Evaluation of the Governance of Information Technology at Pertamina’s Central Hospital Used Framework Cobit 5

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Abstract– Pertamina’s Central Hospital (RSPP) is a hospital which implements up-to-date by applying the concept of some systems that support each activity. Any information system that is integrated with other systems, but some RSPP owned systems are information systems of inpatient care, Ambulatory information systems, Lab information systems, Radiology information system and information systems Pharmacy (Pharmacy). In the implementation of information systems that exist still have constraints on human resources (HR) such as: there is still a human error in input patient data, lack of socialization in the use of the IT Division of the RSPP to user primarily to doctors, and the lack of training given to the IT Division to the new user. It needs to be held to evaluate the resources owned, in order to keep excellence and ready to face the competition. This evaluation was done using the Framework COBIT 5 focused on the domain APO07 (Manage human resources) using the likert scale to know the Capability Level on APO07 in the RSPP using steps Initiation, Planning the Assessment, Briefing, Data Collection, Data Validation, Process-Level Attribute, And, Reporting the Result, then the obtained Level Capability for the current state (as is) is 3.04 or were on level 3 Established Process does the RSPP has to policy in manage human resources and execute policy According to the applicable procedures and managed them well. As for the condition of expected (to be) of 4.06 or are at level 4 Predictable Process means a predetermined policy operated with limitations in doing work so that the work done is able to achieve its predetermined expectations.

II. BASIC THEORY

A. Evaluation
Evaluation is a process to measure using the instruments and gives the value of the achievement of the planned results to be used as decision making in achieving an objective.

B. Information Technology Governance
Corporate governance of information technology is an integrated section that includes stakeholders, suppliers, users of the IT, information systems, technology and information, organizational structure and processes that ensure that information technology organizations can survive, continuing as well as improving organizational strategy objectives allowing organizations to benefit fully from the information he had, thus maximizing the benefits, calculating the odds and gain competitive advantage.

C. COBIT 5
COBIT 5 defines and describes in detail a number of governance and management processes. COBIT 5 provides a reference model of the process that represents all the process that are commonly found in a company related to the activities of TI. The proposed process Model is not merely a model process but a model that is comprehensive. Every company must define its own process areas, taking into account the particular situation in the company. COBIT 5 provides the framework for measuring and monitoring it performance, communicating with the service and integrating best management practices [1] [2] [3].

D. The Framework COBIT 5
COBIT process reference models 5 is the successor of the COBIT 4.1 process model with a model of the IT Risk processes and Val IT, which is also integrated. The Fig. below shows the 32 process management and governance process in 5 COBIT 5. All process management goal is set
up for either process and so would produce it governance with optimal business goals.

E. Process Assessment Model

In this research the term distinction between the capabilities and levels of capability. Capabilities may not be worth the value of round (fractions), who presented the process towards achieving a certain level of capability. While the level of capability is more indicative of the stage or grade achieved in process capability, which is expressed in whole numbers [4].

<table>
<thead>
<tr>
<th>Value Range</th>
<th>Answers</th>
<th>Capability Value</th>
<th>Capability Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 0.50</td>
<td>a</td>
<td>0.00</td>
<td>0 Incomplete Process</td>
</tr>
<tr>
<td>0.51 – 1.50</td>
<td>b</td>
<td>1.00</td>
<td>1 Performed Process</td>
</tr>
<tr>
<td>1.51 – 2.50</td>
<td>c</td>
<td>2.00</td>
<td>2 Managed Process</td>
</tr>
<tr>
<td>2.51 – 3.50</td>
<td>d</td>
<td>3.00</td>
<td>3 Established Process</td>
</tr>
<tr>
<td>3.51 – 4.50</td>
<td>e</td>
<td>4.00</td>
<td>4 Predictable Process</td>
</tr>
<tr>
<td>4.51 – 5.00</td>
<td>f</td>
<td>5.00</td>
<td>5 Optimizing Process</td>
</tr>
</tbody>
</table>

F. Process Focus

APO07 – Manage Human Resources

According to [1] [2] [3], a description of the process is to define APO07, Provide a structured approach to ensure optimal structuring, placement, decision rights and skills of human resources. This includes communicating the defined roles and responsibilities, learning and growth plans, and performance expectations, supported with competent and motivated people.

The purpose of this process is Define human resources capabilities meet enterprise objectives.

G. Scale Calculation

In determining the value and capabilities of the APO07 level (Human Resources), the researchers used a method of calculating likert used by KrisdantoSurendro on his book entitled implementation of it governance.

III. Research Method

Researchers using the data analysis on COBIT Assessment Process Activities which are the stages the activities in conducting the assessment process capability level for companies [1] [2] [3]:

1) Initiation
2) Planning the Assessment
3) Briefing
4) Data Collection
5) Data Validation
6) Process Attribut Level
7) Reporting the Result

IV. Result

A. Initiation

As a company that serves customers, Central Hospital of Pertamina’s realize need reliable human resources and supported by information technology is good. The company realized fully that human resources is a valuable asset for the company to realize the objectives of the organization. The use of information technology in the RSPP is helpful in service to patients, with the information technology business processes that occur in the RSPP to be fast accurate and efficient.

In line with the information technology developments as well as the company's business needs, the utilization of information technology has been integrated with medical equipment that is in the process of handling the RSPP so that the patient needs to be fast and response. The use of information technology are also carried out to support the processing of data for the operational activities of the front office and the back office.

B. Planning the Assessment

On the technique of sampling for APO07 process (Manage Human Resources) determined and adjusted using RACI charts in each process. The sampling technique used in this study is the use of purposive sampling, the sampling technique with special considerations that deserve to be sampled. Samples taken is considered to have researched in the field of competence. This technique is usually done on qualitative research.

C. Briefing

The third stage is conducted the briefing to the employee performance assessment team on the Division IT of the RSPP. On the giving of a notice of implementation of the directive gives the researcher the questionnaire starting on 23 June to 4 July 2014, the collection of documentation for completeness on the capability level ranging from 1 July to 15 August 2014, ranging from questionnaire results recapitulating on 4 August to 15 August 2014, and reporting of the results on 27 August 2014 to 3 September 2014.

D. Data Collection

Data collection is at this stage is to examine the data input and output based on key management practice that
existed atto process APO07 (Manage Human Resources). The result is a RSPPhas failed to meet the data input and output in the process APO07 (Manage Human Resources).

E. Data Validation

The fifth stage is done with giving level on each sub process, which aims to demonstrate the capabilities and value of results level of capability from the results of the calculation of the questionnaire at the previous stages and perform analysis of gap on the next stage.

F. Process Attribut Level

1) Determining Value and Rate Capability

<table>
<thead>
<tr>
<th>No</th>
<th>Sub Proses</th>
<th>Nilaikapabilitas</th>
<th>Tingkat Kapabilitas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>As is</td>
<td>To be</td>
</tr>
<tr>
<td>1</td>
<td>APO07.01</td>
<td>3.49</td>
<td>4.49</td>
</tr>
<tr>
<td>2</td>
<td>APO07.02</td>
<td>2.64</td>
<td>3.64</td>
</tr>
<tr>
<td>3</td>
<td>APO07.03</td>
<td>2.67</td>
<td>3.70</td>
</tr>
<tr>
<td>4</td>
<td>APO07.04</td>
<td>2.92</td>
<td>3.92</td>
</tr>
<tr>
<td>5</td>
<td>APO07.05</td>
<td>3.11</td>
<td>4.16</td>
</tr>
<tr>
<td>6</td>
<td>APO07.06</td>
<td>3.38</td>
<td>4.38</td>
</tr>
<tr>
<td></td>
<td>Rata-rata</td>
<td>3.04</td>
<td>4.06</td>
</tr>
</tbody>
</table>

From the table above tells us that the value for the current state (as is) in APO07 is 3.04 or capability levels are at level 3 Established Process. It is the process of APO07 (Human Resources) on the RSPP has had a policy in manage human resources and to implement with the applicable procedures and managed them well; so the RSPP is capable to achieve results from its intended purpose. Management has determined the competent staff in maintaining it is done by selection in the recruitment and training of employees, and the evaluation, so that it is capable of supporting the process of RSPP in carrying out their obligations to patients.

As for the condition of expected (to be) of 4.06 or are at level 4 Predictable Process. It is the policy and procedures in manage human resources that have been assigned then operated with limitations in doing any work so that the work done is capable of grabbing expectations in accordance with the provisions in the RSPP.

At level 2 according to general practices (GPs) and Public Works (GWPs) that exist on COBIT 5, RSPP must meet the indicators in Performance Management and Work Product Management. At level 3, the indicator must meet RSPP Process Definition measuring process is managed to support work which has been determined by management and Deployment Process that is effectively a process measure has been executed to achieve results from the process have been determined.

3) Determination of GAP

The current level of capability (as is) is the result of an average level of capability on the processes that exist in APO07 is located at level 3, while the expected level of capability (to be) located at level 4. Ideal conditions are expected at level 4 capabilities Predictable Process.

G. Reporting the Result

1) Result

- The existence of the policy and procedures in pengkrekutan employees by examining the background of the Central Pertamina’s Hospital.
- The existence of the policy in place new employees fit business needs done for HR planning in mengolola.
- An evaluation of the needs of staff in the RSPP this is done by training (in-house training) to reduce the reliance on one person.

2) GAP

- RSPP not optimal in doing training policies and standards to all employees working in the RSPP received by the Division of IT.
- RSPP not optimal in identifying needs for improvement in the hiring process, competency and career development of employees to determine the purpose of the performance measurement process.

3) Rekomendations

- RSPP should enforce the policy for each new employee must receive training from the IT Division of the introduction and operation of information systems in the RSPP.
- RSPP should provide objectives and propose process improvements improvements in the conduct of the recruitment of employees with high standards and doing the career development of employees with how to enforce sharing knowledge of fellow employees every week once, and training for a minimum of 3 months.

V. CLOSING

A. Conclusion

1) The results of the analysis of corporate governance of information technology in the form of evaluation (assessment) of the questionnaire to the capability level on APO07 (Manage human resources) at Pertamina’s Central Hospital is currently at level 3 Established Process with a value of 3.04. Means of implementation (General Practices and General Work Product)
matches performed, managed with policies set by management. It is seen from the management has determined in maintaining competent staff carried out by selection in recruiting employees, training and evaluation, making it capable of supporting the process of RSPP in carrying out their obligations to patients.

2) Based on the results of the capability level for current conditions was at level 3 Established Process with a value of 3.04, while conditions were expected to be at level 4 Predictable Process with a value of 4.06 then there is a gap. To achieve the target capability levels expected by the company, then the company should close the gap by making policies and procedures in manage human resources that have been assigned then operated with limitations in doing any work so that the work done is capable of grabbing expectations in accordance with the provisions in the RSPP.

B. Suggestion

1) It is expected that results of research recommendations can be implemented at the company. Starting from stage Initiate Programme up to the stage of making a Review of the Effectiveness of the process of manage human resources in the RSPP.

2) Expected to research the next in order to process data questionnaire with the methods of calculation of scale matrix calculations, using Guttman KPIS (Key Performance Indicators) and KGI (Key Goal Indicators) to find out the Rating Scale at the Pertamina’s Central Hospital.

REFERENCES