



EXTENT OF UTILIZATION OF E-PORTFOLIOS FOR ENHANCING LEARNING BY BUSINESS EDUCATION STUDENTS IN IMO STATE

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Abstract

The need to improve students' learning and academic performance prompted this study to determine the extent of utilization of E-portfolios for enhancing learning by business education students in Imo State. Three research questions and two hypotheses guided the study. The study adopted survey research design and the population of the study comprised 1,935 (573 male and 1,362 female) 2017/2018 academic session final year business education students in the four tertiary institutions where business education programme is offered. A sample size of 331 students was drawn using Taro Yamane formula. The structured questionnaire which was validated by three experts in the field of business education was used for data collection. The reliability of the instrument was established using Cronbach alpha method which yielded correlation coefficients of 0.88, 0.79 and 0.81 for cluster B1 to B3 and an overall value of 0.83. Frequency and percentage, mean and standard deviation and t-test were used for data analysis. Findings showed that business education students are not aware of majority of E-portfolios as a means of enhancing learning and therefore utilized them in learning to a very small extent. Findings also revealed that gender was a significant factor on the extent of utilization of E-portfolios by business education students while gender was not a significant factor in their mean ratings on factors that militates against their utilization of E-portfolios for enhancing learning. Based on the findings, the researchers recommended among others that; Seminars and workshops should be organized by both Business Education Departments and Authorities of tertiary institutions to enlighten students on how to effectively utilize E-portfolios for academic purposes and the impact it will have on their academic performance.

Keywords: *Utilization, E-portfolios, Learning and Business education*

Introduction

New technologies are indispensable tools to fully participate in today's knowledge based society. New technologies are the bedrock for national survival and development, their pervasiveness has brought rapid technological, economic and political transformation and skilled human resources essential for capacity building. The emergence of new technologies have serious effect in the field of education as they are impacting on the quality of teaching and learning through their dynamic,



interactive and engaging content, providing opportunities for individualized instruction. According to Akawu (2010), new technologies are accelerating on a fast pace with deepening influence on students' learning abilities, helping them to relate school experiences to work practices. This is why Akawu stated that new technologies have made the schools more efficient and productive by engaging a variety of tools to enhance students' acquisition of skills, knowledge and attitude needed for global competition.

New technologies used in enhancing learning according to Utoware and Kren-Ikidi (2013) include; the computer, word processor, the internet (search engine, blog, forum, social media) and multimedia. Others are networks such as fixed wireless and satellite, broadcasting networks, telecommunications and database management systems. Presently, E-portfolios have emerged as potent new technologies for meeting the challenges facing business education in this 21st century (Watty, McKay, Ngo, Holt, McGuigan, Leitch & Kavanagh, 2015). These challenges include the need to constantly innovate and cater for the expectations of students that new technologies be used in their teaching and learning, and also meeting the labour market demands for a business education graduates that can use technologies to increase productivity and creativity.

Presently, the use of a printed or paper-based portfolio is seen as not relevant in this current educational system. This is because; the printed portfolios are static, limited in sharing information among students, teachers and the management (McAllister & Hauville, 2010). McAllister and Hauville further stated that the electronic portfolio has many advantages over paper-based portfolio such as, the ability to save and organize materials more easily, sharing of information, enhancing the soft and professional skills of students and facilitating the search for information. E-portfolio, also known as Digital portfolio or Electronic portfolio is defined as *a collection of authentic and diverse evidence, drawn from a larger archive representing what a student has learned over time, on which the student has reflected*. Chantananarungpak (2015) defined *E-portfolio* as the use of computer and multimedia technologies to collect and store information in various formats, such as audio, graphic, photo, video, photograph and animation or text. E-portfolios are of three main types; student E-portfolios, teaching E-portfolios and institutional E-portfolios.

According to Lamont (2010), the purpose of student E-portfolio is to assist learners to advance their learning through: (i) collecting and using evidence to critically reflect on their learning, collaborating with peers and mentors to critically evaluate academic progress, and (iii) self-directed learning by systematically setting and reviewing personal academic goals. Van Wyk (2017) postulated that student can upload documents on their E-portfolios such as: written assignments, research projects, PowerPoint presentations, digital video clips of classroom lessons and skill demonstrations; and other relevant materials (updated curriculum vitae, workshops/seminars). E-portfolio technologies used in learning include: Elgg, LinkedIn, Facebook, Goggle Scholar, Blog, Epsilen, Digication, RCampus, askStream, Mahara, Folio-ePortaro, and Angel ePortfolio. Others are PebblePad, Moofolio, My eCoach, ePearl, WordPress, FolioSpaces, LiveText, Chalk and Wire, and iWebfolio among others (JISC, 2008).

For business education to remain relevant and fulfill its mandate of equipping recipients with employability skills required for gainful employment or self-employment, business education students need to utilize E-portfolios which according to Watty, McKay, Ngo, Holt, McGuigan, Leitch



and Kavanagh (2015) have brought transformative changes in learning in higher education for the past twenty years. Watty et al. stated that through the use of E-portfolios, business education students are exposed to a more integrated and holistic learning experience, which enhances their decision-making and professional judgment abilities as future business leaders. Okoro, Washington and Cardon (2011) stated that E-portfolios are potent tools for students in the development of self-awareness skills and can be used effectively in the job application process providing more personalization and a holistic view of a student credentials compared to traditional resumé. Mummalaneni (2014) and Kabilan and Khan (2012) pointed out a raft of skills and competencies developed through the use of E-portfolio tools by students include: goal setting; collaborative learning; autonomous learning; self-assessment skills; digital literacy; work readiness, self-management skills.

The utilization of student E-portfolio technologies by students are gaining grounds in general courses such as communication, mathematics, nursing, architecture and engineering, however, it seems that E-portfolios are not being adequately utilized by both the business educators and students. In support, Watty et al. (2015) revealed that business education has been slow to embrace E-portfolio potentials. Similarly, in Nigeria, many students of tertiary institutions (business education students inclusive) are believed to be utilizing new technologies for pursuit of academic goals; however, it appears that they are fully acquainted E-portfolio technologies. Adebowale (2013) lamented that students have their Web 2.0 technologies such as Facebook, Whatsapp, Instagram e-mails and instant messaging, constantly running in the background while they are carrying out their academic engagements. These create distractions and reduce the quality of their studying time. Cameron (2011) acknowledged the need for business education students to utilize E-portfolios for improving their learning on the premises that E-portfolios supports sociological constructivism, which claims that social interactions combined with learner experiences help to construct new knowledge.

The extent of utilization of E-portfolios by students for learning could depend on so many factors such as the awareness of students, teachers and the institution as a whole of the benefit of these tools in enhancing teaching and learning. According to Simpson (2011), when teachers and students perceive E-portfolio as useful to their learning, they tend to use them more. Koraneekij and Khlaisang (2015) in their study revealed that most teachers and students had no or little knowledge about electronic portfolios and their benefits in enhancing teaching and learning and do not utilize them to a great extent. Similarly, Watty et al. (2015) revealed that students utilized E-portfolios to a very low extent. The authors attributed the low utilization to the impeding factors such as lack of awareness of the benefit of portfolios in learning, lack of instruction and guidance by teachers and management of higher institutions, lack of capacity building in both ICT skills and reflective skills and lack of access to appropriate technologies. Adebowale (2013) reported that students utilized Facebook, Whatsapp, Instagram e-mails and instant messaging but mainly for non-academic purposes. Oliver (2009) also observed that new technologies have not been extensively utilized in the education system in Nigeria



when compared to other fields such as management and engineering. Reasons for the low utilization according to Oliver include high costs associated with implementing these technologies that prevent schools rural and urban, private and public from using them in instruction. Other factors highlighted are limited information sharing, problems of internet network failure, management attitude, and lack of technical assistance. Nwana, (2012) revealed that factors that hinder the utilization of new technologies are acute shortage of e-learning materials such as on-line/internet-connected computers, e-mail facilities, multimedia television, multimedia computer and digital library and teachers' lack of knowledge and skills of new technology application.

Student E-portfolios could be put to variety of uses depending on the gender of the users and the motive behind it. This means that the gender of the students could play a significant role on whether E-portfolio are used for academic purposes or not. Some empirical evidences such as Enang (2014) and Ajisafe (2014) have also lent credence to the fact that gender of the students can influence their utilization of new technologies for learning. This supports the earlier finding of Adeshina, Udoh, Ndomi and Aliyu (2012) which showed that males utilize new technologies than their female counterparts in learning. It is against this backdrop, this study ascertained the extent E-portfolios are utilized for enhancing learning by business education students in Imo State.

Statement of the Problem

The major purpose of business education at tertiary education levels is to produce skillful and dynamic graduates capable of competing in the job market or become successful entrepreneurs. To meet this objective, business education needs to adapt and embrace new technologies. The popularity of these technologies among business education students has increased their expectation to see these technologies used in learning (Vin-Mbah, 2016). In recent years, educational visionaries and reformers have held high hopes for the use of new technologies to improve the quality of education. With the emergence of information and communication technology, numerous E-portfolios such as Elgg, LinkedIn, Facebook, Goggle Scholar and Blog *among others* are available for students to use in enhancing their learning. However, the researcher is worried that business education students seem not to be harnessing the enormous educational potentials of E-portfolios technologies.

Several impeding factors have been implicated to militate against effective utilization of E-portfolios by business education students in tertiary institutions. These include lack of awareness of the benefit of portfolios in learning, lack of instruction and guidance by teachers and management of universities, lack of capacity building in both ICT skills and reflective skills and lack of access to appropriate technologies. An important step towards improving students' learning is to determine the extent business education students in Imo State utilize E-portfolios for enhancing learning.

Purpose of the Study

The main purpose of this study was to determine the extent of utilization of E-portfolios for enhancing academic learning by business education students in Imo State. Specifically, the study ascertained:



The extent E-portfolios are utilized for enhancing learning by business education students in Imo State.

Factors that militate against the utilization of E-portfolios for enhancing learning by business education students in Imo State.

Research Questions

The following research questions guided the study:

To what extent is E-portfolios utilized by business education students for enhancing learning in Imo State?

What factors militate against the utilization of E-portfolios by business education students for enhancing learning in Imo State?

Hypotheses

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

Male and female business education students do not differ significantly in the mean ratings on the extent E-portfolios are utilized for enhancing their learning in Imo State.

There is no significance difference in the mean ratings of male and female business education students on factors that militate against the utilization of E-portfolios for enhancing their learning in Imo State.

Methods

The descriptive survey research design was adopted for the study. The study was carried out in four tertiary institutions that offer business education in Imo State. The population of the study consisted of 1,935 (573 male and 1,362 female) 2017/2018 academic session final year business education students in the four tertiary institutions where business education programme is offered. The population comprised 374 final year business education students from Alvan Ikoku Federal College of Education, Owerri, 60 final year business education students from Imo State Polytechnic, Umuagwo, 1,411 final year business education students from Federal Polytechnic, Nekede, Owerri, and 90 final year business education students from Imo State University. A sample size of 331 business education students (98 male and 202 female) was drawn using the Taro Yamane formula. Structured questionnaire developed by the researcher based on insight from literature reviewed was used to collect data from respondents. The instrument on cluster B₂ was structured on a five point rating scale of Very Great Extent (VGE), Great Extent (GE) Moderate Extent (ME), Small Extent (SE) and Very Small Extent (VSE) While that of B₃ was structured on four point rating scale of Strongly Agreed (SA), Agreed (A), Undecided (U), Disagreed (D) and Strongly Disagreed (SD).

The instrument was validated by three experts in the field of business education. The Cronbach Alpha coefficient for the three clusters yielded correlation co-efficient values of 0.88, 0.79 and 0.81 for respectively with an overall value of 0.83 which was considered reliable in line with the recommendation of Ogundare (2008) that reliability coefficient of 0.7 or above is an acceptable reliability value. Out of the 331 copies of questionnaire distributed, 300 copies were correctly filled and returned giving a percentage return rate of 96.

Statistical mean and standard deviation were used to analyze the research questions and determine the homogeneity or otherwise of respondents' views while t-test was used to test the null

hypotheses at 0.05 level of significant. In testing the null hypotheses, when p-value was greater than the significant value, the null hypothesis was accepted otherwise, the null hypothesis was rejected.

Results

Research Question 1

To what extent is E-portfolios utilized by business education students for enhancing learning in Imo State?

Table 1: Respondents' mean ratings and standard deviation on the extent E-portfolios are utilized for enhancing learning (N =330)

S/N	E-portfolio Technologies	X	SD	Remarks
1	Whatsapp	4.50	0.61	Very Great Extent
2	Twitter	2.28	1.02	Small Extent
3	Facebook	4.57	1.05	Very Great Extent
4	LinkedIn	1.03	0.17	Very Small Extent
5	Wordpress	1.49	0.82	Very Small Extent
6	Taskstream	1.44	1.09	Very Small Extent
7	Mahara	1.34	0.75	Very Small Extent
8	Elgg	1.03	0.17	Very Small Extent
9	Epsilen	1.18	0.96	Very Small Extent
10	Goggle Scholar	4.64	0.34	Very Great Extent
11	Blog	1.44	0.56	Very Small Extent
12	Digication	1.34	1.15	Very Small Extent
13	askStream,	1.49	0.82	Very Small Extent
14	Folio-ePortaro	1.17	1.15	Very Small Extent
15	Angel ePortfolio	1.69	0.97	Small Extent
16	FolioSpaces	1.87	1.15	Small Extent
17	LiveText,	1.40	0.80	Very Small Extent
18	Chalk and Wire,	1.43	0.62	Very Small Extent
19	iWebfolio	1.47	1.33	Very Small Extent
20	Factline	2.05	1.53	Small Extent

Data in Table 1 shows that out of 20 E-portfolios listed, business education students utilize items 1, 3 and 10 to a very great extent with mean scores ranged from 4.50 to 4.64. Items 2, 15, 16 and 20 are being utilized to a small extent while the remaining 13 items are utilized to a very small extent. The analysis shows that responses to items 19 and 20 have the highest deviation (1.11 and 1.53) among the respondents, this suggests that the respondents are quite divided in their opinions as to the extent they are utilizing Webfolio and Factline for enhancing their learning. Other items show homogeneity in the respondents' responses.

Research Question 2

What are the factors that militate against the utilization of E-portfolios by business education students for enhancing learning in Imo State?

Table 2: Respondents' mean ratings and standard deviation on factors militating against the utilization of E-portfolios for enhancing learning (N = 300)

S/N	Factors	X	SD	Remarks
1	Lack of guidance by teachers and management of higher institutions on how to utilize E-portfolio	3.49	0.91	Agreed
2	Inadequate capacity building in ICT skills	3.22	0.57	Agreed
3	Inadequate access to appropriate technologies	2.40	0.81	Disagreed
4	Problems of internet network failure	2.51	0.76	Agreed
5	Business educators negative attitude towards utilization of new technologies in teaching	2.22	0.73	Disagreed
6	Lack of technical assistance	2.52	0.82	Agreed
7	Inadequate ICT softwares	3.35	0.64	Agreed
8	Network configuration problems	3.10	0.61	Agreed
9	Inconsistency of tertiary institutions' policy on integration of new technologies in schools	3.25	0.79	Agreed
10	High cost of data for browsing	2.19	0.78	Disagreed

Data in Table 2 indicates that out of 10 items listed as factors that militates against the utilization of E-portfolios for enhancing learning, business education students agreed that six of the items (items 1, 2, 4, 6, 7, 8 and 9) militates against their utilization of E-portfolios while they disagreed on the remaining three items (items 3, 5 and 10). The standard deviation ranged from 0.57 to 0.91 which shows that there was homogeneity in respondents' responses.

Hypothesis 1

Male and female business education students do not differ significantly in the mean ratings on the extent E-portfolios are utilized for enhancing their learning in Imo State.

Table 3: Summary of t-test analysis of male and female respondents on the extent they utilize E-portfolios for enhancing learning (N = 300)

Gender	N	X	SD	df	P-value	Decision
Male	98	21.60	2.99	298	0.03	Significant
Female	202	23.30	2.69			

Table 3 shows that there is a significant difference in the mean ratings of male and female business education students on the utilization of E-portfolios for enhancing learning in tertiary institutions in Imo State. This is shown by the p-value of 0.03, which is less than the significance level of 0.05. The null hypothesis of no significant difference between the two groups was therefore rejected.

Hypothesis 2

There is no significance difference in the mean ratings of male and female business education students on factors that militate against the utilization of E-portfolios for enhancing their learning in Imo State.

Table 4: Summary of t-test analysis of male and female respondents on the factors militating against the utilization of E-portfolios for enhancing learning (N = 300)

Gender	N	X	SD	df	P-value	Decision
Male	98	28.00	2.89	298	0.20	Significant
Female	202	29.00	2.77			

Table 4 shows that there is no significant difference in the mean ratings of male and female business education students on the factors that militate against the utilization of E-portfolios for enhancing their learning in Imo State. This is shown by the p-value of 0.20, which is greater than the significance level of 0.05. The null hypothesis of no significant difference between the two groups was therefore accepted.

Discussion

Findings of the study in Table 1 revealed that business education students utilize E-portfolios for enhancing their learning to a small extent. This finding is in line with the findings of Adebawale (2013) who revealed that 1 students utilize new technologies for non-academic purposes. This supports the earlier findings of Oliver (2009) that new technologies have not been extensively utilized in the education system in Nigeria when compared to other fields such as management and engineering. Similarly, the findings of the study revealed that Facebook, Whatsapp and Google Scholar are utilized to a great extent by students for enhancing their learning. This agrees with the assertion of and Khodabandelou (2013) who revealed that t Facebook is the most popularly utilized new technology for academic purposes in support, Eke-Okpala and Omekwu (2014) disclosed that the extent to which students of tertiary institutions utilized Facebook and Whatsapp for academic purposes was high when compared to Twitter which was utilized very low. The fact that business education students rated their utilization of E-portfolios very small extent could be as a result of not being aware of majority of the technologies or lack of adequate knowledge of their benefits in enhancing their learning. Corroborating, Watty et al. (2015) revealed that E-portfolios have not been extensively adopted by both teachers and students of business education programmes to a great extent.

Furthermore, the findings also revealed that there is a significant difference in the mean ratings of male and female business education students on the extent of utilization of E-portfolios for enhancing academic learning. This finding concurs with the findings of Enang (2014) and Ajisafe (2014) who lent credence to the fact that gender of the students can influence their utilization of new technologies for learning. Adeshina, Udoh, Ndomi and Aliyu (2012) earlier found that males utilize new technologies than their female counterparts in learning. In contrast, Nguyen, Gravel, Chnigg and Medar (2013) study revealed gender bias in the use of Twitter for academic purposes. Nguyen et al. study indicated that male with 72 percent utilize Twitter in learning more than their female counterparts with 28 percent.

The findings of the study in Table 2 disclosed that business education students agreed that majority of the factors listed militate against their utilization of E-portfolios for enhancing learning.



The findings of this study is in consonant with the findings of Nwana, (2012) who revealed that acute shortage of e-learning technologies such as on-line/internet-connected computers, e-mail facilities, multimedia television, multimedia computer and digital library and teachers' lack of knowledge and skills of new technology application constrain students use of new technologies in enhancing their learning. Watty et al. (2015) on the other hand attributed the low utilization of E-portfolios by business education students to impeding factors such as lack of awareness of the benefit of portfolios in learning, lack of instruction and guidance by teachers and management of higher institutions, lack of capacity building in both ICT skills and reflective skills and lack of access to appropriate technologies. Additionally, the findings of the study indicated that the male and female business education students did not differ significantly in their mean ratings on factors that militate against the utilization of E-portfolios for enhancing learning.

Conclusion

From the findings of this study, one can see that majority of the E-portfolios which could help in enhancing students' learning and widen student's knowledge in business educations courses are utilized by students for academic purposes at a very small extent. This is in spite of their educational benefits. Despite the prevalent nature of E-portfolios in virtually every aspect of education, most of these online technologies have not been widely utilized in learning process in tertiary institutions due to inadequate awareness of students about them and their benefits to learning and career development among other militating factors. Utilizing E-portfolios in learning will stimulate students' active involvement in their learning process, and the development of their innate scientific, critical-thinking and self-regulatory learning abilities. Based on these findings, the researchers concluded that there is still need for more enlightenment programmes and training and monitoring of business education students on how to effectively utilize these E-portfolios for enhancing learning effectiveness in the field of business education at tertiary institution level.

Implications of the Study

The findings of this study have serious implications on the teaching and learning of business education in tertiary institutions in Imo State. The fact that business education students do not utilize E-portfolios to a very great extent implies that graduates of business education may not be able to compete favourably in the highly competitive labour markets where ICT competencies are highly demanded of graduates by employers of labour. It also implies that business educators and the management of tertiary institutions may not be implementing the use of E-portfolios in the professional practices which will create the needed awareness to students about E-portfolios and their benefits to teaching and learning therefore, stimulating students to utilize them in learning processes. Additionally, the findings implies that the delivery of business education in tertiary institutions in Imo State are still teacher-centered instead of student-centered and theoretically based instead of practically based which could lead to producing ill-prepared business education graduates lacking requisite skills successful entrepreneurship. It also implies that new technologies are not adequately available in business education departments in tertiary institutions for utilization by students for enhancing their learning.



Recommendations

Based on the findings of this study, the following recommendations are made:

Seminars and workshops should be organized by both Business Education Departments and Authorities of tertiary institutions to enlighten students on how to effectively utilize E-portfolios for academic purposes and the impact it will have on their academic performance.

Business educators should lead by example by utilizing teacher E-portfolios both for teaching and assessment of students. This will expose students to the benefits of E-portfolios in education and therefore, stimulate them to utilize these technologies for enhancing their learning.

Administration of tertiary institutions in Imo State should collaborate with private sectors so as to provide more new technologies in the institutions to enable students utilize E-portfolios for enhancing their learning

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