Internet Provider Service Value Delivery Index Problem: Case Study of the NetHost

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Abstract. Common problems in service delivery is might related to the issue of timing, marketing cost, user experience, generating lead, identifying prospect, forecasting demand, value proposition, security, privacy, identity management and many more. Unfortunately, company often decided on the wrong context and concept lead to misrepresentation and misinterpretation on the requirement for the service improvement. Thus, the direct intervention through certain criteria in the characteristics and attribute of service delivery should be conducted with judgment assessment. It is done in order to identify the target and examine the policy used to support the outcomes. Thus, this study explore the model used for particular company, which in this case NetHost to provide insights on how the assessment can be fruitful in the long term investment for intangible aspects of service delivery.

1. Introduction

Nowadays, many companies have been focused in growing their current income by providing service delivery attached to their product to achieve the sustainability in the company. In this sense, this type of product service has become the attractive solution for them to gain benefits in term of revenue, growth, satisfaction and environmental, which at principle has been start their business process as manufacture or production. Specifically, through the automation and integration between supply and value chain that involving the client participation in the respected business process, it is expected to increase effectiveness and efficiency in the core competencies and competitive advantages. For example, the customer life time value of product can be enhanced through improving customer satisfaction and the greater use of resources by conducting the implementation of added and diversification of service delivery to the development of products or goods. In addition, the attempt to assess the quality of service in various process has been done numerously to check and evaluate its current state due to several reasons such as strengthen the activity system, remove the existing gaps, support the provision of basic attribute, improve its availability and so on.

Services can be defined as the development of the relationship between policy makers, providers and consumers for specific or alternative solution including support the daily activity. In addition, its basic requirement comprises complexity to access due to diverse influence factor in the market, network and environment, particularly among populations and communities. Often, it affected by competition, existence, collaboration, collusion and conflict but lack of capacity in the infrastructure or management to cater at maximum degree. Respectively, this study focus the assessment to the Internet service provider that provide the platform to access and participate in the digital world, which in this case provide relatively cheaper cost compare to the other and famously known among university student in Bandung, West Java. For this purpose, this study implement modified and
proposed criteria for assessing the quality of service with practical use of several theories given in the
different class to 4 groups. Thus, this study contribute to find out the opportunities and practical gap in
the process of delegating the assessment process to similar and homogenous attribute of targeted
company entity. The purpose also related to improve the technical aspect of demonstration by using
broad range of skill to meet with the objective of diversification of assessment method and extensive
use of particular assessment formats.

2. The Characteristic of Service Delivery

Unfortunately, low cost solution has been used numerously to reduce modifiable risk factors such as
the physical inactivity, essential intervention and the harmful utilization to map the spread distribution
tailoring to its high impact in the service delivery [1]. It is essential to determine the measurement
characteristics, procedure and tools first before conducting the assessment due to differences in the
parameters used for monitoring and point of view in ensuring service quality [2]. In the research of the
information systems (IS), the development of organizational capacity has been described as a criterion
that helps to determine the potential limits to the effectiveness of the implementation of the new
system by aligning its objective and its practical use [3]. In addition, other components such as
stakeholders, politicians, employees and customers has critical role to shape the borderline of standard
in the design and development of the service delivery, which collaborative elements should be
considered to reach broader segment and approach to assess the pre and post condition of the
implementation [1-3]. The use of an integral evaluation prior to the implementation of physical and
social knowledge and infrastructure is an essential step for the effective dissemination of community
behaviour interventions. In assessing preparedness and alignment, socially sensitive infrastructure
provides the ability to overcome potential barriers to implementation in knowledge or physical
infrastructure [4].

Formal training in raising awareness in the organization should be considered with respect to IT,
although the perceptions are often not clear due to difficulty in monitoring its effectiveness.
Meanwhile, in knowledge-based institutions that include intangible assets in favour of specialization,
research, innovation and learning, evaluation indicators can define the strategy to meets expectations
especially in the service delivery that normally customer-oriented assessment. However, the
effectiveness of these attempts to increase awareness have been challenged tremendously since most
of the staff does not fully comply with the policies and procedures of the organization, while the
organization also often is not willing to develop a safety awareness strategy in practice [5].
Furthermore, the significant changes in the organization cannot be immediate influence the existing
business process unless there is no proper alignment between the organization's objectives and the
policies, which absolutely should be encouraged to deliver the message of the commitment in the
process of execute the service delivery to the customers as the obligation to protect consistency within
the organization [6]. Meanwhile, the enactment of cyberlaw in the Indonesia at some point can limit
the freedom of expression of certain people, then influence the way of thinking of certain people on
how the service delivery should be made at a certain level or prioritize due to specific circumstances
[7]. The main causes of poor service delivery are related to the external intervention from authorized
institution, political manipulation and corruption, lack of responsibility and transparency, inadequate
citizen participation, poor human resources policy, lack of change management within organization,
low level of staff capacity and awareness, poor planning, supervision and evaluation [16].

There are an increasing trend in which companies are creating strategic alliances or collaboration in
the form of resource sharing or shared service to maintain its competitive position and provide
competitive solutions to customers. Thus, it is essential to establish a recognized technique to evaluate
the impact of this collaborate to meet with the customer expectation in the market and the perception
in the network. In addition, such measures are critical to convey the decision making process that
verify and validate the mechanism to improve operational efficiency in a dynamic and fast global
environment [8]. However, there is a gap in understanding the key activities needed to implement the
service delivery model and how its core components can be aligned to achieve internal and external
3. Research Method

In this study, qualitative used has been used to assess the quality of the service delivery within NetHost in providing Internet to the user based on certain specific criteria under service strategy, design, operation, transition and continual service improvement. In this case, four groups consist of 5-6 people that conduct service quality analysis by contrasting with standard operational and procedure in respective industry. The proposed criteria used in this study refer to COBIT 4.1 [10] that breakdown the five level of maturity in domain categories, which are awareness and communication, policies, plans and procedure, tools and automation, skill and expertise, responsibility and accountability and lastly, goal setting and measurement. This study also use ITILv3 [11] as the reference guide on how service delivery conduct by the company properly in the process of estimation analysis to match with order level in the proposed criteria. Basically, the assessment process has been conducted through interpretative judgment from the group member as their final project after learn service management in 4 (four) months in the class with routine consultation of the respective lecturer. Each group come to observe the service delivery that was established by NetHost in the concurrent way through documentation and daily routine activity. The interpretation of information systems has been perform widely as the kind of the expression comprises between documentation process and external reality through collection, description, link, order, filtering and information exchange to understand the mechanism in accordance with the various perspective [15]. Respectively, the measurement level 1 explained undefined process while level 2 show the intuitive model of service delivery. Meanwhile level 3 point out the partial usage of clearly defined activity that measure the quality of service delivery and level 4 indicates that best practice has been applied accordingly. Lastly, level 5 mentioned the comparison technique used to fill the gaps with at least two type of reference has been utilized optimally.

4. Service Delivery Assessment

A. Service Strategy

It sets the baseline to implement the systematic methods for organizational capabilities and assets to be utilized in the optimal process to achieve the defined target so consistency can be achieved in the proper manner. In this process, company should considered various aspects such as organizational structures, value creation, supply and demand, return on investments, market offering, financial management and customer portfolio. In short, ITIL [12] define service strategy as understanding the perspective, position, plan and pattern to align the needs and the assets. Based on the assessment, the score derived from second and third group indicated that service strategy was conducted by NetHost at the position below the borderline wherein service delivery in the state of intuitive so the quality is difficult to maintain. On the other hand, the first group present such different result of audit, which indicate that best practice has been applied. These differences might happen probably due to the distinction level of motivation and understanding, which were shown in the diverse quality of member in the group. On the other hand, the different type of assessment comprises of formative and summative lead to different perspective of goal and process to be identified and checked.

Table 1. Service Strategy Average Score

| No. | Service Strategy Average score all participants, all questions | I     | II    | III   | IV    |
|-----|-------------------------------------------------------------|-------|-------|-------|-------|
| 1.  | The Practice of Service Management                          | 4.23  | 2.54  | 2.51  | 3.55  |
| 2.  | Service Strategy Principles                                  | 4.18  | 2.37  | 2.71  | 3.45  |
| 3.  | Service Strategy                                            | 4.05  | 2.23  | 2.67  | 3.33  |
| 4.  | Service Economics                                           | 3.88  | 2.35  | 2.95  | 3.58  |
| 5.  | Strategy and Organisation                                   | 3.71  | 2.05  | 2.74  | 3.12  |
| 6.  | Strategy to Tactics and Operations                          | 3.64  | 2.13  | 2.75  | 2.97  |
| 7.  | Technology and Strategy                                     | 3.71  | 2.21  | 2.67  | 3.21  |
B. Service Design

It prescribes the approach used to organize resources in the company to integrate with the planning in order to improve its quality and the communication between provider and customers. In short, it focused on the process of developing the optimal service experience based on several principles such as user-centred, co-creative, sequencing, evidencing and holistic view by employing the exploration and re-engagement in the contextual manner [13]. By having service design, it could eliminate the duplications and redundancies in overall service delivery process that can reduce the wasteful time and budget to conserve resources and increase employees’ capability. The workflows also can be aligned with internal and external service between front and back end personnel in order to forming quality interaction and communication. The result differences also exist in this phase of assessment, which may relate to the available and variant information provided by the company to the group. The person in charge (PIC) to meet with the group delegators usually come from the unit member in the customer support division but at certain circumstances, other member from sales, order or marketing might come in the hand such as the close relationship with group delegators, exclusive request or PIC is not in place.

| No. | Service Design Average score all participants, all questions | I   | II  | III | IV  |
|-----|-----------------------------------------------------------|-----|-----|-----|-----|
| 1.  | Service Management as a Practice                          | 3.23| 2.17| 2.67| 4.54|
| 2.  | Service Design Principles                                  | 3.16| 2.14| 2.47| 4.74|
| 3.  | Service Design Processes                                   | 3.39| 2.03| 2.45| 2.66|
| 4.  | Service Design Technology Related Activities               | 3.51| 1.98| 2.56| 2.95|
| 5.  | Organising for Service Design                              | 3.53| 1.72| 2.49| 3.04|
| 6.  | Service Design Technology Considerations                   | 3.53| 1.95| 2.41| 3.16|
| 7.  | Service Design Process Implementation Considerations       | 3.00| 1.96| 2.29| 2.76|

C. Service Operation

Under review, identify, standardise, measure and improve service operation can support the process of creating self-improving quality through feedback cycle, which current economic crisis has forced many service delivery companies to self-assess their own quality assurance programs and offer the opportunity to self-correct in the face of the new realities within business environment [14]. Service operation deals specifically with the decisions that process managers require for the simultaneous production and consumption of an intangible product, which also related to the process, the people, the information and the system that produces and delivers the service. It is necessary to provide a focus point and management for all identified issues related to availability, accessibility and compatibility, within operational process to ensure that the objectives are met and achieved in all areas and that existing or future agreed requirements are exceeded in a cost-effective manner [15]. In this stage of assessment, the diverse interpretation also occur because the different of coverage and the timeline that the delegator choose as the object to be assessed. The diverse interpretation is not reduce the quality of assessment result as it deliver the participative work in conducting proposed criteria to be used.

| No. | Service Operation Average score all participants, all questions | I   | II  | III | IV  |
|-----|---------------------------------------------------------------|-----|-----|-----|-----|
| 1.  | Service Management as a Practice                              | 3.73| 1.98| 2.58| 3.40|
| 2.  | Service Operation Principles                                  | 3.66| 2.18| 2.57| 3.18|
| 3.  | Service Operation Processes                                   | 3.66| 2.17| 2.55| 3.10|
| 4.  | Service Operation common operation activities                 | 3.63| 2.23| 2.40| 3.03|
| 5.  | Organising Service Operation                                  | 3.62| 2.08| 2.53| 2.97|
| 6.  | Service Operation Technology Considerations                   | 3.78| 2.02| 2.49| 2.87|
| 7.  | Implementing Service Operation                                | 3.63| 2.16| 2.65| 2.95|
D. Service Transition
The role of services transition is to provide the services required by respected company for conducting the operational use when receiving the package from the service design stage. If the working conditions, assumptions or requirements have changed since the design, modifications may be required to provide the promised or proper service. In general, it focuses on the implementation of all aspects in the service delivery, not just the application and how to use it at normal circumstances. Supposedly, it also guarantee that the service can work in extreme or abnormal expected conditions and that there is support available for faults or errors. This requires a sufficient understanding of the value of the potential business, the identification of all interested parties in the resource and the adaptation of the service design, including the provision for design modification, where the need is detected during the transition [15]. Similarly, each delegators from respective group have different opinion on the level of service transition in the NetHost because the variation in term of focus, attitude, behaviour, expectation and perception used to assess the opportunities and choice. Interestingly, the first group gave 3.79, which is the best score among other criteria in service transition while the second group indicate the second lowest (2.08) for the same criteria. It is quite difficult to interpret the exact reason on why the result are far differs, as it is quite strange to have high score when other criteria value below the total.

Table 4. Service Transition Average Score

| No. | Service Transition Average score all participants, all questions | I   | II  | III | IV  |
|-----|-------------------------------------------------------------|-----|-----|-----|-----|
| 1.  | Service Management as a Practice                            | 3.54| 1.85| 2.69| 3.00|
| 2.  | Service Transition Principles                                | 3.67| 2.23| 2.49| 2.90|
| 3.  | Service Transition Processes                                 | 3.68| 2.17| 2.50| 2.95|
| 4.  | Service Transition common operation activities               | 3.65| 2.24| 2.56| 2.85|
| 5.  | Organising Service Transition                                | 3.57| 2.14| 2.56| 2.90|
| 6.  | Service Transition Technology Considerations                 | 3.49| 2.13| 2.53| 2.88|
| 7.  | Implementing Service Transition                              | 3.79| 2.08| 2.44| 2.69|

E. Continual Service Improvement
The dedicated process to maintaining value for the client through continuous evaluation, better quality of service and the overall maturity of the life cycle should be conducted in proper and balance manner. Continual service improvement combines principles, practices and methods of quality management, change management and capacity improvement, improving each stage of the service life cycle, as well as current services, processes and activities [15]. It has been shown that the primary strategies to improve service delivery by increasing customer participation in the company’s business process, responding with flexibility to the complaints, offering value added for the sacrifices made by loyal customer, ensuring that customer pay their bills in time and establishing strategic planning that involve public services through capacity-building and employee motivation, anti-corruption, improved accountability, and separation of functions among board members, especially understanding the complex interaction and system used [16, 17].

Table 5. CSI Average Score

| No. | CSI Average score all participants, all questions | I   | II  | III | IV  |
|-----|--------------------------------------------------|-----|-----|-----|-----|
| 1.  | Service Management as a Practice                  | 3.73| 2.17| 2.65| 3.10|
| 2.  | CSI Principles                                    | 0.00| 0.00| 0.00| 2.94|
| 3.  | CSI Processes                                     | 3.60| 2.29| 2.54| 2.79|
| 4.  | CSI common operation activities                   | 3.69| 2.28| 2.53| 2.85|
| 5.  | Organising CSI                                    | 3.66| 2.17| 2.56| 2.89|
| 6.  | CSI Technology Considerations                     | 3.59| 2.44| 2.63| 2.92|
| 7.  | Implementing CSI                                 | 3.95| 2.28| 2.58| 2.82|
5. Conclusion
As technology become critical element of most commercial processes, which technology role is not merely as supportive but as enable to every type of business process, the continuity or availability of IT is fundamental for the survival of the company as a whole. This is achieved through the introduction of risk reduction measures and recovery options that allow continuous maintenance of resilience to remain effective [15]. Clear principles and guidelines, delivered through a clearly defined vision and mission, provide businesses and information technology with a common goal can improve the quality of service delivery. Therefore, company also should maintain unique approach based on customers’ perspective and commercial results by adopting a continuous focus to increase the consistency of the service so that it can continually improve and differentiate the match with the desires and expectation from the customers. However, there were different type of interpretation and opinion exist among the group delegators due to several reasons such as the information spread, the different level of focus and skill, the coverage of timeline and many more. This result indicated that the proposed assessment criteria should be improved while the training program should be delivered more rigid to align the same understanding among the group member before conducted the assessment process toward service delivery to avoid the huge gaps in the measured score given to respected type of service delivery.

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