Streamlining Information Technology (IT) Functions and Operating Model Across Group
Case Study: PT Telekomunikasi Indonesia, Tbk

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ABSTRACT

Business entities are expanding their business portfolio by creating child business entities and finally building a large entity known as a Corporate Group, which is a collection of parent and subsidiary corporations that function as a single economic entity through a common source of control.

The correlated business issue derives from the existence of Information Technology (IT) units in each company under the group, in which the IT functions are still conducted and maintained solely. This may lead to an optimized resource of the assets (People, Application, Platform, and Infrastructure) and redundant IT Processes. Consequently, this phenomenon raises questions on how the most suitable IT operating model should be designed and adopted in the group among the entities.

This paper is intended to design a new IT operating model, define the organizational structure and possible integration between entities, to obtain a more effective IT shared service operation model and asset optimization across the group. The research infers that the basic IT service management functions with an agile cyclic new way of working can be considered as the new IT operating model alternative, with IT service development and operation would be the most suitable process to be outsourced, rather than IT planning, design, change management, and evaluation. In addition, an IT shared service approach using a specialized federated organization structure is suggested, with an emphasis on promoting the current IT units as the single provider of specific services based on their strongest capability. As for group company, empowering the subsidiary IT units that already possess the expected capabilities and core competencies will be more beneficial and preferred than appointing a new single shared service unit for IT service.

Keywords: Company Group, Devops, IT Operating Model, Shared Service Operation (SSO).

I. INTRODUCTION

Business entities are expanding their business portfolio by creating child business entities and finally building a large entity known as a Corporate Group, which is a collection of parent and subsidiary corporations that function as a single economic entity through a common source of control (Hidayat, 2020).

Taking the case study of Indonesia State-Own Enterprise (SOE), PT Telekomunikasi Indonesia, Tbk (Telkom) where up to thirty-six company under its control and widely known as Telkom Group. Telkom annual report indicates that the company’s net income in 2021 has recorded IDR 24,760 trillion, growing 19% from 2020. Its main revenue still comes from basic connectivity as the current legacy business, but slightly shifting to digital businesses (digital connectivity, digital platform, and digital services). Telkom already formed its strategies, particularly to prepare Telkom Group to become a digital-ready, lean, agile, and streamlined company. In addition, streamlining the subsidiaries entities to structuring the business portfolios has started in 2020, and Telkom Group also started the implementation of Shared Service Operation (SSO), which combines several repetitive, high-volume transactional operation activities to increase its efficiency and effectiveness as a group (Telkom Indonesia, 2022).

The correlated business issue derives from the existence of Information Technology (IT) units in each company under the group, in which the IT functions are still conducted and maintained solely. Basically, IT function and IT Operating Model spread across parent and subsidiary companies where each company maintains its own IT unit, consisting of IT Assets (IT People/Talent, IT Application, IT Platform, and IT Infrastructure), but in a different scale of volume. This leads to redundancy of capability, IT Asset in each entity and un-optimized resource of the assets inside the group.

The parent IT unit (IT Division) currently adopts an IT operating model that shows the value chain of processes of IT Service Management from service strategy, service development to service management and operation. The current challenge to support the digital business and digital
transformation by adopting a more agile way of working has not been reflected in the current operating model. Subsidiary IT units have their own adoptions, therefore there is no operating model standardization and defined organization integration among the group.

Implementation of IT Shared service has not been fully conducted and is still in an early discussion stage. Engagement of a shared service unit with the company members inside the group is not an obligation but it is a right to choose. Relation between a shared service provider and the client is still a legal engagement and has a commercial and charge-back agreement.

These current conditions raise questions on how the most suitable standardized IT operating model should be designed and adopted in the group.

II. LITERATURE REVIEW

There are three main literature references in this research, consisting of the organization design framework which refers to Amy Kates and Greg Kessler’s Five Milestone Organization Design Process, the understanding of IT operating model components referring to Gartner’s nine components of IT Operating Model and the DevOps ways of working.

But before going into the detail it is best to understand IT service management, as the activity of an organization to plan, design, build and deliver IT services offered to the customer. It maximizes the organization’s business value from the use of information technology. IT service management mainly consists of service design, service transition, and service operation (Axelos, 2022).

The Five Milestone Organization Design Process explains the task to design an organization starting from the exploration of business case to solve, designing a basic structure choice to answer the defined strategy, defining the integration and relationship between entities, designing, and defining the critical roles of the executive team, and finally the transition of the change. The milestones are the markers that indicate the finished phases and are ready to go to the next step (Kessler & Kates, 2010). Besides the five milestones, the capabilities and operating model have an important role to support the strategy to help the decision-making in each step. To start it needs a clear strategy, and assessment of the current state to understand what to improve.

Recalling the definition of IT (Information Technology) Operating Model, it is how an organization orchestrates its IT capabilities to achieve its strategic objectives. Meanwhile, an Enterprise Operating Model is how the enterprise uses its capabilities to execute its business action to deliver its business outcomes, which are represented in the business model. (Gartner.com, 2022). Gartner, Inc (www.gartner.com), explains that an IT Operating Model sets out the parameters and principles of nine interdependent components (Cox, Scott, & Mingay, 2022). The nine components are related to each other building a strong IT operating model, defined as follows:

1. Ways of Working
   The methods, framework, and processes (such as ITIL, COBIT, PMI, Scrum, SAFe, DevOps, etc) that will be used to deliver the required I&T capabilities.

2. Performance
   How the performance or condition of I&T will be measured and managed.

3. Places
   Where people and key assets will be located, including whether these will be collocated with other functions.

4. Decision rights
   The rights of stakeholders with respect to decisions in key I&T domains such as architecture, investment, sourcing and application.

5. Talent
   The people competencies and skills needed and how they will be provided/acquired.

6. Organization Structure
   How resources will be organized, including key roles and reporting relationships.

7. Tools
   Tools and assets required to support or enable I&T capabilities.

8. Sourcing and alliances
   The approach and principles for working with external providers and partners.

9. Financial
   How I&T will be funded, and how budgets and costs will be allocated, planned and monitored.

Gartner also defines that DevOps as a change in IT culture, focusing on rapid IT service delivery through the adoption of agile, lean practices in the context of a system-oriented approach. DevOps emphasizes people (and culture), and it seeks to improve collaboration between operations and development teams. DevOps implementations utilize technology — especially automation tools that can leverage an increasingly programmable and dynamic infrastructure from a life cycle perspective. (Gartner.com, 2022). DevOps derives from a collaboration between the development and operation process in one cyclic process, starting from the customer’s needs to deliver the goal: a customer value. In the process to achieve that, a continuous process is carried out iteratively; from plan, code, build, test, deploy, release, operate, monitor, and recursively back to planning with inputs from the monitoring. This cycle also incorporates the agile development process, which is the small iterative process from create and verify to achieve the best solution delivery before it is delivered to the operation or live production site.

III. METHODOLOGY

In the research methodology, to answer the research question and gain the objectives, this research uses the following flow as illustrated in Fig. 2.

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The business issue, research, and objective are based on study case condition that needs to be improved. A preliminary survey has been conducted with IT leaders from the IT division (parent company) and representatives from the subsidiary IT units. For the research analysis data input uses the study case company documents, related literature or framework, discussion, and interviews.

Using the multi-method qualitative methodology, which is the combination of focus groups and single interviews. The correspondents are the IT Executive leaders, Senior management, and subject matter experts. The correspondents are interacted to define the current state and to validate the designed business solution.

The evaluation is using the Gartner’s nine IT Operating Model components, where each component scored 1 to 5, with the lowest score is still the IT traditional way, and the highest score reflecting the capability to support digital.

IV. FINDING AND ARGUMENT

Evaluating the current IT Operating model, the organization structure, and the current business changes came up with the findings that the current condition is heavily adopting the waterfall methodology and is still in the emerging stage to adopt the agile ways to support digital business.

Using Gartner’s nine components of the IT operating model to assess the current condition the initial score indicates that the current model needs to be transformed to support digital business. Following up on the assessment, the design of an enhanced operating model is suggested. The new IT operating model accommodates and considers (i) IT service management processes, (ii) DevOps cyclic process, (iii) and the IT operating model components.

The New IT Operating Model in the figure above defines as a cyclic process with strategy and business requirements as input, not part of the process. Both inputs come from different sources, where strategy as input comes from the top-down approach as a result to answering corporate strategy direction, while business requirement as input mostly comes from the bottom-up approach from the business users who are the main customers from IT units.

Illustrated in the new IT operating model, the processes that are colored amber, (i) Planning, (ii) Design, (iv) Change Management, and (vi) Evaluation are the processes that the accountability and responsibility are to be handled by the organization itself, not to be outsourced or handed over as a managed service/operation activity. This consideration also supports the intention to increase the responsibility of internal human resources. The other processes, such as (iii) development and (v) operation are processes that can be outsourced. Development and operation processes can be partially or entirely outsourced to external companies. The accountability of the process is still under the main organization, but it receives additional help from others to support day-to-day activities.

<table>
<thead>
<tr>
<th>Process</th>
<th>Definition</th>
<th>Referenced To DevOps</th>
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<tbody>
<tr>
<td>(i) Planning</td>
<td>Activity to define the steps determining the objectives, outcomes, and required resources such as budget and people.</td>
<td>Plan</td>
</tr>
<tr>
<td>(ii) Design</td>
<td>Activity to provide the guidelines, best practice, and creativity for new IT services. Outcome: Requirement Specification Document</td>
<td>Plan – Code</td>
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<tr>
<td>(iii) Development</td>
<td>Technical construction of the IT service like coding, UI/UX creation, and security enforcement.</td>
<td>Code – Build</td>
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<td>(iv) Change Management</td>
<td>Process to transition from development to production / operation.</td>
<td>Test - Deploy – Release</td>
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<tr>
<td>(v) Operation</td>
<td>Process to administer, operate, maintain, and manage IT processes and IT services within the accountability of the IT organization</td>
<td>Operate – Monitor</td>
</tr>
<tr>
<td>(vi) Evaluation</td>
<td>Process to evaluate the current IT services deliverables and operation for business needs. The outcome of the evaluation will be an input for planning process as part of business requirement needs.</td>
<td>Monitor</td>
</tr>
<tr>
<td>(vii) IT Management &amp;</td>
<td>Process of monitoring and administration of IT organization. Also manage the IT governance to support the processes to comply with the regulation, policy, and common IT general controls.</td>
<td>Act as a shared value to all processes</td>
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As mentioned, the process is a cyclic process, (vi) evaluation will trigger input for the planning to improve the current delivery or current operational activity. This will be treated as a business requirement.

As addition to the current design, which is a value chain model, changes to the nine components from the previous chapter are re-assessed with a closed group, consisting of IT executive management, representative IT senior leaders, and subject matter experts. Compared with the initial condition, the result of the re-assessment as shown in Table II.

V. CONCLUSIONS

Based on the business case, analysis, and alternative solution in the previous chapters, we can conclude that an IT Operating model is a set of components that defines the characteristic, the flow process within the organization, and its relations with external. It is a living model, that can be changed based on the need, urgency to change, and adoption of new business models. As a group, the IT operating model needs to be standardized, adopted, and implemented in all related IT units.

The recommended design of the new IT operating model accommodates the basic IT service management functions with an agile cyclic new way of working. This design is possibly far from perfect, but it should be a new good starting point to make IT units inside a company group work in sync.

With the IT operating model standardization, a company group's IT units should be stronger, more agile, and more confident to enhance their capabilities.

REFERENCES


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