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Design of IT Governance Implementation Mechanism Using Organization Diagnosis and COBIT 5

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Abstract

IT governance is needed to anticipate problems in implementing IT for an organization. Inconsistencies IT implementation with business objectives will lead to some other problems such as lack of priority using IT, ineffective IT investments and IT management that does not support the business processes, and lack of coordination between IT management and other units in an organization. Therefore, IT implementation needs good management to ensure authority, inter unit coordination and integration of IT function to achieve business goals. To implement effective IT governance, an organization should refer to a mechanism that meets structure, process and communication aspects. This paper discuss IT Governance implementation mechanism using IT and organization diagnosis on structural aspect, By diagnosing the organization using organizational level diagnosis model, which used in organization development (OD) process, COBIT 5 on process aspect and Eight Steps Kotter for communication aspect.

Keywords: IT Governance; Organizational Diagnosis; COBIT.

1. Introduction

IT governance complies with authority, organizational structure and IT processes to support the implementation of the strategy and the achievement of organization goals. IT governance is necessary to align the IT function with the organization's strategy to be implemented, with appropriate management increase efficiency and effectiveness of IT investments to improve the achievement of values of the implementation of IT. In recent decades, the use of IT in an organization to support the implementation of the function has a very important role. Therefore, the use of IT should be managed by organization and requires a clear responsibility to support the achievement of organizational goals that has been defined. IT governance is not a separate component of the organization, but is part of the organization's governance. Therefore, IT governance is one of the important components in common with the other components of governance in an organization.

This paper will discuss the design of mechanisms for IT governance implementation using organizational level diagnosis model. Design component of this model consists of strategy, technology, structure, human resources, and performance measurement associate with the effectiveness of IT governance in an organization. IT Governance Diamond Diagnostic used to see relation between strategy,

authority and application of IT and the result is effectiveness of IT governance. The result of the diagnosis become a reference for improvement of IT governance using IT governance implementation framework that consists of structures, processes and communications aspects. In the structure aspect, remedial actions conducted in accordance with the diagnosis result. Then, to improve the processes by cascading the organization's business objectives called Enterprise Generic Goals, and then related to the IT-related goals that will show the priority of processes that should be implemented first. The selected process at the current stage capability levels measured using COBIT PAM 5. Based on the measurement results will obtain necessary action to achieve the expected level. In the communication section will used eight steps Kotter to make organizational change can be acceptable by entire organization.

2. Implementation of IT Governance

Weill dan Ross [2] states that the proper design of IT Governance's mechanism are understandable and transparent, so it can produce the expected behavior of IT and responsible individuals. Effective IT governance is strongly influenced by the strategic objectives and organizational structure. It needed for support IT governance decision-making structures, alignment process and formal communication approach. In designing IT governance, decision-making structures is the first step that must be done, to identify who is responsible in making decisions for implementation of IT. Then, alignment process is an activity to ensure and support the achievement of effective management and use of IT in order to generate business value. Communication approach needed to provide the information and understanding of IT policies and processes are implemented and the expected behavior in the organization.

Van Grembergen dan De Haes [3] stated the same thing that the IT governance framework can be applied using structures, processes and relational mechanisms. Structure describes decision making by representing the departement of IT in the organization and the IT committee. To ensure the process of IT decisions have value to the organization and can be controlled can use COBIT. Then, Relational mechanism to ensure effective communication between the IT and stakeholders. By combining the two concepts implementation of IT governance, the mechanism of implementation of IT governance has been shown in Fig.1.

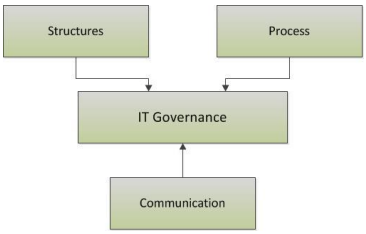

Fig.1. IT Governance Implementation Framework [4]

A clear definition of Roles and responsibilities are very important and it's prerequisite to achieve effective IT governance [4]. Structure of IT governance focuses on the distribution of responsibilities and decision-making and its related with stakeholders. Weill and Ross [5] says that the most visible of the mechanisms of IT governance is the organizational structure that shows the roles and responsibilities in decision-making according to the type of authority.

Processes on IT governance focuses on the actions to deliver decisions that are made on the IT structure. It also includes initiatives, development and maintenance of IT governance decisions [6]. In the implementation of IT governance mechanisms by Weill and Ross [5] referred to the alignment process in which the role of IT and how a decision can be distributed and carried out by the parties concerned to get the results as expected. Mechanisms and processes of COBIT 5 used on this stage, since COBIT 5 is a

comprehensive framework that can help an organization in achieving its objectives of management and IT governance [7].

Communication approach is to provide expected behaviour to support the structures and processes that have been established [5]. Implementation and improvement of IT governance in an organization should be accepted and implemented by organization. Therefore need a change effort to get good result with a particular approach. This paper will use eight step Kotter's approach to implementing IT governance have been provided [8].

To diagnose the effectiveness of IT governance in an organization can use the IT Governance Diamond Diagnostic developed by Peterson [9]. Through interviews with stakeholders who understand IT in organizations are used to fill in the table in Fig. 2. Vertically describe IT decisions and the integration of decision-making differentiation. Horizontally evaluate strategic direction and strategic control, filling the tables will describe the structure and effectiveness of IT governance in an organization.

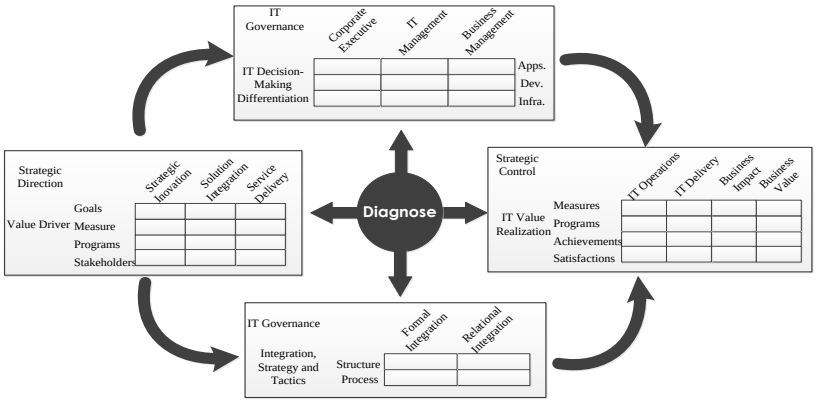

Fig 2. *IT Governance Diagnostic Diamond* [9]

3. Organization Diagnosis

According to Cumming [11] organization diagnosis is a process to describe the current condition of an organization and generating the required information as an evaluation of the organization. This is very helpful to identify existing problems and provide alternative solutions to the problems . This paper used the organization level diagnosis models that used in stages of organization development [11]. An organization is an open system consisting of input, transformation (process) and output. Therefore to diagnose an organization can use existing elements in Fig 5.

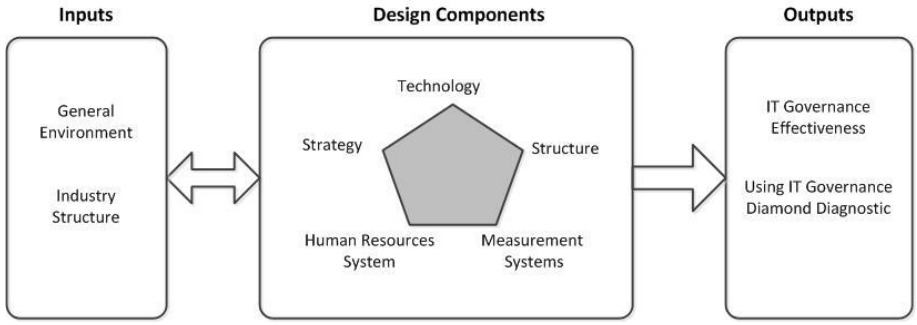

Fig 5. Organization Level Diagnosis Model [11]

4. Design of IT Governance Implementation (Case Study : XYZ Government Organization)

Previously been described to produce an effective IT governance have to consider several aspects including structure, processes and communications. Therefore, an organization need to diagnose current state to determine potential or weaknesses that exist in the organization, especially in organization structure. The result of the diagnosis can be referred to create improvement recommendations related to the effectiveness of IT implementation (Fig.6).

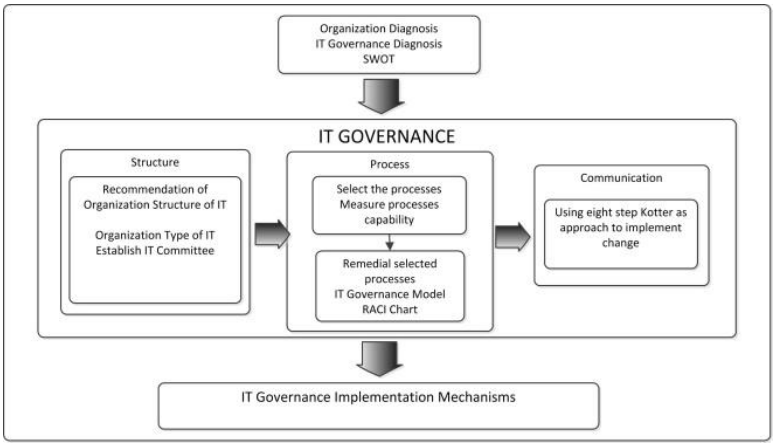

Fig 6. IT Governance Implementation Mechanisms

On structural aspect, Organization and IT governance diagnosis conducted by interview some stakeholder and assess XYZ Organization documents. The result of diagnosis describe comprehention condition . And then by using SWOT method produced the following recommendations:

1) Create IT departement in the midlle management to face the challenges.
2) Establishment of IT Committee to align IT and business needs.
3) Optimization of IT human resources to support the IT structure is expected.

While the results of the diagnosis-related processes on XYZ are:

1) Preparation of IT governance with existing standards in order to produce the expected business value.
2) Determine the processes of IT governance is a priority to achieve the strategic objectives of IT so that the application is not in vain.
3) Innovation in the application of IT to make changes to support the implementation of the regulations.

In the process stage using COBIT 5 to select the process by mapping business goals to IT goals and processes of the priorities that affect the achievement of specific IT and business goals. Organization's business objectives mapped to Generic Enterprise Goals, then mapped to IT-related goals and IT-related process that is in COBIT 5 [12] to get the priority of the process that will be applied to accordance with strategy to be implemented by the organization.

Based on XYZ Strategic Plan documents produces 9 priority processes have been elected (Table.1) Processes that have elected measured its capability by using Process Assessment Model (PAM COBIT 5) and analysis improvements needed to achieve the expected level of capability. Results of the assessment of remedial action recommendations PAM COBIT 5 is very objective and detailed as a compliance activity (base practice) and documents (work product) that must be held. (Table 2)

Table 1. Process Election

Process Election	**XYZ Strategic Plan**	***Enterprise Goals***	***IT Related Goals***	**Priority Process**
Process Election in COBIT 5 refer to goals of an organization. organization define strategic goals at a certain time in a strategic plan.	XYZ's Strategic objective 2010-2014 to improve the quality of human resources and the development of science and technology capabilities.	Human Resource, development science, Knowledge and expertise n *Learning and Growth* perspective	Competent and motivated business and IT personnel. Knowledge, expertise and inisiatives for business	1. EDM02 Ensure Benefits Delivery 2. EDM04 Ensure Resource Optimation 3. APO01 Manage The IT Management *framework* 4. APO02 Manage Strategy 5. APO04 Manage Innovation 6. APO07 Manage Human Resource 7. APO08 Manage Relationship 8. BAI05 Manage Organisational Change Enablement 9. BAI08 Manage Knowledge

Table 2. Result Process Capability

Process	**Result**				**Position**
	Level 1		**Level 2**		
	%	***Rating***	**%**	***Rating***	
EDM02 Ensure Benefits Delivery	33%	*Partially*	45%	*Partially*	-
EDM04 Ensure Resource Optimation	62%	*Largely*	42%	*Partially*	Level 1
APO01 Manage The IT Management *framework*	33%	*Partially*	12%	*Not Achieved*	-
APO02 Manage Strategy	48%	*Partially*	27%	*Partially*	-
APO04 Manage Innovation	60%	*Largely*	24%	*Partially*	Level 1
APO07 Manage Human Resource	67%	*Largely*	30%	*Partially*	Level 1
APO08 Manage Relationship	34%	*Partially*	30%	*Partially*	-
BAI05 Manage Organisational Change Enablement	31%	*Partially*	24%	*Partially*	-
BAI08 Manage Knowledge	62%	*Largely*	58%	*Largely*	Level 1

Then next stage is to define roles and responsibilities of the structures that have been recommended in RACI chart (responsible, accountable, consulted, informed) at each process.

The recommendation of the structure and processes, needs to be communicated to all elements of the organization to the implementation of IT governance becomes effective and runs as expected. At this stage several steps need to be done to implement the desired changes for the changes to be accepted by the stakeholders using eight step Kotter's [8]. The eight steps are:

1) Establish sense of urgency the need for changes to IT Governance that are expected to affect the performance of the organization.
2) Form a team to implement the changes that are expected to remain focused on the changes that will be made.
3) Establish IT governance vision changes.
4) Communicating the vision that has been set to all elements of the organization.

5) Encourage stakeholders to take action to support the changes that have been established primarily to those who have roles and responsibilities in the implementation of a new IT governance.
6) Planning and implementation of IT governance *Road Map*.
7) Make improvements to the processes that need improvement to achieve increased levels of higher maturity.
8) Creating a sustainable changes made to disseminate the values of the implementation of good governance by conducting conference, education and training to develop the success of the implementation of changes to IT governance.

5. Conclusion

Implementation IT governance framework according using diagnosis and analysis of organizations to provide value to make improvements to the current IT Governance was beneficial. Furthermore the use of COBIT 5 as a process align to business goals because COBIT 5 as Enterprise Governance of IT. For the communication aspects, the use of the eight step Kotter will help change management process comprehended and done by all elements of the organization so that implementation of IT governance can be effective and accepted.

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