Chapter 6
Critical Factors Influencing Instructors’ Acceptance and Use of Learning Management Systems

Kamla Ali Al-Busaidi
Sultan Qaboos University, Oman

Hafedh Al-Shihi
Sultan Qaboos University, Oman

ABSTRACT

Learning management systems (LMS) enable educational institutions to manage their educational resources, support their distance education, and supplement their traditional way of teaching. Although LMS survive via instructors’ and students’ use, the adoption of LMS is initiated by instructors’ acceptance and use. Consequently, this study examined the impacts of instructors’ individual characteristics, LMS’ characteristics, and organization’s characteristics on instructors’ acceptance and use of LMS as a supplementary tool and, consequently, on their continuous use intention and their pure use intention for distance education. The findings indicated that, first, instructors’ supplementary use of LMS is determined by perceived usefulness, training, management support, perceived ease of use, information quality, and computer anxiety. Second, instructors’ perceived usefulness of LMS is determined by system quality, perceived ease of use, and incentives policy. Third, instructors’ perceived ease of use is determined by computer anxiety, technology experience, training, system quality, and service quality. Furthermore, instructors’ continuous supplementary use intention is determined by their current supplementary use, perceived usefulness, and perceived ease of use, while instructors’ pure use intention is determined only by their perceived usefulness of LMS.

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INTRODUCTION

Information and communication technologies (ICT) and the Internet have become major enablers of growth in business. The geographical outreach of the Internet and the wide global adoption of Web 2.0 technologies provide educational institutions with unprecedented opportunities to enhance their offerings. These technologies have transformed students’ perception of information and what they think about Web content and how to use it (Burnett & Marshall, 2003). Schools and universities are forced to investigate new means to revamp the educational process utilizing these technologies.

Learning Management Systems (LMS) and e-learning have become the hype lately among stakeholders in education and training. The e-learning market was worth more than US $18 billion worldwide in 2004 (Saady, 2005). Several leading universities around the world have adopted LMS for teachers and students to enhance the educational process (Hawkins & Rudy 2007; Browne, Jenkins & Walker, 2006; National Center for Educational Statistics, 2003). About 95 percent of participating institutions in the UK have adopted LMS for teachers and students to enhance the educational process (Hawkins & Rudy 2007; Browne, Jenkins & Walker, 2006; National Center for Educational Statistics, 2003). About 95 percent of participating universities and colleges in the US are adopting LMS (Hawkins & Rudy, 2007).

Users’ acceptance and actual use of information systems is critical to its success. Likewise for a learning management system, its success to a great extent depends on users’ acceptance and use. Evaluating individual users’ acceptance and use of the e-learning systems is a “basic marketing element” (Kelly & Bauer, 2004). Although a learning management system survives through instructor and student use, the adoption of LMS is initiated by instructors’ acceptance and use. Even when LMS are well in place, instructors may not fully utilize all the features. For example, a survey of more than 800 instructors at over 35 institutions using Blackboard learning management system found that very few teachers use LMS tools for assessing students or promoting community (Woods, Baker & Hopper, 2004). In addition, research indicates that fear of technology and lack of time may limit instructors’ adoption of LMS (Yueh & Hsu, 2008). Instructors should embrace and prepare for LMS use before preparing students for online learning (Chan, 2008). Even when designing LMS applications, teachers’ needs and capabilities should thoroughly be investigated (Yueh & Hsu, 2008). Therefore, teachers’ perspective within the context of LMS is crucial and should be studied carefully to ensure comprehensive uptake of LMS.

Thus, the objective of this study was to investigate the critical factors influencing instructors’ acceptance and use of LMS, which may be influenced by technical and non-technical issues such as the instructors’ personal characteristics and the organization’s characteristics. It is important to analyze non-technical factors that promote the adoption and diffusion of LMS initiatives (Albirini, 2006; ElTartoussi, 2009). Consequently, this study specifically aimed to examine the impact of instructor’s individual characteristics (computer anxiety, technology experience and self-efficacy), LMS characteristics (system quality, information quality and service quality), and organizational characteristics (management support, training and incentives) on the instructors’ acceptance (perceived ease of use and perceived usefulness) and use of LMS as a supplementary tool. The study also assessed the impact of the instructors’ acceptance and use of LMS on their intention for continuous supplementary use of LMS and intention for pure use of LMS for distance education. Many organizations start their LMS adoption as a supplementary tool to traditional teaching, hoping that this supplementary adoption eventually will promote the pure use of LMS for distance education. The following sections discuss the background literature, research framework and methodology, analysis and results, and the conclusion.