Intelligent IT governance decision-making support framework for a developing country's public university

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Abstract. Decision support systems (DSS) can be helpful tools in university's planning and management. Decision support systems can contribute to efficient exchange of information between experts, stakeholders, decision makers and laypeople. However, intelligent Information technology (IT) governance decision support system for public universities is yet to be thoroughly investigated. This is because IT governance (ITG) is just evolving as a new paradigm to take care the stakeholders' expectations in leveraging IT with business goals. This study explores issues of IT governance and the suggestion for ITG Intelligent decision making support system (IDMSS) in a public university in Malaysia. The interviews and documents were analysed to generate themes. The findings show the need for effective IT governance in the university. This will enable optimal usage of IT resources, which are expected to have an impact on the university's performance. The findings is aligned to Control Objectives for Information and related Technology (COBIT) framework and then several proposals from extant researches on IDMSS are described to form a basis for an intelligent ITG DMSS framework suitable for adoption in the context of public Institutes of Higher learning in Malaysia.

Keywords: IT governance, IDMSS, decision making, institutes of higher learning, Malaysia

1. Introduction

According to Simon's decision making theory, intelligence is the first and most important phase in the decision making process [46]. With the escalation of information resources available to business executives, it is becoming imperative to explore the potential and challenges of using agent-based systems to support the intelligence phase of decision-making. The emergence of the intelligent software agent, as a concept and a technology, has been put forwarded as one of the solutions for reducing information overload problems faced by contemporary business organisations [41]. A core competence for competitive success in current organisational environments is a firm's capability to process huge amounts of information and to generate and then disseminate relevant information and knowledge to help members of the organisation make decisions efficiently and effectively. To accomplish these aims, a suitable Business Intelligence (BI) system such as IDMSS, adequately integrated into a Knowledge Management (KM) process such as Information Technology (IT) governance (ITG), is crucial. Throughout the last few decades, organisations have demanded the development of analytical methods better able to provide added-value information to support strategic and operational decisions. In this regard, tools and methodologies that can be used by firms to achieve supe-

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