastructures to work effectively for teaching, learning and research

Conflict of Interest Statement

The authors declare no conflicts of interest.

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