Information Technology Governance Barriers, Drivers, IT/Business Alignment, and Maturity in Ghanaian Universities

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ABSTRACT

The purpose of this preliminary study was to determine the status of IT governance in universities in a developing country, Ghana, by assessing the drivers and barriers to pursuing formal ITG, measuring the extent to which universities align IT goals with academic and business objectives and determining ITG maturity level. Using a survey questionnaire and applying frequency analysis and T-test of independent samples, the results showed that 60.6% of the institutions surveyed were at the non-existent and initial stages of IT governance while only 6% were at the managed and optimized stages. The study also found that the factors contributing towards the drivers for formal IT governance include cost reduction and increased efficiencies, and promoting an institution-wide view of IT. However, the barriers were also identified which included lack of participation, inadequate funding, and top-down leadership-driven institutional culture. Universities can use these findings to improve formal IT governance practices and to benchmark future performance.

Keywords: IT/Business Alignment, IT Governance Drivers and Barriers, IT Governance Frameworks, IT Governance Maturity

INTRODUCTION

Information Technology (IT) governance has emerged to meet statutory requirements, align IT with business goals, deliver IT value to the business, and to mitigate IT risks. The IT Governance Institute’s (ITGI, 2011) Global Status Report on the Governance of Enterprise IT (GEIT) study, DOI: 10.4018/IJISSS.2015100104
involving seven-hundred and thirty participants from twenty-one countries revealed an increasing adoption and implementation of IT governance (ITG). According to the study, the key driver for ITG practices in organizations is ensuring that IT is aligned with current business needs. The study further found that ninety-four percent of the respondents considered IT governance important or very important to the delivery of the overall business strategy and vision in their organizations. Ninety percent of the respondents reported that IT investments create business value; and within large organizations, seventy seven percent reported that their IT heads serve as members of the management executive team (ITGI, 2011). This study emphasized the importance of IT governance to organizations across the globe, however, it lacked in-depth study on the state of ITG in a particular industry sector.

Despite the global adoption of ITG, Othman et al. (2011) found several barriers to ITG implementation in the developing countries. Othman et al. (2011) indicated that although both developing and developed countries share similar barriers to IT governance, there exist some distinctive factors such as lack of regulatory environment, lack of industry and vendor support, and national culture that hinder IT governance in developing nations. The industry sector plays a major role in the adoption of ITG practices and much effort has been spent investigating IT governance in organizations (De Haes & Van Grembergen, 2009; Lee et al., 2008; Nfuka et al., 2009; Othman et al., 2011). IT supports invariably all sectors of an economy including service, manufacturing, agriculture, and mining. The service sector (such as education, retail, and banking) provides services that are not tangible products. For example, educational sector renders services such as teaching, learning, and research. It employs IT tools and products (e-learning platforms and collaborative tools) to carry out these activities. With the ever growing number of students’ population, couple with the need to access information, universities have deployed large IT infrastructure (networks, operating systems, data resources, etc) to support teaching, learning, and research activities.

Though educational institutions render these vital services towards the socio-economic development of a nation only few studies examined how IT is being governed in this critical sector. Academic institutions depend greatly on information technology to support various academic programs, research and administrative functions, and as such, stringent controls are necessary to secure institutional data (Bhilare, Ramani, & Tanwani, 2009). But governance of IT cannot be separated from that of information systems. According to Laudon and Traver (2011), an information system is a set of interrelated components that collect, process, store, and distribute information to support decision making and control in an organization. Efficient information systems employ IT tools such as computer hardware, software, databases, and networks to collect, process, store, and disseminate information for effective management decision making. Information systems and IT are, therefore, closely related but IT can be considered as a subset of information systems. The complexity of these IT systems requires the need for its governance to achieve educational goals. IT governance in the universities suggests that the educational leaders should provide proper oversight responsibility to how IT is being managed, ensuring that the universities’ strategic objectives and IT objectives are aligned, and that IT creates business value for the universities and serves the best interest of all its stakeholders.

Currently, universities in developing countries are increasingly depending on IT systems to manage enterprise resource planning systems (ERP) that comprises of large database of students’ sensitive personal and academic records, library databases of research publications, university-wide local area networks, intranet, extranet, collaboration systems, and the wireless networks (WIFI). They therefore need to establish effective information technology (IT) governance practices in order to stay competitive; provide quality teaching, learning, and research environment. This requires universities to assess the institution’s IT governance maturity to ensure that good orga-
An Ideation Framework for Service Process Improvement
Maya Kaner and Reuven Karni (2012). Technological Applications and Advancements in Service Science, Management, and Engineering (pp. 191-227).
www.igi-global.com/chapter/ideation-framework-service-process-improvement/66293?camid=4v1a