Assessment on Delivery Performance of Trading Companies in the Supply Chain of Philippine Power Generation Industry

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Abstract

The purpose of the study is to determine the service delivery performance of trading companies in the Philippine power generation industry. The study will determine the service gaps that are found in the service delivery performance of trading companies. To proceed with the study, the researcher had to (1) assess the delivery performance of trading companies in areas of price competitiveness, order fulfillment, and product quality; (2) To formulate strategic measures and sustainable solutions in closing service gaps; (3) To create a well-designed implementation plan in order to obtain full benefits of the strategies identified. Service quality survey was used to know the ratings of trading companies and power plants in the service delivery performance of trading companies. Analysis of variance was also used as a statistical treatment of data. The study used Why-Why and How-How diagram to identify the root causes of the main problem and to conduct a possible solution to that problem. The study also conducted an implementation plan found in different related literatures. The study will benefit trading companies in the inbound supply chain component of the power generating industry in the Philippines.

Keywords
Trading companies, power generation industry; service gaps

1. Introduction

The power industry is engaged in the processing, distribution, and sales of electric power in forms that are suitable for feeding industrial processes and household equipment, from sustainable sources through the exploitation of wind energy, solar energy, biomass, geothermal energy, and biogas (Wanat, 2012). The power industry has its characteristics, such as supply chain (Cao & Zhang, 2011).

From the supply chain aspect, the industry’s main product is energy, which refers to electrical power. It is the product relating to the entire society’s food, clothing, housing, transportation, and people's life need. The production of energy products is the main task of power generation (Zhang, 2012), but the highest proportion of the energy input involved in the manufacture of their products is not a direct one to the industries in which they are made and sold, but an indirect one to the industries making and supplying their materials (Pick & Becker, 1975). The direct and indirect suppliers are part of the inbound supply chain of the power industry, which contains complex and diversified industrial departments (Lambert et al., 1998).

The direct and indirect suppliers cover anything that the company orders from suppliers, which can include tools, raw materials (Ingram, 2019), parts, equipment, items, and service providers (Eslao, 2018). An indirect supplier of the power industry includes trading, fabricating, and other services (Energy Premier, 2016). Trading companies are characterized by their specialization in market-making intermediation, an activity which may involve brokerage (selling on behalf of another) or reselling (taking title to the goods traded) (Casson, 1998). One of the key means of the physical production of power and improving its usage is the traders in the machinery and equipment of the power industry (Moinuddin & Bhattacharya, 2013). Traders in the power industry provide solutions in the supply of products,
industrial equipment, machinery, specialty materials, and spare parts (Leymo Trading, 2015). They must be qualified, and their quality must be controlled (World Nuclear Association, 2018). Power plants can operate for over sixty (60) years. Recently, plant operators have had increasing issues with spare parts, since the parts are in continuous use, wear and age. This creates a constant need for spare parts, which is why traders in the power industry are important (Framatone, 2018). For the trading companies to be successful in the power industry, they need to be able to manage factors, which can significantly affect their overall competitive position, which is referred to as key success factors (Hofer & Schendel, 1978).

Analyzing the literature on the key success factors of the trading companies in the power industry, it was noted that homogeneity exists among all the factors identified by different authors (Lopez & Muñoz, 2012). It indicated that the success of trading companies in the power industry is highly dependent on three success factors, namely: (1) Value, (2) Pace, and (3) Customer Demand (Emst & Young Global Limited, n.d.).

In the Philippine setting, these key success factors are no different from what the competitive priorities of trading companies are for the power industry. The study conducted a preliminary survey of local power plants in which coal power plants are to determine the key success factors that trading companies must prioritize. The researchers chose to investigate coal power plants as they have the highest capacity of power to supply in the Philippines, having a total of 48.9% (Department of Energy Philippines, n.d.). The local coal power plants that participated in the preliminary survey are GN Power Ltd Corporation, South Luzon Thermal Energy Corporation (SLTEC), SMC Global Power Holdings Corporation, KEPCO Ilijan Corporation, and Aboitiz Power. The chosen key success factors by these power plants that are important to trading companies were as follows: (1) Order Fulfillment Timeliness - Speed of Delivery, (2) Product Quality - Meeting Specifications, and (3) Price with respect to Product.

The following are the objectives of the research study: (1) To assess the service delivery performance of trading companies in areas of price competitiveness, order fulfillment timeliness, and product quality; (2) To formulate strategic measures and sustainable solutions in closing the service gaps; and (3) To create a well-designed implementation plan to obtain full benefits of the strategies identified.

Completion of the study will benefit trading companies in the inbound supply chain component of the power generating industry in the Philippines, as it will provide insights on the improvement of the strategic operations of key success factors of trading partners. Also, the academe can make use of this research as a seminal study to generate further interest from other students seeking to pursue similar investigative or exploratory work on the power industry supply chain. Lastly, the stated local trading companies will greatly benefit from the results of the analysis, as most information will be coming from them.

The scope of the study is confined to the supply chain component involving the indirect suppliers, which are the traders and the power of generating clients in the value stream. Moreover, the limitation of this study is the analysis of local family-owned trading companies having an annual sale of 20-70 million pesos, which is deemed representative of a trader entity in the value stream. Data will be provided by a trading company and shall be treated with the utmost confidentiality.

2. Methodology

The focus of this study is to close the service gaps obtain in the preliminary survey of trading companies in the Philippine Power Generation Industry. Figure 2.1 represents the framework of how it will be approached.

Assessment begins with conducting a SERVQUAL Survey by determining the discrepancy between the Trading Companies and Power Plants' expectation for the offered services and their perceptions of the service received. The respondents for the SERVQUAL Survey were the same respondents from the preliminary survey, which were the local trading companies and their clients, the local coal power plants. The survey has two sets of questionnaires; they are expectations and perceptions. The two sets of questionnaires were both given to the Trading Companies and Power Plants. Each company has at least three (3) respondents to answer the survey. The population of the survey consists of twenty-seven (27) employees from trading companies and their clients; twelve (12) employees from trading companies; and fifteen (15) employees from power plants. The questionnaire consists of twenty-two (22) questions
that were answered using a 7-point Likert scale (1 - strongly disagree (lowest), to 7 - strongly agree (highest)), covering 5 dimensions, which are: Reliability, Responsiveness, Assurance, Empathy, and Tangible.

Figure 2.1 Research Framework

The researchers made minimal wording changes to the original contents of the SERVQUAL indicators to suit services in trading industries. The ratings are averaged for all respondents and per dimension. The average expectation rating is then subtracted from the average perception rating (P-E).

Subsequently, the gap analysis between the trading companies and their clients was conducted to justify that there is a service gap. When service quality has positive gaps, it indicates that the user’s desired expectations were met or are exceeded. On the other hand, when service quality is lower than expected, expectations are expressed negatively, and the client’s desires were not met. In this study, the criterion of measurement is entailed that if the average/mean difference between the users’ perceptions and expectations (P-E) is smaller or narrower, there is better service quality. Otherwise, they are not met.

The total population of this study is the respondents from the preliminary survey, which are the Trading companies’ employees and Power Plants employees. There are four (4) local trading companies included in this study, specifically, the Turblades Philippines Inc., FH Commercial Inc., SG Kairos Inc., and Jemzed Industrial. In addition, there are three (3) respondents from each of the trading company. This makes a total of twelve (12) respondents. While there are five (5) local Coal Power Plants included in this study which are GN Power Ltd Corporation, South Luzon Thermal Energy Corporation (SLTEC), SMC Global Power Holdings Corporation, KEPCO Ilijan Corporation, and Aboitiz Power. There are also three (3) respondents from each Power plant, with a total of 15 respondents.

The study used 95% confidence level on the computation wherein $\alpha = 0.05$. The statistical analysis using ANOVA on Microsoft Excel will generate p-value. If $p$-value $\geq \alpha$, accept $H_0$. On the other hand, if $p$-value $\leq \alpha$, then reject $H_0$.

$H_0 =$ There is no significant difference between the trading companies and power plants ratings in the service delivery performance of trading companies.

$H_a =$ There is a significant difference between the trading companies and power plants ratings in the service delivery performance of trading companies.

The study made use of the Swim Lane Process Map to trace and identify the source of the service gaps in the service delivery performance of the trading company, including the respective departments in charge of the said procedure. This is used as a way to integrate processes between teams or departments, resulting in a cleaner process on an ongoing basis.
In relation, the Why-Why Diagram was used, as a tool to help the researchers identify the core problem of the service gaps, and to address them. In closing the service gaps, the How-How Diagram was applied. After using the Why-Why Diagram, the study used the How-How Diagram that conducted possible solutions to address the root causes that appeared in the Why-Why diagram.

The last objective of this study is to create a well-designed implementation plan in order to obtain the full benefits of the strategies identified. Therefore, in order to do so, the researchers gathered information from related literatures about the current processes and practices that trading companies executed and applied to provide service quality to their clients. The researchers examined the possible solutions in the How-How diagram to create an implementation plan for it using the related literatures. The related literature also helped the researchers to further understand and be familiar with all the aspects and attributes related to trading services.

3. Results and Discussion

3.1 Servqual Survey

Table 3.1.1 depicts the gap scores of trading companies and power plants. The average scores for expectation score and perception score in service delivery performance of trading companies to power plants were also displayed in the table.

The results of the survey from the Trading Companies section showed a high average mark of expectations but a low average mark in perceptions, which resulted in a high number of negative gap scores. The trading companies seem to be confident in their service delivery, but they have failed to deliver their services to their clients, as they have a negative score gap seen in table 3.1.1.

Table 3.1.1 also shows the average result of the survey of the power plants. The result is similar to that of the result of the trading companies. The result showed a high average mark on expectation, but a low average mark on perception. It appears that the power plants have not received the services, as the trading companies are expected to. It shows that generally, the perception scores of trading companies and power plants were lower than their expectation scores to the service delivery performance of trading companies. This was shown by the gaps existing between the two parameters.

To determine the level of gaps and/or the differences of trading companies in their service delivery performance to the power plants, the study calculated the average gap differences and the results have equally shown that the performance of trading companies were equal in negatively and positively marked. This means in other words, that trading companies were able to satisfy their clients on those services that have the narrowest gaps as follows:

1. The trading company is always ready to assist their clients. (0.50 Responsiveness)
2. The trading company is always willing to help their clients. (0.42 Responsiveness)
3. The trading company always have time for clients’ favors and requests. (0.42 Responsiveness)

Table 3.1.1 also showcases the top 3 services that local trading companies were mostly dissatisfied with. In the order from severity/worst dissatisfaction (i.e., they are ranked from highest gap to lowest) include:

1. The trading company delivers the product or service on promised date. (-2.67 Reliability)
2. The company's price relating to its product. (-2.50 Tangible)
3. The assurance that the trading company will serve the said product as per ordered or requested. (-2.17 Assurance)

The results of the survey from the power plants have also equally shown that the satisfaction ratings of the power plants were equally negatively and positively marked. Power Plants are satisfied with the service delivery performance of the trading companies to them, those services that have the narrowest gaps as follows:
1. The trading company is always ready to assist their clients. (0.60 Responsiveness)
2. The trading company responds to the calls of clients even beyond operating hours. (0.47 Empathy)
3. The trading company is consistent in providing clients what they need. (0.33 Empathy)

The table 1 also showcases the eleven services that local Power Plants were mostly dissatisfied with. These, in their order of severity/worst dissatisfaction (i.e., they are ranked from highest gap to lowest) include:

1. Trading company delivers the product or service on promised date. (-3.13 Reliability)
2. Company's price relating to its product. (-2.93 Tangible)
3. Assurance that Company will serve the said product as per ordered or requested. (-2.87 Assurance)

Table 3.1.1 Result of the Servqual Survey

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>STATEMENT</th>
<th>TRADING COMPANIES</th>
<th>POWER PLANTS</th>
<th>GAP SCORE</th>
<th>RANK</th>
<th>GAP SCORE</th>
<th>RANK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EXPECTATION PERCEPTION</td>
<td>S = P - E</td>
<td></td>
<td></td>
<td></td>
<td>S = P - E</td>
<td></td>
</tr>
<tr>
<td>RELIABILITY</td>
<td>Planning of a Company, helping to understand the clients need.</td>
<td>6.42</td>
<td>6.00</td>
<td>-0.42</td>
<td>15</td>
<td>6.07</td>
<td>6.27</td>
</tr>
<tr>
<td></td>
<td>Behavior of Sales Representative during Plant Visits (talking to their clients and etc.)</td>
<td>6.58</td>
<td>6.50</td>
<td>-0.08</td>
<td>9</td>
<td>6.67</td>
<td>6.53</td>
</tr>
<tr>
<td></td>
<td>Transactions with the clients verbal orders, without proper documents.</td>
<td>6.58</td>
<td>6.50</td>
<td>-0.08</td>
<td>9</td>
<td>6.67</td>
<td>6.53</td>
</tr>
<tr>
<td></td>
<td>Assurance that Company will serve the said PRODUCT as per ordered or requested.</td>
<td>5.92</td>
<td>3.75</td>
<td>-2.17</td>
<td>3</td>
<td>6.60</td>
<td>3.73</td>
</tr>
<tr>
<td></td>
<td>Technical Knowledge of a Company, helping to understand the clients need.</td>
<td>5.42</td>
<td>3.42</td>
<td>-2.00</td>
<td>4</td>
<td>6.00</td>
<td>3.67</td>
</tr>
<tr>
<td>TANGIBLE</td>
<td>Capable of manufacturing or producing the product that clients need.</td>
<td>6.25</td>
<td>6.33</td>
<td>0.08</td>
<td>11</td>
<td>6.33</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td>Company's price relating to its product.</td>
<td>6.17</td>
<td>3.67</td>
<td>-2.50</td>
<td>2</td>
<td>6.53</td>
<td>3.60</td>
</tr>
<tr>
<td></td>
<td>Presentable on packing the products and handing to its client.</td>
<td>5.75</td>
<td>3.83</td>
<td>-1.92</td>
<td>5</td>
<td>5.87</td>
<td>3.87</td>
</tr>
<tr>
<td></td>
<td>Able to provide documents that are needed for a transaction.</td>
<td>5.67</td>
<td>6.00</td>
<td>0.33</td>
<td>14</td>
<td>5.73</td>
<td>6.00</td>
</tr>
<tr>
<td>EMPATHY</td>
<td>Answers call of clients even beyond the operating hours.</td>
<td>6.17</td>
<td>6.25</td>
<td>0.08</td>
<td>11</td>
<td>5.87</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td>Trading Company Sales Representative gives personal attention to its clients.</td>
<td>6.17</td>
<td>6.33</td>
<td>0.17</td>
<td>12</td>
<td>6.20</td>
<td>6.27</td>
</tr>
<tr>
<td></td>
<td>Continuous to give clients what they ask for.</td>
<td>6.33</td>
<td>6.33</td>
<td>0.00</td>
<td>10</td>
<td>6.00</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td>Company understands what specifications does clients need.</td>
<td>5.83</td>
<td>5.42</td>
<td>-0.42</td>
<td>6</td>
<td>6.47</td>
<td>5.73</td>
</tr>
<tr>
<td>RESPONSIVENESS</td>
<td>Always have time for clients' favors and requests.</td>
<td>6.25</td>
<td>6.67</td>
<td>0.42</td>
<td>15</td>
<td>6.27</td>
<td>6.47</td>
</tr>
<tr>
<td></td>
<td>Trading Company is always willing to help the clients.</td>
<td>6.50</td>
<td>6.92</td>
<td>0.42</td>
<td>15</td>
<td>6.33</td>
<td>6.93</td>
</tr>
<tr>
<td></td>
<td>Trading Company is always ready to assist their clients.</td>
<td>6.08</td>
<td>6.58</td>
<td>0.50</td>
<td>16</td>
<td>6.07</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td>Gives the exact information of the status of products and or services.</td>
<td>5.83</td>
<td>5.67</td>
<td>-0.17</td>
<td>8</td>
<td>6.13</td>
<td>5.73</td>
</tr>
</tbody>
</table>

This result is not surprising; rather, it has reaffirmed the result of the preliminary survey conducted in the study where the service gaps between the trading companies and power plants were discovered. The service gaps discovered in the preliminary survey were as follows: (1) Order Fulfillment Timeliness – Speed of Delivery, (2) Product Quality - Meeting Specifications, and (3) Price with respect to the product. While the top three service gaps found in the SERVQUAL surveys were as follows: (1) Trading company delivers the product or service on the promised date, (2) Company's price relating to its product. (3.) Assurance that Company will serve the said product as per ordered or requested. It should be noted that all the said service gaps were found in related literature as key success factors of trading companies in the power generation industry. Notice that the result of the survey for both trading companies
and power plants are the same. Both of them have the speed of delivery of the product as the biggest gaps in the service delivery of the Trading companies; it is under the dimension reliability.

3.2 Analysis of Variance

The data gathered from the SERVQUAL Survey provided results to the service gaps of trading companies in the Philippines. The study was able to show that the Reliability factor garnered the most negative responses; it is followed by Assurance, then Tangible, next is Empathy and last is Responsiveness. However, these data still need quantitative analyses to verify if there is a significant difference between the trading companies and power plants ratings in the service delivery performance of trading companies. The quantitative tool that was used by the study was the Analysis of Variance.

Table 3.2.1 Summary Result of One-Way ANOVA

<table>
<thead>
<tr>
<th>Dimension/ Factors</th>
<th>Trading Companies (P-E)</th>
<th>Power Plants (P-E)</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reliability</td>
<td>-1.32</td>
<td>-1.36</td>
<td>0.9487</td>
</tr>
<tr>
<td>2</td>
<td>Assurance</td>
<td>-1.04</td>
<td>-1.30</td>
<td>0.7990</td>
</tr>
<tr>
<td>3</td>
<td>Tangible</td>
<td>-1.00</td>
<td>-1.17</td>
<td>0.8793</td>
</tr>
<tr>
<td>4</td>
<td>Empathy</td>
<td>0.05</td>
<td>0.07</td>
<td>0.9487</td>
</tr>
<tr>
<td>5</td>
<td>Responsiveness</td>
<td>0.29</td>
<td>0.17</td>
<td>0.6464</td>
</tr>
</tbody>
</table>

Table 3.2.1 represents the average factor ratings of Trading companies and power plants in the service delivery performance of the trading companies. It should be noted that all the factors were not significant for both trading companies and power plants. This then entails that both trading companies and power plants have the same perceptions and expectations on all the different factors/dimensions: Reliability, Assurance, Tangibles, Empathy, and Responsiveness. Furthermore, both the trading companies and power plants understand the current issues of the problem in the service delivery performance of trading companies in the power generating industry.

3.3 Swim Lane Process Map

The study made a Swim Lane Process Map of the trading companies’ transactions to its suppliers and clients. The process map of the trading companies is divided into three phases: Phase 1 is the Bidding Phase; Phase 2 is the Ordering Phase; and Phase 3 is the Delivery Phase.

3.3.1 Phase 1: Bidding

Figure 3.3.1 depicts the Bidding Process of the trading companies in the Power Generating Industry in the Philippines. It starts with the inquiry of the Power Plant to the trading companies, offering the best prices and products to the power plant. The gaps discovered in the study, which is the Price of the Product, is included in this process. The trading company will lose the bidding if they are unable to offer the best price and product to the Power Plant. Losing the bidding means the end of transaction with the clients, but if they are able to win the bidding, the trading company will be awarded with the purchase order.

3.3.2 Phase 2: Ordering

Figure 3.3.2 depicts the third phase, which is the Ordering process of the trading company to the suppliers of the product. It should be noted that the suppliers of the product are overseas suppliers. The trading company places orders from foreign suppliers as they offer cheap price for product and raw materials. About 83% of the products were ordered from foreign suppliers and 17% were ordered from local suppliers. The lead-time of product delivery to the power
plants starts when the purchase order was awarded to the Trading companies. The service gap discovered in the SERVQUAL survey, which is the Delivery fulfillment timeliness of the product, is part of this process.
3.3.3 Phase 3: Ordering

Figure 3.3.3 displays the delivery process of the product of trading company to Power Plants. When the product is received from the supplier, the trading company will check, repack, and directly deliver the products to the plant. The power plant will then check the product to ensure that it meets the specifications. If the power plant accepts the product, they will issue the cheque payment for the trading company. If the product did not meet the specifications, the trading companies will perform service recovery. If the product is repairable, the trading company will repair it. If it is beyond repair, the company will place another order from the supplier. But if the power plant has an urgent need for the product, they may opt to cancel the order.

3.4 Why-Why Diagram

The SERVQUAL Survey and the Analysis of Variance helped the researchers to verify the service gaps present in the service delivery performance of the trading companies. The researchers also made use of the Swim Lane Process Map to show where the gaps occurred. To find the root causes of the service gaps, the study used the Why-Why Diagram. Figure 3.4.1 shows the Why-Why Diagram.

According to the Why-Why Diagram and the data gathered from a representative trading company. The researchers were able to come up with the root cause. The main problem in the diagram is the “Service gaps on delivery performance of trading companies”. This was answered by 3 Whys: (1) unable to satisfy clients in timeliness of delivery; (2) unable to satisfy clients in price of the product, and (3) unable to satisfy clients in quality of the product-meeting specifications.

3.5 How-How Diagram

After determining the root causes of the service gaps found in the Why-Why diagram, the researchers will use the How-How diagram to close the service gaps. It will also be used to conduct solutions on every root causes of the service gaps. The figure 3.5.1 shows the how-how diagram that was used in this study.

Analyzing the root causes of the problem found in the Why-Why Diagram, the study offers the Vendor Managed Inventory (VMI) to close all the service gaps. The study found in a related literature that the VMI will solve all the service gaps by performing this business model, but there has been no research on the use of VMI in trading companies.
The Vendor Managed Inventory (VMI) is a form of consignment contract, which has been widely adopted in a number of industries (Battini et al. 2010) and are often used by dominant retailers/traders to reduce private transaction costs of meter pricing (Markovits, 2014). It is a business model where the buyer of a product provides information to a vendor of that specific product, and the vendor takes full responsibility for maintaining an agreed inventory of the product (Murray, 2018). The vendor serves as the trading companies, while the buyer, as the power plants. It provides real time visibility of inventory and assures high level of product availability maintaining inventory level far below the industry level (One Network Enterprises, n.d.).

The researchers discovered in the Why-Why Diagram that the root causes for being unable to satisfying the clients in terms of delivery timeliness is the preparation of the documents for bank transfer. The VMI has controllable lead-time, and it will allow the trading company to automate the stock replenishment from suppliers. The second service gap that can be close using VMI is the making of snap decisions from the trading companies as it is the root cause of the service gap product quality - meeting specifications. The VMI reduces the risk of errors in ordering and order fulfillment when it comes to meeting the specifications of items as the data given by the clients comes with the complete detail of dimensions and specifications of the items (Lunka, 2015). The last service gap that can be close using VMI is the consistency of orders per clients as it is the root cause of the service gap price related to product. The trader has more visibility than their client’s inventory levels, and it is easier to ensure that stock-outs will not occur as they can see when items need to produce. The price of the product will be considerably reduced as the cost of the product also reduces, as the products were ordered in bulk and in advance. A number of research papers have been specifically studied the value of information sharing through VMI, and it has been well documented that inventory reductions and cost savings can be reached by implementing it (Lunka, 2015).

According to all the data gathered from the related literature, the researchers conducted a process of VMI that is applicable for trading companies. The researchers also made minimal revisions to the original contents from the related literature to suit the services in trading industries. The following processes are as follows:

1. Client (Power Plants) will share their inventory data (dimensions and specifications are given) and preventive maintenance schedule to trading companies.
2. Trader will be in control of the client’s inventory.
3. Trader will set their safety stocks according to the clients’ preventive maintenance schedule.
4. Traders will order the stock in advance to suppliers.
5. The trading company will store it until the preventive maintenance of the power plants.
6. The items will be prepared and delivered 2-3 days before the schedule maintenance.
7. As clients use products from their inventory, the trader will update it.
8. As the client continuously to consume their products, traders can anticipate stock replenishment.
9. If items are near to its safety stock, traders will now order again the said item to its own suppliers.
10. The process is repeated.

4. Conclusion
The outcome of this study will benefit trading companies in the inbound supply chain component of the power generating industry in the Philippines, as this study will provide insights on the improvement of the strategic operations of key success factors of trading partners. Specifically, these researchers discovered that the key success factors of trading companies were also the service gaps of their service delivery performance which are: (1) Order Fulfillment Timeliness - Speed of Delivery, (2) Product Quality - Meeting Specifications, and (3) Price with respect to Product. The researchers verified the service gaps of the trading company using the service quality survey in knowing the discrepancy of trading companies’ ratings versus power plants’ ratings. Furthermore, the differences between the ratings of the trading company versus the ratings of the power plants were also identified using analysis of variance.

This study was accomplished to achieve the objectives. The first objective was to assess the service delivery performance of trading companies in areas of price competitiveness, order fulfillment timeliness, and product quality. This objective is achieved through conducting service quality surveys between the trading companies’ ratings and power plants’ ratings in the service delivery performance of the trading companies. The analysis of variance was also used to know if there is a significant factor between the two. The top three service gaps were focused on as it is the key success factor of a trading company. The service gaps were as follows: Delivery fulfillment timeliness, Price related to the product, and Product Quality – Meeting Specifications. The outcome of this process was used to verify the service gaps in the preliminary survey and to use as data in closing the service gaps.

The second objective was to formulate strategic measures and sustainable solutions in closing the service gaps. Using the Why-Why Diagram, the study was able to find the root causes of the service gaps. The root causes were as follows: Evaluating proforma invoice, preparation of telegraphic transfer, making snap decisions, and product/s per purchase order are not consistent. In closing the service gaps, the How-How Diagram was used. The study offers Vendor Managed Inventory (VMI) as it will close all the three service gaps of service delivery performance of trading companies.

The last objective was to create a well-designed implementation plan to obtain the full benefits of the strategies identified. The researchers gathered information from related literature for the VMI processes that will be used to close the service gaps. Since there have been no research studies about the VMI used in trading companies, the researchers made minimal revisions to the original process of VMI to suit the services in trading industries.

References

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Biographies

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