Business Value Assessment for Global Service Provider Industry: Opportunities and Solution

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Abstract. The problem of estimating the business value of the information system lies in the heart of business process and function, which are the organization architecture that it is a very complex work to be dealt with. Therefore, there are a large number of aspects such as the trend, regulation, etc. that need to be evaluated to get the appropriate results, although in order to reduce investment and operation costs, these aspects cannot be neglected to avoid the result contain high degree of uncertainty. This paper presents results in assessing the business value of IT projects in global service provider industries, with the objective to support and provide more reliable and high quality information on potential futures contracts with relatively low investigation costs. This method contains four architectural frameworks consisting of business, data, applications and technology architecture.

1. Introduction
The Business Value Assessment (BVA) is designed to measure the value of a particular labour force, which is delivered on a sufficient scale to influence the operations of a company or financial operations and a company at the same time. The size and duration of the workforce program should be taken into consideration when designing commercial value assessments. For example, are there enough trained workers to influence the expected business results? What other factors affect the expected business results (for example, organizational changes, new technology, or seasonal workload)? Will data collection be inconsistent with planned assessments with other business activities or gathering information? It is best to design a business valuation before sending business services. Business questions about results can provide information that affects service design and helps to set realistic expectations. data may need to be collected before service is provided. After this, a successful evaluation can be made after the service is delivered. Some evaluation questions can be overcome through current HR, accounting or company performance data (retention or turnover costs). Some evaluation questions require new data (for example, skill changes, supervisors, or customer satisfaction). To interpret the results of business services, you also need comparisons to compare your data, such as information about the employee's similar performance or for different time periods. The new technology is improving application performance, increasing IT productivity, and making IT more responsive to business needs. However, converting these improvements to financial standards may be complex, and as a result, many IT investments are evaluated only in terms of short-term costs. This puts IT in the limited role of the cost centre rather than the role of real partners in improving business outcomes. The result is a business case that demonstrates how the investment enables key objectives and contributes to positive financial metrics. Research indicates that over half of IT buyers
need help building a business case [1]. Thus, this study assess the business value of Service Provider Company to align with their business process and function.

2. E-Government Readiness Concept
Prior measures of infrastructure in ICT physically have been failed to properly address organizational issue, which often the accessibility overlooked while the extant tools provided unsuitable and unmatched factors in assessing the comprehensive policy with the environmental surroundings [1, 2]. Nonetheless, E-Government Readiness indicates to the government capacity to conduct and bring public services effectively and efficiently online through proper application [3]. Meanwhile, it also can be described as the use of technology to improve the business performance by offering service and operational to citizens in term of the opportunity to interact and conduct business with government through different electronic media such as self-service kiosks, smart card or EDI [4]. Likewise, the assessment will benefit with a broader scale of measurement to certain district, nation or country especially to evaluate the willingness to prepare proper strategy as the anticipation of implication arisen from information technologies [5]. Of course, it should actualize the transparency and accountability in resource management and budget uses [6]. Currently, the uniqueness and only few number of the model in the e-Government readiness have meaning that is no single model is appropriate for all countries to evaluate IT adoption in government bring the importance to high level, especially considering the national objectives [7]. It is also in line with the fact that the process of conducting E-Government in one country will be different in attribute and consideration, which initial strategy should done prior the implementation with extreme careful [8]. The growing needs to enhance and fasten up the application process of e-Government projects require the practical solutions to overcome the hindrance to the implementation of projects [9].

As of 2003, the United Nations (UN) has run 4 surveys until 2008 on this topic to its member countries. The results have been evaluated in terms of the e-Government readiness index (EGRI), a composite measure of the human capital index (HCl), telecommunication infrastructure index (TCII) and the web measurement index (WMI). India obtained the lowest value on the EGRI each year behind the other countries. It also presented that the mean of EGRI has increase by 12% during those period, which India also able to increase its EGRI with 2%. On the other hand, the UAE has provided an overall improvement at around 18 % but a slight decrease at 2004. Meanwhile, countries like Kazakhstan, Republic of Korea, Japan, China, and Maldives also obtained an increase, which are 23%, 12%, 11%, 21% and 10%, respectively [10]. In general, e-Readiness evaluates on the quality of society’s position to take advantage of the opportunities offered by ICT, where infrastructure, human capital, regulations, policies and internet penetration are criticalingredients [11]. Meanwhile, it is also the ability to look for chance to create value that provide platform to utilize the benefit in optimum level and avoid the risk of failure and bad service [12]. Based on these definitions, there are various reasons to justify the need to adopt the ICT and raising the motivation of the countries especially the governments to be participated in the process of e-Readiness in respect to improve economy, social and political atmosphere. There is at least three model of e-Readiness [13], which are ready to use tools or assessment, case studies and third party surveys and reports.

Often, a common problem in developed and developing countries is the implementation of egovernment services in low-level services among citizens, which vary in private organizations. At the same time, to evaluate the value of creation, the value added economic (EVA) has been used to highlight and measure the contribution of the value of CFO activities to the process of creating business value by understanding the needs, strengths, opportunities and weaknesses [14]. However, providing an estimate of credibility is something that we currently lack in evaluation methods is [15], where the maturity of analytical software tools increased, and many companies to publish at least the basic form of analytical work to enhance the decision-making process based on data, Value of business [16]. Since enterprises are actively encouraged to create new strategic opportunities, a strong relationship between the CIO and the CEO must be established. At the same time, the project coordinator to strengthen the activities of the work unit or function and the harmonization of efforts with external teams. Unlike the role of partners, skills and knowledge are obtained from third partners.
System providers are the least influential role with the sole task of providing infrastructure and data. In many cases, this type occurs if there is a special analytical unit. We cannot determine any difference in business performance. All roles contribute to profitability, market valuation, operational performance and innovation to a certain extent [16].

3. Research Methodology
The technique used to assess the value of a company is to develop a matrix based on dimension dimensions and dimension indicators of a risk index. Values should include a benchmark index such as adherence to principle and financial contributions, strategic alignment, and competitive position. The risk index should include criteria such as size, complexity, technology, organizational capacity, and the impact of failure. Each standard must be given an individual weight. Indicators, standards, assessments and approvals should be developed by senior management. It is important to define decision-making criteria before the option is known. On the other hand, ADG TOGAF has been used as a framework that is selected to guide the evaluation process for the pale role of the important as an architectural framework with a set of tools that can be used to develop a variety of different architectures through the methods listed to determine the information system in terms of a set of building blocks and provides general vocabulary Including a list of recommended standards and a list of appropriate products.

4. Discussion and Analysis.
The Preliminary phase describe the steps in design process by doing preparation of a framework in the form of architecture vision and principle architecture in the form of business processes, data, applications and technology.

| No | Architecture         | Principle                                      |
|----|----------------------|------------------------------------------------|
| 1  | Business Architecture| Operation and maintenance of assets             |
|    |                      | Business continuity                             |
|    |                      | Quality of Electricity Service                 |
|    |                      | High Quality human resource competencies       |
|    |                      | Legal Compliance                                |
| 2  | Data Architecture    | Data is an asset                                |
|    |                      | Data accessible                                 |
|    |                      | Sharing Data                                    |
|    |                      | Accurate data                                   |
|    |                      | Data Integration                                |
|    |                      | Automatic database Backup                       |
|    |                      | Centralized data management                     |
|    |                      | Data security                                   |
|    |                      | The data is valid                               |
| 3  | Application Architecture| Easy to use app                               |
|    |                      | App permission                                  |
|    |                      | Application integration                         |
|    |                      | Upgrade the app                                 |
|    |                      | Application flexibility                         |
| 4  | Technology           | Used real-time technology                       |
Opportunities and solutions is a TOGAF ADM phase that serves as an evaluation of the architectural design model created. The results of this phase are the basis for the preparation of an implementation plan that aims to achieve the objectives of the architectural design that is built. Consolidate GAP Target is a matrix that defines the requirements of technology architecture, GAP analysis is to find out whether the technology requirements is already fulfilled to determine target architecture, with description R (Retain): No change, I (Improvement): There is an Improvement and A (Add): Adding

| Target Architecture | Interoperability | Security of technology infrastructure | Governance of technology infrastructure | Backup network infrastructure | Availability |
|---------------------|-----------------|----------------------------------------|----------------------------------------|-------------------------------|--------------|

Table 2. Business Value Assessment

| Target Architecture | EA M Path | CBM/PST | FOIS | SRINT | SAP-AMI | DMS | Substation | PIPA | Online Warehouse |
|---------------------|-----------|---------|------|--------|---------|-----|------------|------|------------------|
| Baseline Architecture |           |         |      |        |         |     |            |      |                  |
| EAM Path Retain     |           |         |      |        |         |     |            |      |                  |
| CBM/PS Retain       |           |         |      |        |         |     |            |      |                  |
| FOIS Retain         |           |         |      |        |         |     |            |      |                  |
| SRINTA Retain       |           |         |      |        |         |     |            |      |                  |
| SAP-MM Retain       |           |         |      |        |         |     |            |      |                  |
| DMS Substation Add   |           |         |      |        |         |     |            |      |                  |
| PIPA Add             |           |         |      |        |         |     |            |      |                  |
| Online Warehouse Add |           |         |      |        |         |     |            |      |                  |

| Target              | GAP: Will be designed as a tool of data management and documents | GAP: Will be designed as an Information maintenance asset management application | GAP: Will be designed as a warehouse management tool in terms of goods and documents transactions |
|---------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
Table 3. Business Value Assessment

| Point   | Threat                                                                 | Likelihood of Occurrence | Easy Exploitation | Value |
|---------|------------------------------------------------------------------------|--------------------------|-------------------|-------|
| 1 (Very Low) | Able to support supporting business processes with very low benefits | Low                      | Low               | Low   |
| 2 (Low)   | Able to support supporting business processes with low benefits      | Medium                   | Medium            | Medium|
| 3 (Medium) | Associated with systems that manage activities operational enterprise. | High                     | High              | High  |
| 4 (High)  | Has high value, its effect is related in support of strategic achievement and objective of some function of enterprises. If not implemented then strategic direction cannot be achieved properly | Very High                | Very High         | Very High |

Migration Planning is a migration process by ensuring execution plans and coordinating migration with organizations aimed at managing and applying organizational portfolio changes. Risk and value assessment is a calculation of risk and value of IT projects that are grouped into several assessment components such as likelihood of occurrence - threat, easy of exploitation, and asset value. Most organizations find that architectural change has a major impact on the organization to be implemented in a single phase. Migration often involves looking at a number of technical problems, not least about how to make changes to the operating system. Issues requiring special consideration may include parallel processes, options that continue with gradual migration through subsystems or functions, and the impact of geographic segregation on migration. Decisions resulting from these considerations should be included in the implementation plan.

1. IT Project: Online Warehouse Application (Application Assets)
   Threat: The application is difficult to be used by stakeholder because of its complexity, the heavy application capacity that makes mobile hang or drain the battery, the application suddenly stopped because of bugs / errors.

   Table 4. Online Warehouse Application (Application Assets)

| Asset Value | Low | Medium | High |
|-------------|-----|--------|------|
|             | L   | M      | H    |
| 0           | 0   | 2      | 3    |
| 1           | 1   | 3      | 4    |
| 2           | 2   | 4      | 5    |
| 3           | 3   | 5      | 6    |
| 4           | 4   | 6      | 7    |

Risk IT Project of Online Warehouse is = 7, Project Value Online Warehouse = 4

2. IT Project: Information maintenance asset management Application (Application Assets)
   Threat: Errors can occur in the input data, application errors and the occurrence of network instability that causes data loss/not updated.
Table 5. Information maintenance asset management Apps (Application Assets)

| Asset Value | Likelihood of occurrence | Threat | Easy of Exploitation |
|-------------|--------------------------|--------|----------------------|
|             | Low | Medium | High |
| 0           | L   | M      | H    |
| 1           | L   | M      | H    |
| 2           | L   | M      | H    |
| 3           | L   | M      | H    |

Risk IT Project of PIPA is = 6, Project Value PIPA = 3

3. IT Project : DMS Substation Application Application (Application Assets)

Threat : Errors can occur in the input data, application errors and the occurrence of network instability that causes data loss/not updated

Table 6. DMS Substation Application (Application Assets)

| Asset Value | Likelihood of occurrence | Threat | Easy of Exploitation |
|-------------|--------------------------|--------|----------------------|
|             | Low | Medium | High |
| 0           | L   | M      | H    |
| 1           | L   | M      | H    |
| 2           | L   | M      | H    |
| 3           | L   | M      | H    |

Risk IT Project of DMS is = 5, Project Value DMS = 3

Figure 1. Business Value Assessment

Business value assessment technique is a business valuation technique based on the dimensions of the index of values and the dimensions of the risk index. In the preparation of business value assessment technique is based on the calculation of the investment valuation of IT projects that have been produced previously.

5. Conclusion

Value assessment is a standard industry approach for evaluating strategic projects where general requirements for approval of capital requests. Provides the best way to get consensus on what drives value in the organization, helps develop business cases, strategic IT roadmaps and get approval from key stakeholders. The diversity of computing investment choices and complexity within the organization will make more challenging to determine the IT investment to offer greatest opportunities.
and solution in the business value. In addition, the process to decide business area investment related to the choices of project that are necessary but not strategic to the core business.

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