

The Impact of Information Systems on Organizational Performance In Sri Lanka

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Abstract: *This study investigated the influence of the Information System on the performance of organizations to find out the type of MIS being implemented in the university systems in Sri Lanka, and identify the relationship between MIS systems and organizational performances and the impact MIS makes on organizational performance. The research was undertaken at an institution for higher education. The case study approach is more suited for the estimation of the business advantages of modern IT innovations among these three investigative approaches. The main results suggest that there is a major positive association between the performance of Information System and organizations, indicating that the higher the management information systems, the higher the performance of organizations. The results also revealed that the information systems had a significant effect on the organization. Therefore, it suggests the organizations have a proper MIS system and it will reduce the work load of the employees.*

Keywords: Information System, Management Information Systems, Organizations Performance

Introduction

Heavy investments in IT combined with new corporate practices and outstanding strategic choices is transforming the way we do business, the way sales are generated, and the way goods and services are received by consumers. The growth of information systems provide managers with extraordinarily rich data on customers, suppliers, and employees. Managers have almost online access to the critical information they need to make effective and timely decision that affect the success of the company.

Information Technology is a powerful force that shapes today's global society. Over the last few decades Information Technology (IT) has become the single massive drive which influences the organization around the world. In the ever evolving knowledge-based economy, the productive use of IT is an integral component of remaining competitive.

Organizations are making heavy investments on improving IT infrastructures. Evaluating the success of information systems is one of the critical issues in information systems field. To assess the efficacy of IS and to justify IS investments, the assessment of IS performance is important.

Many universities in Sri Lanka have implemented many information system projects. Existing literatures have no evidence on the impacts information systems have made on their performances. Therefore the project is initiated to find out the type of MIS being implemented in the university system, identify the relationship between MIS systems and organizational performance.

Objectives

- To find out the type of MIS being implemented in the university system
- To identify the relationship between MIS systems and organizational performances
- The impact MIS makes on organizational performance

Information Systems (IS)

An Information System is defined technically as a set of interrelated components that collects, process, stores, distribute information to support decision making and control in an organization (Laudon & Laudon, 2014). It consists of computer hardware, software, data, procedures and people (Kroenke, 2011). As presented by Laudon & Laudon, (2014) there are four types of information systems namely Transaction Processing System (TPS), Management Information System (MIS), Decision Support Systems (DSS), and Executive Support Systems (ESS) TPS is a computerized system that executes and records the day-to-day routine transactions necessary to conduct business. Every transactions made in an organization are traced through TPS. MIS provides middle managers with reports on the organization's current performance and it is used to monitor and control the business and predict future performance. DSS facilitates more non-routine decision making. Finally, ESS facilitates non-routine decision making requiring judgment, evaluation, and insight.

Measuring impact of information system on organizations performance

The dependent and independent factors used for evaluating the impact of Information Systems varied based on the aims of the research. The most popular variables that have been analyzed, however, include: perceived utility, ease of use of system quality, quality of information, user satisfaction, individual effect, and organizational impact (Abugabah, A.J., *et al*, 2009).

Organizations performance

Several studies have been done exploring the impacts of Information Systems on organizational performances. Some studies have found beneficial correlations between IS and organizational performance[(Straub, W., 1989), (R.Stone, *et*

al, 2007), (H.C. Lucas, and J.J. Baroudi, 1994)]. Further, there is a substantial positive association between the performance of MIS and organizations. Higher the implementation of Management Information Systems, higher the performance of organizations. Management Information Systems make substantial impact on organizational performance (Bani-Hani, *et al.*, 2009).

A substantial amount of literature has been published in the last decades on information technology and end-user usability and performance. The findings of these studies are mixed and controversial (Abugabah, A.J., *et al.*, 2009).

Methodology

In evaluating the business advantages of information systems, there are three key empirical investigation approaches that may be used: case studies, experiments and surveys (Kitchenham *et al.*, 1995). The case study approach is more suited for the estimation of the business advantages of modern IT innovations among these three investigative approaches. Since the influence of an information system relies on several distinct and dynamic variables for the purpose of a formal experiment they cannot be easily isolated and controlled (Bakis, *et al.*, 2006).

The purpose of this study was to explore and describe the level of implementation of Information Systems in the selected institution and its impact on its performance. Qualitative inquiry and analysis suits this purpose with stronger sensitivity than a quantitative methodology could offer. Since this study is exploratory in nature, the process of allowing the data to speak for itself further supports a qualitative method of inquiry. Given that qualitative methodology uses context, individual experience, and subjective interpretation, generalizing ability is not possible, nor is it a goal (Heppner, *et al.*, 1999). Holistic and meaningful examination of the phenomenon is facilitated by case study methodology (Yin, 2003). Case study approach provides opportunity to do an in-depth investigation of a phenomenon. Accordingly, the case study methodology was adopted as the appropriate methodology for this study.

Presentation and Analysis of the case

The institution has implemented several Transaction Processing Systems like Payroll Information System, Fixed Asset Register Information System, Reward Calculation System, online Payment Portal, Google Calendar, Moodle, Space Reservation System etc...

They assist the institution in running its day to day operations efficiently. These systems have helped the institution to collect, record, process, store, and retrieve data easily. The institution has saved time and reduced paper work by implementing these systems. The users of the newly introduced Reward Calculation System, online Payment Portal, and Space Reservation System are satisfied as they have assisted the users with easy data recording, processing, retrieval etc. The Space Reservation system has assisted the institution to effectively utilize its resources, and to avoid

many operational issues faced during previous manual operation.

Online Payment Portal has enabled the institution to collect payments on time, to accurately forecast future revenues, and to easily collect previous arrears. The system has enabled the institution to properly collect its revenues, and to avoid the costs associated with delayed revenue collection. Further, the system facilitates easy issuance of payment receipts to the students which previously had required the presence of students to collect receipts. With the assistance of the systems, collection details are generated at regular interval and sent to relevant authorities for reimbursement. Students are not required to be present in the institution, or go to banks to make their payments. They enjoy the convenience of the making payment from wherever they are and satisfied with this payment option. Hibathul Careem, M.F (2019) reported that the relationship between satisfaction and performance towards organizational commitment continues to stimulate research and has led to re-examined previous attempts. It shows that the work done by an organization should be having continuous monitoring mechanism to have better understanding on the particular project. Also he stated that the job satisfaction creates a pleasing emotional state and this will lead make employees to have positive attitude towards work.

The institution has introduced an online Degree Program at Master level. Students are recruited globally for this program, and the institute earns foreign exchanges too. Its student recruitment and academic activities are mainly conducted through Moodle platform. The launching of this new program with the admission of international students and earning foreign exchanges would not have been possible without an Information System like Moodle.

Further, the systems implemented provide information for creating reports necessary for monitoring internal performance, and exercising necessary internal controls.

Monitoring the system and corrective actions

Mohamed Marsook, M.F (2018) stated that objective to investigate the relationship between investments in infrastructures (Economic and Social) and FDI inflows into Sri Lanka through the secondary data is useful. Therefore, the MIS systems in a particular institution should be monitored carefully and there should be a follow up mechanism to eradicate the issues arising from that. Also, performance management for knowledge workers is difficult because IT professionals are more perceptual than factual as their jobs are more complex (Guhanathan, 2007). Because IT organizations are dependent on skills and performance of its workforce, it is very important to measure employee performance for a given time period. (S.T Ahamed, *et al.*, 2018). Since this is running with other experts, IT professional in the institution also will help to improve the system well and manage the system easy.

Conclusions

The Institute is yet to implement any Information System at Management Information System, Decision Support System, and Executive Support System level. However, it has

implemented several Transaction Processing Systems and they assist the institution to run its day to day operations efficiently with reduced processing time, and low cost. Subsequently, the staff of the institute are also satisfied with the newly introduced Reward Calculation System, online Payment Portal, and Space Reservation System as they assist them with easy data recording, processing, retrieval etc. Further, the information system has assisted the organization to expand its business operation internationally. Thus, Information Systems have made several positive impacts on the organizational performance.

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