

Using COBIT 5 to Cascade IT Goals for Subdistrict Administrative Organization

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Abstract

The objective of this study is to identify IT goals of Subdistrict Administrative Organization (SAO). The target organization in our research is Makluea-Mai Subdistrict Administrative Organization (MkMSAO). COBIT 5 was applied to derive the IT-related goals from MkMSAO's vision and missions. We then compare to the other organizations relied on three years plans. We found that Compliance with external laws and regulations, Customer-oriented service culture, and Business service continuity and availability are most focused when the goals were derived from the three years plan. This is because MkMSAO has the responsibility to support the community corresponding to the Ministerial Regulation of Ministry of Interior.

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Keywords: IT Governance, COBIT 5, Subdistrict Administrative Organization, IT management, IT-related goals.

1. Introduction

NOWADAYS, information technology (IT) plays an important role in our daily live and organizations. In Thailand, IT is used to enhance the business not only private sector but also government sector, when the new policy of Thailand 4.0 has been announced [1]. In order to respond the policy, all government organizations must implement IT in the work place including local administrative organizations.

The use of IT for serving the ordinary people is an important task of Thai government organizations. The successful IT implementation in the workplace depends on the cooperation of all staffs. Furthermore, the staffs must realize the advantage and the importance of use in IT. Moreover, they have to know how to apply IT in their business to achieve organization goals and objectives. The framework supporting IT-related goals of their organization is COBIT.

COBIT, a framework for governing and managing the enterprise IT, is widely used in several organizations to structure the IT governance. By using this framework, we can understand the IT-related goals of organization and the achievement of using IT in organization. The objective of this paper is to compare the differences between IT-related goals with three years plans and IT-related goals with vision and missions of Makluea-Mai Subdistrict Administrative Organization (MkMSAO). To derive the IT-related goals, COBIT 5 was applied in our study. The results of this study can be used as a guideline for determining the governance and management of IT suitable for MkMSAO.

2. Literature Review

2.1. IT in organization

Nowadays, IT play vital role in organization. It has a lot of impact to organization in many different aspects, i.e. business design, economic performance, and working conditions among organization staffs [2]. IT also allows users to access the organization information [3]. Furthermore, the good performance in IT

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Table 1. IT-related Goals Derived from Vision and Missions.

IT-related goal	Compliance with external laws and regulations	Customer-oriented service culture	Business service continuity and availability	Agile responses to a changing business	Optimization of service delivery costs	Optimization of business process functionality	Operational and staff productivity	Compliance with internal policies	Skilled and motivated people	Product and business innovation culture
	P	S	P	S	P	S	P	S	P	
Alignment of IT and business strategy		P	S	P	S	P			S	S
IT compliance and support for business compliance with external laws and regulations	P							P		
Commitment of executive management for making IT-related decisions				S		S			S	S
Managed IT-related business risk	S		P	S	P			S	S	
Realised benefits from IT-enabled investments and services portfolio		S		S	S	S	S			S
Transparency of IT costs, benefits and risk					P					
Delivery of IT services in line with business requirements	S	P	S	P		P			S	S
Adequate use of applications, information and technology solutions		S	S		S	P	P		S	S
IT agility		S		P		P	S		S	P
Security of information, processing infrastructure and applications	P		P					P		
Optimisation of IT assets, resources and capabilities				S	P	S	S			S
Enablement and support of business processes by integrating applications and technology into business processes		S		S	S	P	S			S
Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards		S			S					
Availability of reliable and useful information for decision making	S		P			S				
IT compliance with internal policies	S							P		
Competent and motivated business and IT personnel		S		S			P		P	S
Knowledge, expertise and initiatives for business innovation		S		P		S			S	P

^a P = Primary, S = Secondary

enabled organization to achieve its strategic goals. To reach the goals, organization need to have an information technology governance (ITG), since it allows organization to realize how to use IT to serve the goals [4].

2.2. Maklua-Mai Subdistrict Administrative Organization

In Thailand, the government realized the advantage of using IT, therefore they set various policies related to implementing IT in the workplace and all government organizations must follow. MkMSAO is one of local administrative organizations which is in-charged by Ministry of Interior. MkMSAO major duty is to promote and support the work of Nakhon Ratchasima Provincial Administrative Organization on public service provision. To response such work, MkMSAO has to strengthen the potential and efficient development on public service in the responsible area and

has to continuously give advice to their people. Additionally, they must follow the roles and functions specified in Ministerial Regulation on the Organization of the Department of Local Administration, Ministry of Interior, A.D. 2008. In the rule number 9, it is clearly defined that the information technology system must be developed for the local administrative organizations' services [5]. To response the rules and functions, MkMSAO must implement IT in the work place.

2.3. IT Governance Framework

Understanding the relationships and processes for directing and controlling the organization can lead to achieve their objectives. However, to reach the goals in aspect of IT, the organization must realize the value added over IT and its processes by determining IT governance. Currently, various IT governance frameworks

Table 2. IT-related Goals Mapped to Organization Plans.

IT-related goal	Compliance with external laws and regulations	Customer-oriented service culture	Business service continuity and availability	Agile responses to a changing business	Optimization of service delivery costs	Optimization of business process functionality	Operational and staff productivity	Compliance with internal policies	Skilled and motivated people	Product and business innovation culture
Alignment of IT and business strategy	P	P	P	S	S	P	P	P	S	S
IT compliance and support for business compliance with external laws and regulations	P	P	P							
Commitment of executive management for making IT-related decisions	P	P	P						P	S
Managed IT-related business risk										
Realised benefits from IT-enabled investments and services portfolio	S	P	P		S	S				S
Transparency of IT costs, benefits and risk	P						S			
Delivery of IT services in line with business requirements	P	P	P		S	S				S
Adequate use of applications, information and technology solutions	P	P	P			S	S		S	
IT agility	P	P	P						P	P
Security of information, processing infrastructure and applications	S									
Optimisation of IT assets, resources and capabilities	P	P	P	S	P	P	S	S	P	S
Enablement and support of business processes by integrating applications and technology into business processes	S	P	P	P		P	P	S	P	S
Delivery of programmes delivering benefits, on time, on budget, and meeting requirements and quality standards		P	P			P	S		P	S
Availability of reliable and useful information for decision making	P	P	P	S						
IT compliance with internal policies	S	S	S			S	S	P		
Competent and motivated business and IT personnel		S	S			S	P	S	P	P
Knowledge, expertise and initiatives for business innovation		S	S	S				S	P	P

b. P = Primary, S = Secondary

are widely used in organizations to provide structure of relationships and processes to manage and control. The examples of well-known IT governance framework which are extensively used in industries are IT Infrastructure Library (ITIL) [6], Committee of Sponsoring Organizations of the Treadway Commission (COSO) [7], Capability Maturity Model Integration (CMMI) [8], and Control Objective for Information and related Technology (COBIT) [9].

2.4. COBIT

COBIT, a framework for governance and management of IT in organization, is widely applied in many organizations due to its success. The COBIT framework, firstly provided by ISACA, has been developed more than 15 years by several enterprises with the different needs of stakeholders.

For the current version, COBIT5 represents the key success factors to face the challenges during the implementation phases. The framework comprises 5 principles as follows:

Principle 1: meeting stakeholder needs,

Principle 2: covering the enterprise end-to-end,

Principle 3: applying a single integrated framework,

Principle 4: enabling a holistic approach, and

Principle 5: separating governance from management.

Wahab and Arief [10] proposed a comprehensive IT governance framework for local government. In their study, COBIT 5 was used to support the decision of using IT in government

organization. while TOGAF 9.1 was for designing the general and comprehensive information architecture. Consequently, the effective application of IT governance in local government was proposed. Furthermore, COBIT 5 is also used as a guideline for determining IT governance in many kinds of enterprises, including E-Business [11], Flood Management [12], Internet Service Provider [13], etc. As previously mentioned, COBIT 5 framework that emphasizes on a generic approach will be applied in our study.

3. Methodology and Results

3.1. Organizational Goals Cascading

The goals cascade allows users to determine the priorities of organization governance in terms of IT based on the objectives of organization. To identify the goals cascading of MkMSAO, we analyzed their vision and missions as organization goals. The vision and missions of MkMSAO are as follows [14]:

Vision: “Economic stability, Progressive society, Leads to morality”

Mission:

- Increasing capability in production, process, and marketing for agricultural products and industries,
- Developing the quality of life in community to solve the social problem,
- Developing the social learning procedure for sustainable community,
- Increasing the potential in tourism, products, and services,
- Encouraging the community to reduce expenditures and to increase income,
- Promoting the protection and the management of natural resources and environment
- Improving the quality and efficiency of management to service people.

In this section, we then applied COBIT 5 framework to examine strategic goals of which can help MkMSOA to achieve their vision and missions. From there, we defined the following goals which are equivalent to MkMSOA’s vision and missions:

- 4. Compliance with external laws and regulations
- 6. Customer-oriented service culture
- 7. Business service continuity and availability
- 8. Agile responses to a changing business environment
- 10. Optimization of service delivery costs

- 11. Optimization of business process functionality
- 14. Operational and staff productivity
- 15. Compliance with internal policies
- 16. Skilled and motivated people
- 17. Product and business innovation culture

In this step, we also want to know everything relate to IT they need to do. We then analyzed IT-related goals that correspond to those MkMSAO goals. The most significant suggested IT-related goals (all 'P' relationships) are following:

- 1. Alignment of IT and business strategy
- 2. IT compliance and support for business compliance with external laws and regulations
- 4. Managed IT-related business risk
- 6. Transparency of IT costs, benefits and risk
- 7. Delivery of IT services in line with business requirements
- 8. Adequate use of applications, information and technology solutions
- 9. IT agility
- 10. Security of information, processing infrastructure and applications
- 11. Optimization of IT assets, resources and capabilities
- 12. Enablement and support of business processes by integrating applications and technology into business processes
- 14. Availability of reliable and useful information for decision making
- 15. IT compliance with internal policies
- 16. Competent and motivated business and IT personnel
- 17. Knowledge, expertise and initiatives for business innovation

The mapping between organization goals and IT-related goals are presented in Table 1. For the original mapping information, we refer to [9].

3.2. Mapping The Organizational Plans

After the mapping table, we examined their three years plans and then compared them to the goals cascading in Table 1. The MkMSAO’s three years plans related to IT are as follows:

3.2.1. Education Development Strategy

- Encourage of using IT as an educational tool for community.
- Support computer center to improve community skills, and encourage the community to prepare and to aware for AEC.

3.2.2. Governance Strategy

- Use IT to enhance in managing organization, and serving people.
- Encourage the staffs in knowledge enhancement to improve work efficiency and effectiveness.

In this step, we considered their plans and figured out the important IT-related goals that correspond to their plans. Finally, we decided to set the goals cascading regarding their three years plans, as presented in Table 2.

4. Discussion

Maklua-Mai Subdistrict Administrative Organization is one of local administrative organizations that affiliated to the Ministry of Interior. They have vision and missions, and task to service people follow the rule number 9 in Ministerial Regulation. The Table 1 presented the IT-related goals cascaded from vision and missions of MkMSAO, while the IT-related goals of three years plans are presented in Table 2. The results, shown in Table 2, present that most of key priority (P) focus on “Compliance with external laws and regulations”, “Customer-oriented service culture”, and “Business service continuity and availability”. It is clear that IT-related goals of vision and missions are different from IT-related goals of three years plans.

5. Conclusions and Future Work

Maklua-Mai Subdistrict Administrative Organization is local administrative organizations located in Sung Noen District, Nakhon Ratchasima Province. Their main work is to promote and support the work of Nakhon Ratchasima Provincial Administrative Organization on public service provision. Furthermore, they must follow the Ministerial Regulation on the Organization of the Department of Local Administration. As mentioned that all local administrative organizations must develop and implement the information technology system in the workplace as well as MkMSAO.

As presented in the previous section, IT-related goals of organization’s vision and missions are different from IT-related goals of organization’s three years plans. Since MkMSAO is not IT organization, their major work is to service the community by following the Ministerial Regulation of the Ministry of Interior. In order to analyze the suitable IT-related goals for non-IT organization,

the management should consider to organization plans, especially IT plans.

This research has studied only MkMSAO, to strengthen the results, further study needs to investigate in more local administrative organizations. Suitable IT government can lead organization to success in IT implementation in organization. Therefore, determining IT governance for Subdistrict Administrative Organization is planned for our future work.

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Conflicts of Interest

The authors declare no conflict of interest.

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