Assessing eLearning Systems Success: An Educators’ Perspective

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ABSTRACT

The traditional context of learning is experiencing a radical change. Along with the advancement of information technology, the electronic learning (eLearning) has played an important role in teaching and learning, which has become more and more popular not only in different levels of schools but also in various commercial or industrial companies. Measuring and evaluating eLearning systems have become a priority for both schools and commercial or industrial companies to justify investments, assess impacts, and better meet learner and teacher expectations. In context of eLearning, few studies have been conducted to assess the success of eLearning systems. This study provides the first empirical test for an adaption of Delone and McLean’s information systems success model considering both parts of the model, dimensions and relationships, to assess eLearning systems success from educators’ perspective. Data collected by questionnaire from 74 higher education educators that using eLearning systems in Bahrain was analyzed. Except for the link system quality to user satisfaction, the hypothesized relationships between the six success variables are significantly or marginally supported by the data. The findings show several important implications for eLearning research and practice.

Keywords: Delone and McLean, eLearning System Success, eLearning Systems, Electronic Learning (eLearning), Measuring eLearning Success, Success/Impact Measurement, Systems Success

1. INTRODUCTION

The traditional context of learning is experiencing a radical change. Teaching and learning are no longer restricted to traditional classrooms (Wang, Wang, & Shee, 2007). Along with the advancement of information technology, the electronic learning (eLearning) has played an important role in teaching and learning, which has become more and more popular not only in different levels of schools but also in various commercial or industrial companies (Chao & Chen, 2009). According to Ozkan & Koseler (2009), eLearning refers to the use of electronic devices for learning, including the delivery of content via electronic media such as internet, audio or video, satellite broadcast, interactive TV, CD-ROM, and so on. However, with the increasing development of internet, the concept of eLearning has been completed and generally refers to cases which learning is done through the internet and online courses.

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are offered (Hassanzadeh, Kanaani, & Ela, 2012). Ferdousi (2009) defined eLearning system based on Technology Standard Committee’s definition, as a learning technology that uses web browsers as a tool for interaction with learners and other systems. This system works as a platform to facilitate teaching and learning (as cited, Hassanzadeh et al., 2012). eLearning system is one of many methods of the education that allows flexible learner-centered education. It is an information system based on the World Wide Web that provides an inter-disciplinary approach to information technology and educational engineering, and an assessment of eLearning effectiveness could also be achieved (Lee & Lee, 2008).

Schools and corporations are investing substantial amounts of time and money in developing online alternatives to traditional types of education and training systems (Wang et al., 2007). Wang and Wang (2009) reported the results of a report published by the Giga Information Group showed that the percentage of organizations using eLearning systems in their employee training programs rose from 21% in 2002 to 75% in 2005. Additionally, nearly 75% of the 129 top US universities used web-based learning systems in 2007. Offering eLearning systems becomes one of the strategies in responding to the increased number of higher education students to help the delivery of the course content and enhance the access of the courses and subjects by both students and teachers (Alkhalaf, Drew, AlGhamdi, & Alfarraj, 2012).

Measuring and evaluating eLearning systems have become a priority for both schools and commercial or industrial companies to justify these investments, assess impacts, and better meet learner and teacher expectations. Such evaluation efforts can enable schools and training agencies to ascertain whether they are capable of doing the required task and deliver the services as expected. For web applications to be effective in the eLearning environment there is a need to develop and better understand the factors which best measure the success of eLearning systems. Moreover, measuring the success of systems is critical to understand the value, effect of management operations and investment on them (DeLone & McLean, 2003).

To respond to this demand, a range of measurement and evaluation tools have been developed and used to examine the success of information systems generally and eLearning systems specifically (Alkhalaf, Drewa, & Alhussainb, 2012; Alkhattabi, Neagu, & Cullen, 2011; Bhuasiri, Xaymoungkhoun, Zo, Rho, & Ciganek, 2012; Chao & Chen, 2009; Chen & Tseng, 2012; DeLone & McLean, 1992, 2003; Hassanzadeh et al., 2012; Hogo, 2010; Liua & Arnett, 2000; Ozkan & Koseler, 2009; Petter & McLean, 2009; Rai, Lang, & Welker, 2002; Seddon, 1997; Sedera & Gable, 2004; Sedera, Gable, & Chan, 2003; Wang & Liao, 2008; Wang, 2007; Wang et al., 2007). However, theorists are still grappling with the question of which constructs best measure IS success (Rai et al., 2002).

The literature shows that DeLone & McLean model of information systems success measurement is one of the most widely used models of information systems success and has been used for various information systems (Hassanzadeh et al., 2012). It was presented for the first time by DeLone and McLean, in 1992. DeLone & McLean (1992) comprehensively reviewed the different IS success measures and proposed a six-factor IS success model as a taxonomy and framework for measuring the complex-dependent variables in IS research. Recently, DeLone and McLean discussed many of the important IS research efforts that have applied, validated, challenged, and proposed enhancements to their original model, and then proposed an updated DeLone and McLean IS success model, which depicts the relationship between (1) system quality, (2) information quality, (3) service quality, (4) use, (5) user satisfaction, and (6) net benefit. DeLone and McLean do not provide an empirical validation of the updated model, and suggest that further development and validation are needed (DeLone & McLean, 2003).
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