

# Conceptual Framework for Successful IT-Governance and BSC for Service Industry

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**Abstract:- PT Sinar Jaya Gemilang is a company engaged in the field of automobile service and maintenance. This company has a financial application, the application called GBS. This application has a problem that is the difference between the calculation by using the application and calculation by using the manual way. In this study, the authors use the framework of COBIT and BSC model, while the COBIT domain in use is DS 5, DS 7, DS 12, DS 13 and ME 3. For the BSC model the author uses the internal perspective of the company. The highest is in the domain DS 13, and the lowest is in the domain ME 3. Recommendation for DS domain is provide training users to be able to improve if there is an error in inputting data. While the advice for the domain ME is conduct financial audits or audit applications more often. Based on the results of authors, the authors advise companies to make improvements to the application, so the problems that occur within in company can be resolved.**

**Keywords:- COBIT; AI; DS; ME; BSC.**

## I. INTRODUCTION

Companies have embraced customer experience as a way to obtain sustainable competitive advantages leading some authors to claim that customer experience will be the next competitive battleground [1]. Also there was considerable growth in the organizations interested in automotive research [2]. Information technology becomes an essential part of organizations and governments. IT provided service provide capabilities for them to meet their citizens or customers needs [3]. IT undeniably becomes a critical element that needs to be carefully managed among business organizations. A worldwide report shows that there is an increase in IT investment among firms [4]. For automotive industry, IS/IT plays as the most important aspect in supporting its process of finance, administration, and payment, etc. Unfortunately, there are so many IS/IT project implementations failure [5]. IT Governance as subcategory of corporate governance has its specificities and is of crucial importance for banks in order to keep performing their business activities by minimizing risks and accomplishing their full potential, but bank managing any supervising boards often remain unsecure how to assess their IT Governance, effects it has on bank and areas that need improvement [6]. IT Governance is high on the agenda of many organizations and receives a lot of attention in both academic and professional literature such as ITGI [7]. COBIT essentially is developed to meet the various needs of management by bridging the information gap between business risks, control and technical problems. COBIT supports IT Governance by providing a framework to establish

the alignment of IT with business [8]. COBIT used in this research is COBIT 4.1

COBIT 4.1 was used as a guideline to assess all the processes within the IT function, and for identifying a structure for a governance framework for the campus setting, an investigation was done on the IT units in the selected IT function [9].

To be successful in a competitive environment, organizations must pursue and execute strategies consistent with their mission. Management needs to align its goals and objectives with those of the organization to execute strategies effectively. With this alignment, managers are motivated to attain higher levels of individual performance [10]. The level of performance in a company can be assessed using a Balanced Scorecard.

Kaplan and Norton developed the concept of the Balanced Scorecard (BSC) in 1992. The objective was to overcome the inadequacies of the traditional financial-based performance measurement tools. Within a decade, a majority of the Fortune 1000 companies was implementing or had already implemented the BSC [11]. Today, thousands of private, public and non-for-profit organizations have implemented the BSC [12],[13]. Martinson et al. (1999) link the widespread adoption of the BSC to its multi-dimensional approach to performance measurement [14].

Studies on Balanced Scorecard focused on many firms have found that the Balanced Scorecard is a constructive tool for focusing and supporting their constant development efforts [15],[16]. The purpose of this paper is to study the concept of Balanced Scorecard and its role is organizational performance [17].

PT Sinar Jaya Gemilang started its business in 1975 with its main focus at the time was the replacement of the car tires in because bald. Then began to develop with the engine balancing tire car. To record the finances in this company, they use financial application called GBS. This application is an application purchased by the company to record incoming and outgoing finances. This application having problems, namely the occurrence of the difference between the results by counting manually with application. COBIT 4.1 has 4 domains: Plan and Organize (PO) that focuses on the process of planning and aligning information technology strategy with corporate strategy. Acquire and Implement (AI) with a focus in the implementation of information technology solutions and their integration in the organization's business process to realize the information technology. Deliver and Support (DS)

with the focus of service fulfillment of ongoing data processing. Monitoring and Evaluating (ME) is focus of control internal and external checks and independent guarantees of the examinations process undertaken.

Domain are use in this study is DS5, DS7, DS12, DS13, and ME 3. The COBIT standard is selected because COBIT has the most detailed description of strategy and control in the information technology process setting that supports business strategy, where the framework consist of 4 domains. According to Kaplan and Norton in Gasperz (2005), the perspective of BSC namely: financial perspective, customer perspective, internal business perspective, learning and growth perspective.[18]

**II. RELEVANT THEORY**

**A. IT Governance**

Information Technology Governance Institute (ITGI) (2003) defined IT Governance as “it is the responsibility of the board of directors and executive management. It is an integral part of enterprise governance and consists of the leadership and organizational strategies and objectives” [19]. IT Governance is the structure of relationships, processes and mechanisms used to develop, direct and control IT strategy and resources so as to the best achieve the goals and objectives of an enterprise. It is a set of processes aimed at adding value to an organization while balancing the risk and return aspects associated with IT investments [20].

**B. Balanced Scorecard (BSC)**

BSC offers considerable potential to local companies in terms of contributing well to performance improvement and performance measurement improvement [21]. Kaplan and Norton state that the scorecard is a strategic performance management system and not just a company’s performance measurement system [22]. According to Kaplan and Norton, a company that successfully assess its performance not only use a financial measures but also assess their organizational based on 4 perspectives: customers, internal processing, financial, learning and growth. Each company has four perspectives, sizes and targets; identify quantitative goals for all measurements intend to the period under consideration. Then the executive took an actions and initiatives to achieve these goals and programs that have been planned and implemented [23,24]. The main advantages in using BSC is :

- Better Strategic Planning
- Improved Communication and Execution Strategy
- Better Management Information
- Improved Performance Reporting
- Better Strategic Alignment
- Better Organization Alignment.

This is an interesting advantage; However, they can’t realize if the BSC is implemented halfheartedly or if too many shortcuts are taken during implementation. Basically, a balanced scorecard prepares an outline level view of organizational performance at a quick glance and includes key performance indicators across four main perspectives: The Financial Perspective covers the financial objectives of an organization and allows managers to track financial success

and shareholder value. The performance that measures in this perspective include improved cost structure and increased assets utilization using the productivity improvement strategy, on one side and on the other side increased customer value and expanded revenue opportunities through revenue growth strategies. The financial perspective emphasizes cost efficiency, that is, the ability to deliver maximum value to the customer at minimum cost and sustained stakeholder value. Kaplan and Norton do not disregard the traditional need for financial data. Timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. In fact, often there is more than enough handling and processing of financial data.

The Customer Perspective covers the customer objectives such as customer satisfaction, market share goals as well as product and service attributes. Customers’ concerns tend to fall into four categories: time, quality, performance and service, and cost. Satisfied customers buy a product again, talk favorably to others about the product, pay less attention to competing brands and advertising, and buy other products from the company. Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business.

The Internal Process Perspective covers internal operational goals and outlines the key processes necessary to deliver the customer objectives. To meet the organizational objectives and customers’ expectations, organizations must identify the key business processes at which they must excel. These key business processes are monitored to ensure that outcomes will always be satisfactory.

The Learning and Growth Perspective covers the intangible drivers of future success such as human capital, organizational capital and information capital including skills, training, organizational culture, leadership, systems and databases. Processes will only succeed if adequately skilled and motivated employees, supplied with accurate and timely information and led by effective leadership, are driving them. They will lead to production and delivery of quality products and services; and eventually successful financial performance. See Figure 1. Balanced Scorecard Perspective

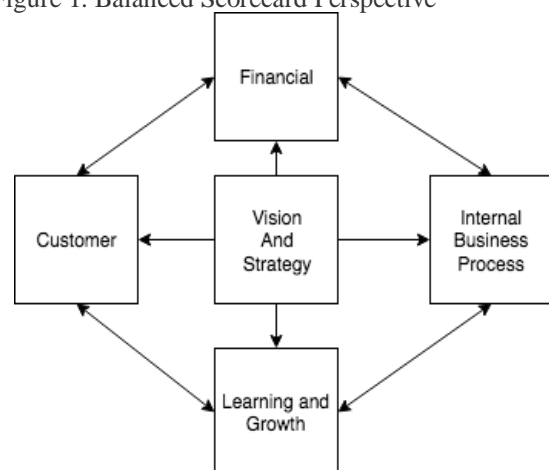


Fig 1:- Balanced Scorecard Perspective

C. Maturity Level COBIT 4.1

Maturity Index	Maturity Level COBIT 4.1	
	Maturity Level	Description
0-0,50	0 Non Existents	Companies do not realize the importance of making strategic planning in the field of information technology
0,51-1,50	1 Initial/Ad Hoc	The company has realized the importance of making strategic planning in the field of information technology.
1,51-2,50	2 Repeatable but Intuitive	The Company has been in the process of managing IT repeatedly but has not been communicated and documented and lack of formal training
2,51-3,50	3 Defined Process	The company has established procedures to be obeyed by employees or often referred to as SOP (Standard Operating Procedures).
3,51-4,50	4 Managed and Measurable	The IT management process has been well monitored and evaluated, the project management of developing computerized systems has been run more organized.
4,51-5,00	5 Optimized	Best practices has been followed, implemented and automated on a system based on a planned, organized process and using appropriate methodologies.

Table 1. Maturity Level COBIT 4.1 [26]

III. METHOD

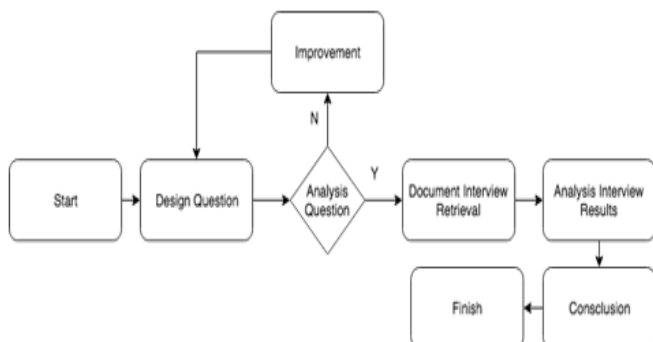


Fig 2:- Research Method [25]

The first step in this research is doing case study, that is understanding the problem that exist in company which become object of research. Next, authors will decide which domain to use to conduct research and execute when the domain has been set. After that, authors will collect data or document that can be used in the research. Then, the authors will interview the company management to get the valid data, then the authors do the analysis and calculation of the interview results, after that the authors will calculate the value of maturity level and value of BSC. After calculating the results of maturity level and BSC, the authors provide recommendations to company to improve that still not running well in the company. The last stage is giving a report to the company. See Figure 2 . Research Method.

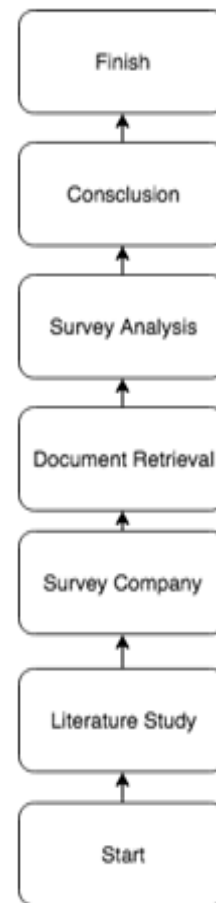


Fig 3:- Interview Process Diagram [25]

Interview will be conducted to the company, which became resource in this research is Manager and Manager of IT. Questions will be made with some adjustments to the Control Objectives that exist on each domain in COBIT 4.1 that have been previously selected. Then the question will be analysed, if the question has been in accordance with the circumstances of the company then can continue to the interview stage, if not then the authors make improvements on the part of questions that are less in line with the company. Interviews are conducted with the parties who understand the related topic. After the interview, the researcher will search the data as verification / proof of interview result. After verifying, the author can analyse audit result and give report of audit result and recommendation for company. The interview stage can be seen in Figure 3. Interview process diagram.

**IV. DISCUSSION AND RESULTS**

Measuring the level of maturity at the company based on the analysis of the results of interviews, observations and evidences that exist in the field by adjusting the framework of COBIT 4.1 to 2 respondents that associated with information systems called GBS. The author will discuss about sub domains of, DS 5(ensure security systems), DS 7 (educate and training users), DS 10 (manage problems and incident), DS 12(manage the physical environment), DS 13 (manage operation), and ME 3 (obtain independent assurance). Authors will see the extent the achievement of maturity level.

**A. Delivery and Support**

This domain includes IT service fulfillment process, system security, service continuity, training and education for users, and fulfillment of ongoing data processing. authors use the DS 1 domain because DS 1 is used to measure of determination and management the service of GBS application. In addition DS 5, DS 7, the authors also use DS 12 and DS 13. DS12 are used by authors because DS 12 to measure state of physical coniditon of the company. DS 13 are used by authors because DS 13 is used to measure the management of operation in the application. See Table III. Maturity Level DS

Process	Control Objective	Current Maturity	Expected Maturity
DS 5	Ensure Systems Security	1.7	3
DS 7	Educate and Training Users	2	3
DS 12	Manage the Physical Environment	1.8	3
DS 13	Manage Operations	2.7	3
Average DS		2.05	

Table 2. Maturity Level DS

DS 5 also below the expected level it causes the company doesn't yet use the cryptographic to disposal some data, DS 7 is same with the previous, it causes the companies call coaches that are less suited to the theme of the training and the employee is employees of the company who only originally responded when asked by the company about the coach. DS 12 still below the expected level it causes the company the company has not been able to manage the company's physical environment. DS 13 almost reach the expected level, it causes the company is enough to manage operational of the company.

**B. Monitor and Evaluate (ME)**

This domain focuses on the problem of controls applied within the organization, internal and external checks. ME 3 are used by authors because ME 3 is used to measure the needs of company that ensure the application is in accordance with the needs of the company. See Table 3. Maturity Level ME.

Process	Control Objective	Current Maturity	Expected Maturity
ME 3	Obtain Independent Assurance	1.5	3
Average ME		1.5	

Table 3. Maturity Level ME

ME 3 also still below the expected level because the company doesn't pay attention for law and contract. See Figure 4. Representation of Maturity Level.

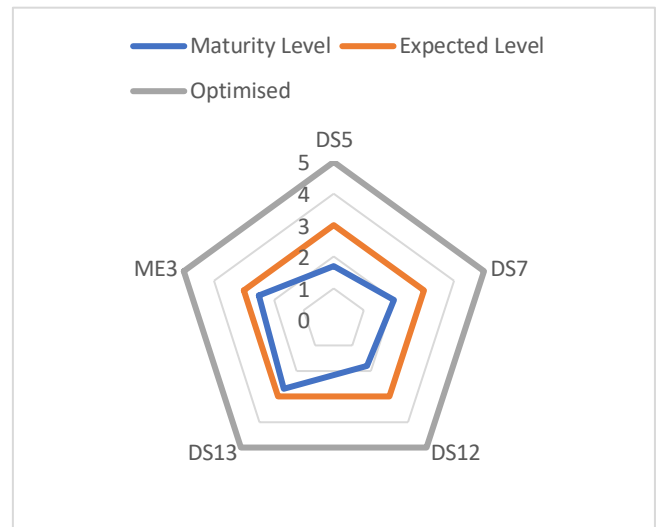


Fig 4:- Representation of Maturity Level

**C. Recommendation for DS**

Recommendation for DS is do some improvement for the security, education for employee, because employee is company treasure, and do the backup at least once a week. Manage the physical environmental for the employee comfort.

**D. Recommendation for ME**

Companies are expected to conduct more frequent controls to prevent abuse

**E. COBIT and Balanced Scorecard Alignment**

The Balanced Scorecard translates the company's mission and strategy into a set of performance measures that can be understood in the form of indicators, so that strategies can be understood, communicated and measured. In addition, an indicator of Balanced Scorecard allows monitoring of the accuracy of strategy implementation. To respond to the company's vision and strategy, the Balanced Scorecard uses four business perspectives. A financial perspective that sets financial goals to be achieved to satisfy shareholders, interests. A customer perspective that sets goals will make it possible to meet customer needs to achieve established financial goals. The internal process perspective establishes the process by which excellence must be achieved to satisfy the customer. The Balanced Scorecard collaboration process requires an integral vision of entrepreneurship from business to the future, which forces the restructuring of the corporate strategic framework. In other words, Entrepreneurship Strategic Planning is needed to determine the company's managerial indicators.

A customer perspective that sets goals will make it possible to meet customer needs to achieve established financial goals. The internal process perspective establishes the process in a financial perspective that sets financial objectives to be achieved to satisfy the shareholders, whose interests must be achieved to satisfy the customer.

## V. CONCLUSION

Based on the results of this research, the conclusion is that the domain DS13 is the domain with the highest maturity value, which is 2.7. Nearly reach the expected value of 3. While the lowest value is in the domain ME 3 is 1.5. The conclusion of the results of the maturity level analysis is as follows:

- In the DS5 domain the value earned is 1.7 (Initial / Ad hoc)
- In the DS7 domain the value earned for 2 (Repeatable but Intuitive)
- In the DS12 domain the value earned is 1.8 (Initial / Ad Hoc)
- In the ME3 domain the value earned is 1.5 (Initial / Ad Hoc)

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