Evaluation of an Academic and Student Administration System in its Post-Implementation Phase: A Case Study at the University of Botswana

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ABSTRACT

The article seeks to evaluate the Academic and Student Administration System (ASAS) at the University of Botswana (UB) in order to determine whether the system was performing successfully in its post-implementation phase. It was guided by the DeLone and Mclean IS success evaluation model. Three independent ASAS quality variables and one dependent variable (user satisfaction) were included in the study Model. The study also examined if the Model was appropriate for evaluating ASAS in the UB context. The study used quantitative approaches that included a questionnaire, and statistical tools such as reliability test, descriptive statistics, and paired samples t-test. The study found that: (1) users were satisfied with the ASAS performance; however, they felt that there was still room for improvement; (2) the Model was found to be credible for evaluating ASAS in the UB context. Areas that needed improvement were identified and recommendations were made on how to address them.

KEYWORDS

ASAS Evaluation, Botswana, DeLone and Mclean, Enterprise Resource Planning, IS Success, User Satisfaction

1. INTRODUCTION

In a constantly changing global business environment, an increasing number of organizations are deploying robust Enterprise Resource Planning (ERP) Systems with a view to expanding their business functionality and sharpening their competitive edge. ERP is a large-scale information system (IS). It has advanced information processing capabilities that support seamless real-time communication and faster decision making, and thus better customer service, and enhanced productivity. University of Botswana (UB) deployed ERP Systems in 2012 to replace its 20-year old management IS called Integrated Tertiary System (ITS). ERP systems comprise several modules and ASAS is just one of them.

Despite promises of numerous benefits of ERP Systems, extant literature (eg., Chung et al., 2015; Rubik, 2014; Dey et al., 2013; Dwivedi et al., 2013; Chen & Lin, 2008) indicates that its implementation can be a challenging task due to its inherent complex nature. These scholars have indicated that there are numerous occurrences of high failure rate at its implementation stage due to
several technical, managerial, and organizational challenges, thus encountering performance issues and unfortunate situations of not being able to tap its full potential in the post implementation phase.

1.1. Motivation for the Study

Since the launch of ASAS/ERP in 2012, the researchers have taken note of challenges faced by both instructors and students particularly in the beginning and end of every semester. Their concerns included system unavailability, slow system response and the like. Being a very costly investment, any sort of performance failure of the system could cause heavy financial losses to the organisation. As far as the Researchers know, no formal evaluation of the System has ever been undertaken although it has been in use for the past five years. Therefore, it was pertinent to conduct an evaluation study in order to determine whether the system was performing successfully as expected, and if not, to identify the challenges and propose recommendations to address those challenges; and hence the main purpose of this study. The main research question was: “How do users of UB ASAS perceive the system performance in its post-implementation phase?” In order to justify the outcome of the study, it is necessary to find out whether the DeLone and Mclean (D&M) IS success evaluation model adapted in the study is appropriate for ASAS evaluation in the UB context. Therefore, a second research question was formulated; it is: “Is the DeLone and Mclean IS success evaluation model appropriate for evaluating UB ASAS?” Therefore, this piece work is basically an evaluation study of a five year old ASAS at UB and also an attempt to determine the appropriateness of D&M Model in the study.

1.2. Significance of the Study

Being the first evaluation study of its kind, the ERP System managers in UB may use its outcome to assess the realised payoffs against their original expectations and can pay sufficient attention to improve the System performance. It may help them allocate scares resources where it is most needed. Thus, the study can immensely contribute towards improving current practices, and achieve the full potential of ASAS / ERP Systems in UB as well as other similar organisations.

It makes significant theoretical and practical contributions to the field related to the evaluation of post-implementation success of ISs because insights from this study could help practitioners, academics and entrepreneurs to plan and develop good strategies to tap the full potential of ASAS/ERP Systems in their organisations. It could also be useful to other organisations that intend to launch ERP Systems. As ERP Systems continue to spread widely in the higher education arena, the need for new research of this kind cannot be overemphasised.

2. THEORETICAL BACKGROUND

This study is underpinned by valuable information from the literature about the likelihood of IS implementation failure and resulting performance issues which can be financially devastating for any organization. Scholars (e.g., Dey et al., 2013; Al-Shamlan & Al-Mudimigh, 2011; Xia et al., 2010; Koch, 2011) argue that such problems are not uncommon, and in practice, it can cause performance issues in the go-live stage, and even beyond. Literature also indicates that post-implementation evaluation could help figure out causes of performance issues, probe into the possible causes, debug and improve system functionality, and achieve significant organizational benefits. Therefore, it becomes beneficial to evaluate the performance of such systems before it is too late.

2.1. User Satisfaction as a Measure of IS Success

Scholars (e.g., Petter et al., 2008; Althonayan & Papazafeiropoulou, 2013) argue that measuring IS system success is complicated as it is ill-defined due to its complex, interdependent, and multi-dimensional nature. However, several studies (e.g., Platisa & Balaban, 2009; Delone & McLean, 2002; Abdin mour-Helm et al., 2003) indicate that there exists a strong link between IS user’s satisfaction and IS performance. According to them, user satisfaction is a key measure of IS success, if not synonymous with it. User satisfaction is the extent to which users believe that the IS meets their
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