



# **Extent Of Utilization Of The Available Web 2.0 Technologies By Business Educators In Teaching Business Education Courses In Tertiary Institutions In South East Nigeria**

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## **ABSTRACT**

The study investigated the extent of utilization of the available web 2.0 technologies by business educators in teaching the business education courses in tertiary institutions in South East Nigeria. Two specific purposes guided the study. The survey research design was used in the study. The population consisted of 128 business educators drawn from eight Tertiary Institutions in South Eastern States of Nigeria. There was no sampling in the study because population of the study was of manageable size; indeed all of them were studied. Researcher's self-designed questionnaire using percentage of 50% and above and four point rating scale of strongly agreed (SA) 4, Agreed (A) 3, Disagreed (D) 2 and strongly disagreed (SD), was used for data collection. The instrument was validated by three experts and was tested for reliability using Cronbach Alpha of Co-efficient which yielded an estimate value of 0.72. Data collected was analyzed using percentage of numbers mean and standard deviation to answer the research questions and t-test to test the hypotheses at 0.05 level of significance. The findings of research questions revealed that the following that is an availability of web 2.0 technologies for teaching the business education courses, that business education lecturers in south east Nigeria are accessing the available web 2.0 technologies. Similarly, the research hypotheses suggest that there is no significant difference in the mean rating of business educators of federal and state owned universities. Also, there is no significant difference in the mean ratings of business educators on the availability of web 2.0 technologies. Again, there is no significant difference in the mean ratings of male and female business educators on extent to which they have access to the available web 2.0 technologies. It was recommended that web 2.0 technologies should be enshrined in the business education programme in all institutions offering the course.

**Keywords:** Availability, Accessibility, Web 2.0 Technologies, and Business Education

## **INTRODUCTION**

The use of emerging technologies in tertiary institutions to support teaching and learning has clearly changed the way education is being conducted in many nations. Educational institutions are able to collaborate, network, share resources, and increase enrolment because of these technologies. It is common to see many online certificate and degree programmes being offered in many tertiary institutions around the world. As such, educational institutions throughout the World have become highly dependent on technology for teaching, learning and for conducting research. They continue to seek opportunities to rationalize the way they manage their resources. These opportunities have become even better with the introduction of a novel system of Web 2.0 technologies.

The term web 2.0 technologies is the name used to describe the second generation of the World Wide Web, where it moved its static Hypertext Mark-up Language pages to a more interactive and dynamic web

experiences. According to O' Reily in Joshua & Nwabufor (2014), web 2.0 is a social use of web which allows people to collaborate, get actively involved in creating content, to generate knowledge and to share information online. Web 2.0 technologies also known as participative or participatory or social web refers to the websites that emphasizes user-generated content, ease of use, participatory culture and interoperability (i.e. compatible with other products, systems, and devices) for end users. Fagbola (2017), explained that web 2.0 tools are bringing a new revolution to the processes of teaching and learning in Universities of the 21<sup>st</sup> century. On that note, he maintained that its level of awareness and usage among the lecturers who teach in these universities are very critical to a revolutionized teaching and learning. The study which he conducted was to investigate the level of awareness and usage of web 2.0 tools among lecturers in Nigerian Universities; the findings of the study reviewed a high level of awareness and usage of web 2.0 tools among the lecturers in Nigerian Universities. Facebook, YouTube, LinkedIn, twitters, wikis and podcasting were found to be the popular tools of teaching among the lecturers. But facebook, LinkedIn and wikis were discovered to be the most used web 2.0 tools among the lecturers while specific purposes of tools among the lecturers were found to be in the areas of engaging the students in conversation, relating, communication, and collaboration with colleagues, and sharing of educational materials for the purpose of teaching and learning in business education.

Business education is a programme of instruction which offers specialized instruction for office occupations and general business orientation which is capable of transforming the nation. Web 2.0 technologies has the potential to forever alter the way business education instruction is constructed and disseminated due to their easy to use, open nature and support for collaboration. Utilization of technologies in the context of business education is the adequate use of technologies in teaching, researching and supervision. These must happen at least two times every week. Joshua & Nwabuto (2014) discovered after a study carried out in Nigeria universities that business educators were not making adequate use of web 2.0 technologies in teaching; these were attributed to many challenges ranging from non-availabilities of web 2.0 technologies, to inadequate power supply. Web 2.0 technologies are essential in teaching business education courses; because it is one thing to access technologies and another thing to adequately use it.

Utilization in context of this study is the systematic process for the use of educational learning resources to produce information gathered during analysis and design phase and the decision made regarding selection. It is also a systematic approach or process and use of resources to aid in the learning process (Seels and Richly, 2014). The test of the hypothesis is also in agreement with Hicks and Graber (2010) who noted that, there was no significant difference on extent to which the business education lecturers utilized the outline platforms for business education courses in South-South Nigeria. Also in support of finding is Ajadi (2018) who revealed that, there is a gross under utilization of e-learning such as bookmarking, facebook, collaborative authoring among others in Tertiary Institutions in Nigeria. Blachke (2012) is of the opinion that the use of social media and other online platforms support the development of cognitive and menta-cognitive skill relevant in work place. In a similar report, Kardo (2015) reported that the direct consequences of government's lack of interest or attention to provide learning and teaching infrastructures in the universities and other institutions of higher learning has contributed to the poor utilization of teaching aids such as web 2.0 technologies by educators and students. Odubola (2012) concluded that effective learning will be achieved through successful utilization of teaching aide and timely coverage of the course contents before examination. This cannot be achieved without the required modern academic infrastructures which web 2.0 technologies represent. In support of the findings of study is Borja (2005) who revealed that social media sites often enhance learning opportunities as some schools use blogs as teaching tools with the benefit of improving English skills, writing and creativity. He stressed further that facebook and other similar sites allow students to gather outside of school and exchange ideas about assignments or collaborate on group project. He was worried that despite these wonderful opportunities and privileges offered by these sites, its utilization by business educators is quite low. Alexandra (2016) opined that there are various ways one can utilize web 2.0 technologies to build professional skills, knowledge and relationship without getting overwhelmed. It is on this note that the

researcher is seeking to assess the utilization of Web 2.0 Technologies in teaching the business education courses in tertiary institutions in South Eastern States of Nigeria

### **Statement of the Problem**

The world we live today is a world of technology. The evolution of technology will continue to stay, because its positive effect in every human endeavor is a welcomed development. Today's business education students are no longer the people our educational system was designed to teach. Teaching and learning of business education is still carried out using the conventional methods in which students are told what to learn, as well as when and how. Instead that knowledge should be actively constructed and students made responsible for their own learning. The increasing prevalence of software as a service is trending and this trend is enabled by the proliferation of internet. The traditional learning environment no longer prepares the business education students for the contemporary world of work that exists today. Conole (2010), Conole and Alevizonu (2010), noted that currently, a gap exist between the potentials offered by modern internet technologies and the traditional pedagogy and practice. These, they believe is happening because of inability of lecturers and government to provide the trending technologies and make adequate use of them in nurturing students. Web 2.0 technologies provide a level user interaction that is not available before. Website have become much more dynamic and interconnected, producing "online" communities and making it even easier to share information on the web. Because most of web 2.0 features are offered as free services, sites like Wikipedia and Facebook have grown at amazingly fast rates; offering opportunities to people, business educators inclusive to tap into the moving trends and take advantages of its unique benefits and opportunities. Business education as skill oriented programme that demand consistent up-to-date in skills and knowledge is needed to move Nigeria Economy forward and provide jobs for its graduates. But the students cannot achieve these without lecturers' ability to deliver in their instructional responsibilities; because of the inadequate availability, accessibility which have hampered the extent of utilization of these technologies by these lecturers. Therefore, this study is designed to assess the extent of utilization of the available web 2.0 technologies by business educators in teaching the business education courses in tertiary institutions in South East Nigeria.

### **Purpose of the Study**

The main purpose of this study is to determine the extent of utilization of the available web 2.0 technologies by business educators in teaching the business education courses in tertiary institutions in South East Nigeria. Specifically, the study will seek to:

1. Examine the extent of utilization of the available web 2.0 technologies by business educators in teaching the business education courses in tertiary institutions in South East Nigeria.
2. Examine the challenges facing the business educators in using web 2.0 technologies in teaching the business education courses in tertiary institutions in South Eastern States of Nigeria.

### **Research Questions**

The following research questions have been formulated to guide this research work:

1. To what extent do business educators in tertiary institutions in South Eastern States of Nigeria utilizes the available web 2.0 technologies in teaching business education courses?
2. What are the challenges to the integration of web 2.0 technologies in teaching business education courses in Tertiary Institutions in South Eastern States of Nigeria?

### **Hypotheses**

The following null hypothesis will be tested at 0.05 level of significance

- H<sub>01</sub> The responses of business educators in federal and State Universities in South East Nigeria do not differ significantly on the extent of their utilization of the available web 2.0 technologies in teaching the business education courses.
- H<sub>02</sub> There is no significant difference in the mean ratings of experienced and inexperienced business educators on the challenges of using web 2.0 technologies in teaching business education courses in tertiary institutions in South Eastern States of Nigeria.

**METHODS**

The survey research design was used in the study. The population consisted of 128 business educators drawn from eight Tertiary Institutions in South Eastern States of Nigeria. There was no sampling in the study because population of the study was of manageable size; indeed all of them were studied. The instrument for data collection is questionnaire is titled “Extent of Utilization of web 2.0 Technologies in Teaching the Business Education (EUWTBEC) using percentage of 50% and above and four point rating scale of strongly agreed (SA) 4, Agreed (A) 3, Disagreed (D) 2 and strongly disagreed (SD). The instrument was validated by three experts and was tested for reliability using Cronbach Alpha of Co-efficient which yielded an estimate value of 0.72. The instrument was subjected to reliability test after validation. A trial test was carried out in South-South which does not fall within the study area. The instrument was administered on 30 lecturers and data collected were analyzed using Cronbach Alpha reliability coefficient. The reliability indexes obtained were as follows: cluster 1 (0.68) and cluster 2 (0.70). Data collected was analyzed using percentage of numbers mean and standard deviation to answer the research questions and t-test to test the hypotheses at 0.05 level of significance.

**RESULTS**

**Research Question one:** *To what extent do business educators in tertiary institutions in South Eastern States of Nigeria utilize the available Web 2.0 technologies for teaching business education courses?*

**Table 1: The percentage result on level of utilization of the available web 2.0 technologies for teaching business education courses in South Eastern states of Nigeria.**

SN	Web 2.0 Technologies	N	Freq of Utilization	% Utilization	Remarks
1	Blogs	128	60	46.88%	Not utilized
2	Book marking	128	51	39.84%	Not utilized
3	Social Networking	128	40	31.25%	Not utilized
4	Collaborative Authoring	128	37	28.91%	Not utilized
5	Instant Messaging	128	64	50%	Utilized
6	E-portfolio	128	40	31.25%	Not utilized
7	E-mail	128	103	80.47%	Utilized
8	Google maps	128	38	29.69%	Not utilized
9	Youtube	128	52	40.63%	Not utilized
10	Twitter	128	59	46.09%	Not utilized
11	Concept board	128	53	41.41%	Not utilized

Summary of result on Table 1 indicates that extents to which business educators in tertiary institutions in South Eastern States of Nigeria utilizes the available web 2.0 technologies for teaching business education courses is quite low. This was discovered from the fact that all items in table had percentage scores less than 50%. The result however shows that business educators are using only “instant messaging and e-mail for their teaching activities in South Eastern Nigeria.

**Research Question Two:** *What are the challenges to the integration of web 2.0 technologies in teaching business education courses in tertiary institutions in South Eastern States of Nigeria?*

**Table 2: The mean and standard deviation on challenges to the integration of web 2.0 technologies in teaching business education courses in tertiary institution in South Eastern States of Nigeria.**

SN	Challenges	Mean	SD	Remarks
12	Lack of infrastructure	3.62	0.63	Strongly agreed
13	Lack of ,maintenance of computer	3.55	0.63	Strongly agreed
14	Poor internet	3.63	0.58	Strongly agreed
15	Students limitation with ICT skills	3.55	0.60	Strongly agreed
16	Lack of administrative support	3.55	0.72	Strongly agreed
17	High cost of program development	3.58	0.64	Strongly agreed
18	Resistance to change	3.54	0.63	Strongly agreed
19	Lack of awareness of web 2,0 tools	3.63	0.59	Strongly agreed
20	Lack of motivation from government to lecturers	3.55	0.66	Strongly agreed
21	Problem of identity, trust and privacy	3.32	0.87	Strongly agreed

Result on Table 2 shows that challenges to the integration of web 2.0 technologies in teaching business education courses in tertiary institutions in south eastern states of Nigeria are quite enormous. The Table shows a mean range between 3.32 to 3.62 and with standard deviation of 0.59 to 0.87. This shows that the business educators agreed to all the items on Table 2 as challenges facing them in utilizing web 2.0 technologies. This implies that business educators agreed to all the items on Table 2 as challenges towards the integration of web 2.0 technologies in South East. This is because all the items yielded a mean above 2.50 on a 4 point scale which was set for research question 2.

**Hypotheses**

**HO<sub>1</sub>:** The responses of business educators on utilization of Web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria do not depend significantly on their gender

**Table3: Test of independence of the level of utilization of Web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria on gender of business educators**

SN	Web Tools	Gender Category	Frequency on Availability		$\chi^2$ cal	$\chi^2$ sign	Decision
			Utilized	Not utilized			
1	Blogs	Male	33	38	.010	1.000	Not Significant
		Female	27	30			
2	Book marking	Male	31	40	.974	.367	Not Significant
		Female	20	37			
3	Social Networking	Male	25	46	1.174	.339	Not Significant
		Female	15	42			
4	Collaborative Authoring	Male	22	49	.337	.695	Not Significant
		Female	15	42			
5	Instant Messaging	Male	37	34	.285	.722	Not Significant
		Female	27	30			
6	E-portfolio	Male	26	45	2.167	.180	Not Significant
		Female	14	43			
7	E-mail	Male	64	7	9.604	.003	Significant
		Female	39	18			
8	Google maps	Male	22	49	.129	.846	Not Significant
		Female	16	41			
9	You-tube	Male	28	43	.093	.857	Not Significant
		Female	24	33			
10	Twitter	Male	37	34	2.336	.155	Not Significant
		Female	22	35			
11	Concept board	Male	33	38	1.700	.211	Not Significant
		Female	20	37			

As shown on table 3 the levels of utilization of web utilization of web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria do not depend significantly on school ownership. As shown on Table 3, except for E-mails, the levels of utilization of Web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria do not depend significantly on their gender.

**HO<sub>2</sub>:** The responses of business educators on challenges of using web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria do not differ significantly based on their job experiences.

**Table 4: ANOVA test of significance of difference in challenges of using Web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria based on the job experiences of business educators**

SN	Challenges	Category	Mean	SD	t.Cal	t.Sig	Decision
1	Lack of infrastructure	Male	3.58	0.69	0.817	.416	Not
		Female	3.67	0.55			Significant
2	Lack of ,maintenance of computer	Male	3.46	0.69	1.893	.061	Not
		Female	3.67	0.51			Significant
3	Poor internet	Male	3.55	0.63	1.719	.088	Not
		Female	3.72	0.49			Significant
4	Students limitation with ICT skills	Male	3.51	0.67	1.038	.301	Not
		Female	3.61	0.49			Significant
5	Lack of administrative support	Male	3.49	0.79	.971	.333	Not
		Female	3.61	0.62			Significant
6	High cost of program development	Male	3.55	0.69	.585	.560	Not
		Female	3.61	0.56			Significant
7	Resistance to change	Male	3.46	0.67	1.537	.127	Not
		Female	3.63	0.56			Significant
8	Lack of awareness of web 2.0 tools	Male	3.59	0.65	.734	.464	Not
		Female	3.67	0.51			Significant
9	Lack of motivation from government to lecturers	Male	3.52	0.73	.657	.512	Not
		Female	3.60	0.56			Significant
10	Problem of identity, trust and privacy	Male	3.37	0.80	.652	.652	Not
		Female	3.26	0.95			Significant

Summary of results on table 4 shows that the challenges of using web 2.0 technologies for teaching business education courses in south eastern states of Nigeria do not differ significantly based on the job experience of the business educators. Results of data analysis summarized on Table 4 indicates that challenges of using Web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria do not differ significantly based on their job experiences.

## DISCUSSIONS

Table 1 revealed that business educators in tertiary institutions in South East Nigeria are not utilizing the available web 2.0 technologies in teaching researching and publication activities. Simply put, business educators are not utilizing the available web 2.0 technologies despite having access to majority of them. The table revealed that web 2.0 technologies such as blog scored 46.88% book marking 39.88%, social networking 31.25% google maps 29.69%, youtube 40.63%, twitter 46.88% and concept board 41.40%. The above revelations are strong indications that business educators in South Eastern States of Nigeria are not utilizing the available web 2.0 technologies in their teaching careers.. This findings is in agreement with what Joshua & Nwabufor (2014) reported that majority of web 2.0 technologies were poorly utilized by business educators in Nigerian universities. Utilization as a systematic process and use of resources to aid in the learning process is a necessity for a successful educational outcome. The findings is corresponding to findings of Igberahama (2014) who noted that business educators in Delta state tertiary institutions were not utilizing the new technologies in their teaching activities due to many challenges. He observed that even where the new technologies were on ground and at reach of educators that many of them are not utilizing them except for technologies such as E-mail. Amiaya, (2016) findings also supported the findings of the present study. Amiaya (2016) who worked on availability and utilization of new technology for teaching office technology and management in Delta state polytechnics found out that

the new technology for teaching OTM is not adequately provided and that business educators are not utilizing the available ones.

The hypothesis revealed that the test of dependence on responses of male and female business educators on level of utilization of web 2.0 technologies do not depend significantly on their gender. This result in other words is saying that there is no significant difference in the mean rating of the opinions of both male and female business educators on the level to which they utilizes the available web 2.0 technologies in teaching the business education courses in tertiary institutions in the South Eastern States of Nigeria. This findings supported by Samantha (2020) who indicated that level of utilization of web 2.0 tools were under utilized by both males and female educators. She subsequently discovered no significant difference in their mean rating. The findings are also supported by Ozyurt (2015) who noted that the level of utilization of web 2.0 technologies in Taraba state by both male and females were very low. He found no significant difference in the mean ratings of male and female educators as regards the level of utilization in Taraba State.

Result of research question two suggest that lack of infrastructure, lack of maintenance of computer, poor internet, students limitation with ICT skills, lack of administrative support, high cost of programme development, resistance to change, lack of awareness of web 2.0 tools, lack of motivation from government to lecturers and problem of identity, trust and privacy are all challenges to the integration of web 2.0 technologies in teaching business education courses in tertiary institutions in the South Eastern States of Nigeria. This indicates the business educators strongly agreed that all of them are major challenges to the integration of web 2.0 technologies in teaching the business courses in the area. The finding of research question is in agreement to Heeger (2007) who revealed that universities of Maylaysia has an e-learning use site designed for teaching and learning using module software package, but this is not being fully utilized by both students and lecturers due to poor network, resistance to change by lecturers, students limitation of computer knowledge etc. The findings is also in line with findings of Azubuike and Ofordile (2015) who revealed that most schools lack some of the web 2.0 technologies devices and the problems facing the use of web 2.0 technologies in teaching included poor power supply, financial problems, low computer literacy level, low quality and expensive nature of V.SAT connections. Olukayode's (2015) findings revealed a similar result when he discovered that challenges of web 2.0 technologies includes lack of computers, high cost of software and erratic power supply (major challenge) while prospects included promoting distance learning, extending the frontiers of knowledge, eradicating illiteracy, and making education more effective. Okoro's (2013) study also revealed a similar conditions, he discovered that constraints facing the teaching of ICT to includes inadequate facilities/equipment, frequent electricity interruption of ICT to include inadequate facilities/equipment, frequent electricity interruption of ICT facilities and poor implementation of ICT policies. Aboderin and Kumeyi's study (2013) do not differ from the findings of the study. Their findings revealed that, there was shortage of web 2.0 technologies such as internet, lack of computers, e-mail facilities, multimedia scanner, printer UCD player and digital camera. It was also revealed that the few available ones such as computer, scanners and printers are not utilized because the educators lacked the knowledge and skills of computer application.

A challenge or challenges in the context of this study are those hindrance to the successful application, accessibility and utilization of web 2.0 technologies in the business education courses in tertiary institutions in the South Eastern States of Nigeria. Invariably, there are problems that are stopping the business educators from using the available web 2.0 technologies into business education programme which can catalyze the shift towards applying adult learning theory, where educators no longer serve mainly as the distributors of contents but become more involved as facilitators of learning and accessors of competency. But cannot be achieved with the present overwhelming problems. Accordingly, the result of this study is in line with the opinion of Mirabolghasemi & Lahad (2013) who maintained that business educators in Nigeria do not adequately utilized the trending technologies in their teaching because of many challenges such as lack of experiences for operability of the tools of web 2.0 technologies inadequate time etc. Adequate utilization of every technology web 2.0 technologies inclusive is heavily dependent on its availability, accessibility and skill know-how.

Additionally, the ANOVA test of significance in challenges of using web 2.0 technologies for teaching business education courses in South Eastern States of Nigeria based on job experience, indicated that the business educators do not differ significantly based on job experience. In other words, the result shows that mean rating of business educators on challenges of using web 2.0 technologies in South East Nigeria do not depend on experience. This is evidence from the fact that all items tested in both groups and within groups showed no significance. Based on these findings, hypotheses four is accepted and retained. The result of the hypotheses aligned with the findings of Elogbo & Akek (2019) who found no significant difference in hypothesis tested by male and female business education lecturers as regards their experiences in teaching business education courses in South-South Nigeria. The findings of hypothesis above also is in agreement with Frank Odesanya (2019) who found no significant difference in mean rating of educators in polytechnics in Taraba State. The result of hypothesis four is also in line with findings of Nwaukwa, Okonkwo, Ezinne & Anozie (2019) whose report shows no significant difference between educators and students on the challenges facing them as regards the extent of utilization of E-portfolios for enhancing learning by business education students and lecturers in Imo State. That implies that both students and educators do not differ in their mean ratings as regards the challenges facing them in the course of using e-portfolios.

## CONCLUSION

Web 2.0 technologies refer to websites that emphasized user-generated content, ease of use, participatory culture and interoperability for end users. It is the second generation of web development and design that facilitates communication and secures information sharing, interoperability and collaboration on the World Wide Web. In response to the sophisticated nature of today's work environment, business educators need certain skills and competencies to function efficiently and effectively. This study found out that despite the importance of web 2.0 technologies in the present day teaching, learning, researching, publication and supervision that many business educators are yet to embrace these technologies fully for effective performance in tertiary institution in South Eastern States of Nigeria. Though the findings show availability and accessibility, the major problem lies on the utilization. Of course without utilization the excess of availability and accessibility will be defeated.

## RECOMMENDATIONS

The following recommendations were made:

1. Business educators should be constantly updated on the available web 2.0 technologies for usage.
2. On-the-job-training should be given to both male and female business educators to ensure their acceptance of the new technologies in order to enhance their performance in tertiary institutions in South East.
3. Both male and female business educators must be provided with computers, laptops to increase their chances of accessibility which will lead to increase in the level of utilization.
4. The universities management together with federal and state governments should ensure an adequate power supply and a functional computer lab in all the tertiary institutions in the South Eastern States of Nigeria. This will enable the lecturers' access and utilize web 2.0 technologies for teaching, researching, documentations, publications and supervisions.

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