Acceptance and Satisfaction of Learning Management System Enabled Blended Learning Based on a Modified DeLone-McLean Information System Success Model

Samar Ghazal, Centre for Instructional Technology and Multimedia, Universiti Sains Malaysia, Penang, Malaysia
Hanan Aldowah, Centre for Instructional Technology and Multimedia, Universiti Sains Malaysia, Penang, Malaysia
Irfan Umar, Centre for Instructional Technology and Multimedia, Universiti Sains Malaysia, Penang, Malaysia
Brandford Bervell, Centre for Instructional Technology and Multimedia, Universiti Sains Malaysia, Penang, Malaysia

ABSTRACT

The utmost reason for this article is to present a detailed assessment of the salient antecedents (computer anxiety, technology related experience, computer self-efficacy, quality of service, quality of system, quality of system’s output information, perceived usefulness and perceived ease of use) in determining students’ approval and onward contentment towards using LMS in a blended learning environment. In view of this, the study employed a quantitative research design utilizing a questionnaire as the data collection instrument. Data was then obtained from 174 undergraduate students with Partial Least Squares Structural Equation Modelling (PLS-SEM) technique used for data analysis. The study revealed indicators such as perceived usefulness, the quality of the system and computer self efficacy as fundamental determinants of students’ acceptance and satisfaction with blended learning. The study recommended among others that in order to achieve satisfaction and acceptance towards LMS usage for blended learning in higher education, institutions need to pay attention to these crucial variables prior to full implementation.

KEYWORDS

Acceptance, Blended Learning, DeLone-McLean Model, Learning Management System, Satisfaction

INTRODUCTION

The 21st century has witnessed the internet as a key communication hub in the society. In developing countries especially, the utilization of Information and Communication Technology (ICT) for human resource development has been widespread and an important factor in developing a knowledge-based economy. ICT has been a driving force that transforms business, economic, social-political changes, and commercial activities in a borderless world. These changes have affected the educational sector completely over the past few years. The rise of information technologies (IT) and the growing popularity of the World Wide Web contribute to the proliferation of online learning. These information technologies will continue to impact directly and indirectly on higher education to change the traditional course delivery methods (Rungtusanatham, Ellram, Siferd, & Salik, 2004). Traditional learning interaction employs the face to face approach while the blended mode mixes face to face
with an online component. Pure e-learning, on the other hand, emphasizes the use of ICT tools for online interaction devoid of face to face (Aldowah, Ghazal & Muniandy, 2015).

The rapid development of ICT, specifically internet technologies, has developed new opportunities for education. E-learning has a huge potential to enable higher education institutions to enhance learning and teaching, improve access to instructional resources and programmes, expand instructional opportunities through online learning, and reduce the costs of education in the long term (Lwoga, 2014). However, it has some limitations such as lack of face-to-face interaction with instructors and classmates, high initial costs for preparing online courses, substantial costs for system updating and maintenance, as well as the need for flexible instructional support (Wu, Tennyson, Hsia, & Liao, 2008; Yang, 2003; Yang & Liu, 2007). Furthermore, students in e-learning environments may face feelings of isolation, confusion, and frustration or reduced interest in the subject matter (Wu, Tennyson & Hsia, 2010). With these concerns resulting in non-acceptance and dissatisfaction with e-learning, instructors are searching for alternative instructional delivery solutions to reduce the above problems.

The blended learning has been offered as a favourable alternative instructional approach (Graham, 2006). Learning environments within the blended mode, mix a variety of learning methods for learning events, often combining face-to-face traditional learning with asynchronous and or synchronous online learning (Al-Busaidi, 2012; Gribbins, Hadidi, Urbaczewski, & Vician, 2007). It is characterized as the best feature of online learning and the traditional classroom. Noticeably, the development and emergence of blended learning in higher education institutions are highlighted strikingly in many research literature, not only in the U.S.A. and Europe but also in Asian and Arab countries (Zhao & Yuan, 2010).

Learning management system (LMS) is an information technology (IT) system that provides flexibility to instructors in building, updating and maintaining courses hosted online by websites. LMS is also identical with an e-learning system in terms of using the internet website inside classrooms to promote the instructional process (Turban, Rainer & Potter, 2007). LMS and e-learning have become an essential tool for stakeholders in education and training. The importance of LMS is not limited to effectiveness and efficiency in teaching in higher educational institutions but further promotes knowledge sharing and codification in an effective and efficient manner. Though the use of LMS has become a salient part of higher education provision, about 68% of these institutions measure LMS usage and only 39% are concerned about acceptance and satisfaction indices (Dahlstrom, Brooks & Bichsel, 2014). There is an incongruity in the reportage of acceptance and satisfaction of LMS by IT leaders on one hand and students and faculty on the other hand. While IT leaders report 93% and 92% satisfaction with system features and functions by students and faculty respectively, the actual report provided by students and faculty members themselves, indicated lower levels of satisfaction as opposed to that provided by IT leaders. In spite of this anomaly in system satisfaction reportage, a good number of world class and higher-ranking universities are hooked unto LMS usage for pedagogical and administrative purposes. For instance, in the UK, 95% of institutions use LMS, while in the US, the percentage is around 90% (Grajek & Arroway, 2012; Jenkins, Browne, Walker & Hewitt, 2011). The state of LMS demand in Africa and the Middle East was estimated to grow annually of over 10% between 2009 and 2014 (Adkins, 2011).

The extreme usage of LMS also calls for a crucial assessment of success factors to balance for acquisition rate and usage satisfaction. Success factors and benefits of LMS usage have been reported by a myriad of studies (Lwoga, 2014), however, few others have concentrated on barriers confronting students in an online learning environment (Simonson, Smaldino, Albright, & Zvacek, 2014). Common barriers students face could be lack of technical acumen, time constraints, lack of motivation, social interaction or administrative issues and resource availability and accessibility constraints. Participants’ responses towards blended learning make it imperative to fathom the critical antecedents bothering on the acceptance-satisfaction interplay. This has a direct bearing on the impact of the blended approach and its improvement.
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