


Evaluating a Framework for Implementing IT Governance in Uganda's Higher Institutions of Learning

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ABSTRACT

The reliance on IT in day-to-day organization activities raises concern about how to deal with its increasing complexity. Managing IT necessitates implementing IT governance to realize the benefits of IT use. However, there is a lack of suitable frameworks to implement IT governance. For higher institutions of learning (HILs) in Uganda, the case is not different; hence, there is need to provide a framework to implement IT governance in Uganda's HILs. This paper therefore applies design science research principles to evaluate a framework for implementing IT governance in HILs in the context of Uganda. It was mainly achieved using a previous study in this environment as a basis. Framework evaluation was conducted using case study and expert opinion methods. Contrarily, the evaluation criteria was based on the framework understandability, ease of use, usefulness, and completeness. Results from the evaluation showed the framework satisfactorily implements IT governance in Uganda's HILs.

KEYWORDS

Evaluation, Higher Institutions of Learning, IT Governance, IT Governance Framework, Uganda

INTRODUCTION

The growing usage of IT in daily operations has increased concern about organizations' increase and perilous need for IT and how to handle its increasing complexity (Borja et al., 2018). Barbosa et al. (2014) point out that IT is vital in supporting institutional developments. It is crucial for growth, innovation, and consolidation of fusions and acquisitions. Yet, Albertin and Albertin (2008) present that consistently determining the benefits of IT presents some challenges for managers due to the particularities of IT management. According to Nfuka and Rusu (2010), an understanding and

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familiarity with IT are essential to developing the alignment between business strategy and IT. Also, IT improves effectiveness and efficiency in public service delivery in public sector organizations (NITA-U, 2018). For Higher Institutions of Learning (HILs), IT enables automated access to public services using government IT platforms (Montenegro & Flores, 2015).

IT governance is a process by which organizations align their information technology operations and services with their performance goals and strategic objectives and assess the results (Barbosa et al., 2014). Majid et al. (2015) showed that IT governance is an essential instrument in supporting and achieving the goals of an organization. Alreemy et al. (2016) and Kumar (2014) observed that IT governance smooths working processes. Besides, it also offers solutions within budget, better quality, and on time (Bianchi & Sousa, 2015).

IT in HILs is complex, consisting of a heterogeneous set of technologies involving various applications, platforms, educational systems, and cloud applications to support their teaching, learning, research, and administrative processes (Bianchi et al., 2017). Managing IT systems necessitates implementing IT governance (Nyeko et al., 2018) to encourage and realize desirable behavior of IT use. In contrast, the increased complexity of IT, the need to control IT costs, and also consequences of legal requirements have caused organizations to reflect on the importance of IT governance (Novotny et al., 2012).

To enable improved public service delivery, the government invests a lot of money in IT systems to serve its citizens (NITA-U, 2013). The Ministry of ICT and National Guidance (MoICT&NG) is the lead and provides necessary policy frameworks in conjunction with regulatory bodies such as National Information Technology Authority-Uganda (NITA-U). The public sector in Uganda consists of ministries, departments, and agencies (local government and academia) (NDP II, 2015). In support of IT in the public sector in Uganda, the government has enabled many organizations to connect to the National Data Transmission Backbone and e-Government Infrastructure. Implementing the Last Mile Project extends connectivity to 700 ministries, departments, and agencies across the country (PML Daily, 2020) and puts up ICT incubation hubs/centers and ICT parks to support ICT innovations and ICT-enabled services (NDP II, 2015). NITA-U has developed a methodology for managing IT projects for public and private sector organizations (NITA-U, 2013). Also, there is heavy investment in IT systems to support operations in Uganda's HILs. Despite all this, IT systems continue not to satisfactory work to users' expectations in HILs in Uganda (Anjoga & Kituyi, 2016; NITA-U, 2013). Bianchi et al. (2017) state that multiple systems, structures, processes, and technologies instituted at HILs bring significant complexity to managing IT, necessitating a focus on IT governance. Empirical studies concerning appropriate IT governance frameworks and IT governance performance are still limited (Bianchi et al., 2017). Most existing studies in the IT governance sphere have been for the developed countries (Arshad et al., 2014) disregarding the developing countries' context. Yet, the implementation of IT governance in HILs in Uganda is not known.

This paper applied design science research to address the gap by developing a framework for implementing IT governance in Uganda's HILs (IGHU). This was attained in two phases: development and evaluation. Where the development phase was based on a previous study that designed a conceptual framework for IT governance mechanisms in Uganda's HILs. The evaluation phase was based on a case study institution using interviews with 7 respondents and opinions from 9 experts from academia and practitioners. The following sections are organized as follows: section 2 covers the research methodology and research process, section 3 presents results and the discussion, and section 4 gives the conclusion.

RESEARCH METHODOLOGY

Application of Design Science Research

The IGHU framework was developed using design science and its interplay with behavior science (Hevner et al., 2004; Johannesson & Perjons, 2014). This was inspired by the development of a

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