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Application of Company Goal Design Factor Based on COBIT 2019 to Improve Startup Company Goals

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ABSTRACT

Software plays a key role in supporting company goals and performance. Implementing the right strategy in software development is crucial to ensure that the information system not only functions well but is also in line with the established business objectives. One approach that is gaining increasing attention today is the integration of the COBIT Framework 2019. COBIT 2019 outlines IT governance and management objectives into five domains: Evaluate Direct and Monitor (EDM), Align Plan and Organize (APO), Build Acquire and Implement (BAI), and Deliver Service and Support (DSS). 13 Design factor company objectives were used in this research. COBIT 2019 Design Toolkit Based on the final results of measuring the level of importance of the 2nd design factor regarding company goals determined by the author, Recommendations for improvement are prepared as an effort to improve research regarding the second design factor of enterprise goals using the COBIT 2019 framework, so that it is even better and can refer more to CMMI and ISO/IEC 25010.

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1. INTRODUCTION

In the ever-growing digital era, software plays a key role in supporting company goals and performance. Implementing the right strategy in software development is crucial to ensure that the information system not only functions well but is also in line with the established business objectives. One approach that is gaining increasing attention today is the integration of the COBIT Framework 2019, which is known as a leading guide for managing and strengthening information systems.

As stated by ISACA (Information Systems Audit and Control Association), "COBIT 2019 provides a solid foundation for managing and controlling information systems by understanding and addressing the associated risks." (ISACA, 2019). By focusing on critical matters such as security, integrity, and data availability, COBIT 2019 provides comprehensive guidance for designing, implementing, and maintaining information systems that support stratification goals.

In this regard, Van Grembergen and De Haes (2018) explain the role of COBIT in increasing the effectiveness and efficiency of organizational IT management. They state that COBIT provides a framework that can be used to link business objectives with information technology demands. Additionally, Raval and Patel (2017) highlighted the importance of COBIT integration in managing risks and ensuring information security in an organization's IT environment. They emphasize that COBIT provides a strong foundation for understanding and addressing risks that can impact the achievement of business objectives.

Research by Sharma and Gupta (2020) explores the implementation of COBIT 2019 in the context of organizations with high complexity. They show how COBIT can be adapted to an organization's unique needs to achieve competitive advantage. Next, a study by Li *et al*. (2019) investigated the impact of COBIT integration on corporate sustainability and performance. They found that COBIT implementation significantly influenced improvements in operational efficiency and sustainability. In research by Soares *et al*. (2021), analyzed how COBIT 2019 can increase a company's resilience to cyber threats. The results of this study provide additional insight into the role of COBIT in the context of information security.

Challenges related to design factors in achieving company goals through the implementation of COBIT 2019 are still the main focus point. Suboptimal software design can hinder operational effectiveness, system reliability, and ultimately, the achievement of established business goals. In this context, this article will explore in depth how COBIT 2019 integration can be used as a foundation to address software design challenges, ensuring that software development not only meets technical requirements but is also aligned with the company's strategic goals. By detailing the relationship between implementing COBIT 2019-based enterprise objective factor design and improving enterprise performance, this article aims to provide valuable insights for IT professionals, software developers, and other stakeholders interested in understanding and maximizing the potential of COBIT 2019 in this context.

2. METHODS

2.1 COBIT 2019

COBIT is a best practice framework for corporate IT governance and management. COBIT continues to develop itself into a broader and more comprehensive IT governance and

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management framework. One of the COBIT development products built by integrating more than 25 years of development released in 2018 is COBIT 2019 (P.M DEWI).

The development of COBIT 2019 is based on two groups of principles: Governance System and Governance Framework. The principles of the Governance System consist of: 1. Provide Stakeholder Value; 2. Holistic Approach; 3. Dynamic Governance System; 4. Governance Distinct from Management; 5. Tailored to Enterprise Needs; 6. End-to-End Enterprise Needs. Meanwhile, the principles of the Governance Framework consist of: 1. Based on Conceptual Model; 2. Open and flexible; 3. Aligned to Major Standards (Sari, R.K. et al, 2023).

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2.2 Design Factor

To implement COBIT, several important things must be considered. These include size, industry, regulatory landscape, threat landscape, IT position within the organization, tactical technology choices, and other aspects. In COBIT 2019, these factors are referred to as design factors that companies should consider when adapting their governance systems to maximize value from IT use. Companies should start with the core COBIT model and then implement changes to the general framework based on relevant and important factors. This process is known as enterprise IT governance system design.

Design Factors are components that can influence the design of a company's governance system and position it for the success of information and technology users. Design factors encompass a cascade of corporate objectives and also include additional design factors that are broadly categorized as contextual, strategic, and tactical.

Contextual factors are design factors that are outside the company's control. Examples include size, geopolitical situation or threat landscape. Strategic factors themselves are design factors that reflect decisions made by the company, for example company strategy, the role of IT for the company's success or the formulation of risk appetite. Meanwhile, tactical factors are design factors that are based on implementation choices related to resource models (e.g. Outsourcing, cloud), IT methods (e.g. Agile, DevOps) and technology adoption choices (e.g. current advantages).

COBIT 2019 states that there are 11 design factors. These design factors are: 1) Enterprise Strategy; 2) Enterprise Goals; 3) Risk Profile; 4) I&T-Related Issues; 5) Threat Landscape; 6) Compliance Requirements; 7) Role of IT; 8) Sourcing model for IT; 9) IT implementation methods; 10) Technology Adoption Strategy; 11) Enterprise Size (Seputra, 2022).

1. Design Factor 1 - Enterprise Strategy

   Enterprise Strategy is a strategy built based on design factors. These design factors focus on company strategies such as accelerating company growth, providing innovative services to customers, reducing costs in the short term, and providing stable and oriented services.

2. Design Factor 2 - Enterprise Goals

   Enterprise Goals in COBIT 2019 set 13 comprehensive goals. Companies must set these goals in accordance with their business strategy. If these objectives are to be ranked in order of relative priority to management and governance objectives, stakeholders must make clear choices when selecting corporate objectives.

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3. Design Factor 3 - Risk Profile

Risk Profile aims to understand the company's risk profile and the risk scenarios that may influence it, as well as how to evaluate the level of impact and the possibility of its realization. It is necessary to carry out a risk analysis on the company to find relevant risks in 19 risk categories.

4. Design Factor 4 - I&T-Related Issues

There are many channels through which IT problems can be discovered and reported, such as risk management, audit, senior management, and outside stakeholders.

5. Design Factor 5 - Threat landscape

In creating an appropriate governance system, the risks faced by the company are also considered. Normal and high threat are two types of threats.

6. Design Factor 6 - Compliance Requirements

Companies can ensure that IT governance systems meet business objectives and comply with applicable laws and regulations.

7. Design Factor 7 - Role of IT

The role of IT in a company is very important. It is decided whether IT functions as strategic, supporting, or factory.

8. Design Factor 8 - Sourcing model for IT

Determine whether IT services or functions will be performed by the organization's internal resources or by external parties. Some IT outsourcing models include cloud, outsource, hybrid, or insource.

9. Design Factor 9 - IT Implementation Methods

IT implementation methods explain how an organization builds, develops, and deploys IT services, especially applications. Organizations can use conventional, DevOps, or Agile methods.

10. Design Factor 10 - Technology Adoption Strategy

Businesses can adopt technology in various ways, such as being a first mover who starts quickly, waiting for others to do so, or being a slow adopter who is very cautious.

11. Design Factor 11 - Enterprise Size

Based on the different sizes and complexities of organizations, COBIT 2019 should be tailored to each organization's unique size and needs.

2.3 Company

A company is a whole continuous action that acts outwardly to obtain profit, such as trading or delivering goods or entering into commercial agreements. According to “Undang-undang No.3 Tahun 1982” concerning Mandatory Company Registration, a company is "a business entity that carries out activities in the field of distribution of goods and services in the Republic of Indonesia" because the definition above includes both the form of business (company) and the type of business (business).

The forms of company include individual companies (Trading Business (TB)), Persero (Maatschap), Firm Companies (Venootschap Onder Firma), Limited Liability Companies (Commanditaire Vennootschap), and Limited Liability Companies (Naamloze Vennootschap).

Relevant laws and regulations, Customs, and Jurisprudence are the sources of Indonesian company law. The main source of company law is the KUHD. Commercial law is contract law that arises specifically from the company's industry and is regulated in the KUHD and other

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regulations outside of codification. Apart from the KUHPdt, which is general civil law, the KUHD is also a source of company law.

2.4 Goals Enterprise

Obtaining optimal profits from utilizing the potential of a company is the main objective of establishing a company (Yulianti, 2014). This is due to the fact that working capital, which is an important part of the operational drivers of a business, makes up more than 50% of a company's current assets. Effective management and use of working capital is one way that can help achieve optimal net profit. Monitoring all current assets and current liabilities in this way is part of working capital management.

The company was founded with the main aim of seeking profit by obtaining maximum profits so that the company can survive (Davison, 2013). To achieve this goal, companies must be able to implement certain strategies and policies to remain competitive and exist amidst very rapid developments. In addition, to achieve company goals in the long term and short term, profits are obtained by obtaining maximum profits. In general, the company's objectives are as follows: a) Producing successfully; b) Producing economically; c) Producing by being able to complete goods and services on time and deliver them; and d) Producing with the hope of making a profit (Akbar and Irwandi, 2014).

In COBIT 2019, the company's objectives include 13 objectives. These objectives are:

1. EG01 - Portofolio of competitive products and services
2. EG02 - Managed business risk
3. EG03 - Compliance with external laws and regulations
4. EG04 - Quality of financial information
5. EG05 - Customer-oriented service culture
6. EG06 - Business-service continuity and availability
7. EG07 - Quality of management information
8. EG08 - Optimization of internal business process functionality
9. EG09 - Optimization of business process costs
10. EG10 - Staff skills, motivation and productivity
11. EG11 - Compliance with internal policies
12. EG12 - Managed digital transformation programs
13. EG13 - Product and business innovation

2.4 Methodology Flow

COBIT 2019 outlines IT governance and management objectives into five domains: Evaluate Direct and Monitor (EDM), Align Plan and Organize (APO), Build Acquire and Implement (BAI), and Deliver Service and Support (DSS). 13 Design factor company objectives were used in this research.

The methodology flow adopts phases 1-4 of the COBIT 2019 Implementation Roadmap which is mapped to more detailed stages described in **Figure 1**.

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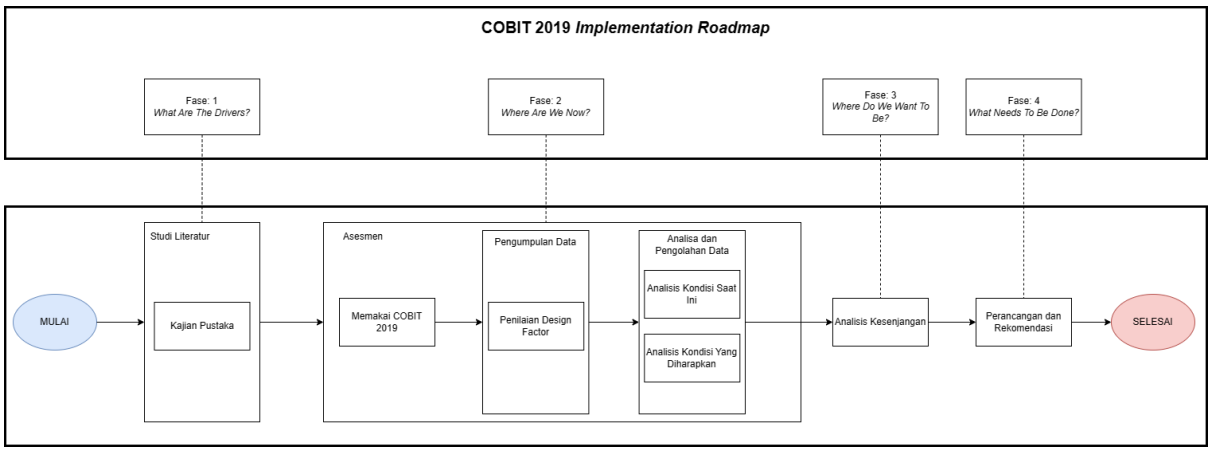


Figure 1. Methodology Flow

1. Phase 1 – What are the drivers

The first step taken in this research was problem identification. Identification is carried out through literature review. Literature review is an activity to explore all the information needed to carry out research, including basic theory, methods and governance models.

2. Phase 2 – Where are we now

The second step taken in this research was determining the COBIT domain. Determining the COBIT domain was carried out by measuring 11 design factors using the COBIT 2019 Design Toolkit which focused on the 2nd design factor stage, namely regarding company goals with 13 comprehensive goals where the level of importance was determined by the author himself.

3. Phase 3 – Where do we want to be

The next step is to analyze the gap between the results of the design factor (input) and (output) assessments by COBIT 2019. The expected conditions for the implementation of startup companies can be obtained from the final results of measuring 11 design factors which are focused on the 2nd design factor stage regarding company goals. using the COBIT 2019 toolkit.

4. Phase 4 – What needs to be done

The results of the gap analysis are used as a reference in preparing improvement plans. The improvement plan contains recommendations that must be carried out by future researchers and the company to achieve the expected level of enterprise goals. Next, establishing the importance of a goal will be realized in the form of preparing a plan for managing future enterprise goals.

3. RESULTS AND DISCUSSION

3.1. Using COBIT 2019

Using the COBIT Framework is carried out by measuring 11 design factors using the COBIT 2019 Design Toolkit and author's discussion. Based on the final results of measuring the level of importance of the 2nd design factor regarding company goals determined by the author, they are presented in **Table 1**.

Table 1. Design Factor 2

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	Value	Importance (1-5)
EG01	Portofolio of competitive products and services	2
EG02	Managed business risk	3
EG03	Compliance with external laws and regulations	5
EG04	Quality of financial information	5
EG05	Customer-oriented service culture	5
EG06	Business Service continuity and availability	5
EG07	Quality of management information	5
EG08	Optimization of internal business process functionality	4
EG09	Optimization of business process costs	4
EG10	Staff skills, motivation and productivity	5
EG11	Compliance with internal policies	4
EG12	Managed digital transformation programs	4
EG13	Product and business innovation	3

3.2. Data Collection

In this research, data was collected through the level of importance according to the author. Where the three authors think about the level of importance of 13 comprehensive goals regarding design factor 2, namely company goals in startup companies.

3.3. Data Analysis and Processing

Based on the COBIT 2019 Design Toolkit, there are 13 COBIT company objectives in the form of input and output.

1. Design Factor Assessment Results (input)

In carrying out the assessment process, each process will be assessed for its component of importance which is determined by the author in stages starting from number 1 to 5. The assessment for each number is based on number provisions, where when the number is close to 5 it will be considered very important, whereas if the number is close to the number 1 will be considered very unimportant. The results of the identification and prioritization of organizational strategy can be seen in **Figure 2** and **Figure 3**.



Figure 2. Bar Chart of Input Values

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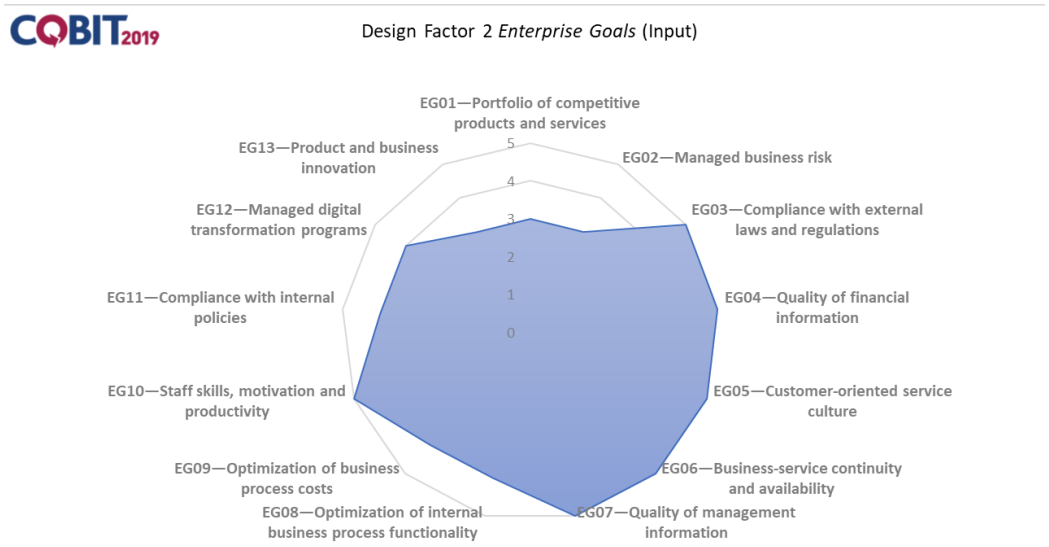


Figure 3. Input Value Pie Chart

The two pictures above provide the same visualization of the value of each input according to its level of importance, as stated in Table 1. By looking at the two pictures we can easily see the weight of each of the 13 company goals as follows. importance according to the author. These two images are a very effective visual tool for understanding the relative comparison between the importance of each point in the enterprise goals and help make more informed and accurate decisions in implementing the enterprise goals for COBIT 2019.

2. Design Factor Assessment Results (output)

Obtained from the results of the design factor (input) assessment, which will appear in five IT management domains, namely EDM01-05, APO1-14, BAI01-11, DSS01-06, MEA01-04. There are 3 aspects of assessment, namely, 1. score, 2. Baseline Score, 3. Relative Importance. Output results can be seen in **Figure 4.**

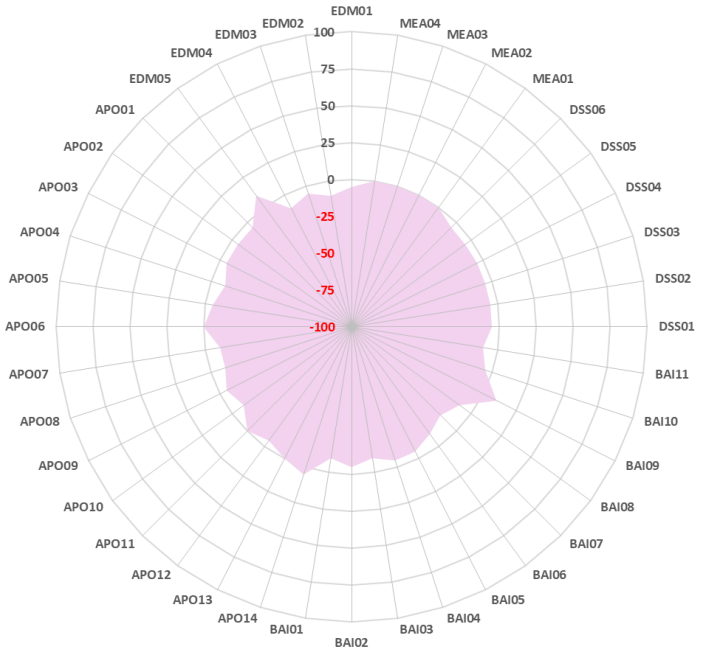


Figure 4. Pie Diagram of Output Results

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Figure 4 is the results that provide a visual explanation regarding the implementation of design factor enterprise goals through the use of COBIT 2019. These two images clearly discuss the contribution of each COBIT domain, namely, EDM, APO, BAI, DSS, MEA) in achieving the goals. startup company. From the results obtained, with the level of importance in the input, 3 very prominent outputs were obtained, namely, EDM05, APO14, and BAI09.

3.4 Gap Analysis

After knowing the results of the input and output values, the next step is to analyze the level of gap between the level of importance of input and output. Based on the results of the gap analysis between the level of importance of input and output. So it can be indicated that each input importance can influence the results of the output on enterprise goals

3.5 Improvement Recommendations

To be able to achieve the expected company goals, the following corrective actions can be taken next:

1. Advanced research.
2. Using a methodology that matches enterprise goals.
3. Understand more deeply about COBIT 2019.
4. Using clear company case studies.

4. CONCLUSION

Based on the results of the research above, a conclusion was obtained, namely the results (input) regarding importance selected based on the author and the results (output) from the COBIT domain resulting in 3 levels of focus of importance of the goals of the startup company according to the author, namely, 1. EDM05, 2. APO14, 3. BAI09. Recommendations for improvement are prepared as an effort to improve research regarding the second design factor of enterprise goals using the COBIT 2019 framework, so that it is even better and can refer more to CMMI and ISO/IEC 25010.

5. ACKNOWLEDGMENT

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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