Evaluating E-Learning Systems Success: A Case of Wayamba University, Sri Lanka

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Incorporation of technology with educational activities expedites teaching and learning processes. Modern learning environment widely employs technology, particularly in the form of E-learning systems (ELS). E- Learning (EL) is an electronic module that functions through the use of the student's computer, and thus does not require the direct presence of an instructor or teacher (Lee, Hsieh & Hsu, 2011). There are different technologies that instructor can use them as a tool for electronic learning e.g. Internet, intranet, extranet, satellite broadcast ,audio/videotape, interactive TV, CD–ROM and many others (SØrebØ, Halvari, Gulli, & Kristiansen, 2009). But with the increasing development of internet, concept of e-learning has been completed and generally refers to cases which learning is done through the internet and online courses are offered (Monahan, McArdle, & Bertolotto, 2008; Wang et al., 2007). Base on Technology Standard Committee's definition, e-learning system is 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 (Ferdousi, 2009). In fact, e-learning system is an information system based on the World Wide Web that provides training of learner in a flexible way (Lee & Lee, 2008). EL facilitated remote access to educational services in which the Internet-based education is a major element (Denan et al.,2020). Deadly COVID 19 pandemic challenged the ordinary living style of people which compels avoiding/controlling of physical interactions of any form. Resultantly, physical learning activities were replaced with virtual learning experiences. Hence, the attention towards technology-driven education started widening despite its presence in education was there even before the COVID-19 pandemic (Li & Lalani ,2020). The Global Survey Report(2020) evidenced that more than 1.5 billion students and youth across the planet are affected by school and university closures due to the COVID-19 outbreak. It is clear that the education sector was utterly disrupted and is undergoing challenges to continue studies. Majority of physical and blended learning modes now are converted to pure online mode. Thus, the success of ELS matters more than ever before (Li & Lalani ,2020). Since unsuccessful effort in implementing eLearning is reflected in terms of return on investment, the success of e-learning is one of the important issues (Govindasamy, 2002). As stated by Al-Fraihat(2020), in an e-learning system, not only the learner, but also all stakeholders are important. It is no doubt that internet and other digital technologies are able to support e-learning in an open, flexible and distributed environment. But how? Due to the differences between e-learning and traditional

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learning in some aspects, effective and successful conversion of traditional courses to e-learning may need a complex attempt and requires accurate planning, monitoring and control (Cantoni, Cellario, & Porta, 2004). In fact, continuity of global demand growth for e-learning and acceptance of virtual communities needs to measure their effectiveness and usefulness in education (Stalling, 2002). Previous studies on EL success either focused technological aspects or learner characteristics (Cidral, Oliveira, DiFelice, & Aparicio, 2018). Yet, only few studies have considered the both aspects to evaluate the success of EL experiences specially in the developing countries' context, (Cidral et al., 2018). Success of ELS depends primarily on technological aspects and human aspects connected with them where only few have been confirmed empirically in the developing countries' context. Hence, the present study aimed at assessing ELS success in the context of Sri Lankan higher education institutions. Previous literature suggests different models relating to the success of EL, namely, Information Systems Success Model (DeLone, &McLean, 1992); Technology Acceptance Model (Davis et al, 1989); User Satisfaction Models (Cyert, & March, 1963); E-Learning Quality Models (Al-Fraihat, et al.,2017) and Evaluating E-learning Systems Success – EESS Model (Al-Fraihat et al.,2020). Present study adopts EESS model (Al-Fraihat et al.,2020) based on its greater explanatory power and inclusion of wider range of predictive variables such as technical, human and social. An empirical study of quantitative approach tested the EESS model based on a Sri Lankan state university; the Wayamba University of Sri Lanka. Study adopts online survey method for gathering data on the success of ELS which is a Moodle based LMS. 263 valid responses from undergraduates offered an evaluation of the ELS properties based on system design, system delivery, and system outcome. The refined instruments (Al-Fraihat et al, 2020) based on measurement model validity and reliability indexes composed of 52 items falling in to ten predictor variables namely, Technical System Quality(TSQ), Information Quality(IQ), Service Quality(SQ), Educational System Quality(ESQ), Support System Quality(SSQ), Learner Quality(LQ), Instructor Quality(IQ), Perceived Satisfaction(PS), Perceived Usefulness(PU), & Use and one endogenous variable Benefits of ELS Success. Structural Equation Model of the collected data was developed using Smart PLS version 3.Results of bootstrapping process confirms 75.1% explanatory power of the predictor variables in explaining the variance of ELS Success. Further, ISQ(0.247), LQ(0.311), SSQ(0.234) and TSQ(0.107) found significant in predicting PU of ELS. SQ (0.209) and TSQ(0.226) reported as the significant determinants of Use of ELS. LQ(0.184) and PU(0.391) found significant on PS of ELS. Additionally, PS(0.524) and PU(0.355) were capable of accounting significant variation in ELS Success. Findings confirms the results of the previous studies (Al-Fraihat et al, 2020) and holds the theoretical implications of confirming the EESS model in developing countries' context. Study supports the practical implication of ensuring not only the technical systems quality but also the instructor, information, learner, service and support system in any attempt to enhance the success of ELS. Surveying only one Sri Lankan university is counted as the prime limitation of the study

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which is expected to address by the future studies in the discipline.

Keywords: E-Learning, E-Learning System, E-Learning System Success, Sri Lanka

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