

Effective IT Governance in Higher Education Institutions: The Conceptual Model

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Abstract

Recently, a considerable literature has grown up around the theme of Information Technology Governance (ITG) in the organization. While some research has been carry out on ITG in general, there is still very little scientific understanding of Effective ITG in the context of Higher Education Institutions (HEI). To gain the effectiveness of IT governance in HEIs need to follow the IT governance mechanisms that provide the set of process and procedures which is in line with the strategic alignment between IT and business. In essence, Effective IT governance will guarantee alignment between IT and the business goals. Organizations with vain IT governance will hurt due to poor performance of IT resources such as inefficient operating costs, inaccurate information quality, and even the decease of its IT department. This paper offer the effective of IT governance evaluation model that may can be used by organizational management in the HEI in particular. Furthermore, this study identifies the factors that contribute to effective IT governance based on past literatures on this domain. The proposed model need to be tested through empirical study in the future work by others. The result of the study can help to HEIs management to gain the effective IT governance implementation. Other than, this study will contribute to the knowledge of IT governance implementation in HEIs.

Keywords: IT Governance, Implementation, Effective implementation, State islamic university, Organizational factor

1. Introduction

Currently, the issue of implementing effective Information Technology Governance (ITG) in Higher Education Institutions (HEIs) has become an important matter for current situation. The concept of IT Governance has been a subject of debating among scholars since there have been many definitions proposed by researchers. The increase attention to IT Governance retained the development of this phenomenon. IT governance is related to a strategic issue with the demand of commitment from senior management level in the organizations. IT governance is related to IT decision-making authority, organizational structure, processes and relational mechanisms that yield the alignment between Business and

IT. Effective IT governance will warrant the appropriate employing strategic alignment between IT policy making and the business goals. Organizations with ineffective IT governance will suffer due to poor performance of IT resources such as inefficient operating costs, inaccurate information quality, even the decease the performance of its IT department. Past literatures indicated that there have been linking between effective IT governance and organizational performance [1], [2], [3], [4].

Since many attentions have been paid by scholars on the IT governance implementing issues, this phenomenon considered as a challenging and interesting topic. There have been many definitions establishing of IT governance in the literatures. According [5] IT governance is the process that ensures the effective and efficient use of IT in enabling an organization to achieve its goals. While the other researchers thought that the IT governance is sometimes referred to as part of the bigger discipline of corporate governance [6]. Although the varies of definitions of IT governance in the study, essentially, researchers have a similar key word should be there when defining IT governance, that one is to what extent the organization advance in the “strategic alignment between IT and their business goal”. The importance of IT governance shown that organizations with greater IT governance obtained profits 25% higher than those with the limited on their IT governance [6].

To implement effective IT governance, a set of IT governance mechanisms is indeed required such as IT steering committee, IT strategy committee, involvement of senior management in IT, corporate communication systems [3]. Recently, study that concern on the consolidating strategic alignment and IT governance models shows that the organizational value is created through IT governance mechanisms. The study provides guidance on how strategic alignment can mediate the effectiveness of IT governance on organizational performance. Two survey studies on past literature revealed that IT governance mechanisms and strategic alignment influence on the organizational performance [1], [7].

Based on the past literatures shown that most of studies on IT governance were conducted in business sector and private organizations, rather in public organization. IT governance implementation in higher education organization has different characteristics compared to private organizations. Unlike the business orientation, where investments aim to generate profit and financial

return to shareholders, the higher education sector has different demands in terms of results [8]. To fill this gap on IT governance study that focus on non-private sector considered as an important research. This research attempts to examine the effective of IT governance in HEIs sector and promotes in understanding IT governance and performance in public organizations in the ways.

The role of senior management level in HEIs plays in IT governance is a critical factor in its effectiveness. As [9] found that in the most effective structures, the CIO is a member of the executive board, reporting to the chief executive officer or the chief operating office. Since the aim of this study is intended to help HEIs understand how effective IT governance impacts on organizational performance and to identify the key factors that can lead to an IT governance implementation running effectively. To do so, this study addresses a research question: What are the factors of IT governance contribute to effectiveness IT governance in higher education?

IT governance mechanisms in this study will identify the organizational factors that contribute to gain effective IT governance. The main problem is not adoption failure but effective IT governance implementation failure. The organizations fail to employ the strategic alignment that combine between IT and their business goals. As we know, the IT governance implementation is a complex process which more difficult to control. This research identifies the influential factors on effective IT governance that adapted from past literatures.

The purpose of the study is to propose the evaluation model of effectiveness IT governance in the context of HEIs. The model developed through reviewing past literatures on the related variables that contributed to IT Governance and their development. This result of the study can help to HEIs management to identify the factors influence on effective IT Governance implementation. Although there have been many studies in the domain of applied research framework of IT governance like COBIT, ITIL and others, the most studies focus on industries and business sector which the main objectives are how to create the profit from their business. This study looking at IT governance implementation in the university context in developing countries.

2. Literature Review and Hypothesis Development

In recent years, there has been an increasing amount of literature on IT governance implementation and development such as [10], [7], [11]. Based on review on that literatures the results of the study focus on individual level of IT governance mechanisms. This study looking at the contributing factors of IT implementation effectiveness at the organizational level such as IT steering committee, senior management involvement, Organizational Performance Measurement System and Organizational Communication System. A more detailed account of the literature on the correlational variables is given in the following section.

A. Effective IT Governance Implementation

Currently, there are many various definition of IT governance proposed by researchers. According to researcher's IT governance is sometimes referred to as part of the bigger discipline of corporate governance. Corporate governance refers to practices and responsibilities carried out by top management to ensure that strategic objectives are met, and the organization's risks and resources are adequately managed [12]. The other definition of IT governance also proposed by [13]. The authors define that the strategic alignment of IT with business, such that maximum business value is achieved through the development and maintenance of effective IT control and accountability, performance management and risk management. Although there have been many definitions, there is a similar key word in the providing the definition of IT governance, as how to achieve the strategic alignment between business and IT. To achieve effective IT governance, an organization need to employ well-understood, transparent governance mechanisms and well-designed [6].

Researchers like [4] conducted a case study in large Australian university to explore the criteria of effective of IT Governance. The study initially employed a qualitative approach, collecting data through interviewing of key personnel. In addition, survey was then undertaken to quantitatively assess how effective the IT governance structure from user's perspectives. This study concluded that the effect IT governance constructs may have on the diffusion of technology in larger organizations where key business functions, such as research, rest substantially at the individual level. The study also revealed that lack of lower-level consultation is perceived by staff as an impediment to the diffusion of technology appropriate to meeting user IT needs.

B. Hypothesis Development

Referring to past studies on IT governance mechanisms and the effectiveness of strategic alignment between IT and the business goals, this study proposes the research model of effective IT governance that shown in Figure 1. The IT governance mechanisms adapted from researcher [1] in general and significant prior studies in the context of HEIs in particular [4]. The following hypotheses development based on previous studies in IT governance research and their development.

2.1 IT Steering Committee

As [14] have conducted the study to examine the factors that influence IT governance structures, processes, and outcome metrics. The author concluded that the effective IT governance is positively associated with a shared understanding of business and IT, active involvement of IT steering committees, a balance of business and IT people for IT decision making, and well-communicated IT strategies and policies. [15] also conclude that the steering committee is positively related to the level of IT-related capabilities. Thus, based on that studies the following hypothesis:

H1: The presence of an IT steering committee will significantly relationship the level of effective IT governance.

2.2 Involvement of Senior Management in IT

In the IT governance literature, a study conducted by [16] has shown that senior management involvement had a significant positive effect on the level of effective IT governance. Likewise, a lack of senior management involvement has been shown to lead to negative outcomes in IS planning, and even failure to plan for IS [17]. Thus:

H2: Involvement of senior management in IT will significantly relationship to effective IT governance.

2.3 Organizational Performance Measurement System

To achieve the strategic agenda of senior management level in HEIs, the effective performance measurement mechanisms, such as an IT balanced scorecard, IT charge back systems, are necessary. One of the IT strategy committee's duties is to supervise the implementation of IT project and applications. Such a system enables the senior management level to detect and correct any deviations and change the strategy when necessary [12]. In line with this argument, [18] stated that the use of a performance management system is an integral part in implementing effective IT governance. The system that incorporates a set of metrics provides management with a regular and precise analysis of how IT is performing on its current operations and the latest projects. The following hypothesis is proposed:

H3: The implementation of an organizational performance measurement system will significantly relationship to effective IT governance.

2.4 Organizational Communication System

In order to get good participation and collaboration in the organization, the Effective IT governance requires close relationships between the business and IT so that there will be better understanding between both areas [19]. The other scholars mentioned that the communication mechanisms should be important for effective IT governance as their purposes are to inform the organization as a whole about IT governance processes and decisions, and to encourage desirable behaviors in the organization. They also suggested that the more management communicate formally about the existence of IT governance mechanisms, how they work, and what outcomes are expected, the more effective are their governance processes.

Thus, the empirical evidence of the perceived influence of communication mechanisms on overall IT governance have established. Thus, the following hypothesis is proposed:

H4: Organizational Communication System will significantly relationship to effective IT governance.

3. The Proposed Model

This evaluation model of effective IT Governance derived from past studies [3], [1]. In order to confirm the model, the significances of the relationship among the variables need to examine as a next step from this study. The proposed research model that will be used to examine the effective IT governance can be seen as follow.

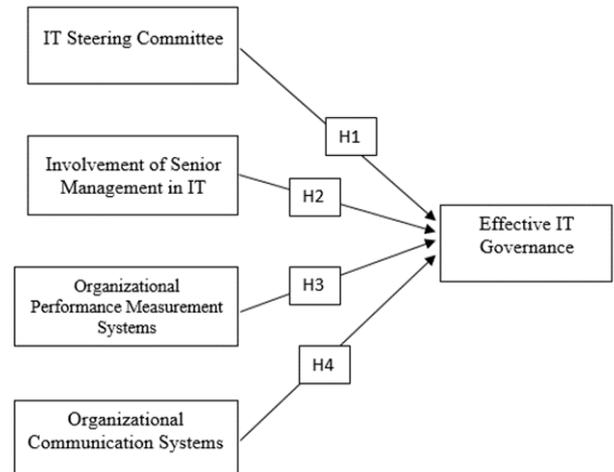


Fig 1: Research Model of Effective IT Governance

4. Conclusion

As emphasized by researchers such as [10], [1] the effective IT governance related to individual and organizational level of unit analysis. One of the more significant findings to emerge from this study is that how to evaluate the effective IT governance that focus on organizational level. This paper has presented a testable model describing all the relationship between antecedent of IT Governance effectiveness in HEIs. The model has to be empirically verified to confirm the relationship between variables. The future step need to examine a validation of evaluation model by others by collecting data in particular university as a single case study.

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