

Capability Level Analysis of Information System on Halal Tourism Website Application Using COBIT

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Abstract– The development of halal tourism that is friendly to Muslims today has entered the trend of world needs. Since NTB Province won the award at The World Halal Tourism Awards 2016, the government has been aggressively promoting halal tourism because it is a promising opportunity in the future. Applications and websites that present halal tourism information began to appear. However, the information system presented needs to be measured or audited activities that are useful to achieve organizational goals and are useful to the main target, namely travelers. Control Objectives for Information and Related Technology (COBIT) is a framework that is considered significantly capable and suitable to be used as comprehensive guidelines for auditing, so this evaluation and planning can be done without focusing on a technical problem in the technology, but can see in other ways that it is the driver of IT governance to achieve organizational goals in determining the level of capability in products or services such as applications or halal travel websites ESQ Tours Travel. The results can also be used as a benchmark for quality and fulfillment of information presented to be able to help tourists get halal tourism information. As a result there are 6 processes with the highest values that are considered important. 3 processes are expected to reach capability level 5, namely APO12, EDM03, and DSS05. While those expected to reach at level 4 are the APO10, BAI03, and BAI06 processes.

Keywords– Capability level, COBIT, Halal Tourism, Information System Audit.

I. INTRODUCTION

Traveling both in the country and traveling abroad is very fun. Tracing the beauty of tourism presented can eliminate fatigue after a long time of activity. For Muslims, finding tourist attractions as well as performing worship (prayer) when traveling in a place where the population is majority Islamic is not difficult. It is different when walking in a place where the majority of the population is non-Muslim. Tourists need to find a place of worship when the time of prayer has arrived which around it may be too many temples or churches or other places of worship. In addition, when the stomach feels hungry, it is necessary to find a restaurant or place to eat that shows halal dishes. So, there are still Muslim tourists who feel anxious when they want to visit a tour that is majority non-Muslim and choose to find safe to go to a muslim-majority area or country.

Since NTB Province was awarded The World Halal Tourism Awards 2016, halal tourism in Indonesia began to develop and many halal tourism service providers both traveled domestically and abroad with the concept of halal tourism. As a provider of data or information about tourist destinations, travel services and investors to find out the

development and improvement of the tourism market, the Global Muslim Travel Index (GMTI) makes standardizations set to measure the halal tourism index in the world based on the global market from aspects of access, communication, environment, and services. The GMTI 2019 report said Indonesia was ranked first as the best halal tourist destination at the State Organization of Islamic Conference (OIC) which is visited by many Muslim tourists in the world. Domestically, Indonesia has standards also based on the Indonesia Muslim Travel Index (IMTI), DSN MUI and the Ministry of Tourism.

Now, tourist info and halal food that can be used as a tourist recommendation for Muslims has begun to appear in the form of websites and mobile applications. Travelers can use the application when traveling to areas that are majority Muslim or non-Muslim. Based on a report from the Ministry of Tourism derived from BPS data related to the distribution of residents who traveled according to the purpose of the visit in 2019, most tourists traveled with the aim of vacationing and recreation. The proportion of tourists who vacation and recreation reaches about 47.61 percent. This shows an increased proportion compared to the previous year which reached about 42.61 percent of all wisnus trips. Things to note also with the website and / or application in 2019 also the number of distribution of residents who travel according to the main purpose of traveling and the media / main source of information, the products / services presented have been in accordance with specifications, namely between the expansion of information related to tourism with the purpose of the organization.

The use of COBIT (*Control Objectives for Information and Related Technology*) can be used as a guide to measure and evaluate evidence to determine whether information systems can protect assets, existing information technology has maintained data integrity so that both can be directed to the achievement of business goals effectively by using resources efficiently in the sense of information system audit (Weber, 1988). COBIT 2019 is used as an analytical method that can assist research in defining the objectives of related organizations. Realization of benefits, management of risks and realized resources can be evaluated as determinants of appropriate business processes to run in the future. This business process is used to measure the level of capability of an ongoing system. Therefore, this study aims to evaluate information technology governance using the COBIT 2019 framework on halal travel website applications.

II. RESEARCH METHODS

The research method used is a qualitative method by conducting observations and interviews at ESQ Tours Travel. In addition, it conducts a review of documents related to IT governance, especially in halal tourism applications based on the COBIT 2019 framework.

The first stage of research into identify the organization that is the object of research by conducting interviews while also being able to observe the organizational structure, governance and IT management in the organization. Before identifying the objectives of the organization, it is also necessary for stakeholders to be introduced to the methods to be used, namely COBIT 2019 and the importance of building awareness of the implementation of this assessment.

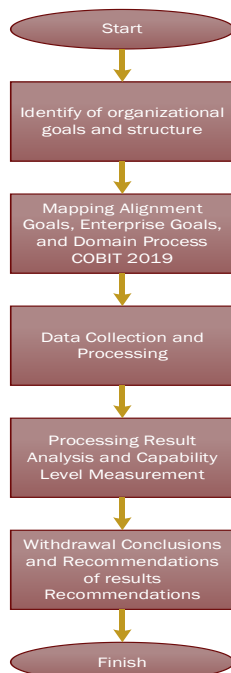


Figure 1. Flow of Research Methodology

Mapping organizational goals to the 2019 COBIT Alignment Goals, Enterprise Goals, and Process Domains. The mapping is useful in determining the question of a number of activities related to the selected process domain. In this case using the COBIT 2019 toolkit of process domain determination. Activity questions were put together in a questionnaire form and assessed by respondents from ESQ Tours Travel. Data obtained from questionnaires is processed and measured as recommendation material to companies to improve their management and governance.

III. RESULTS AND DISCUSSION

A. DF 1 Enterprise Strategy

ESQ Tours Travel on Design Factors 1 considers the 4 values of this enterprise strategy to be considered very important all. This company that has been established since 2000 has good stability so that every value is related and supports each other.

TABLE 1. Design Factor 1- Enterprise Strategy

Value	Importance (1-5)	Baseline
Growth/Acquisition	5	3
Innovation/Differentiation	5	3
Cost Leadership	4	3
Client Service/Stability	5	3

B. DF2 Enterprise Goals

The company's target is divided into 4 dimensions balance score card (BSC) namely financial, customer, internal, and learning & growth. The purpose value of this organization is also considered very important ESQ Tours Travel because in addition to adjusting to business growth over time, ESQ Tours Travel also has goals from other dimensions to be aligned with the company's goals.

TABLE 2. Design Factor 2 – Enterprise Goals

Value	Importance (1-5)	Baseline
EG01—Portfolio of competitive products and services	5	3
EG02—Managed business risk	5	3
EG03—Compliance with external laws and regulations	5	3
EG04—Quality of financial information	5	3
EG05—Customer-oriented service culture	5	3
EG06—Business-service continuity and availability	5	3
EG07—Quality of management information	5	3
EG08—Optimization of internal business process functionality	5	3
EG09—Optimization of business process costs	5	3
EG10—Staff skills, motivation and productivity	5	3
EG11—Compliance with internal policies	5	3
EG12—Managed digital transformation programs	5	3
EG13—Product and business innovation	5	3

C. DF3 Risk Profile

From interviews conducted in mapping the company's risk profile, it is known that every aspect has a fairly high risk. This is because the linkage between one risk and another risk greatly affects the sustainability of the organization. Especially in this pandemic era, the company still maintains stability so that risk attack attacks that impact the company can be wary of. so that from this DF there are domains worth 5, namely EDM01, EDM03, EDM05, APO10, APO14, BAI06, BAI10, MEA01, and MEA02. Domains worth 10 are APO04, APO12, APO13 MEA03, MEA04.

D. DF4 IT Related Issue

Seen in Figure 3, based on interviews with ESQ Tours Travel stakeholders the emerging issues have begun to vary with the provision of ranges 1-3 so that when mapped from df1 to 4 results, as in Figure 4, the domain that takes precedence as an initiation step is the domain EDM02, APO02, APO10, APO11, DSS06 and MEA03 which almost touched the capability level 1. EDM03, APO14, BAI06,

BAI07, BAI10, MEA02 and MEA04 at level 2, then APO05 and DSS05 at level 3, at level 4 there is DSS04 and those that have touched capability level 5 there are APO04, APO12, and APO13 domains.

company operates the threat can still be controlled by the company because it has good resources in it.

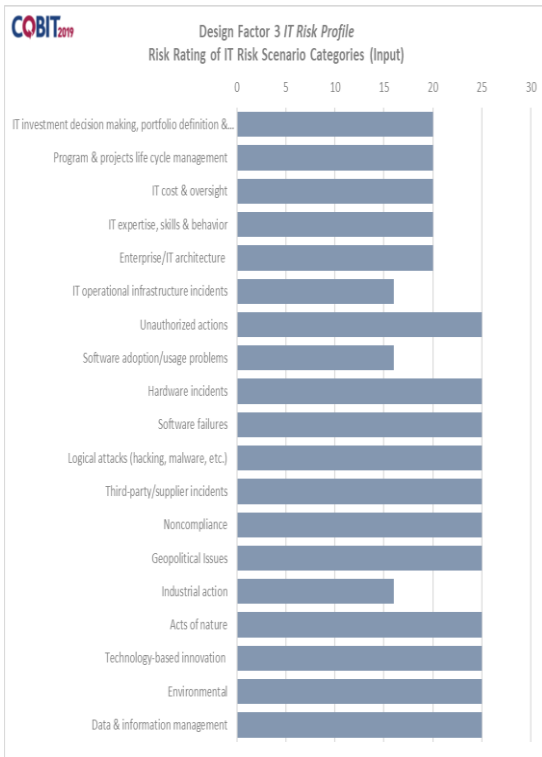


Figure 2. DF3 IT Risk Profile

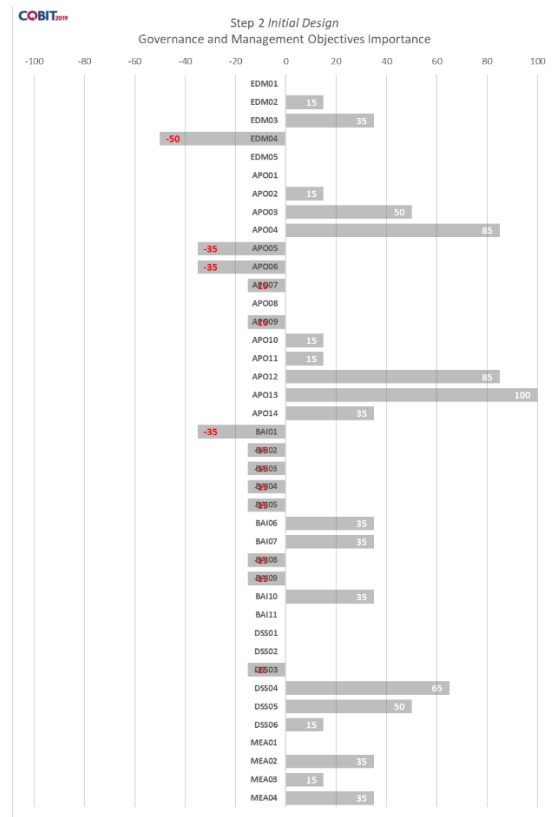


Figure 4. Summary Initial Design DF1-DF4



Figure 3. IT Related Issue

E. DF5 IT Threat Landscape

Threats-of normal value and very high threats to ESQ Tours Travel are classified as balanced because as long as the

TABLE 3. Design Factor 5 Threat Landscape

Value	Importance (100%)	Baseline
High	50%	33%
Normal	50%	67%

F. DF6 Compliance Requirements

ESQ Tours Travel is greatly assisted in classifying the subject required in operations. ESQ Tours already has certification and follows applicable regulations both in accordance with its business field and national regulations.

TABLE 4. Design Factor 6 Compliance Requirement

Value	Importance (100%)	Baseline
High	85%	0%
Normal	15%	100%
Low	0%	0%

G. DF7 Role of IT

The role in the IT section although centered on ESQ Groups, the role of the eran both from the support team to the decision-making strategically has been owned reliable enough to support each other from each role.

TABLE 5. Level of Importance of the role in the IT section

Value	Importance (1-5)	Baseline
Support	5	3
Factory	4	3
Turnaround	5	3
Strategic	5	3

H. DF8 Sourcing Model for IT

Most of the information systems of ESQ Tours Travel are handled and worked on by internal parties. External or outsource 30%, and from the cloud by 10%. ESQ Tours Travel emphasizes and prioritizes from parties in ESQ Tours Travel so that the insource value is 60%.

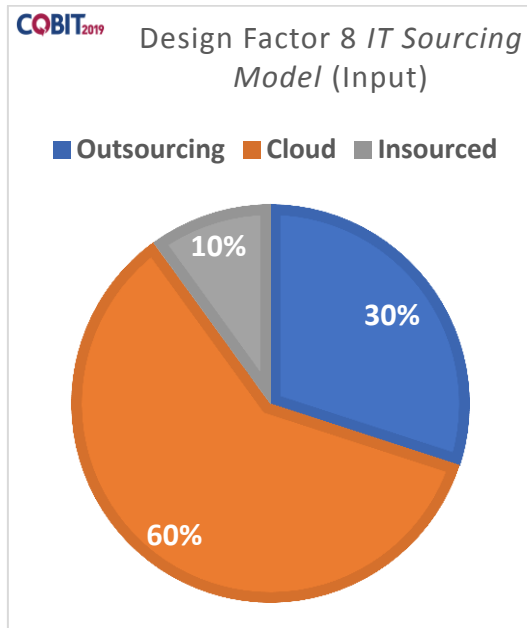


Figure 5. Percentage Design Factor 8

I. DF9 Implementation Methods

The method that is more widely applied in ESQ Tours to perform system development is Agile with a percentage value of 60% because it follows developments and can adjust to existing changes. Do not rule out the possibility with implementation methods because not all can immediately change quickly which affects the regulations that have been set.

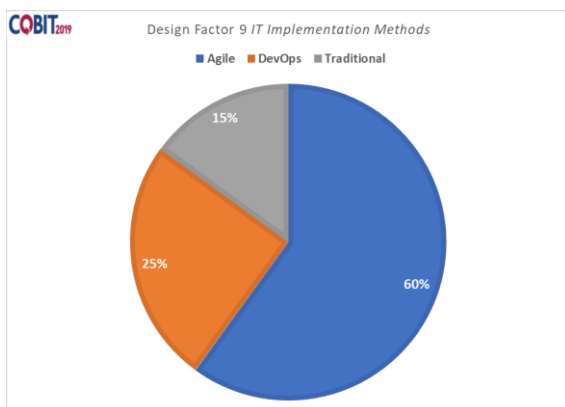


Figure 6. Percentage of Implementation Methods in the Company

J. DF10 Technology Adoption Strategy

In adapting the latest technology, PT ESQ Tours Travel can be the main speaker, especially in the field of tourism services in Indonesia with a value of 55% because of the desire to always be ahead and innovate to maintain the sustainability of the company compared to other similar

companies. Related to the previous design factor that can adjust to new things so that ESQ Tours travel follows the development of existing technology to be applied in its environment.

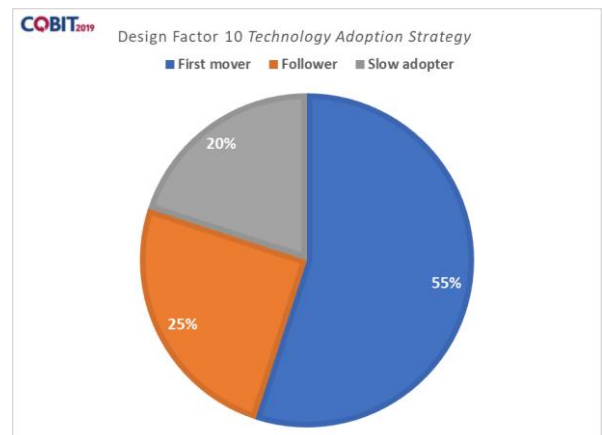


Figure 7. Percentage of Related to Technology Strategies Adopted

The two stages that start from design factor 1 to the last are strategies for applying the technology adopted, forming all design factors as in Figure 8, only 3 processes are to the left and 37 other processes to the right. The negative value to the left indicates that the process is not what makes the main priority of the organization's goals, while the value to the right or positive indicates that the process is considered important for ESQ Tours Travel.

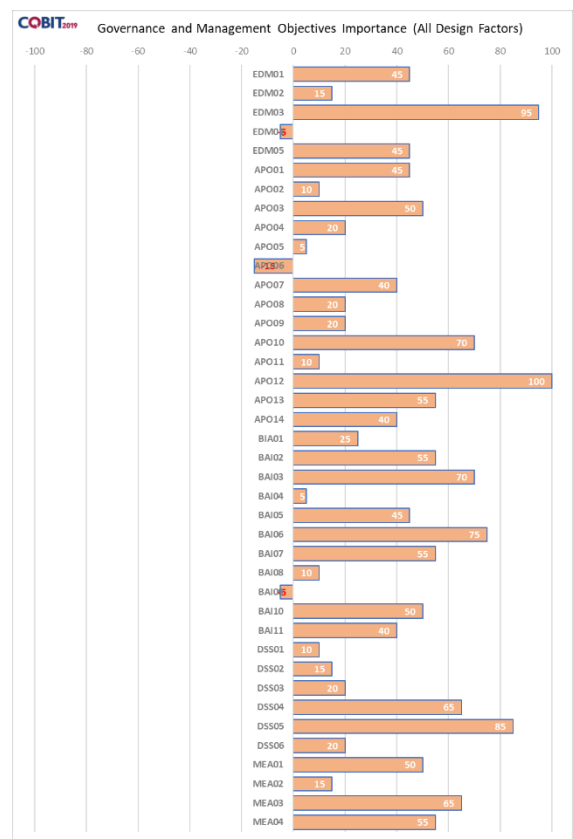


Figure 8. Mapping Inputs Results from DF1 to DF10

Based on the values on the All-Design Factor, the top 5 values that become the process domain that are considered important for the company are as follows:

1. APO12 Managed Risk
2. EDM03 Managed Risk
3. DSS05 Managed Security Services
4. BAI06 Managed IT Changes
5. APO10 Managed Suppliers
6. BAI03 Managed Solutions Identification & Build.

The APO12 is worth 100, EDM03 is worth 95, DSS05 is worth 85, BAI06 is worth 75, and APO10 and BAI03 at 70. These values mean the level of capability that a company should achieve based on the column column in the image. For example at the capability level of 5 with a range of values of 80-100. The domains are APO12, EDM03, and DSS05. Likewise, the process of APO10, BAI03, and BAI06 whose value is in the range of 60-80 is expected to have reached level 4.

IV. CONCLUSION

Based on the results of the identification of the level of capability carried out at ESQ Tours Travel, it can be concluded that there are 6 important processes obtained from the analysis of the level of information system capabilities on halal travel website applications using COBIT. The 6 important processes are APO12 Managed Risk, EDM03 Managed Risk, DSS05 Managed Security Services, BAI06 Managed IT Changes, APO10 Managed Suppliers and BAI03 Managed Solutions Identification & Build.

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