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The attitude of Distance Learners towards the Utilization of Learning Management System (A case study of National Open University of Nigeria)

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A B S T R A C T S

One significant innovative technology to expand teaching and learning mostly in Distance Education is Learning Management System (LMS). LMS allow learning institutions to offer a larger number of courses online whether full or blended, by providing institutions with a digital space for numerous purpose which includes documentation, tracking and online training. However, for the relevance of LMS within an education context, distance learners' attitudes towards the use of LMS must be investigated. The study therefore aimed at examining the Attitude of Distance Learners towards the Utilization of LMS (A case study of the National Open University of Nigeria). Data were collected from 697 respondents using a research adapted questionnaire. Data collected for the study were analyzed using mean and standard deviation to answer research question one while hypotheses one and two were tested using independent t-test and ANOVA respectively. The findings indicated that there was a significant difference between male and female distance learners on their attitude toward the use of LMS. Thus, no significant difference existed among science, arts, and social science distance learners' attitude towards the use of LMS. It was therefore recommended that efforts should be made to ensure that distance learners do not just have a positive attitude towards the use of LMS but should be taught the value of LMS to ensure its effective utilization.

1. INTRODUCTION

Learners' attitudes are a very good indicator of students' approach to the technologies and the approaches differentiate the user from each other. McGill and Klobas (2008) opined that it is important to measure attitude towards the use of an object rather than the object itself. Attitudes refer to one's positive or negative judgment about a concrete subject which is determined by the study of the facts concerning the result of an action and by the optimistic or undesirable appraisal of these results. If using a new form of technology fits a person desires and characteristics, then it is stated to be positive, and when a person cannot adapt to the new system because he/she does not have the set of characteristics required then it is said to be negative. Marshall & Taylor (2008) stated that the integration of ICT into the educational curriculum has been endorsed as a key step in bridging the digital divide. ICTs make curriculum implementation centered-learner with a self-learning atmosphere that enables the student to customize his/her own learning experiences. Wong & Li (2011) opined that ICT has the potential to support certain changes in learning. Researches have shown that the appropriate use of ICT can catalyze the paradigmatic shift in both content and pedagogy that is at the heart of education reform in this 21st century. Dawes (2001) was of the view that new technologies can support education across the curriculum and provide opportunities for active communication between lecturers and students in ways that have not been possible before.

Kadel (2005) observed that having ICT in schools will not guarantee their effective use, irrespective of the amount and worth of technology placed in classrooms, operators must be having the ability and right attitude towards its utilization. Zaid *et al.* (2012) asserted that with the advent of computer technology in the field of education, creating and sustaining change in academia learning style can only be proficient if those academia's successfully move from one point of equilibrium to another. This movement can be eased by changing tutors' attitudes towards e-learning tools. Attitudes refer to one's positive or negative judgment about a concrete subject. Attitudes are determined by the study of the facts concerning the result of an action and by the optimistic or undesirable appraisal of these. Noted that if user-perceived a proposed technology as satisfying their needs, it is most probable to use.

Attitudes are typically measured using two main types of scales: either Likert Scales, where five response groups are ranging between two extreme positions, for example, strongly agree and strongly disagree, or using semantic differential questions, containing a set of converses. Concerning learners' attitudes towards the use of Learning Management System (LMS), numerous studies were carried out by different scholars in relation to LMS and LMS tools; for example, Govender (2010), opined that the attitude shown by students towards a mixed learning model of instruction is a positive trend towards the acceptance of LMS.

McGill & Klobas (2009) opined that application of LMS drive users' attitude toward LMS. In the same perspective, Adewole-Odeshi (2014) concluded in his study (attitude of students towards e-learning in selected South-west Nigerian universities, concentrating more on the connection between attitude and e-learning with the application of TAM) that students have an optimistic attitude towards e-learning. Govender *et al.* (2014) also concluded in their study that learners had a positive attitude towards the use of the LMS to support teaching and learning and were ready for its implementation in other subjects in the topic (perceptions of learners of an LMS to support teaching and learning using the diffusion of innovation theory).

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Wong & Fong (2014) conducted a study on student attitudes to traditional and online methods of delivery, finding revealed that there is no significant gender imbalance. When these attitudes were further analyzed based on preference for online learning technology, the Pearson's r Correlation test revealed both gender groups preferring using online learning technology. But it should be noted that the successful usage of any technology (such as LMS) depends on some human factors (Kukulska-hulme, 2007). Hence, this study aims to examine the attitude of learners towards the utilization of the LMS.

LMS is an online digital environment that provides a comprehensive set of tools for both tutors and students to interact together. Some instructors opined that because of evolving Web 2.0 applications, students can be better served by an LMS alternative which makes learning content easily accessible and managed. In addition, it helps instructors to provide their students with learning materials and manage student registration, a toolbox of web resources that might include social bookmarking tools, document sharing applications, and social networking (Obadara, 2014; Okron & Koko, 2009).

However, it has been discovered over time that most of the distance learners are not motivated, those with poor study habits lag in its utilization, some courses can be difficult to simulate, instructors may not be available at the expected time and there may be epilithic Internet connectivity. Obadara (2014) noted that to come to terms with these complexities, learners need to embrace the use of LMS for better academic performance at any level of education. And the success of any technology integration into the instructional process

depends highly on users' acceptance of the system rather than the system itself. In Nigeria, not much research has been conducted concerning LMS usage most especially in distance education (single mode Universities) in South-west Nigeria. It is on this note that this study examines distance learners' attitudes towards the utilization of LMS for undergraduate programs in South-west, Nigeria, focusing on some moderating variables of gender and field of study.

The main purpose of this study was to examine the attitude of learners towards the utilization of learning management Specifically, the study:

(i)   Examined distance learners' attitude towards the use of LMS,
(ii) Determined the significant difference between male and female distance learners' attitudes towards the use of LMS,
(iii) Investigated the influence of distance learners' field of study on their attitude towards the use of LMS,

The following research questions were answered in the study

(i)   What is the attitude of distance learners towards using LMS?
(ii) What is the difference between male and female distance learners' attitudes towards the use of LMS?
(iii) What is the influence of distance learners' field of study on their attitude towards the use of LMS?

Hypotheses used in this study are

(i) H_{O1}: There is no significant difference between male and female distance learners on their attitude towards the use of LMS.
(ii) H_{O2}: There is no significant difference among Science, Arts, and Social Science distance learners' attitude towards the use of LMS.

2. METHODOLOGY

This chapter presents the methods and techniques that were used in the process of collecting and analyzing necessary and useful data for this research. It was presented under the following sub-headings: research design, sample and sampling technique, research instrument, validation of research instrument, procedures for data collection, and data analysis techniques.

2.1. Research Design

The study adopted descriptive research of survey method. Descriptive research of survey method was chosen for the study because it enables the researcher to gather a large amount of information on distance learners' perception, attitude, and utilization of LMS through the use of a questionnaire.

2.2. Population, Sample, and Sampling Techniques

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2.3. Research Instruments

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of information on distance learners' perception, attitude, and utilization of LMS through the use of a questionnaire.

2.4. Data Analysis Techniques

The analysis and interpretation of data obtained were done using descriptive and inferential statistics. Frequencies, mean, standard deviation, and bar charts were used to analyze the research questions. Hypothesis 1 was tested using an independent t-test while hypothesis 2 was tested using analysis of variance (ANOVA). All hypotheses were tested at a 0.05 level of significance.

3. RESULTS AND DISCUSSION
3.1. Demographic Information of Respondent

The demographic status of respondents by gender was presented in **table 1**. It showed that respondents of male gender were 299 with 42.9% while 398 (57.1%) were female. **Figure 1** presents a bar chart of the respondent by gender.

Table 1. Percentage Distribution of Respondents by Gender.

| Gender	No of Respondents	Percentage
Male	299	42.9
Female	398	57.1
Total	697	100.0
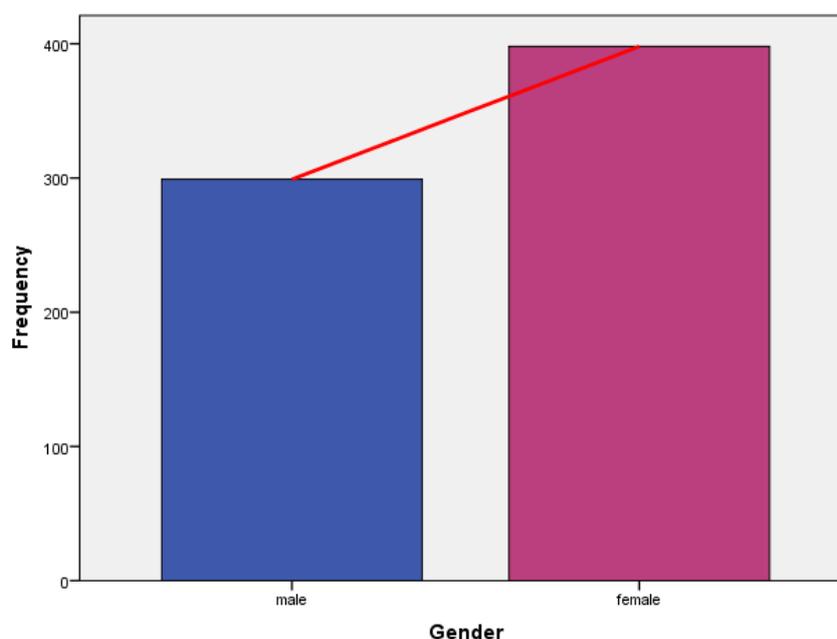
Figure 1. presents a bar chart of the respondent by gender.

Table 2 represents the demographic status of respondents by their field of study. It was revealed from table 2 that the majority of the respondents in Sciences were 284 (40.7%) Arts were 149 (21.4%) while Social Sciences were 264 (37.9%). A chart better presents the illustration of respondents based on their field of study as shown in **figure 2**.

Table 2. Percentage Distribution of respondents by Field of Study.

Field of study	No of Respondents	Percentage
Science	284	40.7
Arts	149	21.4
Social Science	264	37.9
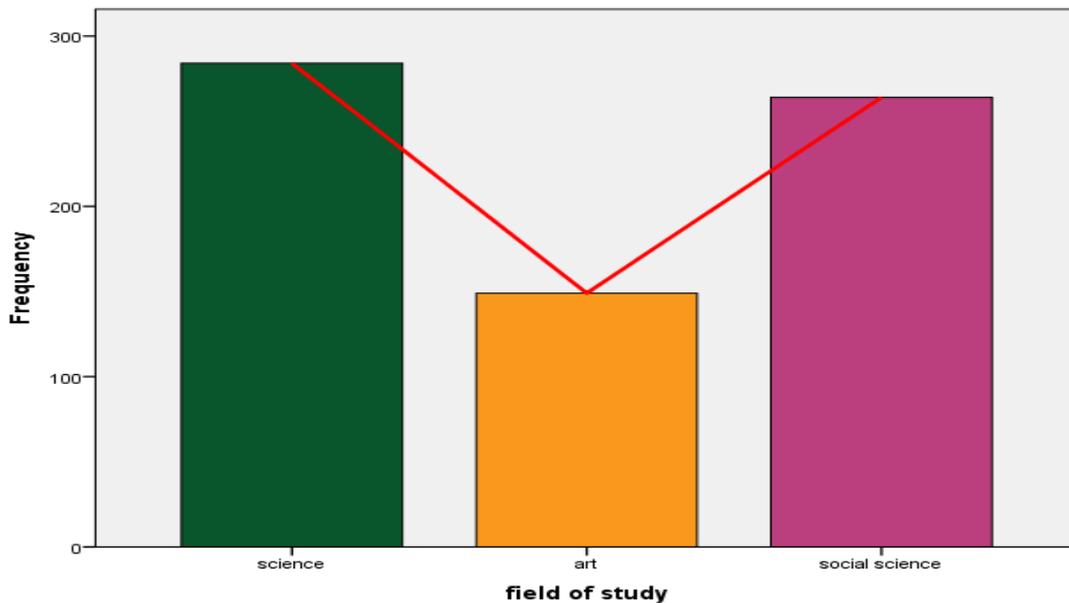
Figure 2. presents a bar chart of respondents by their field of study.

Figure 2 presents a bar chart of respondents by their field of study. The bar showed that science respondents had the highest bar more than arts and social science respondents.

3.2. Analysis of Research Question: What is the attitude of distance learners towards using LMS?

Table 3, it was revealed that item 1 had the highest mean value of 3.19. It implies that using LMS is a positive innovation, so I prefer learning with it and that LMS is a fast and efficient way of getting information because of its means value of 3.16. Moreover, the analysis further showed that participants look forward to learning more through LMS with a mean score of 3.16 and they prefer using LMS to find out about marks and progress report with a mean score of 3.13. Also, they will get more confident as they use the LMS over time with a mean score of 3.12, using the LMS increases interaction with the subject content with a mean score of 3.09. The lowest mean scores are 3.08, 3.08, 3.05, and 3.05 with the statement that LMS is compatible with the way I like to learn, LMS does not intimidate me, so I prefer using it for learning, I am eager to respond to the discussion group on the LMS and I am eager to read notification given by lecturers when using LMS.

However, the grand mean score for distance learners towards using LMS was found to be 3.11 with this result it is inferred that distance learners have a positive attitude towards using LMS.

Table 3. Attitude towards the Use of LMS.

S/N	Statements	Mean	Std. Dev
1	Using LMS is a positive innovation, so I prefer learning with it	3.19	0.71
2	I am eager to respond to the discussion group on the LMS	3.05	0.69
3	The LMS is compatible with the way I like to learn	3.08	0.76
4	The LMS does not intimidate me, so I prefer using it for learning	3.08	0.69
5	I prefer using LMS to find out about my marks and progress report	3.13	0.73
6	The LMS is a fast and efficient way of getting information	3.17	0.73
7	Using the LMS increases my interaction with the subject content	3.09	0.72
8	I am eager to read notifications given by my lecturers when using LMS	3.05	0.78
9	I would get more confident as I use the LMS over time	3.12	0.73
10	I look forward to learning more through LMS	3.16	0.72
	Grand mean	**3.11**	**0.48**

3.3. Hypotheses Testing

3.3.1. Hypothesis One: HO_1 : There is no significant difference between male and female distance learners on their attitude toward the use of LMS.

Table 4 displayed the result on the significant difference between male and female distance learners on their attitude toward the use of LMS. The result showed that, t (695) = 3.02, p<0.05. the null hypothesis was rejected. This was because the result of the t-value of 3.02 resulting in 0.003 significance value was less than 0.05 alpha value. This implies that the null hypothesis, there is no significant difference between male and female distance learners on their attitude toward the use of LMS was rejected. It can therefore be concluded that there was a significant difference between male and female distance learners on their attitude toward the use of LMS.

Table 4. T-test Summary for Significant Difference Between Male and Female Distance Learners Attitude toward the Use of LMS.

Gender	No	Mean	Std. Deviation	Df	t	Sig. (2 tailed)	Remarks
Male	299	3.18	0.45				
				695	3.02	0.003	Sig.
Female	398	3.07	0.49				
Total	697						

3.3.2. Hypothesis two: HO2: There is no significant difference among Science, Arts, and Social Science distance learners' attitudes towards the use of LMS.

Table 5 revealed that there was no significant difference among Sciences, Arts, and Social Sciences distance learners on their attitude towards the use of LMS. F (2, 694) = .256, p = .774. This, therefore, means that the null hypothesis was not rejected because the significant value (.774) was greater than the 0.05 alpha level. By implication, the null hypothesis was established thus, no significant difference existed among Sciences, Arts, and Social Science distance learners' attitudes towards the use of LMS.

Table 5. ANOVA Summary for Significant Difference among Sciences, Arts and Social Science Distance Learners' Attitude towards the use of LMS.

	Sum of square	Df	Means square	F	Sig.	Remarks
Between groups	0.118	2	0.059	0.256	0.774	Not Sig.
Within groups	159.693	694	0.230			
Total	159.811	696				

3.4. Discussion of findings

From the research carried out it was discovered that the attitude of learners towards the use of LMS was positive. The findings indicated that there was a positive response to all the statements for relative advantage. This is supported by Derouza & Fleming (2003) who reported that if the attitude of the students towards LMS is positive, it will reflect in their level of security and confidence. Study confirms that the students had positive attitudes towards the use of the LMS. It was in the same vein that Murphy & Lindner (2001); Cleary & Marcus-Quinn (2008) noted that the response of student attitude towards the use of LMS was positive. This implies that a positive attitude will lead to students' continued utilization of LMS, which will make the system to be viable and usable for a better experience.

Furthermore, the influence of learners' gender on their attitude towards the use of LMS was examined. The result of the t-test established that there existed a significant difference between male and female distance learners on their attitude towards the use of LMS. However, the finding contradicts the finding of Saovapa (2015) which established that there was no significant difference in the respondents' attitude toward LMS based on gender and subject area. Also, these findings disagreed with India, Suri & Sharm (2013) who concluded that no gender difference exists in attitudes towards e-learning. Finally, in the distance field of study, the result established that there was no significant difference among Sciences, Arts, and Social Science distance learners on their attitude towards the use of LMS.

4. CONCLUSION

The study concluded that students have an optimistic attitude towards LMS since they find the system easy to use and valuable for their coursework. However, gender was found to have a strong influence attitude towards the use of LMS, that is attitude towards the use of LMS between male and female distance learners differed in favor of males. This infers that males were more conversant with LMS and might probably help when engaging in it. However, this study found out that distance learners' field of study does not influence their attitude towards the use of LMS. Based on the findings and conclusions of the study, it was recommended that efforts should be made to ensure that distance learners do not just have a positive attitude towards the use of LMS but should be taught the value of LMS to ensure its effective utilization.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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