



Application Of Cobit 2019 Framework Design For Information Technology Governance In Higher Education

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ABSTRACT

This journal discusses the application of the COBIT 2019 Framework design in an effort to improve information technology governance in a higher education environment, with a focus on Esa Unggul University. The development of information technology has encouraged universities to keep up with the times and compete in managing increasingly complex resources. This research aims to apply the COBIT 2019 Framework as a guide in building an information technology governance design at Esa Unggul University. By using this framework, it is expected to make a positive contribution to the management of business and technology in higher education, especially in aspects such as information security, sustainability, and operational effectiveness.

Keywords: *COBIT 2019, Information technology governance, Framework design*

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1. INTRODUCTION

This research explores the application of information technology at Esa Unggul University with a focus on the performance of human resources in the field of Information Technology. Although Instidla has integrated information technology, there are a number of problems that affect the optimization of human resource performance. The success of IT governance is determined by the alignment between the application of information technology and the goals of the organization itself. Information technology is an important issue in the development strategy and improving organizational performance. Timely information technology decisions are needed to deal with rapid technological changes. (Laudon 2019).

In an effort to solve this problem, this research proposes the use of the COBIT 2019 Framework as a guide to implementing Information Technology governance at Instidla. This framework is considered capable of providing valuable input in managing the Information Technology management framework. As a basis for the research concept, several previous studies have also highlighted the success of the COBIT Framework in other contexts, such as Building Block Management, Tax Reporting, and Governance. (Isaca, 2019)

By detailing some of the previous research, this study lays the foundation for the use of the COBIT 2019 Framework as a reliable solution to effectively implement Information Technology governance at Instidla. This research encourages further understanding of how COBIT can be an effective tool in addressing the problems faced by organizations in managing their Information Technology (Ady Nurdin, et al 2020).



2. LITERATURE REVIEW

2.1 Information Technology (IT) Governance in Higher Education:

IT governance in higher education is an important issue in improving the efficiency and effectiveness of technology resource management. Various studies emphasize the need for a solid framework for managing IT in higher education, given the complexity and diversity of user needs. (Ardiyanti, 2009).

2.2 COBIT Implementation in the Context of Higher Education:

A number of studies have revealed the success of COBIT implementation in improving IT governance in higher education institutions. COBIT helps identify and manage risks, improve process efficiency, and provide a foundation for measurable performance monitoring.(Ardiyanti,2009).

2.3 IT Risk Management:

IT risk management is a key component of the COBIT framework. In the context of higher education, identification and mitigation of IT risks are essential to protect the integrity, confidentiality, and availability of campus data. Previous research has highlighted the benefits of IT risk management implementation in. (Ardiyanti, 2009).

3. METHODS

In this research, there are several stages of research carried out, the stages carried out are described according to the flow chart in Figure 1 below.



Figure 1 Research Methodology
Source: author/researcher

At the problem identification stage, an interview process is carried out as a method of data collection at universities related to information system problems, and related to the extent to which information technology implementation is applied at universities. So it was found that the problem at Esa Unggul University was that there had never been any action.

assessment of information technology governance as a whole, besides that there are also obstacles in managing order data and stock data at the University. Therefore, it is necessary to have an information technology governance process so that the utilization of information technology is right on target and more structured so that the University's goals are properly achieved. (Ardiyanti, 2009)

At the Literature Study stage, we look for theories that are relevant to the problem being studied. The goal is to have references that support the discussion of research results. Literature studies are carried out by collecting scientific articles and reference sources related to information technology governance. (Ardiyanti, 2009)



At the Analysis stage, we use the Governance System Design Workflow reference from COBIT 2019. This process involves examining the University's context, strategy, and environment to understand the University's strategy. Next, determine the desired alignment and evaluate the results of the information technology governance alignment to measure technology implementation and needs. (Ardiyanti, 2009)

4. RESULTS AND DISCUSSION

In the Governance System Design step, we go through each Design Factor (DF) from Enterprise Strategy DF1 to enterprise size DF11. The process of designing a governance system involves considering design factors, such as finding solutions that meet the needs of the University. In the governance system design process, there are design factors that are considered, including:

A. Design Factor 1- Enterprise Strategy

In this design factor, there are several types of University strategies such as focusing on student growth, focusing on innovative educational and service services to students, focusing on long-term campus systems, and focusing on providing stable and student-oriented services(Isaca, 2019).

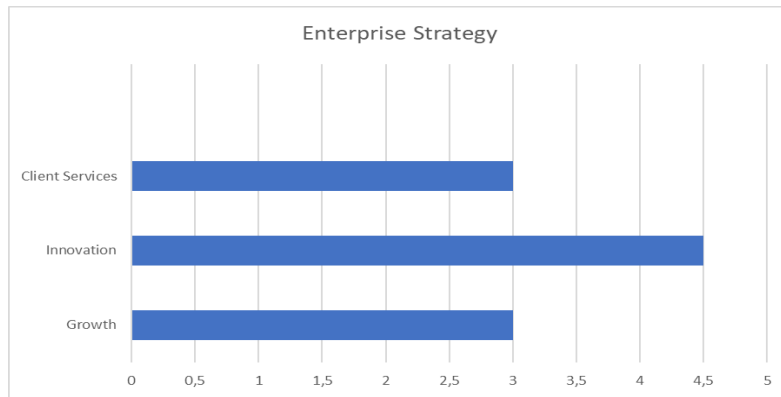


Figure 2 Design Factor 1- Enterprise Strategy
Source: (Isaca, 2019).

Enterprise Strategy in the case study of the Esa Unggul University information system shows a number based on the results of the questionnaire value of the main strategy in the Esa Unggul University information system prioritizing innovation over Client Service and Growth or growth as seen in the numbers above that Innovation is seen 4.5 and higher than Client. (Isaca, 2019).

B. Design Factor 2 - Enterprise Goals

Universities must prioritize student goals in accordance with the chosen university strategy. To translate university goals into a ranking of the relative importance of governance and management objectives, stakeholders must make clear choices when selecting university goals (Isaca, 2019).

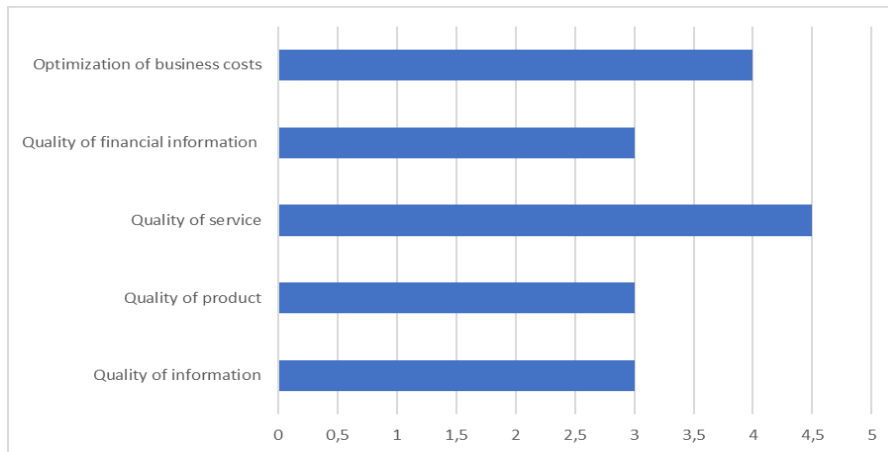


Figure 3 Design Factor 2 - Enterprise Goals
Source: (Isaca, 2019).

C. Design Factor 3 - IT Risk Profile

Understanding the University's risk profile is understanding which risk scenarios could affect the University, and how to assess their impact and likelihood of materialization. It is necessary to perform a high-level risk analysis on the University, such as identifying relevant risks.

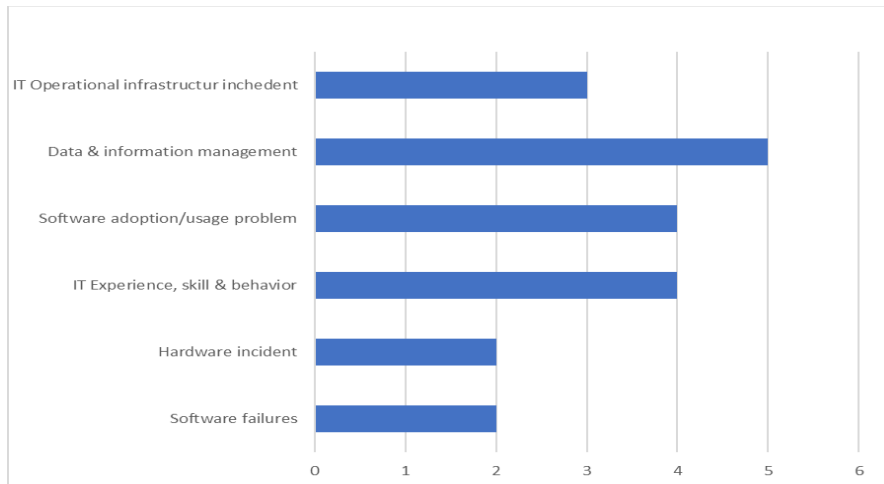


Figure 4 Design Factor 3 - IT Risk Profile
Source: (Isaca, 2019).

D. Design Factor 4 - IT Related Issues

IT issues can be identified or reported through risk management, audit, senior management or external stakeholders. A clear distinction must be made in ranking I&T issues, to provide the necessary input to determine governance design priorities (Isaca, 2019).

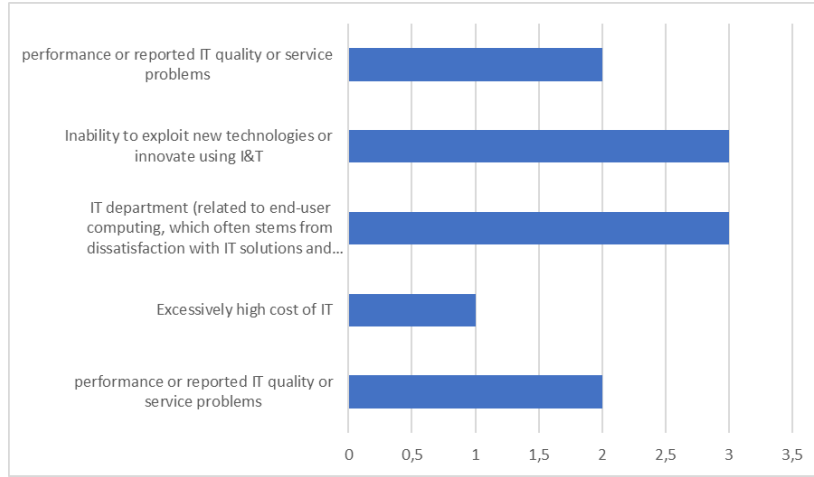


Figure 5 Design Factor 4 – IT Related Issues
Source: (Isaca, 2019).

E. Design Factor 5 - Threat Landscape

The typical threats faced by the University are also one of the design factors for an appropriate governance system. There are 2 types of threats, namely normal threats and threats (Isaca, 2019).

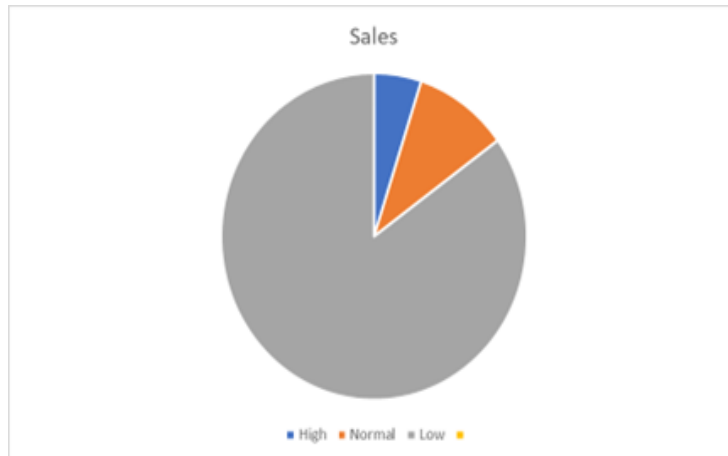


Figure 6 Design Factor 5 – Threat Landscape
Source: (Isaca, 2019).

F. Design Factor 6 - Compliance Requirement

The requirements that must be met by the university are one of the important factors. At this stage there are 2 types of compliance requirements, namely normal, and tin. (Isaca, 2019)

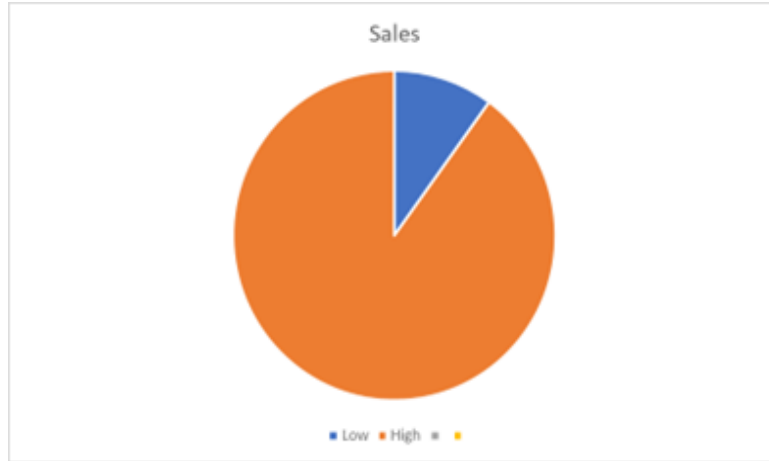


Figure 7 Design Factor 6 - Compliance Requierment
Source: (Isaca, 2019).

G. Design Factor 7 - Role of IT

The role of IT in the university is also an important factor. Where to assess whether IT is positioned as strategic or support(Isaca, 2019)..

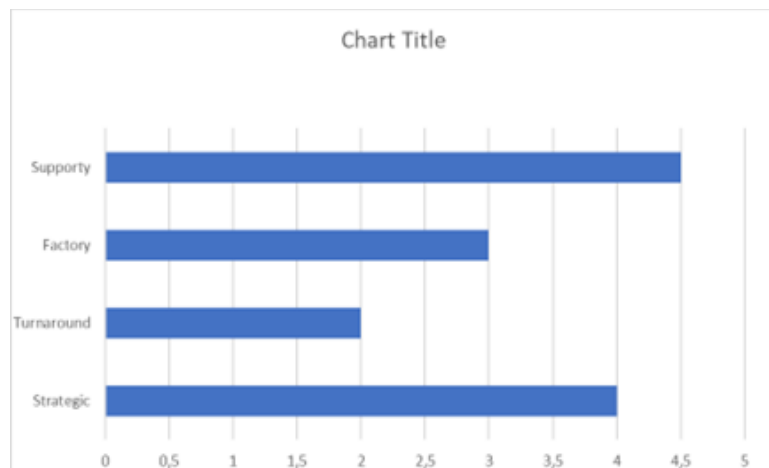


Figure 8 Design Factor 7 - Role of IT
Source: (Isaca, 2019).

H. Design Factor 8 - Sourching IT model

The IT sourcing model applied in the University usually uses IT services with several models such as outsourcing, cloud, insourced, or hybrid(Isaca, 2019).



Figure 9 Design Factor 8 – Sourching model IT

Source: (Isaca, 2019).

I. Design Factor 10 - Technology adaption Strategy

The strategy of adopting new technology in the University is of several types. Such as first movers where the University always wants to adopt new technology as soon as possible. Then there are followers where the University waits for others to implement the technology and then he follows, and slow adopters where the University is very slow in adopting new technology. (Isaca, 2019)

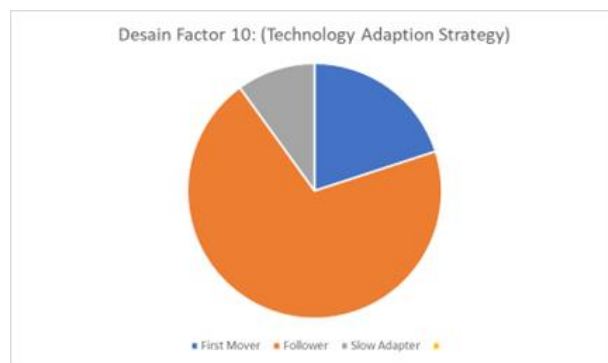


Figure 10 Design Factor 10 – Technology adaption Strategy

Source: (Isaca, 2019).

J. Design Factor 11 - All design factors

After carrying out the governance system process using the 2019 Cobit framework at Esa Unggul University, it is hoped that it can produce a governance design system that is right for the University, so that the University will be more precise in making decisions regarding the implementation of IT Governance for the alignment of Information Technology and University business objectives(Isaca, 2019).

5. CONCLUSION

Conclusions drawn from the application of the COBIT 2019 framework for information technology (IT) governance in higher education may vary based on the institution's specific implementation and context. However, several potential conclusions emerge:



1. **Enhanced IT Governance:** Implementing COBIT 2019 is anticipated to enhance IT governance by offering clear guidelines and structures for managing, controlling, and optimizing IT use.
2. **Risk and Compliance Understanding:** COBIT 2019 aids institutions in comprehending IT-related risks and ensuring compliance with regulations. Conclusions may entail improved risk awareness and mitigation efforts.
3. **Alignment with Business Objectives:** Utilizing COBIT 2019 should align IT strategies and operations with business objectives, potentially leading to increased efficiency and effectiveness in achieving academic and administrative goals.
4. **Improved Resource Management:** COBIT 2019 facilitates better management of IT resources, including personnel, infrastructure, and data, potentially resulting in improved resource allocation to address IT challenges.
5. **Continuity and Adaptation:** Continuity in COBIT 2019 implementation is crucial, requiring colleges to continually monitor and adapt the framework to evolving needs, technologies, and regulations.
6. **Information Security Enhancement:** COBIT 2019's focus on information security can lead to better data and system protection and proactive measures to prevent security incidents.
7. **Enhanced Transparency and Accountability:** COBIT 2019 promotes transparency and accountability in IT management, potentially resulting in improved reporting and accountability practices.

These conclusions hinge on colleges' effective implementation of the COBIT 2019 framework and their ability to integrate its principles and practices into their environment.

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