

PERSONAL LEARNING AND LEARNING ENVIRONMENTAS DETERMINANTS OF ICT PROFICIENCY OF POSTGRADUATE BUSINESS EDUCATION STUDENTS IN NORTH-EAST NIGERIA

BY

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Abstract

The study examined the personal learning and learning environment as determinants of ICT proficiency of postgraduate business education in North-East Nigeria. The study adopted a survey research design, a total population sample was used in the study. The population of the study comprised all 95 MSc business education students of two universities in the area of study that are offering business education programme at the postgraduate level and the entire 95 students were used in the study. The data collected were statistically treated using multiple regression. The results revealed that personal learning and learning environment has positive and significant influence on ICT proficiency of postgraduate business education students. The findings suggest that personal learning using ICT facilities for academic purposes should be encouraged among postgraduate business education students, and a comfortable learning environment with well-equipped ICT facilities should be provided because these will improve the ICT proficiency of postgraduate business education students and minimize the issue of going to commercial cyber cafes, and business centers in town by postgraduate business students for their assignment and other academic activities.

Keywords: *Personal Learning, Learning Environment, ICT Proficiency.*

Introduction

Information and Communication Technology (ICT) is a diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information (Hamdani, 2017). In today's era, ICT is having a magnanimous influence on higher education system of any country (Chakraborty, Dhara & Santra, 2018). ICT in education has been continuously linked to higher efficiency, higher productivity, and higher educational outcomes, including quality of cognitive, creative and innovative thinking (Adeosun, 2010). ICTs are radically transforming the way we live. ICT is pervasive in our work, study and personal lives in which today's learners are growing up in a world characterized by technological change and innovation (Las-Johansen, Verrecio, Funcion, Quisumbing, Gotardo, Laurente & Marmita, 2017). Also, Olatokun (2017) stated that ICT is the driving force for a successful quality tertiary education delivery in this modern age of technological development. Ogbomo (2011), is of the opinion that the rapid developments in ICTs in recent years have resulted in significant changes in the way the world operates and communicates. For instance, Developed countries like USA, China, Japan, and France have attained a tremendous height in education since learning is made easier as a result of easy accessibility to computers, internet service and other electronic devices (Orike, Iyalla & Okereke, 2017).

Similarly, the objectives of university education In Nigeria are to produce high-level manpower for realization of national needs and aspirations, industrial development, and technological emancipation (Federal Ministry of Education, 2014). ICT is therefore an important tool in this regard. As a result, the National Universities Commission (NUC) considers ICT as Benchmark Minimum Academic Standards (BMAS) for all academic programs in Nigerian Universities. ICT is a tool that can be used to change instruction, learning, and research (Liverpool, Marut, Ndam & Oti, 2010). According to Victor and Bolanle (2017), ICTs facilities have a significant impact on instruction, learning, and research in higher institutions because they increase electronic networking, e-mail communication, e-teaching, e-learning, and research. By implication, ICTs have provided creative opportunities for teaching and learning and have engendered advances in research about how people learn, thereby bringing about rethinking the structure of instruction (Akpojotor, 2016).

More importantly, ICT is an indispensable part of the contemporary world. In fact, both culture and society have to be adjusted to meet the challenges of this knowledge age. The pervasiveness of ICT has brought about not only rapid technological, but social, political, and economic transformation, which has eventuated in a network society organized around it (Miliszewska, 2008). He further opined that the field of education has been affected by the penetrating influence of ICT. Undoubtedly, ICT has impacted the quality and quantity of teaching, learning, and research in traditional and distance education institutions globally. In concrete terms, ICT can enhance teaching, learning and research through its dynamic, interactive, and engaging content; and it can provide real opportunities for individualized instruction. ICT in learning; helps to relate school experiences to work practices; helps to create economic viability for tomorrow's workers; contributes to radical changes in school; strengthens teaching, and provides opportunities for connection between the school and the global village.

Additionally, ICTs play a very vital role in the dissemination of knowledge and presenting content in a sequenced manner and are also strategic tools for economic growth and development all over the world (Joseph, 2013). In a modern world that is ever-changing in a highly competitive environment, we need ICT skills and competence to be able to compete with rest of the world (Adelakun, 2012). Developed countries like USA, China, Japan, and France have attained a tremendous height in education since learning is made easier as a result of easy accessibility to computers, internet service, and other electronic devices (Orike, Iyalla & Okereke, 2017).

Furthermore, Basri, Alandejani and Almadani (2018), stated that ICT has become an important source of innovation and improvement of efficiency for many sectors across the globe. Specifically, in the education sector, the application of ICT has become a critical part of the learning process for university students both outside and inside the classroom setting. Danner and Pessu (2013) stated that today's fast-paced world is becoming increasingly characterized by technology-driven communication, which has transformed the world into a large global connected community with ever-increasing outreach of ICT.

Still, ICT plays a proven critical role in enhancing the quality of education, they are particularly important in helping teachers and students to perform more effectively (Vitanova, Atanasova-Pachemska, Iliev & Pachemskad, 2015). Teaching and learning activities are more interesting and more meaningful as ICT provides the element of interactivity that was never thought of before up to the level that with the advent of the Internet, students no longer need to rely solely on the teacher as knowledge provider, as this technology allows them to access the information anytime and from anywhere (Umar & Jalil, 2012). As a result of these significant contributions of ICT to the field of education, the Nigerian government have made several efforts towards utilization ICT in teaching, research, and learning, the essence of these efforts is to enable the Nigerian school system to produce world-class graduates at all levels of the education system who could compete favorably with graduates of other countries of the world in the labor market and other spheres of life (Ome & Okechukwu, 2017).

However, there is still a problem and low utilization of ICT in the Nigerian educational system, especially among the postgraduate students, and this is mostly due to the lack of ICT proficiency (Das & Maharana, 2013; Danner & Pessu, 2013; Islam & Fouji, 2010). In the same vein, as a result of inadequate skills in manipulating ICT, many students make little use of ICT facilities in locating, evaluating, and communicating information which is necessary to navigate and use the overabundance of information available today (Katz & Macklin, 2007). Similarly, ICT access provided to the Nigerian students is not fully utilized because of the challenges students have in operating the facilities (Ifejiofor & Nwankwo, 2015). Similarly, in Nigeria, available ICT resources are rarely utilized for learning and research activities because the students are lacking the ICTs proficiency needed to use the available resources for their academic purpose (Eyitayo, 2011; Okolocha & Nwadiani, 2015). Likewise, Ajegbelen (2016); Egbri (2015) observed that the ICT proficiency of postgraduate business education students in Nigerian universities is far from impressive because most of the postgraduate business education students have to go to commercial cyber cafes, business centers in town for their assignment and other academic activities and this would definitely affect their competency to compete with graduates of other countries of the world, especially in the labor market and other spheres of life. Egbri (2015) recommended that empirical investigation is needed to determine the factors that will influence the ICT proficiency of postgraduate business education students. Previous studies (See, for example, Baxter, 2014; Lakkala, Taalas, & Ilomaki, 2012; Farahat, 2012; Makori, 2015) argued that personal learning and learning environment could be the

determining factors of ICT proficiency. It is pertinent to point out that there is no published study on the influence of personal learning and learning environment on ICT proficiency of postgraduate business education students. Hence, the present study, therefore, focuses on personal learning and learning environment as a determinant of ICT proficiency of postgraduate business education students in North-East Nigeria.

Research Hypotheses

The following hypotheses are formulated:

H0₁: Personal Learning has no significant influence on the ICT proficiency of postgraduate business education students.

H0₂: Learning environment has no significant influence on the ICT proficiency of postgraduate business education students.

Personal Learning

Personal learning refers to the essential skills of managing self; managing relationships with others; and managing own learning, performance, and work (Rossum & Hamer, 2010). It is these skills that will enable students to enter work as confident and capable individuals. According to Hain and Back (2008), personal learning enables students to process and evaluate information in their investigations, planning what to do and how to go about it in addition to making informed and well-reasoned decisions, recognizing that others have different beliefs and attitudes. Learners are most successful when they are mindful of themselves as learners and thinkers within a learning community (Dabbagh & Kitsantas, 2012). The Personal Learning domain focuses on providing students with the knowledge, skills, and behaviors to be successful, positive learners both at school and throughout their lives (Rossum & Hamer, 2010). They are supported to develop the confidence and ability to be adaptive and take an active role in shaping their own futures in a world of constant change. Personal Learning using ICT enables lifelong learning and makes competencies visible in education and professional life (Korhonen, Ruhalhti, & Veermans, 2019). To keep pace with the rapid development of ICT, people need to be able to update their ICT knowledge and skills continuously (Goldhammer, Gniewosz & Zylka, 2016.)

Students can learn many things by will and effort, particularly if they see that the learning is relevant; however, the learning of students is enhanced when they are supported to develop intentional strategies that promote learning (Vermunt, 2005). They need to understand what it means to learn, who they are as learners, and how emotions affect learning. They also need to develop skills in planning, monitoring, and revising their work, and reflecting on and modifying their learning practices (Hain & Back, 2008). According to (Rossum & Hamer, 2010), as students progress through school, they need to be encouraged and supported to take greater responsibility for their own learning, their participation in learning activities, and the quality of their learning outcomes. They need to develop a sense of themselves as learners and develop the knowledge and skills to manage their own learning and emotions. Fleer (2015) referred personal learning goals as the behaviors, knowledge, or understandings that students identify as important to their own learning, these could be related to general work habits, specific subjects, domains of learning, or a combination of both.

Learning Environment

Learning environment refers to the diverse physical locations, contexts, and cultures in which students learn (Acar, 2014). Amirul, Nidzam, Ahmad, Yahya, Faizal, Abdullah, & Noh (2013) stated that the learning environment is a major aspect of the teaching and learning process and is crucial to determine students' learning. They further argued that learning environment stimulates students' engagement in the learning process and influences their behavior as well as assists in the development of students' skills and cognitive abilities. Guney & Ai (2012) stated that learning environments are usually described in terms of pedagogical philosophy, curriculum design, and social climate. Also, on the other hand, he argued that there have been only just a few studies about how the physical environment is related to the learning process. According to Fraser and Kilgour (2006), there are two major components of the learning environment that include the physical component and psychosocial component. The physical component includes all physical aspects such as classrooms, teaching materials, and learning facilities, both inside and outside the classroom. In support of this, Mirzajani, Mahmud, Ayub, & Wong (2016) stated that adequate support from administrators, directives to teachers to use ICT, appropriate ICT skills and knowledge as well as adequate resources were important factors that influenced the utilization of ICT in the classroom.

They further stated that insufficient technical support discouraged the use of ICT while increasing adequate ICT equipment and technical support in schools encouraged in this respect. Also, the findings of Tan & Wong (2020) reflected the influence of an ICT-supported learning environment.

While the psychosocial component is related to the interaction that occurs between students and students, students with teachers, and students with the environment. In addition, both of these components complement each other in creating and shaping the learning environment and affect the learning process that occurs in it. Acar (2014) stated that the quality of the learning environment is a key influence on students' emotional well-being. The term learning environment encompasses the culture of a school or class, its presiding beliefs, and characteristics, including how individuals interact with and treat one another as well as the ways in which teachers may organize an educational setting to facilitate learning (Ginsburg, Archer, Barrera-Osorio, Lake, Vally, Wachter, & Ulrick, 2018). Currently, the informational-educational environment has become one of the constitutive tendencies in the development of modern education and correlates with IT development in all spheres of human life (Ju, Buldakova, Sorokoumova, Sergeeva, Galushkin, Soloviev & Kryukova, 2017)

According to Konings, Brand-Gruwell, van Merriënboer (2010), to reach the main aims of modern education, powerful learning environments are designed, whereby the characteristics of the design of a powerful learning environment are expected to have positive effects on student learning. Additionally, teachers' conceptions of learning and teaching do influence the implementation of a powerful learning environment. Moreover, students' perceptions of a learning environment affect their subsequent learning behavior and the quality of the learning outcomes. Zedan (2010) in Ahmad, Yahaya, Abdullah, Noh & Adnan (2015) stated that a quality learning environment is important in shaping students' emotions and attitudes towards the subjects they are learning as well as the education system as a whole. Likewise, Scholtz, Burger & Zita (2016) are of the opinion that the learning environment is central to quality education, accessibility, safety, and security for all, in addition to adequate resources and infrastructure. Majumdar (2015) opined that there are relatively positive indicators regarding students' access to a computer-generated learning environment and the relation between such access and their performance. In addition, education around the world is experiencing major paradigm shifts in educational practices of teaching and learning under the umbrella of ICT-enabled learning environment, he added.

Research Framework

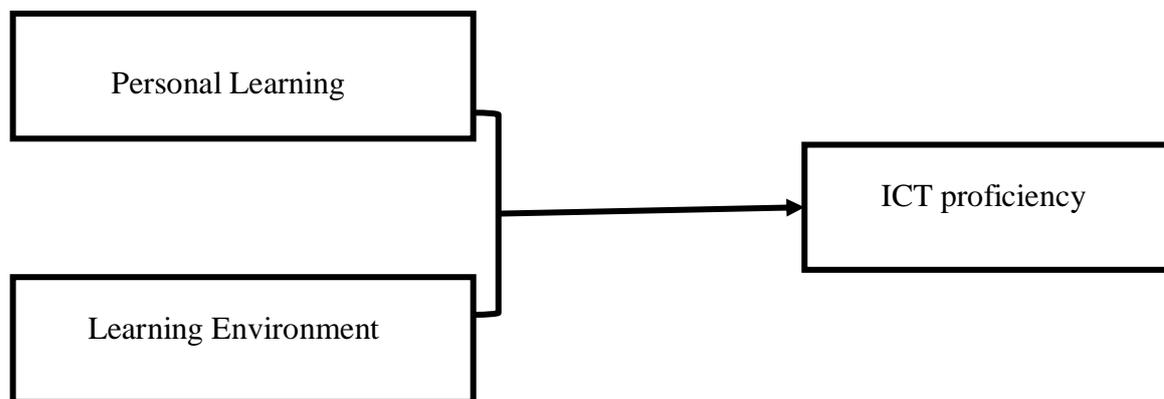


Fig. 1: Research Framework

A framework of this study that indicates the relationship between personal learning, learning environment, and ICT proficiency is developed based on communities of practice theory (see Figure 1). The community of practice theory as social learning was proposed by Lave and Wenger in 1991; 1998. The theory postulates social learning that occurs when people who have a common interest in a subject or area collaborate over an extended period of time, sharing ideas and strategies, determining solutions, and building innovations. Wenger further stated that communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better and become proficient as they interact regularly. Therefore, the learning environment is a social community with available information that enables people to interact become proficient in ICT.

Methodology

The study employed a survey design and examined the personal learning and learning environment as determinants of ICT proficiency of postgraduate business education in North-East Nigeria. A survey method is used when a researcher is interested in studying the opinions, feelings, and thoughts of the respondents about a particular situation (Fisher, 2010). This method enables the researchers to collect and analyze quantitative data as well as suggest the reasons for the relationship between the variables of interest (Saunders, Lewis, & Thornhill, 2009). The study’s target population consists of 95 MSc students of the business education program in Abubakar Tafawa Balewa University, Bauchi, and the Moddibbo Adama University of Technology, Yola who were undergoing their course work at the time of this study. The population of the study was taken from these universities because they are the only institutions that are offering business education at the postgraduate level in North-East Nigeria. MSc students of business education who were doing their course work at the time of the study were considered because they were easily accessed through their lecturers or during the lecture time in classrooms. The entire 95 MSc students of the business education program were used in the study because the population was manageable. This is in line with Salkind (2003) who argued that appropriate sample size is needed for any research because a sample size that contains a very small number of respondents may lead to committing Type I error. Type 1 error creates the chances of wrongfully rejecting results instead of being accepted. In order to avoid the problem of type 1 error, the entire population was studied.

Results

Table 1: Regression analysis on influence of personal learning and learning environment on ICT proficiency of postgraduate business education students.

Variable	Standardized Coefficients Beta	T value	P value	Decision
Personal Learning	.566	5.228	.000	Rejected
Learning Environment	.623	6.064	.000	Rejected

Having satisfied the necessary assumptions of regression analysis, Hair et al. (2013) recommended that when interpreting the result of multiple regression analysis, a researcher should first consider the F value, then the R-square value or adjusted R square, and follow by the individual contribution. Following their recommendation, in this study, the statistical evidence has proved that the model was statistically significant based on the F ratio 57.149, $p = .000$. The result also revealed the R^2 value of .36, indicating that the model fit is large (Murphy, Myors & Wolach, 2014). Regarding the individual contribution of independent variables, the variable personal learning has a standardized coefficients beta value of .566, $p = .000$. This indicates a significant contribution of the variable in the model, that is, personal learning has a significant positive influence on the ICT proficiency of postgraduate business education. This result does not support the prediction of hypothesis H1 that personal learning has no significant influence on the ICT proficiency of postgraduate business education students. Similarly, the relationship between learning environment and ICT proficiency of postgraduate business education has a standardized coefficients beta value of .623, $p = .000$. This indicates that learning environment has a significant contribution in the model. Hypothesis 2 is, therefore, rejected.

Discussions

The findings of this study suggested that personal learning and learning environment are significant predictors of ICT proficiency of postgraduate business education students. This implies personal learning and conducive learning environment equipped with ICT facilities improve the ICT Proficiency of postgraduate business education students. The findings are consistent with the studies of Farahat (2012); Makori (2015) who found that personal learning as well as having conducive learning environment well-equipped with ICT facilities improve the students’ ICT expertise and enhance students’ ICT skill. Similar finding was also reported in the study of Rossum & Hamer (2010). The findings were also supported by Scholtz, Burger and Zita (2016) who revealed significant relationship between learning environment and students’ ICT Competency.

Conclusion

The present study examined personal learning and learning environment as determinants of ICT proficiency of postgraduate business education in North-East Nigeria. The findings of this study shows that personal learning and learning environment significantly and positively influenced the ICT proficiency of postgraduate business education students. Therefore, poor of ICT proficiency among postgraduate business education students which as a result the students normally go commercial cyber cafes, business centres in town for their assignment and other academic activities can be addressed by encouraging the students to participate in personal learning and provide them with a comfortable and well-equipped ICT learning environment. However, this study focused only postgraduate business education students. The postgraduate students of other courses were not considered in this study. Therefore, the findings of this study might not be generalized to other postgraduate students of tertiary institutions in Nigeria. But similar studies should be conducted to focus on postgraduate students of other courses.

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