

## **FACTORS PREDICTING THE ACCEPTANCE TO USE NEW MEDIA AMONG COLLEGES OF EDUCATION LECTURERS IN NORTH CENTRAL NIGERIA**

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### **Abstract**

*This study examined factors predicting the acceptance to use new media among colleges of education lecturers in North Central Nigeria. Three research questions and three corresponding null hypotheses guided the study. Descriptive Survey research design was adopted for the study. A Sample of 410 lecturers from colleges of education in North Central Nigeria were randomly selected, using multi-stage sampling technique. The instrument used for gathering data was questionnaire titled Lecturers' Acceptance to Use New Media Questionnaire (LAUNMQ). The instrument was validated by three educational technology experts. Cronbach Alpha formula was used to determine the reliability coefficient of the instrument, and 0.76, 0.84 and 0.79 values were obtained. Mean and standard deviation was used to answer the research questions while regression analysis was used to test the research hypotheses. The findings revealed that hypothesis one was rejected ( $p < .05$ ) since there was significant difference in the performance expectancy of lecturers in new media usage. Hypothesis two was also rejected ( $p < .05$ ) as there was significant difference in the effort expectancy of lecturers in new media usage. Hypothesis three was rejected ( $p < .05$ ) due to the fact that there was significant difference in the self-efficacy of lecturers in new media usage. Based on the findings it was recommended among others that stakeholders of colleges of education should as a matter of utmost importance; provide the necessary new media devices that can enhance instructional delivery in the colleges of education. Authorities of Colleges of Education should organize workshop on new media utilization strategies with a view to bringing about efficiency and effectiveness in new media for instructional delivery.*

**Keywords:** Performance- Expectancy, Effort-expectancy, Self-efficacy, New media, Acceptance

### **Introduction**

The world turned global as a result of the ingenious stride that has been made by man in media technology and utilization platform to the extent that substantial percentage of the world population today is connected to one form of media technology or the other ultimately bringing human interaction much closer than ever. Sadiq (2012) observed that the concept of "Global Village" came to being due to the emergence of contemporary media technological innovation for the purposes of information dissemination, sharing and reception that is referred to as New Media. The new media concept is significantly different from traditional media, this is because new media referred to in this study comprise all communication gadgets and platforms that are internet based with On-line accessibility, digital in nature, high speed in operation, easy to manipulate and fascinating to user. New media is an emerging platform that has reduced greatly, the cost and troubles of travelling. New media has brought drastic revolution positively in gathering, sending and reception of information. Every aspect of human endeavour is now influenced one way or the other by new media technological advancement to the extent that one core aspects of transformation of an individual in the society that is, the education sector is becoming highly digitalized both in process and in product. However, the digitalization of education in Nigeria is having a strong basis in the document guiding the conduct of educational system.

The National Policy on Education (FRN, 2013) posited that education is the instrument of change per excellence. In a related provision, the document guiding the conducts and operations of Colleges of Education in Nigeria that is The Minimum Standards for General Education by the National Commission for Colleges of Education (NCCE, 2012) categorically states that: "The Centre for Educational Technology should be a service unit in the school of education to acquire, produce and house instructional resources to facilitate effective teaching and learning".

Inferring from NPE, education therefore can be used for behaviour modification, intellectual development and skill acquisition as such should be conducted in line with the modern trend, while the Minimum Standards of NCCE simplified the ways and manners of conducting general education by laying emphasis on and enumerating the software and hardware facilities to be provided in line with new media for instructional delivery. So advancement in media technology in the form of new media during the latter part of 20th century is a desirable development to the education sector with expansive information and data sharing (Brenner, 2012). It has widened the boundaries of learning beyond the four walls of the classroom creating waves in education sector with its exclusive characteristics such as instant messaging, learning at ones' own pace in the form of individualized learning, information sharing among other characteristics (Bakia, 2011). So the infiltration of new media in Nigeria's education sector is highly justified in the National Policy on Education.

It has also been discovered that new media is a significant innovation that has evolved and taking over from traditional media very quickly through its interactive characteristics (Adewale, 2009). It has substantially transformed the entire world of media. It has digitized the world and made it accessible with ease. New media has broken the barriers of traditional media which was confined to just providing content without allowing the readers or viewers active participation. It has revamped the educational world through content sharing and constant updating and upgrading of the information creating sweeping changes in the learning process. The new media has provided in public domain interaction with varied forms of information and knowledge sharing. Today, the world is witnessing drastic shift in learning from the confine of classrooms and library to the world of technological innovations through new media. For example, Social networking sites, blogs, wikis, smart phones, electronic smart board, i-pad, internet platform to mention a few enable browsing and surfing, cable television are now supplementing the classroom teaching. They have become the learning tools of contemporary academics.

From the foregoing therefore, the researchers have enthusiastically taken up the challenge to embark on this study to focus on the lecturers' acceptance to use new media for instructional delivery in Colleges of Education in North Central Nigeria. Presently, new media has made debut in Nigeria education sector enhancing competitiveness by responding to the globalization status of the world allowing researchers to explore their interests and curiosity on the global scale (Lee, 2006). It has interwoven into the fabric of academic life with instructors becoming constructive and resourceful in their own field through online services. The digitalization and online facilities have evolved a new learning style called outreach learning which equipt students with industrial content and skills that is more appropriate for employability. Moreso, new media broadens the knowledge sphere of students by facilitating interactions, community learning and exchange of ideas. Outreach learning beyond the classroom provides students an experiential learning of theoretical aspects helping in better understanding. New media through its advancement in education sector has provided a multidimensional learning approach there by enhancing outreach learning giving rise to generation of innovative and competitive students. Noteworthy is the fact that availability of new media is not an end in itself; utilization is very key and

paramount. It is from this stand point that the researcher got agitated to embark on this study investigating the possible factors that could be responsible for or predicting the acceptance to use new media for instructional delivery in Colleges of Education sector of the tertiary institutions in Nigeria. The researchers are therefore well guided by the following paradigms namely: performance expectancy, effort expectancy and self-efficacy.

Haeng-Nam, Dae-Yul, Yeon-Su and Jae-Ik (2015) carried out investigation on relationship among self-efficacy, social influence, performance expectancy, effort expectancy, and behavioral intention in mobile learning service. It was revealed in their study that effort expectancy has positive effects on performance expectancy and behavioral intention to use mobile learning.

Daniel (2015) in a study revealed that performance expectancy, effort expectancy, social influence and facilitating conditions are significant antecedents of behavioural intention towards e-book use. Omar and Mutaz (2014) examined factors affecting college students' behavioral intentions to use m-learning in Saudi Arabia. Results of this research show that performance expectancy is the main factor affecting students' adoption intention to use m-learning in the future. This is followed by effort expectancy and Social Influences factors respectively.

Isaac (2016) who carried out investigations on Perceived ease of use (PEOU) and perceived usefulness (PU) of e-government services in Ghana. The results indicate that computer self-efficacy does not significantly moderate the relationship between perceived ease of use and perceived usefulness of e-government services. Iliyas, Adio, Omopupa and Abdulmumeen (2007) who carried out a research titled English language is gradually becoming the world's lingua franca, and the social media has broken all barriers to human connections and divides. The study found that students generally deplore self-efficacy in their communication in English language on social media.

A good number of the lecturers in colleges of education in Nigeria are familiar with modern day New Media devices though for outside the classroom usage. Devices such as mobile phone, I-pad, computers as well as application software and on-line social media platforms such as Twitter, WhatsApp, Blog, Face Book, YouTube, Instagram and others can be used to package information for students by lecturers in the form of courseware or instructional delivery package in the form of Management and Information System (MIS). Invariably, the difference between availability and utilization of new media for instructional delivery constitute the gap this study is designed to address. This is because apathy and phobia to use new media platform and technology seem traceable to the poor utilization phenomenon, Chidi and Olumati (2014), in their findings observed that trainee teachers appreciated the benefits of new media in teaching and learning, although majority of them did not use new media during their teaching practice exercise because they exhibit phobia towards new media during training. Poor electricity supply and non-functional media facilities in their practicing schools were visible. The concern of this study therefore would be to look at variables such as performance expectancy, effort expectancy and self-efficacy predicting the acceptance to use new media technology among colleges of education lecturers in North Central Nigeria. Model such as Technology Acceptance Model (TAM) by Davis (2003) among others was employed to correlate the variables such as performance expectancy, effort-expectancy and self-efficacy.

The aim of this study was to determine factors predicting the acceptance to use new media among colleges of education lecturers in North Central Nigeria. Specifically the study:

- (i) Examined the performance-expectancy on the use of new media for instruction among lecturers in college of education in North Central Nigeria.
- (ii) Determined the effort-expectancy on the use of new media for instruction among lecturers of colleges of education in North Central Nigeria.
- (iii) Find out the self-efficacy of college of education lecturers on the use of new media for instruction in North Central Nigeria.

### **Research Questions**

The following research questions were raised to guide the study:

- (i) What is the performance expectancy of College of Education lecturers on acceptance to use new media for teaching in North Central Nigeria?
- (ii) How do College of Education lecturers perceive their effort expectancy of new media for teaching in North Central Nigeria?
- (iii) To what extent are College of Education lecturers perceive their self- efficacy of new media for teaching in North Central Nigeria?

### **Research Hypotheses**

The following research hypotheses were formulated and tested at 0.05 level of significance:

- Ho<sub>1</sub>:** There is no significant relationship between performance-expectancy and acceptance to use new media among lecturers of Colleges of Education in North Central Nigeria
- Ho<sub>2</sub>:** There is no significant relationship between effort-expectancy and acceptance to use new media among lecturers of Colleges of Education in North Central Nigeria.
- Ho<sub>3</sub>:** There is no significant relationship between self-efficacy and acceptance to use new media among lecturers of Colleges of Education in North Central Nigeria.

### **Methodology**

Descriptive survey research design was employed to elicit information on lecturers on factors predicting the acceptance to use new media among Colleges of Education lecturers in North Central Nigeria. The population for this study comprised all lecturers of Colleges of Education in North Central Nigeria. A total number of 410 lecturers were selected from four colleges of education using multi-stage sampling technique. Questionnaire on Lecturers Acceptance to Use New Media (QLAUNM) was used for data collection. The instrument contains two sections. Section A collected the demographic data of the respondent. Section B contains the items on performance expectancy, effort expectancy and self-efficacy. The instrument was validated by three educational technologist experts. To determine the reliability of the instrument, 100 copies of the questionnaire were administered on pilot sample, Cronbach Alpha was used to obtained reliability co-efficient of 0.76, 0.84 and 0.79 values were obtained. on lecturers' respondent. The instrument was administered to 410 lecturers. All 410 copies were duly completed, collected and analyzed. The data were weighted using 5 - point Likert scales in which strongly agree (SA) rated 5 points, Agree (A) rated 4 points, Undecided (U) rated 3 points, Disagree (D) rated 2 points and Strongly Disagree (SD) awarded 1 point. A mean of 3.0 was used as acceptable mean agreement while the mean below 3.0 signified disagreement. The research questions were analyzed by computing the responses of the respondents using Mean and Standard Deviation while regression analysis was used to analyzed hypotheses three hypotheses at alpha level of 0.05.

### **Results**

**Research Questions One:** What is the performance expectancy of college of education lecturers on acceptance to use new media for instruction in North Central Nigeria?

**Table 1: Mean and Standard Deviation of performance expectancy responses of lecturers on use of new media for instruction**

S/N	Item	$\bar{X}$	SD	Decision
PE1	Using new media in doing my job would enable me to accomplish academic tasks more quickly.	4.28	2.65	Agree
PE2	My whole body becomes ready when am to use new media	4.17	0.79	Agree
PE3	Using new media would improve my job performance greatly.	3.94	0.97	Agree
PE4	Using new media help me to teach difficult concepts	3.93	2.68	Agree
PE5	I would find new media useful in my job	3.92	0.87	Agree
PE6	Other lecturers commend me for using new media for instructional delivery	3.84	2.17	Agree
PE7	My co-lecturers like to work with me when using (new media)	3.83	2.19	Agree
PE8	I get motivated when I think about using new media in teaching	3.81	0.94	Agree
PE9	Using new media would enhance my effectiveness in the job	3.72	1.06	Agree
PE10	Using new media in my work would enhance my productivity positively.	3.68	1.84	Agree
<b>Grand Mean</b>		<b>3.91</b>		

Decision Mean =3.00

Table 1 shows the mean and standard deviation of performance expectancy responses of lecturers' on use of new media for instruction. The respondents are in agreement with the items stated in the research instrument on performance expectancy. Also the items mean rating which ranged between 3.68 and 4.28 are all considered accepted based on the decision mean of 3.0. The implication is that, the performance expectancy of lecturers on acceptance to use new media is favourable since all the items on performance expectancy show agreed based on decision mean.

**Research Question Two:** Do college of education lecturers perceived their effort expectancy on acceptance of new media for instruction in North Central Nigeria?

**Table 2: Mean and Standard Deviation of effort expectancy responses of lecturers on use of new media for instruction**

S/N	Items	$\bar{X}$	SD	Decision
EE1	It will be easy for me to become skilled in instructional delivery when using new media.	4.33	2.18	Agree
EE2	I do well in using new media to pass instruction	4.22	2.57	Agree
EE3	I would find new media flexible to interact with.	4.05	3.46	Agree
EE4	My new media operation skill makes it easy for me to deliver lectures.	4.00	0.88	Agree
EE5	I find the new media easy to use for instructional delivery.	3.98	2.20	Agree

EE6	I find it easy to use new media to do what I want to do as an academics	3.96	2.57	Agree
EE7	Seeing students doing well in my course using new media encourages me to do better.	3.87	2.24	Agree
EE8	Evaluating students performance online using new media is more convenient for me	3.83	1.05	Agree
EE9	I can use new media to enable students to developed problem solving skills.	3.81	0.90	Agree
EE10	My interaction with students using new media would make my lesson easy for them to understand and comprehend instruction	3.67	1.00	Agree
<b>Grand Mean</b>		<b>3.97</b>		
Decision Mean =3.00				

Table 2 shows the mean and standard deviation of effort expectancy of lecturers on use of new media for instruction. This indicates that all the items scores more than 3.0 decision mean, which imply that all the items were accepted, an indication that the lecturers' effort expectancy enhances the acceptance to use new media for instructional delivery in colleges of education in North Central Nigeria. The implication is that, the effort expectancy of lecturers on acceptance to use new media is favourable since all the items on effort expectancy show agreed based on decision mean.

**Research Question Three:** To what extent does college of education lecturers perceive their self efficacy on acceptance of new media for instruction in North central Nigeria?

**Table 3: Mean and Standard Deviation of self efficacy reponses of lecturers on use of new media for instruction**

S/N	Items	$\bar{X}$	SD	Decision
SE1	If I practiced every day, I could develop just about any skill in my pedagogy through new media.	4.21	2.21	Agree
SE2	I can change my basic level of academic abilities considerably through the use of new media.	4.08	3.56	Agree
SE3	I am confident that I will achieve the instructional goals that I set, when I use new media for instruction.	4.03	1.28	Agree
E4	When I am confronted with academic problems, I can find several solutions through new media always.	4.01	2.11	Agree
SE5	I think that no matter the level of subject mastery I have acquired, I significantly develop instructional delivery skill with new media	3.92	2.14	Agree
SE6	Evaluating students' performance online using new media is more convenient for me.	3.91	2.65	Agree
SE7	I can use new media to enable students to developed problem solving skills.	3.88	2.21	Agree
SE8	I can solve most problems if I invest effort in	3.83	0.95	Agree



	employing the appropriate new media			
SE9	I manage time effectively when I use new media for instruction.	3.83	0.90	Agree
SE10	I can succeed in whatever discipline of academic pursuit if am assign to deliver content to students through new media	3.68	1.00	Agree
<b>Grand Mean</b>		<b>3.94</b>		
Decision Mean =3.00				

Table 3 Indicate self efficacy of lecturers on use of new media for instruction. It was agreed with the mean values ranging from 3.68 to 4.21. From the analysis, it was reveals that lecturers self-efficacy promote proficiency of lecturers in the use of new media for instructional delivery in colleges of education in the North Central Nigeria. The implication is that, the self-efficacy of lecturers on acceptance to use new media is favourable since all the items on self-efficacy show agreed based on decision mean.

**Hypotheses:** Correlation analysis of effort expectancy, performance expectancy, self-efficacy and acceptance to use new media among lecturers in college of education in North Central Nigeria

**Table 4: Regression analysis of effort expectancy, performance expectancy, self-efficacy and acceptance to use new media**

		Effort- Expectancy	Performance Expectancy	Self Efficacy	Acceptance to Use
Effort-Expectancy	Pearson Correlation	1	.355**	.293**	<b>.376**</b>
	Sig. (2-tailed)		.000	.000	.000
	Sum of Squares and Cross-products	25704.449	7834.037	7576.122	8029.444
	Covariance	62.847	19.201	18.524	19.632
	N	410	409	410	410
Performance- Expectancy	Pearson Correlation	.355**	1	.305**	<b>.355**</b>
	Sig. (2-tailed)	.000		.000	.000
	Sum of Squares and Cross-products	7834.037	18967.267	6786.636	6509.900
	Covariance	19.201	46.488	16.634	15.956
	N	409	409	409	409
Self- Efficacy	Pearson Correlation	.293**	.305**	1	<b>.384**</b>
	Sig. (2-tailed)	.000	.000		.000
	Sum of Squares and Cross-products	7576.122	6786.636	26094.305	8267.110
	Covariance	18.524	16.634	63.800	20.213
	N	410	409	410	410
Acceptance to Use	Pearson Correlation	.376**	.355**	.384**	1
	Sig. (2-tailed)	.000	.000	.000	
	Sum of Squares and Cross-products	8029.444	6509.900	8267.110	17719.320
	Covariance	19.632	15.956	20.213	43.324

N	410	410	410	410
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\*\* . Correlation is significant at the 0.05 level (2-tailed).

The result of correlation analysis in (Table 4) was used to verify the following null hypotheses (H01, H02, & H03) respectively. The finding showed that performance expectancy, effort expectancy, and self efficacy significantly correlated with acceptance to use new media for teaching. Therefore, hypothesis one (H0<sub>1</sub>;) that stated no significant relationship between performance expectancy and acceptance to use new media was not supported, because the analysis revealed that performance expectancy statistically and significantly correlated with acceptance to use new media at  $r = 0.35$ ,  $p < 0.05$ . This implies that there was significant relationship between performance expectancy and acceptance to use new media.

Similarly, hypothesis two (H0<sub>2</sub>;) stated that no significant relationship exist between effort expectancy and acceptance to use new media was not supported, because the analysis on the table showed  $r = 0.37$ ,  $p < 0.05$  which mean statistical relationship exist between effort expectancy and acceptance to use new media for instruction. The implication is that there was significant relationship between effort expectancy and acceptance to use new media.

Hypothesis three (H0<sub>3</sub>;) stated that no significant relationship exist between self efficacy and acceptance to use new media was also not supported, because the analysis on the table showed  $r = 0.38$ ,  $p < 0.05$  which mean statistical relationship exist between self efficacy and acceptance to use new media for instruction. The implication is that there was significant relationship between self- efficacy and acceptance to use new media.

## Discussion

There was no significant relationship between performance- expectancy and acceptance to use new media among lecturers of colleges of education in North Central Nigeria. This is in agreement with the findings of Haeng-Nam, Dae-Yul, Yeon-Su and Jae-Ik (2015) who carried out investigation on relationship among self-efficacy, social influence, performance expectancy, effort expectancy, and behavioral intention in mobile learning service and that effort expectancy has positive effects on performance expectancy and behavioral intention to use mobile learning. It also concur with the finding of Daniel (2015) who investigated understanding behavioural intention towards e-books use: does gender really matter? And found that performance expectancy, effort expectancy, social influence and facilitating conditions are significant antecedents of behavioural intention towards e-book use.

There was no significant relationship between effort-expectancy and acceptance to use new media among lecturers of colleges of education in North Central Nigeria. This is supported by the findings of Omar, Enas, and Mutaz (2014) whose study examining factors affecting college students' behavioral intentions to use m-learning in Saudi Arabia, revealed that performance expectancy is the main factor affecting students' adoption intention to use m-Learning in the future. This is followed by effort expectancy and Social Influences factors respectively.

There was significant relationship between self-efficacy and acceptance to use new media among lecturers of Colleges of Education in North Central Nigeria. This is in line with the study of Isaac (2016) who carried out investigations on perceived ease of use and perceived usefulness of e-government services in Ghana and found that computer self-efficacy does not significantly moderate the relationship between perceived ease of use and perceived usefulness of e-government services. It is also in agreement with the findings of Iliyas, Adio,



Omopupa and Abdulmumeen (2007) who carried out a research titled English language is gradually becoming the world's lingua franca, and the social media has broken all barriers to human connections and divides and found that students generally deplore self-efficacy in their communication in English language on social media. Also the finding concur with the study of Shittu, Baffa, Gopep and Abubakar (2016) who investigated predictor of acceptance of computer mediated instruction among teacher educators in Niger State College of Education Minna and found that self-efficacy is the only factor that can induce teacher educators to accept use of computers mediated instruction for students' instruction.

### **Conclusion**

Performance- expectancy has been found to be veritable factor that predict acceptance to use new media in colleges of education for instructional delivery. This is because performance expectancy as factor revealed perceived ease of usage of new media. In the same vain effort expectancy from the study is found to be another factor that can predict lecturers' acceptance to use new media for instructional delivery based on the findings from this study, effort expectancy help to reveal lecturers perceived usefulness of new media. Self efficacy was equally found to be factor that predicts usability of lecturers' acceptance to use new media for instructional delivery.

### **Recommendations**

The following recommendations were proffered:

- (i) Stakeholders of colleges of education should as a matter of urgent importance provides necessary new media devices that can enhance the usage for for instructional delivery in the colleges of education.
- (ii) Stakeholder as matter of urgent should organize workshop on new media utilization for instructional delivery

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