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## Motivational Factors as Correlates of Electronic Information Resources Use Among Lecturers in Private Universities in South-West, Nigeria

**Authors:** **Oyeniya James Ogunrewo**, Joseph Ayodele Babalola University, Ikeji-Arakeji, Osun State, Nigeria, jogunrewo@yahoo.com; **Joseph Adeniyi Kolawole**, Joseph Ayodele Babalola University, Ikeji-Arakeji, Osun State, Nigeria; **Kayode Sunday Osundina**, Health Information Management, College of Health Technology, Ilesa, Osun State

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*This study investigated Perceived Usefulness, Perceived Ease of Use and Perceived Enjoyment as correlates of EIRs use among lecturers in private universities in Nigeria. A correlation type of survey research design was adopted in this study. A single stage random sampling technique was used to select 2086 lecturers from the sampled (14) universities out of (21) universities with a population size of 3308 in South-West Nigeria. The survey instruments titled “motivational (Perceived Usefulness, Perceived ease of use and Perceived Enjoyment and use of (EIR) Questionnaire” (SEPF EIRU Q) was administered. Data generated were analyzed using frequency, percentage, mean, standard deviation, Pearson Moment Correlation and Multiple Regression (R<sup>2</sup>) analysis at 0.05 significance level. The finding revealed that Perceived Usefulness ( $r=.980^{**}$   $P<.05$ ) Perceived ease of use  $.982^{**}$  Perceived enjoyment ( $r=.986^{**}$ ,  $P<.05$ ) were significantly related with utilization of electronic information resources. The study also found that the linear combination of Perceived Usefulness, Perceived Ease of Use and Perceived Enjoyment accounted for 99% variance in use of EIR among respondents. The study therefore recommended that university management should provide more effective use of current internet education systems to increase individual internet knowledge by*

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*having a sort of seminars/workshop to intimate and update the lecturers on the help messages always displayed on the screen during search.*

**Keywords:** *Electronic information resources, Lecturers, Perceived Usefulness, Perceived ease of Use and Perceived Enjoyment*

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## **Introduction**

Electronic Information resources can be defined as any information bearing material that provides access to users in a digital or in an electronic format. An electronic resource (e-resource) on the other hand can be a bibliography of full text database that allows one to search for relevant articles in its subject area such as a book or journal that is available in electronic format, e.g -a set of web pages/-a CD-ROM. E-Resources (also referred to as online Databases)

The electronic resources concept had evolved since 1960's to ease increasing difficulties in designing, building, and maintaining complex information systems (typically with many concurrent end users, and with a diverse large amount of data (Omotayo, 2010). It has grown together with the evolvement of electronic resource management systems which enable the effective handling of information. The growth in technology in the areas of processors, computer memory, computer storage, and computer networks, the sizes, capabilities, and performance of electronic information resources had grown in order of magnitudes (Abdullahi and Haruna, 2008). It has been reported that Nigeria, with an estimated population of 146,255,306 has only about 10,000,000 (about 6.84% ) of her nationals having access to electronic information resources such as World Wide Web (WWW) popularly known as the Internet (Africa Internet Usage and Population Statistics, 2008). Evidence has shown that electronic information resources are the major sources of current and modern information for academic staff in Nigerian Universities (Salaam & Adegboye, 2010).

Academics in developing countries including Nigeria are fast adapting to the use of electronic resources as a source of information for teaching and research (Campbell-Kelly & Garcia-Swartz, 2013; Egberongbe, 2011)

Numerous advantages of having access to electronic resources include timely access to current information on finances, information on geographical locations, updated and modern techniques of carrying out activities, current events among others.

It has been argued that the use of electronic information resources increases with time and proved that the emergence of electronic information resources has tremendously transformed information handling and management in Nigerian academic environments (Ani and Ahiauzu, 2008). It has now been revealed that organizations and companies, from small to large, depend heavily on electronic information resources for their operations (Saka, 2008). Statistics have shown that tertiary institutions in Africa have recorded tremendous access to electronic resources in the last decades and this has been estimated to be 1.5% (the lowest) compared to world usage (although there had been growth rate of 71.4% between 2000 and 2010) (Omotayo, 2010; Thanuskodi, 2010).

The recent influx of various information resources like internet, digital communication networks, Global System, Mobile-telecommunication and computer-based communications have helped to widen access to information for various usages. It has also helped to facilitate easy and direct link of communication from lecturers to students and researchers to researchers all over the world. In addition, it has smoothened the progress of message transmission, transfer and exchange of files and text, updating/downloading, database access, interactive services, provision of bulletin boards and newsletters, job submission and execution, teleconferencing, tele-ordering, interlibrary loans, creating user's profiles, dissemination of information and so on.

Previous studies revealed that the use of electronic information resources could be related to some certain factors thus, it has been shown that perceived ease of use (PEU) has a significant effect on perceived usefulness, perceived enjoyment (playfulness) and attitude towards adoption of a specified electronic database (Moon and Kim, 2001; Van der Heijden, 2003). That is, the easier a system is to use, the more this is associated with enjoyment. This in turn leads to the creation of positive favorable attitudes toward using it. Here, he concludes by defining electronic data base / electronic record/ resources and the ease of use as the extent to which academic adoption of use of electronic information resources is perceived as easy or effortless. However, in this study, perceived

usefulness (PU) is the degree to which an individual perceives that use of access relevant electronic information resource to improve his or her efficiency or makes it easier to enjoy media content. while Perceived enjoyment (PE) had the notion that an individual can experience immediate enjoyment or fun from using a specific system and perceive any active involvement in using new technology to be enjoyable in its own right (Davis, 1989; Igbaria, Schiffman, and Wieckowski, 1994).

The urge to improve on one's capability is a motivating factor that guarantees access to useful information. There is every tendency for individuals to appreciate and seek for useful information as individuals acquire more skills and knowledge in every aspect of life (Eastman & Lyer, 2004;)

The model of motivation (MM) and model of personnel computer utilization (MPCU) has been considered to be useful in this study.

Recent studies examined the correlation between perceived usefulness and attitude and behavioral intention in evaluating user acceptance of a new product (Moon and Kim, 2001; Vijayasarathy, 2004; Vander Heijden, 2003). Their results show that the effects of these relationships derived from perceived usefulness, not perceived ease of use, as expected by the original Technological Acceptance Model (TAM). Moon & Kim (2001) and Vander Heijden (2003) view perceived enjoyment as an intrinsic source of motivation, referring to the performance of an activity for no apparent reason other than the process of performance itself.

Electronic information resources offer great opportunity in terms of speed, error free, time saving, more economical and not tedious for university lecturers to obtain and use needed information in order to improve their teaching effectiveness and research productivity.

Past studies on the use of electronic information resources by lecturers in universities have been focusing on the frequency use of electronic information resources without paying much attention to motivational factors such as Perceived Usefulness (PU), Perceived Ease of Use (PEU) and Perceived Enjoyment (PE) it is against this background that this study investigates motivational factors as correlates of electronic information resources in South West Nigeria.

## Literature Review

### **Perceived Usefulness (PU) and use of electronic information resources**

The motivation theory argues that, if an individual perceives an activity to be beneficial to achieve valued outcomes, he or she will be more likely to accept the new technology. Instead, Davis (1989) defines perceived usefulness as the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context. Based on his definition, Adams, Nelson and Todd (1992), and Davis (1989) find perceived usefulness to be a major determinant of use behavior and intention. Subramanian (1994) reaffirms two salient belief measurements (perceived usefulness and perceived ease of use), using a new data set for two different technologies, and finds that PU, instead of PEU, has a direct effect on use behavior employing structural equation modeling (SEM).

Several recent studies examine the correlation between perceived usefulness and attitude and behavioral intention in evaluating consumer acceptance of an innovative product (Moon and Kim, 2001; Vijayasarathy, 2004; Van der Heijden, 2003). Their results show that the effects of these relationships derived from perceived usefulness, not perceived ease of use, as expected by the original TAM.

Therefore, the study posits:

H4: Perceived usefulness positively affects use of electronic information resources.

H5: Perceived usefulness positively affects behavioral intention to use relevant electronic resources.

### **Perceived ease of use (PEU) and use of electronic information resources**

Given the theory of acceptance model TAM concept that Davis (1989) develops to predict and explain lecturer's intentions toward adopting information systems, the study incorporates three underlying constructs of perceived usefulness, perceived ease of use and perceived enjoyment into the original TAM model in an attempt to add to our knowledge by

undertaking an in-depth conceptual and empirical examination. These constructs may significantly affect lecturers' attitude of behavior, may provide a more effective means, and predict academic intentions when adopting the use of electronic resources.

Past studies verify the effects of perceived ease of use on both perceived usefulness and perceived enjoyment in TAM research (Davis, 1993; Venkatesh and Davis, 2000). Studies have revealed that there exists a stronger relationship between perceived ease of use and perceived usefulness as the two salient beliefs (Adams, Nelson, and Todd, 1992; Segars and Grover, 1993). Further, several studies employ different use measures and finds that they have a close correlation with attitude, consistent with the original TAM (Davies et al 1989 Burton-Jones and Hubona, 2003).

Recently, researchers report that perceived ease of use has a significant effect on perceived usefulness, perceived enjoyment (playfulness), and attitude toward adoption for a specified electronic database (Moon and Kim, 2001; Van der Heijden, 2003). That is, the easier a system is to use, the more this is associated with enjoyment. This, in turn, leads to the creation of positive favorable attitudes toward using it. Here, the study defines ease of use as the extent to which academic adoption of use of electronic resources is perceived as easy or effortless. Accordingly, the study hypothesizes that:

H1: Perceived ease of use positively affects perceived usefulness

H2: Perceived ease of use positively affects attitude towards electronic resources

H3: Perceived ease of use positively affects perceived enjoyment.

Therefore, the three hypotheses positively affect the use of electronic resources.

### **Perceived Enjoyment (PE) and use of electronic information resource**

To further model the role of intrinsic motivation in the TAM, Moon and Kim (2001) and Van der Heijden (2003) view perceived enjoyment as an intrinsic source of motivation, referring to the performance of an activity for no apparent reason other than the process of performance itself. Their research demonstrates that perceived enjoyment has an effect on both attitude and academic behavioral intention toward using a specified source. Similar to the construct of perceived enjoyment, a system perceived to be easy to use

will be conceived as more fun to use, leading to a stronger linkage between perceived fun and attitude toward specific products but having no significant effect on consumers' behavioral intention (Bruner II and Kumar, 2005).

Prior studies of WWW and mobile commerce incorporate perceived enjoyment into the TAM to gain a more accurate prediction of user acceptance toward a specific source, primarily because a product or service used and associated with enjoyment contributes to the causal relationship (Bruner II and Kumar, 2005; Moon and Kim, 2001; Van der Heijden, 2003). This study defines perceived enjoyment as the degree to which a person believes that adoption of a specific electronic resource is interesting and associates adoption with enjoyment.

## Methodology

The correlation type of survey research design was adopted in this study. A single stage random sampling technique was used to select 2086 lecturers from the sampled (14) universities out of (21) universities with a population size of 3308 in South-West Nigeria. The survey instruments titled "Socio-economic and use of (EIR) Questionnaire" (SEPFEIRU Q) was administered. Data generated were analyzed using frequency, percentage, mean, standard deviation, Pearson Moment Correlation and Multiple Regression (R<sub>2</sub>) analysis at 0.05 significance level.

## Findings

In order to provide answers to the research questions in this study, 2086 copies of questionnaire were administered to the private universities lecturers in South-West, Nigeria and only 1,610 copies representing 77% were duly completed and returned while 476 copies representing 23% of the questionnaire were not retrieved. The result presented in the following sections is therefore based on the 1,610 copies of the questionnaire that were successfully filled and retrieved.

**Table 1:** The Use of Electronic Information Resources by Private Universities Lecturers

S \ N	Utilization of Electronic Resources	Very often	Often	Occasionally	Never	Undecided	$\bar{X}$	S.D
1	E-journals	761 (47.2%)	428 (26.6%)	215 (13.3%)	117 (7.3%)	90 (5.6%)	3.65	1.42
2	E-mail	714 (44.3%)	551 (34.2%)	284 (17.6%)	13 (0.8%)	49 (3.0%)	3.21	0.94
3	E-encyclopedia	610 (37.9%)	547 (34.0%)	287 (17.8%)	151 (9.4%)	16 (1.0%)	3.19	0.97
4	E-cataloguing	629 (39.0%)	432 (26.8%)	240 (14.9%)	178 (11.0%)	132 (8.2%)	3.08	1.43
5	E-indexes\abstracts	591 (36.7%)	690 (42.8%)	220 (13.7%)	62 (3.8%)	48 (3.0%)	3.01	1.12
6	E-conference papers\proceedings	588 (36.5%)	676 (42.0%)	231 (14.3%)	59 (3.7%)	57 (3.5%)	2.80	1.42
7	E-library	554 (34.4%)	604 (37.5%)	279 (17.3%)	159 (9.9%)	15 (0.9%)	2.62	1.26
8	E-magazines	551 (34.2%)	617 (38.3%)	178 (11.0%)	167 (10.4%)	98 (6.1%)	2.41	0.90
9	E-books	548 (34.0%)	602 (37.4%)	281 (17.4%)	161 (10.0%)	19 (1.2%)	2.32	1.26
10	E-database e.g EBSCOHOST, JSTOR, HINARI, AGORA, BOONE and TEAL	551 (34.2%)	611 (37.9%)	283 (17.6%)	153 (9.5%)	13 (0.8%)	2.29	1.10
11	E-directory	488 (30.3%)	475 (29.5%)	362 (22.5%)	271 (16.8%)	15 (0.9%)	2.23	1.29
12	E-theses & Dissertations	479 (29.7%)	604 (37.5%)	215 (13.3%)	159 (9.9%)	154 (9.6%)	2.16	1.18
13	E-newspapers	284 (17.6%)	555 (34.5%)	611 (37.9%)	152 (9.4%)	9 (0.6%)	2.07	1.01
14	DOAJ	379 (23.5%)	511 (31.7%)	115 (7.1%)	553 (34.3%)	53 (3.3%)	2.05	1.00
15	E-dictionary	387 (24.0%)	363 (22.5%)	343 (21.3%)	221 (13.7%)	297 (18.4%)	2.05	0.98
16	E-research report	284 (17.6%)	147 (9.1%)	453 (28.1%)	718 (44.6%)	9 (0.6%)	2.02	1.01
17	Silver platter	238	120	220	426	607	1.96	0



7		(14.8%)	(7.4%)	(13.7%)	(26.4%)	(37.7%)		.99
18	E-examines	101 (6.3%)	270 (16.8%)	524 (32.5%)	660 (41.0%)	56 (3.5%)	1.94	0.96
19	HIGH WIRE PRESS	88 (5.5%)	267 (16.6%)	538 (33.4%)	662 (41.1%)	56 (3.5%)	1.84	0.95

The result of Table 4.2 ranked the use of electronic information resources by private universities lecturers in South-West, Nigeria. The result showed that most private universities lecturers in Southwest utilized e-journals ( $\bar{X} = 3.65$ ,  $SD = 1.42$ ) more than any other electronic information resources. This is expected from private lecturers because of the role that online journal publication plays in their lecturing career. Beside electronic-journals, a significant number of private universities lecturers also affirmed that they utilized e-mail ( $\bar{X} = 3.21$ ,  $SD = 0.94$ ) over and over.

The result further shows that, other electronic information resources such as electronic-encyclopedia, electronic-cataloguing, electronic-indexes/abstracts, electronic-conference papers/proceedings, electronic-library, electronic-books, electronic-database, electronic-directory, electronic-theses/dissertations, electronic-newspapers, electronic-dictionary and electronic-research report were commonly utilized by private universities lecturers in South-West, Nigeria.

On the other hand, the lowest electronic information resources utilized by private universities lecturers in the result were high wire press, e-examines, silver platter and other resources such as google scholar and Elsevier etc. Therefore, this finding ascertained that private universities, lecturers in South-West, Nigeria utilized e-journals and e-mail on a regular basis than other electronic information resources. The use of e-journals by the private university lecturers is not amazing because the need for paper publication in a reputable or recognized online journal is generally common among universities lecturers. This findings were corroborated by Dickinson and Gregor (2006) and Tsakanas and Papatheodorou (2006) The trend of hand copy publications are gradually losing acceptance, hence the reason of high demand of e-journals as stated by Borrego et al (2007) and Yang and Yoo (2004). Similarly, the use of e-mail by private universities lecturers is expected because it is always required when submitting paper for

publication, subscribing for call for papers/conferences, filling online forms etc. In actual fact, e-mail aids private universities lecturers in communication and in sending or receiving correspondence.

**Table 2:** Correlation Analysis showing relationships of Psychological factors with use of Electronic Information Resources by Private University lecturers in Southwest Nigeria.

	Utilization of Elec. Resources	Self Concept	Locus of Control	Perceived Usefulness	Perceived Ease of Use	Perceived Enjoyment
Utilization of Electronic Resources	1					
Perceived Usefulness	.980**	.810**	.931*	1		
Perceived Ease of Use	.982**	.846**	.959**	.983**	1	
Perceived Enjoyment	.986**	.893**	.980**	.965**	.985**	1
$\bar{X}$	176.79	73.38	88.11	35.52	42.49	50.69
S.D	1.74	1.27	.98	1.02	1.22	1.27

\*\*Sig. at P<.01 level, \*Sig. at P <.05 level

Table 4.14 above showed correlation coefficients and significant values of perceived usefulness perceived ease of use and perceived enjoyment with the use of electronic information resources by university lecturers in South Western Nigeria. This result measured the strength of the relationship that exists between perceived usefulness, perceived ease of use and perceived enjoyment with the utilization of electronic information resources. The bivariate correlation procedure in this result focused a two-tailed of statistical significance at (p<0.05) and significant (p<.05).

Therefore, perceived usefulness, (r=.980\*\*,P<.05) Perceived ease of use (r<.982\*\*,P<.05) and Perceived Enjoyment (r=.986\*\*,P<.05) were highly and positively related with utilization of electronic information resources. This implied that perceived usefulness, perceived ease of use and perceived enjoyment have significant relationship with utilization of electronic information resources by private university lecturers in Southwest Nigeria. In addition, the result deduced that among perceived usefulness, perceived ease of use and perceived enjoyment, the utilization of electronic

information resources are firstly determined by the perceived enjoyment of private university lecturers in Southwest ( $X=50.69$ ,  $SD= 1.27$ ). This was ranked highest in the ratingscore, followed by both perceived ease of use and perceived usefulness.

**Table 3:** Relative contribution of Motivational factors (Perceived Usefulness, Perceived ease of use and Perceived Enjoyment on the use of Electronic Information Resources by the Private University Lecturers in Southwest, Nigeria

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.	Remark
	B	Std. Error	B			
(Constant)	123.994	.616		201.188	.000	Sig.
Perceived Usefulness	.668	.018	.572	36.221	.000	Sig.
Perceived Ease of use	-7.515E-02	.020	-.089	-3.751	.000	Sig.
Perceived Enjoyment	.243	.020	.289		.000	Sig.
Adj. R =	.994					
Adj. R <sub>2</sub> =	.988					
F <sub>(7,1603)</sub> =	26.148					

Table 4.5 reveals the relative contributions of Motivational factors (Perceived usefulness, Perceived ease of Use and Perceived Enjoyment of use) on the use of electronic information resources by private universities lecturers in the South-West, Nigeria. Electronic information resources as beta weights, viz: Perceived Usefulness ( $\beta = .572$   $P<.05$ ) Perceived Ease of Use ( $\beta = -.089$ ,  $P <.05$ ) and Perceived Enjoyment ( $\beta = .289$ ,  $P <.05$ ). Thus, it is shown that Perceived ease of use, Perceived usefulness and Perceived enjoyment of use had relative significant contributions to EIR of the respondents.

In addition, the joint contribution of the five independent variables to the prediction of the dependent variable i.e. utilization of electronic information resources positively correlated with the three predictors. The result shows a coefficient of multiple correlations (R) of 994 and a multiple R<sub>2</sub> of .988. This means that 98.8% of the variance in the utilization of

electronic information resources is accounted for by all the three predictor variables when taken together. This significance of the composite contribution was tested at  $P < .05$ . The result also shows the analysis of variance for the regression yielded an F-ratio of 26.148 (significant at 0.05 level). This implies that the joint contribution of the independent variables to the dependent variable was significant.

## Conclusions

The use of electronic information resources by private universities lecturers depend on their Perceived Usefulness, Perceived Ease of Use and their Perceived Enjoyment. These factors were determinant of EIR use. Levels of such determinant and correlation is virtually not easy and not friendly for private university lecturers in Southwest Nigeria to use electronic information resources due to their inability to understand information provided by e-journal and inability to apply the help messages always displayed on the screen during their search. Therefore, the study recommended that university management should provide more effective use of current internet education systems to increase individual internet knowledge by having a sort of seminars/workshop to intimate and update the lecturers on the help messages always displayed on the screen during search.

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