

**Students' Attitude towards Learning Management System in Ambrose Alli University,
Ekpoma**

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Abstract

The introduction of Learning Management System (LMS) into Nigerian universities has altered the way learning takes place. As such, it is crucial to assess the attitude of students towards this system for subsequent use. Consequently, two research questions were raised to guide the study. The study adopted descriptive research design for a population comprising of 10,081 undergraduate students from three selected faculties (Education, Life Sciences and Physical Sciences) in Ambrose Alli University, Ekpoma. Yamane (1967) Table for determining sample size was used to select a sample size of 200 distributed proportionately across the three faculties. Structured questionnaire was used to elicit data from the respondents and 100% response rate was achieved. The data was analyzed using descriptive statistics of frequency, percentage and mean. The findings of the study revealed that the respondents had positive attitude towards LMS ($\bar{X} = 3.3$) which is predominantly due to the comfort they experience when using LMS for academic purposes. The study also found that some of the factors affecting attitude towards utilization of LMS were quality of content/material ($\bar{X} = 3.6$), quality of visuals and audibility for multimedia content ($\bar{X} = 3.5$) and personal values/attributes/ characteristics of the students content ($\bar{X} = 3.5$). The study concluded that the excitement of young adult towards technology makes them want to explore technological devices stimulating comfort, optimism, independence and ease with using LMS. The authors thereafter made recommendations based on factors militating against use of LMS.

Keywords: Learning management system, Attitude towards LMS, Utilization of LMS, Undergraduates

Introduction

Technological innovations do not spread at the same rate neither do every one form a positive attitude towards them at the same time. When people get to be aware of a system, it is critical for them to develop the right attitude towards the system as a prerequisite for effective use of the system. Attitude is an important variable has featured in models that were developed to predict the use of an information system, like the Technological Acceptance Model (TAM). The TAM which explains people's attitudes and behavior towards using information technology (IT) affirmed that attitude could influence the intention to use technological systems like Learning Management System (LMS), and eventually influence actual usage behaviors. Several attempts have been made to clarify the concept of attitude. According to Trayek and Hassan (2013), the attitude toward use is defined as people's good or negative feelings when performing and how this mood affects the specific behavior of usage. The attitude toward usage is one of the most important characteristics that might impact behavioral intention; it has a direct influence on the frequency with which technology is used. The definition of Trayek and Hassan (2013) correlates that of Mehra & Omidian (2011) who affirmed that an attitude is a person's positive or negative behavior towards an occurrence or target behavior.

Mehra & Omidian (2011) delineated the definition of attitude to the context of LMS which best relate to this study. They said that attitude is one of the qualities of students that refer to the students' positive or negative conduct toward learning in the LMS environment. It plays a significant factor in any learning activity or environment either directly or indirectly, and invariably influences the tendency to use LMS. According to Zewayed and Maynard (2011), there is no doubt that students' attitudes had a significant impact on LMS. Students' behavior and attitudes, according to them, impact their satisfaction and acceptance of LMS. They discovered that the more favorable people's attitudes regarding new technologies are, the better their experiences and satisfaction. Consequently, students with positive attitude towards LMS are likely to use this system and have a better user experience from the system. In the opinion of Narendra, et al. (2021), learning platforms like Zoom, Google Meet, and Google Classroom had better acceptance than other LMS because of better attitude towards them. Thus, the preference for E-learning media such as LMS is determined by users' attitude towards them.

Empirical studies like that of Ayinla and Hameed (2017) showed that when undergraduates possess positive attitude towards LMS, it significantly and positively impact their use of LMS. Their study is suggestive of the fact that developing strategies to develop positive attitude of users towards LMS is an effective way to stimulate use of LMS in academic environment. It therefore implies also endearing undergraduates' predisposition towards LMS serves as a way of enhancing its adoption and usage. Ayub et al. (2010) averred that university students' readiness to use LMS is related to their technological background, awareness and attitude. These determine their optimism level to use LMS as early adopters of the technology. While several factors could contribute to students' attitude towards LMS, there is need for scholarly investigations to examine attitude in different contexts, inclusive of undergraduates in Nigerian universities.

Ambrose Alli University is one of the foremost State-owned Universities in Nigeria and the institution over the years has strived to deploy Information and Communication Technologies (ICTs) in enhancing a seamless educational process. Consequently, the school has integrated LMS as a complimentary learning platform for students. Although the university did a training programme for educators (lecturers) on how to use the LMS, that does not translate into positive attitude from the learners (students) who are major stakeholder in the learning system. Moreover, the introduction of LMS, as a new technology, infused into the learning process of students is bound to disrupt the conventional way of learning and invariably trigger certain forms of resentment (or negative attitude) towards the technology (Apostolidis, Devine & Jabbar, 2022). This is particularly obtainable when proper sensitization and adoption has not taken place. As such, students who are the end-users of the system could develop negative attitude towards the LMS which negatively affect their willingness to use the system. This could invariably hinder the successful utilization of the LMS and its potential benefits to students and the university at large.

Research Objectives

The aim of the study is to examine the students' attitude towards learning management system in Ambrose Alli University, Ekpoma. To achieve this, the specific objectives of the study are to:

- i. Ascertain the students' attitude towards learning management system by undergraduates of Ambrose Alli University, Ekpoma; and
- ii. Examine the factors that affect the undergraduates' attitude towards utilization of learning management system in Ambrose Alli University, Ekpoma.

Questions

The following research questions guided the conduct of the study:

- i. What is the attitude towards learning management system by undergraduates of Ambrose Alli University, Ekpoma?
- ii. What are the factors that affect the undergraduates' attitude towards utilization of learning management system in Ambrose Alli University, Ekpoma?

Literature Review

Attitudes have a subject matter (also known as the object or target), which might be an item, a person, or an abstract notion. As a result, attitudes are crucial to numerous fields, including political behavior, marketing and health (Albarracin & Shavitt, 2018). They also mentioned that attitudes toward other individuals are investigated in the realm of interpersonal liking, attitudes toward the self in the area of self-esteem, and attitudes toward abstract concepts in the area of values. Attitudes can be particular or general, with people holding attitudes that are either generally positive or generally negative (Hepler & Albarrac'n 2013).

Attitudes are described by psychologists as a learned propensity to judge things in a particular manner. This includes assessments of people, topics, items, or events. Such assessments are either favorable or negative, but they might sometimes be unclear (Cherry, 2023). An attitude, according to iEduNote (2023), is a positive, negative, or mixed appraisal of an item stated at a certain degree of intensity. It expresses a positive or negative appraisal of a person, location, item, or event. Attitude is frequently connected with behavior (Tom & Ala, 2019), since attitude is visible via external signs such as facial expression, gestures, posture, and typical reactions, which may also be interpreted as behavior. However, this could be a very different attitude, especially in some circumstantial situations where the true attitude, as a personal decisional evaluation or reaction

with respect to the focused object/objective, cannot be truly expressed due to public/social limitative norms or personal motives of limitation (Gaiseanu, 2020).

Attitudes can be assessed simply by asking participants to report their attitudes, or they can be inferred from instantaneous evaluative reactions to the display of the attitude object (Ehret et al. 2015). Indirect measures of attitudes, also known as implicit measures, are intended to examine instinctive assessments that can be separated from explicit, self-report measures but can still predict behavior in specific situations (e.g., Sheets et al. 2011). As a result, attitude scales can be self-assessed or elicited using scales that invariably express attitude.

According to Gaiseanu (2020), attitude can only be defined in relation to a certain object or aim. When the attention is concentrated on a certain target, whether mental or exterior object/situation encountered while exploring the surrounding world, the attitude relates to the personal reaction to this. Despite the fact that the same information is available to more than one person, each participant linked to the same reality/information perceives and evaluates/judges it using their own criteria, resulting in a distinct attitude toward it. As a result, the attitude is personal and is a result of the operability of one's own information system and accessible information. Thus, students' attitude towards LMS would imply positive or negative reaction towards the system, based on the information available to them, and this varies from one student to another. However, when these students are exposed to the same information and conditions with regards to LMS, they might show similar attitude towards it. Attitude is not the end but a means to an end; which in this case is to predict their behavior towards LMS. This is in line with Fishman, Yang and Mandell (2021) when they asserted that when analyzing attitudes qualitatively or quantitatively, the end aim is to anticipate behavior, it is critical to evaluate attitudes toward the specific behavior of interest rather than a generic collection of behaviors, a concept, policy, person, or item.

During the COVID-19 pandemic, Sinaga and Pustika (2021) investigated students' attitudes about English online learning using Moodle. The findings of this study indicated a favorable attitude toward using Moodle as a learning platform. They have also shown a favorable view about the importance of learning English in vocational high school. However, during the implementation of Learning from Home (LFH), students sometimes lack self-management to follow the learning activities, which causes some self-problems in learning English. Indriani and Widiastuti (2021) evaluated students' attitudes regarding English online learning using Moodle during the COVID-

19 epidemic. Despite the fact that this was their first time using Moodle, the students had positive attitude regarding online English study through LMS. This positive attitude grew in tandem with their growing understanding of the Moodle program and their capacity to self-manage their studies. It has also been discovered that their positive attitudes concerning learning have an effect on gradually increasing learning outcomes.

Furthermore, Alsaou et al. (2022) discovered that students had indifferent attitude regarding e-learning. Despite the fact that students faced several hurdles and difficulties associated to E-learning, their attitude regarding E-learning remained impartial. Male et al. (2020) investigated undergraduate students' attitudes toward online learning during the Covid-19 epidemic. The data was gathered through an in-depth interview conducted utilizing the Zoom program. The findings indicate that the students get bored when learning at home. Several pupils favor traditional teaching and learning activities. It is essential that lecturers change their strategies when conducting online classes.

Farooq and Javid (2012) evaluated students' attitudes toward E-learning from the perspective of English Language Learners at Taif University English Language Centre. A questionnaire was created to assess undergraduate students' access to, usage of, and attitudes toward technology in English study. According to the research, the majority of students have access to computers and the internet, but they are unmotivated to use technology in their studies. They believe that technology should be integrated into the curriculum and classroom activities. Teachers, on the other hand, are hesitant to employ electronic devices. Training instructors and integrating technology into the curriculum may result in a better learning environment. The findings demonstrate that students' satisfaction with and attitude towards e-learning and virtual classrooms is high and positive during the outbreak. This exhibits suitable processes and the provision of the essential education and e-learning at the university in a way that increases students' learning while also ensuring their safety. The study of Çeliköz and Erdoğan (2017) was conducted on students at Istanbul Zaim University's English Preparatory Program in the spring term of the 2015-2016 academic year, The result showed that English Prep. School pupils had positive attitude towards the LMS. Furthermore, the students' gender, age, the type of high school they graduated from, and their determined that "students' writing course achievement" was a significant predictor of attitude toward LMS.

Methodology

The study adopted the descriptive research design to describe the attitude of the undergraduates towards LMS as an attempt towards providing a flexible learning structure for students in order to improve their academic performances. The population of the study encompassed undergraduate students in Ambrose Alli University, who are currently undergoing a first degree programme on a full time basis. However, the target population of the study cut across 10,081 students in three selected faculties in the school which are Faculty of Education, Faculty of Life Sciences and Faculty of Physical Sciences, with 3,750; 3,453 and 2,878 respectively. Using the Yamane (1967) Table to calculate sample size, a sample size of 200 is obtained with a precision level of $\pm 7\%$ for a population of 10,000. As a result, since the population of this study is closest to 10,000 on the sampling table, a sample size of 200 was employed for this investigation, which was distributed proportionally among the participating faculties.

The questionnaire was used as instrument for data collection. The researchers administered the questionnaire to the students in the various faculties under the coverage of this study, to ensure the highest possible response rate. The entire 200 copies of questionnaire distributed were retrieved and subjected to descriptive analysis of frequency, percentage and mean.

Presentation of Results

6.1 Answers to the research questions

Research Question One: What is the attitude towards learning management system by undergraduates of Ambrose Alli University, Ekpoma?

Table 6.1: Attitude towards Learning Management System

S/N	STATEMENTS	SA	A	D	SD	MEAN
1.	I am comfortable using LMS for my academic activities	139(70.2%)	50(25.3%)	7(3.5%)	2(1.0%)	3.6
2.	Participation in LMS makes me have access to rich materials	110(55.3%)	76(38.2%)	10(5.0%)	3(1.5%)	3.5
3.	I enjoy the independent learning that comes with use of LMS	109(55.2%)	79(39.9%)	8(4.0%)	2(1.0%)	3.5
4.	LMS should play a vital role in higher educational system	102(51.3%)	90(45.2%)	5(2.5%)	2(1.0%)	3.5
5.	I am not very bothered about the challenges that could arise in using LMS	99(50.5%)	78(39.8%)	13(6.6%)	6(3.1%)	3.3

6.	I am optimistic about the prospects of LMS	105(52.8%)	85(42.7%)	6(3.0%)	3(1.5%)	3.5
7.	I enjoy e-learning and virtual classes	97(49.5%)	91(46.4%)	5(2.6%)	3(1.5%)	3.3
8.	LMS do not give me anxiety over my grade	101(51.3%)	88(44.7%)	5(2.5%)	3(1.5%)	3.4
9.	I am okay using my personal resources to participate in LMS	72(36.5%)	65(33.0%)	13(6.6%)	47(23.7%)	2.8
10.	I will like to receive training on LMS	75(37.8%)	58(29.3%)	12(6.1%)	53(26.8%)	2.8
GRAND MEAN = 3.3						

Source: Field Survey, 2023

Table 5.1 presents results on the respondents' attitude towards learning management system. With a criterion mean of 2.5 for a four-point likert scale rating, the grand mean score of 3.3 revealed a positive attitude towards the LMS. The implication of this is that the respondents have an optimistic disposition and outlook towards the system which could invariably affect their behavioural intention to use the LMS. Specifically, the result revealed that the respondents feel comfortable utilizing LMS for academic purposes. Also, the items and the responses suggest that the respondents relish the usefulness of LMS and are not so worried about the difficulty of using it, which forms an overall positive attitude about the system.

Research Question Two: What are the factors that affect the undergraduates' attitude towards utilization of learning management system in Ambrose Alli University, Ekpoma?

Table 6.2: Factors Affecting Attitude towards Utilization of Learning Management System

S/N	STATEMENTS	SA	A	D	SD	MEAN
1.	Quality of content/material	133(67.2%)	60(30.3%)	5(2.5%)	-	3.6
2.	Quality of visuals and audibility for multimedia content	116(59.5%)	76(40.0%)	3(1.5%)	-	3.5
3.	Institutional support	107(56.0%)	79(41.4%)	5(2.6%)	-	3.4
4.	Technical support	103(53.7%)	85(44.0%)	5(2.6%)	-	3.3
5.	Students' level of digital skills	95(48.7%)	96(49.2)	4(2.1%)	-	3.4
6.	Access to technological devices	102(52.0%)	89(45.4%)	5(2.6%)	-	3.4
7.	Easy interface and design of LMS	91(48.1%)	92(48.7%)	6(3.2%)	-	3.3

8.	Learning satisfaction derived from using LMS	111(57.2%)	79(40.7%)	4(2.1%)	-	3.4
9.	Personal values/attributes/ characteristics of the students	119(61.3%)	71(36.6%)	4(2.1%)	-	3.5

Source: Field Survey, 2023

Table 5.2 shows that several factors are capable of affecting respondents' attitude towards the use of learning management system. Thus, like every other technological system, utilizing LMS is influenced by some variables or conditions. Such conditions for the respondents of this study include quality of content/material having the highest mean score of 3.6, followed by quality of visuals and audibility for multimedia content with a mean score of 3.5. Personal values/attributes/characteristics of the students as a factor that affects the respondents' use of LMS also had a mean score of 3.5. Other items listed all having a mean score exceeding 2.5 are also considered as factors that could affect the students use of LMS.

Discussion of Findings

On the attitude towards LMS by the undergraduates which is addressed by the research question one, the study revealed a positive attitude towards the system. This implies that the respondents think positively about the system, that is, they have a positive mental disposition about LMS. Making inference from the study of Navarro, et al. (2021), with the positive attitude, the study implies that the students react positively to LMS and they will enjoy using the system. In agreement with this study, the investigation of Alshorman and Bawaneh (2018) revealed that university students' attitude towards LMS was positive. In the study of Munasinghe and Wijewardana (2017), 120 undergraduates of Rajarata University of Sri Lanka were sampled and a key objective of the study was to ascertain the undergraduates' attitude towards LMS. The result of their study was in agreement with this present study when it revealed that the undergraduates' attitude towards LMS was positive. It also revealed that the perceived usefulness and perceived ease of use significantly influences attitude towards LMS. By implication, when students believe that a system is useful and ease to use, it will impact on their attitude towards and invariably their use of the system the system. As such, attitude intermediate or intervene between independent variables of perceived usefulness and perceived ease of use, and dependent variable of intention to use, as suggested in the TAM.

The study in view of its second research question found out that several factors affect the undergraduates' attitude towards utilization of LMS. Prominent among these factors were quality of content/material, quality of visuals and audibility for multimedia content, and personal values/attributes/ characteristics of the students. This corroborates the revelation of Fung and Yuen (2012) where the authors asserted that course content and life characteristics of the students. They also listed technical support and administrative support as factors that affect students' attitude towards LMS. This tally with the finding of this study where the respondents indicated institutional support and technical support as factors that influences the respondents' attitude towards utilization of LMS. Moreover, the result of this study also corroborates that of Coleman and Mtshazi (2017) when they gave some of the factors that affect use and non-use of LMS to include the quality of the system, support of system's use, simplicity of design and values.

Conclusion

The acceptance of LMS by undergraduates in Nigerian universities is eased by their exposure to technological innovations especially mobile technologies. Today's students are tech-inclined and as such finds it less difficult to use technology for educational purposes. This has formed a positive attitude towards LMS which complement their traditional learning process. The excitement of young adult towards technology makes them want to explore technological devices stimulating comfort, optimism, independence and ease with using LMS regardless of confronting challenges. These challenges are considered as factors capable of adversely influencing their attitude and they could be system factors, institutional factors or personal factors. While students could maneuver personal factors, system and institutional factors are critical and should be addressed in a bid to endear their utilization of LMS in furtherance of their academic pursuit.

Recommendations

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

- i. The tutors should endeavor to upload on the LMS, quality contents with clarity and good visuals/audibility for multimedia content.
- ii. University management should provide the enabling conditions, policies and structures that facilitate the use of LMS among the students.
- iii. University management should provide a dedicated place where students can have computer access for educational purposes.

References

- Albarracin, D. & Shavitt, S. (2018). Attitudes and attitude change. *Annual Review of Psychology*, 69:299–327.
- Alsahou, H., Abbas, Z., & Alfayly, A. (2022). The attitude of undergraduates towards E-learning considering educational and technical challenges and requirements in Kuwaiti Applied Colleges. *Journal of Technology and Science Education*, 12(1), 33-49. Retrieved from <https://doi.org/10.3926/jotse.1358>
- Alshorman, B. A. & Bawaneh, A. K. (2018). Attitudes of faculty members and students towards the use of the learning management system in teaching and learning. *TOJET: The Turkish Online Journal of Educational Technology*, 17(3),1-15.
- Apostolidis, C., Anthony Devine, A. & Jabbar, A. (2022). From chalk to clicks – The impact of (rapid) technology adoption on employee emotions in the higher education sector. *Technological Forecasting & Social Change*, 182 (2022)121860. Retrieved from <https://doi.org/10.1016/j.techfore.2022.121860>
- Ayinla, S. O. & Hameed, O. B. (2017). Perception of undergraduates on the use of Learning Management Systems (LMS) for learning chemistry concepts. *International Journal for innovative Technology Integration in Education*, 1(2), 31-38.
- Ayub, A. F. M., Rohani, A. T., Wan, M. W. J., Wan, Z. W. A. & Luan, W.S, (2010). Factors influencing students' use a Learning Management System portal: Perspective from higher education students, *International Journal of Education and Information Technologies*, 1(2), 4-8.
- Çeliköz, N. & Erdoğan, P. (2017). The Investigation of Preparatory School Students' Attitudes towards Learning Management System. *International Online Journal of Educational Sciences*, 2017, X (X), X –X. Retrieved from <http://dx.doi.org/10.15345/iojes.2017.01.016>
- Chien-Yuan Su & Cheng-Huan Chen (2020): Investigating university students' attitude and intention to use a learning management system from a self-determination perspective, *Innovations in Education and Teaching International*. Retrieved from
- Cherry, K. (2023). The Components of Attitude: Definition, Formation, Changes. Retrieved from <https://www.verywellmind.com/attitudes-how-they-form-change-shape-behavior-2795897>
- Coleman, E. & Mtshazi, S. (2017). Factors affecting the use and non-use of Learning Management Systems (LMS) by academic staff. *South African Computer Journal* 29(3), 31–63. Retrieved from <https://doi.org/10.18489/sacj.v29i3.459>

- Ehret, P. J., Monroe, B. M. & Read, S. J. (2015). Modeling the dynamics of evaluation: A multilevel neural network implementation of the iterative reprocessing model. *Personal. Soc. Psychol. Rev.* 19(2):148–76
- Farooq, M. U. & Javid, C. Z. (2012). Attitude of Students towards E-learning: A Study of English Language Learners at Taif University English Language Centre. *NUML Journal of Critical Inquiry*, 10(11),17-31
- Fishman, J., Yang, C. & Mandell, D. (2021). Attitude theory and measurement in implementation science: A secondary review of empirical studies and opportunities for advancement. *Implementation Science*, 16,1-11. Retrieved from <https://implementationscience.biomedcentral.com/articles/10.1186/s13012-021-01153-9>
- Fung, H., & Yuen, A. (2012). Factors Affecting Students' and Teachers' Use of LMS – Towards a Holistic Framework. In: Cheung, S.K.S., Fong, J., Kwok, LF., Li, K., Kwan, R. (eds) Hybrid Learning. ICHL 2012. Lecture Notes in Computer Science, vol 7411. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-32018-7_29
- Gaiseanu, F. (2020). Attitude as an Expressible Info-Operational Reaction to a Perceived/Purposed Object/Objective. *International Journal on Neuropsychology and Behavioural Sciences*, 1(2),12-16.
- EduNote (2023). Attitude: Definition, Nature and Characteristics (Explained). Retrieved from <https://www.iedunote.com/attitude-definition-characteristics-types#1-characteristics-of-attitude>
- Male, H., Murniarti, E., Simatupang, M. S., Siregar, J., Sihotang, H. & Gunawan, R. (2020). Attitude of undergraduate student's towards online learning during Covid-19 Pandemic-- *Palarch's Journal of Archaeology Of Egypt/Egyptology*, 17(4), 1628-1637.
- Mehra, V., & Omidian, F. (2011). Examining students' attitudes towards e-learning: A case from India. *Malaysian Journal of Educational Technology*, 11(2), 13-18.
- Munasinghe, P. G. & Wijewardana, W. P. (2016). Attitudes of students when using learning management systems. The Academy for Global Business Advancement (AGBA), 13th Annual World Congress, The first Sebelas Maret Conference on Entrepreneurship, Innovation and Community Development (SMARTCEIC), Ins, Available at SSRN: <https://ssrn.com/abstract=2915283>
- Narendra, A., Subkhan, E., Mukhibad, H., Salam, S., & Purwinarko, A. (2021). Alternatif Perangkat Lunak Pendukung Belajar di Rumah dan Pembelajaran Jarak Jauh di Indonesia. *Jurnal Profesi Keguruan*, 7(1), 122–130. Retrieved from <https://doi.org/https://doi.org/10.15294/jpk.v7i1>

- Navarro, M. M., Prasetyo, Y. T., Young, M. N., Nadlifatin, R. & Redi, A. A. N. P. (2021). The perceived satisfaction in utilizing learning management system among engineering students during the COVID-19 pandemic: Integrating task technology fit and extended technology acceptance model. *Sustainability*, 13, 10669. Retrieved from <https://doi.org/10.3390/su131910669>
- Sheets, P., Domke, D. S. & Greenwald, A. G. (2011). God and country: The partisan psychology of the presidency, religion, and nation. *Political Psychology*, 32(3), 459–484. Retrieved from <https://doi.org/10.1111/j.1467-9221.2010.00820.x>
- Sinaga, R. S. F. & Pustika, R. (2021). Exploring students' attitude towards english online learning using moodle during COVID-19 pandemic at SMK Yadika Bandarlampung. *Journal of English Language Teaching and Learning (JELTL)*, 2(1), 8-15.
- Tom, M. & Ala, R. (2019). Reviews of research on the attitude– behavior relationship and their implications for future environmental education research. *Environmental Education Research* 25(4), 459–471
- Trayek, F. A. A. & Hassan, S. S. (2013). Attitude towards the use of learning management system among university students: A Case Study. *Turkish Online Journal of Distance Education-TOJDE J*, 14(3),91-103
- Zewayed, N. & Maynard, S. (2011). Factors influencing students' acceptance of e-learning at secondary schools. Proceedings of World Conference on ELearning in Corporate, Government, Healthcare, and Higher Education 2011. Retrieved from <http://www.editlib.org/p/38840>