

AN EVALUATION OF INFORMATION TECHNOLOGY MANAGEMENT OF ASSEST AND LOGISTIC MANAGEMENT BUREAU USING COBIT 4.1

(A Case Study : Informatics and Business Institute Darmajaya Bandar Lampung)

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ABSTRACT

The use of information system application at supply and inventory department of MAL of IBI Darmajaya Lampung is the most important part of business processes of an enterprise serving all units especially serving employees and lecturers, and monitoring and evaluating the performance of information technology as well as the management to reach the effective and efficient goal of the organization.

Monitoring and Evaluation on a good performance can be conducted by auditing the existing system technically using COBIT 4.1 framework and utility aspects using multiple gap as the standard in analyzing how much attention of the management to the information system and how the information system can fit the management needs for information by looking at the importance and satisfaction between management and users.

From the audit process phase conducted in domain monitoring and evaluation, it is necessary to get attention because users' expectation and management focus more on the level of information technology performance which still needs improvement according to the specific standard in data management.

KEY WORDS: Information System Application, Audit, COBIT, *Multiple Gap* analysis

I. INTRODUCTION

Background of the Problem

The application of information system on supply and inventory at MAL bureau is the application used to record and organize all goods at MAL bureau. The implementation of this application is one of institution's steps in integrating information technology with the goal of the company business.

To reach the goal of the institution, it is needed planning and implementation of information technology that fits the planning and organizational business strategy defined previously. The implementation of information technology in line with the institutional goal will be reached if it is supported with a proper management system.

To know further about the case, the writer conducted a research about an evaluation of information technology management at Asset and Logistic Management (MAL) bureau of IBI Darmajaya Bandar Lampung using Cobit 4.1 FrameWork with focus measures for domains *Monitor and Evaluate* (ME) with ME1 dan ME4 processes.

Limitation of the Problem

In the research the problems are limited on:

1. Location of the research is supply and inventory service at Asset and Logistic Management (MAL) bureau at IBI Darmajaya.

2. This research merely discusses *detailed control objectives* (DCO) process, ME1(Monitoring and Evaluating performance of Information Technology) and ME4 (Providing management of Information Technology).

Scope of the Problem

Based on the background of the problem, the scope of the problems in the research is:

1. How to evaluate the information technology management of application of supplying and inventory information system at MAL bureau.
2. How to know the management of information technology on the application, whether or not it fits the vision and mission of MAL bureau.
3. How to overcome the occurring gaps in every information technology process as the solution for supplying and inventory information technology betterment in the future.

Objectives

A. The objectives of the research are :

1. To know the *Current maturity level* and *Expected Maturity Level* from each Information Technology process at ME1 and ME4.
2. To analyze the gaps in every IT process and give solutions for the improvement of supplying and inventory information technology in the future.
3. To make recommendations on management of domains, *Monitor and Evaluate* (ME).

B. Advantages of the Research

According to the problems and the objectives of the research discussed above, there are advantages of the research, they are as follows: knowing the maturity level of supplying and inventory information system service, specifically data management process, so MAL can do improvement in information technology at the bureau at IBI Darmajaya Bandar Lampung.

2 LITERATURE REVIEW

2.1 Objective of Audit

The objective of information system audit is to evaluate whether the control of service information system is able to give a good trust on time, Accuracy, Correctness, Asset Security, Data Integrity, Effectiveness, Efficiency, Availability, Compliance, and Reliability.

2.2 Audit Phases

There are several audit process phases on information system. There are also many experts give opinions on audit process phases such as planning, fieldwork, reporting, and follow-up.

COBIT designed consists of 34 control objectives which are reflected on 4 domains: Plan and Organize (PO), Acquire and Implement (AI), Deliver and Support (DS), and Monitor and Evaluate (ME). Those domains can be illustrated below. There are 34 high level objectives and 6 publications.

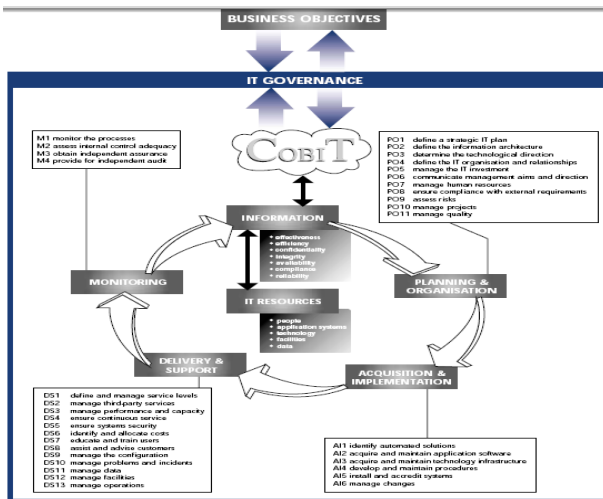


Figure 2.1 Framework domain COBIT

3.RESULT AND DISCUSSION

3.1 RESEARCH METHOD

Method is a procedure of work used in the research. Besides, it determines an *output* expected from every existing *input* with the phases as follows:

- a. Planning
- b. fieldwork
- c. Reporting
- d. Follow up

3.1. Result of Current Maturity Level Evaluation (Performance)

Table 4.1 *Maturity* score of Asset and Logistic Management bureau at IBI Darmajaya obtained from respondents of *staff* category and *current management* category ini (Performance)

Domain	Process	Current Maturity
Monitor and Evaluate	Management	2.98
Monitor and Evaluate	User	3.12
Maturity Score based on management and user		3.04

From table 4.1 it can be seen that the average index of current maturity at domains Monitor and Evaluate from the result

of service investigation at MAL is known at level 3 (Defined), meaning that the service process runs and is organized, but there is no specific standard because *defined* approach tends to be individual or case-per-case.

3.2. Result of Expected Maturity Level Evaluation

In table 4.2 it shows *Maturity* score of MAL bureau at IBI Darmajaya based on respondents of *staff* category and *expected management* category.

Table 4.2

Domain	Process	Expected Maturity
Management and Evaluate	Management	4.58
Management and Evaluate	User	4.20
Maturity score based on management and staff		4.39

From table 4.2 it can be seen that the average index of current maturity level for domains *Manajemen and Evaluate* is different at level 4 (*Managed and measurable*). It can be said that the supplying and logistic information system process at MAL at IBI Darmajaya does not have any problems, the existing problems can be solved quickly.

3.3. Result of Expected Maturity Level Evaluation (Expectacy)

A. Management Category

Current *Maturity Level* is expected at with respondents of management category representing expected performance can be illustrated below:

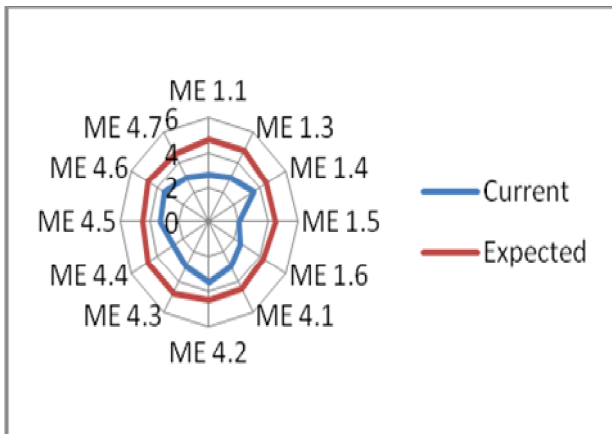


Figure 4.1 Radar Graph of management awareness representing expected performance

B. User Category

Expected Maturity Level at MAL IBI Darmajaya with respondents of *user* category and *management* category can also be illustrated below:

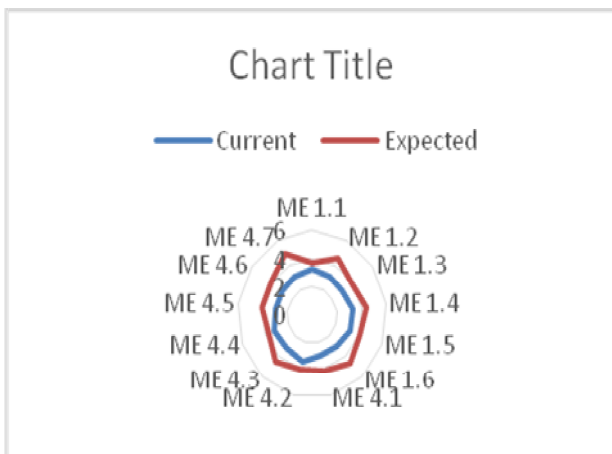


Figure 4.2 Radar graph of user representing expected performance

4.CONCLUSION AND SUGGESTION

4.1. Conclusion

From the result of the research, it can concluded that ME1 and ME4 process at domains *Monitor and Evaluate* provided by MAL bureau at IBI Darmajaya generally is at the maturity level of *Defined process*, which means that there is an evidence that the institution knows that it has to

solve every problem, and is already processed using a standardized method, and it has clearly defined the steps to be used to support the service.

4.2. Suggestion

The result of the research is expected comprehensively to be a reference in Information Technology. The writer suggests that IBI Darmajaya has to demands MAL bureau to make improvements as follows:

1. IBI Darmajaya has to do a comprehensive analysis on monitoring and evaluation quality of Information Technology management which has been done by MAL bureau based on *framework* Cobit.
2. IBI Darmajaya has to make improvements based on the highest interest priority scale which might bother the business and avoid a great loss if there are obstacles caused by the quality of supplying and inventory information technology management at MAL bureau.
3. IBI Darmajaya has to determine the time target to MAL bureau in doing the evaluation, performance improvement, and information technology management.
4. The result of the research can be used do conduct further researches by adding other domains.

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