



Evaluation of IT Governance in the Ferizy E-Ticketing Application at PT. ASDP Indonesian Ferry (Persero) Bakauheni Branch Using the COBIT 5 Framework

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Abstract. Ports are one of the elements for river, lake, and ferry transportation, in which case the port is a gateway for connecting bridges between regions. One of the government's efforts to create an innovative and creative system is to use a cashless ticket system, or what is also called cashless, which is starting to be implemented by PT. ASDP aims to change the culture where ferry service users can order tickets online. Governance requires analysis to evaluate, assess maturity, and make recommendations COBIT specializes in the process, in essence COBIT serves as a popular tenet to guide organizational control in acquiring it the use of facts technology. One of the domain names in COBIT5 this is of difficulty is APO04. This domain focuses on evaluation and assessment so that IT can contribute to achieving business and organizational goals. The results show that the process being measured is at level 3 (established process). Each domain process is given recommendations for improvement, which can later influence the current maturity level towards the level of improvement and arrive at the maturity you wish to achieve.

Keywords: Governance, Information Technology, COBIT 5.

1 BACKGROUND

Transportation is a vehicle or medium for driving development and the national economy which acts as a bridge connecting access from one place to another by facilitating and expediting the movement of both passengers and goods. One of the government's efforts to create an innovative and creative system is to use a cashless ticket system or what is also called cashless. So far, in the process of implementing e-Ferizy there are still several obstacles that cause problems that are not as expected, such as in the Ferizy application there are errors. when using the application or ordering tickets. With these problems, there is a gap between what is expected and the current situation in Information Technology (IT) management.

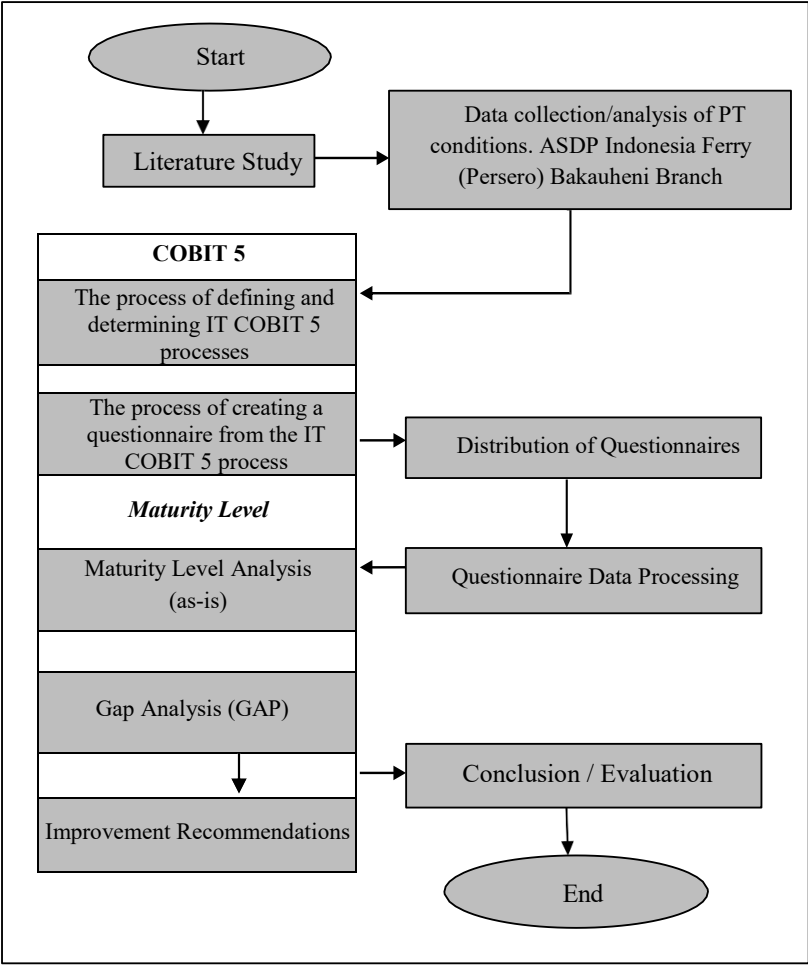
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2 METHOD

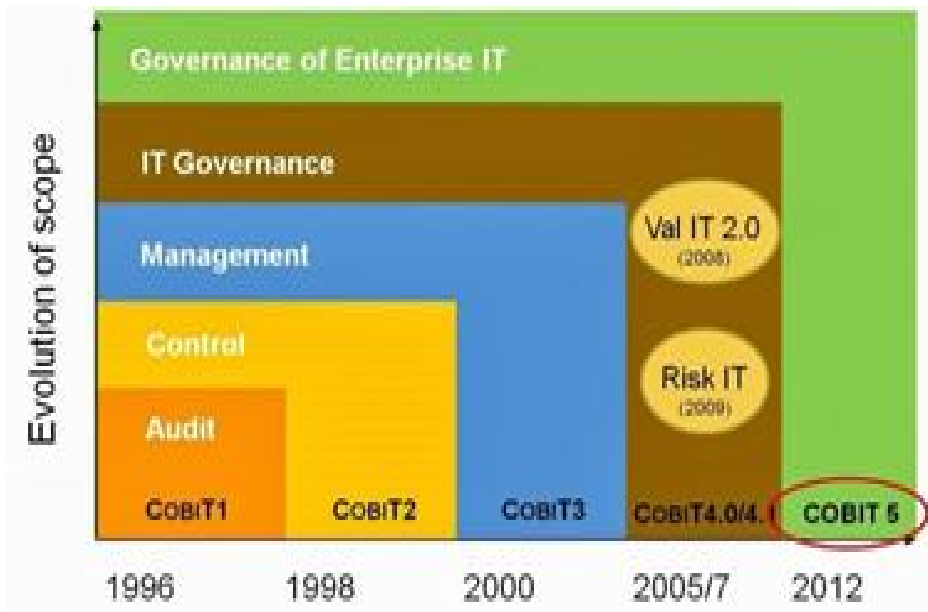
2.1 Research Design



Gambar 1. Research Design

2.2 COBIT 5

COBIT lets in the development of easy and well-used guidelines for IT manipulate sooner or later of the organization, helping to beautify quality and value further to simpli-fying the implementation of an organization's system drift from the IT implementa-tion side. COBIT offers a framework guide that can manipulate all organizational ac-tivities in detail and without a doubt just so it is able to help facilitate desire making at the top diploma withinside the organization.



Source: Abdul Hakim dkk (2014)

Figure 2. Development of COBIT

2.3 Martulity Level

Maturity level (maturity level) is a framework or model used to measure and improve the quality and maturity of software and system development processes within an organization. The maturity level of a process in the ISO/IEC 15504 model has values from 0 (incomplete) to 5 (optimizing).

Table 1. Maturity Level

Maturity Index	Maturity Level	Explanation
0.0 - 0.50	Level 0 <i>(Incomplete Process)</i>	Organizations at this degree do now no longer put into effect the IT procedures that ought to exist or have now no longer succeeded in reaching the dreams of the IT procedures.
0.51 - 1.50	Level 1 <i>(Performed Process)</i>	The corporation at this degree has correctly carried out the IT procedure and the goals of the IT procedure have clearly been achieved.
1.51 - 2.50	Level 2 <i>(Managed Process)</i>	Organizations at this degree in enforcing IT procedures and reaching their dreams are finished in a well-controlled manner, in order that there may be extra evaluation due to the fact implementation and achievements are finished with precise management. Management takes the shape of a planning, assessment and adjustment procedure for the better.
2.51 - 3.50	Level 3 <i>(Established Process)</i>	Organizations at this degree have IT procedures which might be standardized in the corporation as a whole. This method that it already has procedure requirements that follow all through the scope of the corporation.
3.51 - 4.50	Level 4 <i>(Predictable Process)</i>	Organizations at this degree have finished IT procedures inside exact limits, for instance time limits. This problem effects from measurements which have been finished in the course of the implementation of the preceding IT procedure.
4.51 - 5.00	Level 5 <i>(Optimizing Process)</i>	At this degree, the corporation has finished improvements and made improvements constantly to enhance its capabilities.

3 RESULT AND DISCUSSION

3.1 Analysis of Current Conditions

Based on observations with employees of PT. ASDP Indonesia Ferry (Persero) Bakauheni Branch stated that the tickets issued by the e-Ferizy application were still lacking, especially the information technology section, namely:

- a. Detailed information regarding the name of the transport ship, gender of passengers, type of cargo and name of the pier is not clearly visible.
- b. If there is a change in the ship's schedule there will be no special notification to prospective passengers
- c. Technical problems often occur on the website

As for the analysis of e-Ferizy information technology found at PT. ASDP Indonesia Ferry (Persero) Bakauheni Branch, namely:

Table 2. Information Technology Analysis

System Analysis at PT. ASDP Indonesia Ferry (Persero) Bakauheni Branch		
SYSTEM	FUNCTION	GUIDELINES
e-Ferizy	Serving online ticket reservations by ensuring schedules, passenger capacity and ship carrying capacity	READY

3.2 Analysis Results

Based on the research results from each process domain, it may be concluded that the adulthood degree is 3.38 (Established Process) with the following details:

Table 3. Average Analysis of Questionnaires

Prosess Domain	Process Description	Maturity Level	Condition
APO04	Regulating technological innovation	3,37	<i>Established Process</i>
Average Number of Maturity Indexes		3,38	<i>Established Process</i>

This indicates the space among the modern-day adulthood degree and the predicted adulthood level, proven withinside the following table:

Table 4. Comparison of Maturity Levels

Prosess Domain	Maturity Level		
	Current	Expected	Gap = (expected – current)
APO04	3,37	5	$5 - 3,37 = 1,63$
Rata-rata			1,63

The average gap in all process domains studied was 1.63. It requires adjustments to each process domain, because the value of 1.63 is the average value of all process domains, the author will provide recommendations for each process studied, so that the improvement recommendations given are appropriate.

3.3 Recommendations for Improvement

Based at the outcomes of the evaluation carried out at PT. ASDP Indonesia Ferry (Persero) Bakauheni Branch, then the found values will be compared to the maturity conditions in each COBIT 5 domain, from these results the problem findings will then be analyzed, then recommendations for improvement will be given.

Table 5. Improvement Recommendations APO04

Short term recommendations (2024-2027)	Long term recommendations (2024-onward)
Optimizing existing IT so that it can be utilized optimally according to the needs of service users and employees.	At PT. ASDP Indonesia Ferry (Persero) centered in the Jakarta city is expected to give budget priority to the Person in Charge of Information Technology (PJTI) to improve IT infrastructure to meet the needs of service users and employees at PT. ASDP Indonesia Ferry (Persero).
Immediately resolve minor problems that arise in information technology service activities.	Employees in the IT department are expected to increase their competence in the IT field in order to increase performance efficiency.

4 CONCLUSION

To growth the Maturity Level of IT governance from degree three to degree five as predicted and in accordance with the vision and mission of PT. ASDP Indonesia Ferry (Persero) Bakauheni Branch, it is recommended

- a. At PT. ASDP Indonesia Ferry (Persero) is expected to prioritize the needs of service users at PT. ASDP Indonesia Ferry (Persero) Ba-kauheni Branch is improving infrastructure by displaying on e-tickets the name of the transport ship, gender of passengers, type of cargo and name of the pier.
- b. In the e-ferizy system, it would be even better if there is a ship delay or departure delay, the e-ticket organizer must provide information regarding the ship delay or delay via e-ferizy by providing notification via SMS or WhatsApp to service users.

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