

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL BACKGROUND

2.1. Literature Review

A research conducted by Sulistiya Witri Yuliah in 2015 is about analyzing the level of customer satisfaction towards the Smartfren's services in Palembang. The methods used for this research is Importance-Performance Analysis (IPA) and CSI (Customer Satisfaction Index). The findings shows that in the IPA method there are 2 service quality attributes that goes into the first quadrant which means that there are two service attributes that has to be prioritized to be fixed because it does not satisfied the customer. Those attributes were "the guarantee of availability of products in the official gallery of smartfren" and "Smartfren's employee who is able to give the promising service like the good quality of the product and anti-slow internet connection". And in the CSI method shows that the overall level of customer satisfaction is only 68,45%; which means that the majority of the customer are satisfied with the quality of the service performance of Smartfren. The methods used for this research is questionnaire, interview, data processing using Microsoft Excel, SPSS also Importance Performance Analysis and Customer Satisfaction Index.

There is also a research conducted in 2013 by Yola and Budianto about analyzing the customer satisfaction towards the service quality and price of product at the supermarket. In this research, they also used the same method as the previous literature review which is using the Importance Performance Analysis (IPA).

According to Agyapong (2011) and Maddern et al (2007) research on the relationship between service quality and customer satisfaction it is found that service quality were good predictors of customer satisfaction and that technical service quality plays a critical role in determining the customer satisfaction. On this research, both researchers used the same method which is SERVQUAL model as the main framework to analyze the service quality and multiple regression analysis to examine the relationships between the service quality variables and customer satisfaction.

Amjad A. Abu-El Samen et al in 2013 conducted a research named "Mobile SERVQUAL: A comparative analysis of customers' and managers' perceptions". The problems that they worked on is revealing and comparing the SERVQUAL

dimensions from the customers' and the managers' perspectives, and to examine their effect on customer satisfaction and business performance, respectively, in Jordan's mobile service industry. The methods that they used in this research is they utilizing structural equation modeling, and after a series of exploratory and confirmatory factor analyses, the authors tested the theoretical five dimensional SERVQUAL model and tested their effect on customers' satisfaction and business performance respectively. And the result of this research is that it was found that SERVQUAL is a three-dimensional construct as opposed to five, as proposed by the original hypothesized model. From customers' point of view, SERVQUAL consists of three dimensions that are reliability, tangibility and interaction quality (empathy, assurance, and responsiveness). From managers' point of view, SERVQUAL consists of three dimensions that are empathy, tangibility-reliability, and responsiveness-assurance.

A research conducted by M.Y. El-Bassiouni et al (2012) for the journal of economic and administrative sciences, they conducted a research named "Developing customer satisfaction indices using SERVQUAL sampling surveys: A case study of Al-Ain municipality inspectors". The problems that they worked on is about developing customer satisfaction indices for the services provided by inspectors in certain departments of Al-Ain Municipality, the United Arab Emirates. The methods used to solve the problem was a methodology based on customer satisfaction models with SERVQUAL survey input to produce indices of satisfaction and the drivers and outcomes of satisfaction. The survey data were collected via a stratified random sample of the customers who visited Al-Ain Municipality Customer Service Center (AMCSC) in spring 2008. Structural equation models were fitted to the data and goodness-of-fit was assessed. The result of this research is the customer satisfaction indices and scores of customers' trust were in the mid-eighties, indicating high levels of satisfaction and client trust.

S.M. Zabed Ahmed et al (2009) conducted a research for journal of performance measurement and metrics and the research is called as "Measuring Service Quality of A Public University Library in Bangladesh using SERVQUAL". The problem that they worked on is to report on an examination of the service quality of Dhaka University Library (DUL), a premier public university library in Bangladesh, from its users' viewpoint. The methods used on this journal was a survey which conducted among faculty, graduate, and undergraduate students of DUL using a modified version of SERVQUAL. The gap differences between users'

expected and perceived services were calculated then the concept of zero tolerance was applied to see which items of service quality equal, exceed or fall short of user perception. This journal also analyzed the desired service expectations of the users and the dimensions of service quality were determined through exploratory analysis. The result of this research showed that DUL services are lagging far behind what is expected by its users. The result of the zone of tolerance showed that most of the items of service quality are not within the range of tolerance. A number of users' desired expectations for service quality are identified. Then, the results obtained through the exploratory factor analysis suggest that university library service quality consist of four dimensions such as affect of service (organizational), collection and access, library as a place, and affect of service (personal) which are different from SERVQUAL's original dimensions.

A research conducted by Muhammed S. Alnsour et al. (2014) for international journal of commerce, they conducted a research called "Using SERVQUAL to Assess the Quality of Service Provided by Jordanian Telecommunication Sector". The problem that they worked on was to explore the application o SERVQUAL approach to assess the quality of service of Jordanian telecommunication sector and how this ultimately affect customer loyalty and that service quality has a very high importance in a sector that is becoming highly competitive. The method used in this research was a survey to assess service quality from the viewpoint of customers using a stratified sample that consists of customers of each of Jordanian Telecommunication Company. The survey contrasts respondents' expectations of a service with their perceptions of the service delivered by telecommunication companies. The result of the research showed that the telecommunications company needs to understand the Jordanian customer expectations in the light of the unique cultural traits of these customer expectations. Loyalty is directly enhanced by achieving service quality and should be one of the main goals for telecommunication companies.

Khodayar Abili et al (2012) conducted research called "Measuring University Service Quality by Means of SERVQUAL Method" for Asian Journal on Quality. The problem that they worked on was to determine university service quality in the International Branch of Amirkabir University (Iran). The method used on this research was SERVQUAL questionnaire that measure students' perceptions and expectations in five dimensions of service that consists of assurance,

responsiveness, empathy, reliability and tangibles. Then the quality gap of university services was determined based on differences between students' perceptions and expectations. The result of this research was that in all of the five SERVQUAL dimensions there was a negative quality gap. Also it is found that responsiveness is the most important dimension for the students but had the largest gap. So improvements are necessary and the university must pay more attention to the students' requirements.

A research conducted by Hussein M. Al-Borie et al. (2013) for International Journal of Health Care Quality Assurance is called "Patients' Satisfaction of Service Quality in Saudi Hospitals: A SERVQUAL Analysis". The problem that they worked on in this research was seeking to provide guidelines to the on-going Saudi Arabian health service reorganization, which emphasizes decentralization, bed-capacity expansion, research-based policymaking and initiatives in the health insurance sector. The methods used in this research was that the authors employed a stratified random sample from five Saudi Arabian public and five private hospitals. Data were collected through questionnaire using SERVQUAL scale. Data were analyzed using SPSS and appropriate descriptive and inferential statistical techniques. Then the result of this research showed that sex, education, income and occupation were statistically significant in influencing inpatients' satisfaction, and all the null hypotheses were rejected and only inpatient age was not significant.

A research for Benchmarking: An International Journal called Quality Measurement of Indian Commercial Hospitals using A SERVQUAL Framework were conducted by Sadia Samar Ali et al (2018). The problem that they worked on this research was to understand and compare the level of patients' expectations of healthcare service and their perceived performance also provides insights of the specific service factors and quality of hospital services which are required to meet the needs of Indian patients. The method used in this research was exit-interviews which were conducted using structures questionnaire addressing the probable factors of quality related to healthcare services in 5-point likert scale. The survey was conducted among the patients recently discharged and about to be discharge from private hospitals of Delhi and NC, and the result from the questionnaire are administered to collect responses on both expected and perceived service qualities. The results of this research gave an overview of the perspective of Indian patients on the quality of service in private hospitals. It is observed that patient's perceived services qualities on all four indicators are higher than the expected

values – a typicality of findings of health care industry. It implies that hospitals are able to provide improved services superseding expectation of the patients due to faster and innovative management practices in medical service delivery. Patients indicated best satisfaction in some of dimensions of services viz. in Gap Analysis (Perceived minus Expected) Tangibility aspects of service quality ranks second while responsiveness is ranked the highest followed by empathy and assurance fourth.

Railya B. Galeeva (2016) conducted a research for Quality Assurance in Education called “SERVQUAL Application and Adaptation for Educational Service Quality Assessments in Russian Higher Education”. The problem that they worked on was to demonstrate an adaptation of the SERVQUAL survey method for measuring the quality of higher educational services in a Russian university context. The method used in this research were following the classic SERVQUAL method in terms of data acquisition but provides a new approach for data analysis and presentation of findings. The technique is intended to improve the original method by including an Importance-Quality Analysis grid and extending it with an innovative graphical tool for presenting results to decision-makers that is based on area-based ratios rather than difference scores. The result of this research was able to provide valuable insights into the perceived quality of the Republic of Tatarstan’s higher education system in Russia, as given by its student customers.

From the researches above, all of them supported that service quality and customer satisfaction is connected. The higher the service quality then the more satisfied the customers will be. And the research attribute that is used in all of the research is almost the same which they are using the SERVQUAL model and to process the data they used descriptive statistics such as using the SPSS program software and the Importance-Performance Analysis for further observation.

2.2. Service

Definition of service according to Murti Sumarni (2002) is an activity or an advantage which can be given by a party to another party which is mostly intangible and cannot affect ownership, and its production or is not related to any tangible product. In addition, Philip Kotler and Armstrong (1996) explains definition of service as an activity or an advantage which is given by one party to another party which basically intangible and cannot effect any ownership. Below is the definition of service according to the several experts:

- a. Gronroos (1990) explain that a service is also an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees and/or physical resources or goods and/or system of the service provider, which are provided as solutions to customer problems.
- b. Service is all economic activities whose output is not a physical product or a construction is generally consumed at the time it is produces, and provides added values in forms (such as convenience, amusement, comfort or health) (Zeithamal et al, 1996).
- c. Steinhoff (1979) further states that the raw material of services is people. The main material of service is in fact people; nevertheless, there are many other supporting factors from the raw material of service such as advanced tools, clean, secured, comfortable physical environment, accurate, advanced, and up to date technology and service.
- d. Lamb et al (2001) also mention that service has several unique characteristics, which differ it from the others, namely intangible, inseparability, heterogeneity, perishability.

2.2.1. Characteristics of Service

It is often said that service has unique characteristics that differ it from the products or goods of manufacture. There are five characteristics of service, which are (Tjiptono, 2004):

- a. Intangible
Service has an abstract characteristic and intangible, which means service cannot be seen, tasted, felt, or touched unlike products or goods.
- b. Inseparability
In general, service usually being sold first and then being produced and consumed at the same time and place.
- c. Heterogeneity
Service is non-standard variable and various. Means that, there are a lot of variations of shape, quality, the type depends on who, when and where the service is being produced.
- d. Perishability
Service is not durable and cannot be stored.
- e. Lack of ownership

This is the basic difference between service and goods. When people buy product, the customer have the full right of using the product that they bought. They could consume it, store it, or sell it. On the other side, when a customer bought a service, the customer may only have personnel access on a service for a limited time only.

According to Payne (2001), there are four characteristics of services, which are:

a. Intangible

Service has an abstract character and it is intangible, means that services cannot be seen, tasted, or felt unlike a product.

b. Heterogeneity

A service is a non-standard variable and has a lot of variety.

c. Inseparable

A service usually is being produced and consumed at the same time, with the participation of customer on the process. It means that the customer must be in the same place with the service that being asked, so that the customer could see and participate on the process production of the service.

d. Perishability

A service cannot be stored in stocks, which means that a service cannot be stored, resell to other people, or being returned to the producer where the customer buys the service.

2.2.2. Classification of Service

There are many basic applied classifications of service to, according to Lovelock, Evans, and having Berman like the one cited by Tjiptono (2000), there are seven ways of classifying service, which are:

a. Market segment

Service can be classified on the basis of market segment they are catering to. Thus we can have service catering to end consumers such as the hair salon and beauty services and services catering to organizational customers such as management consulting, repair and maintenance services for machines and legal services.

b. Degree of tangibility

Service can be classified into tangible offerings which are rental goods, owned goods, and non-goods.

c. Skills of the service provider

Service can be provided by highly skilled labor and unskilled labor. Thus service can be classified as professional (legal, medical, management, etc.) and non-professional (taxi driver, security, laundry, cleaning services, etc.)

d. Goals of the service provider

Service are differentiated on the basis of the goals they pursue, whether they are profit making or non-profit making. The examples of profit making are airlines, hotels, insurance, etc. and the non-profit are NGO, public libraries, religious places, etc.

e. Degree of regulation

Service are also classified according to the extent government regulation on them. There are high regulations (airlines, railways, roadways, etc.), limited regulation (hospitality sector), absent regulation (barber and beauty service, personal service, etc.).

f. Degree of labor intensiveness

Services can be equipment based or people based. The example of equipment based services is completed automated services (ATMs, Coffee vending machines), unskilled operators (movie theater, dry cleaning), skilled operator (airlines, crane machines, railways). And the example of the people based services is unskilled (security guards, cleaning services), skilled labor (printing, catering), and professionals (lawyer, doctor, management consultants, HR consultant).

g. Degree of customer contact

Service is categorized on the basis of customer contact. For example, high contact (where customer spends time, days, week, month, year like education and hospitality services) and low contact is one which the contact with service system ranges from few minutes to some hours like appliance repair service, postal services, etc.

2.3. Customer Satisfaction

Mowen & Minor (2001) stated that customer satisfaction is the overall attitude that is indicated from customer evaluation after acquiring consumer goods or services. This is an evaluative judgment after by selection of caused by the selection of special purchases and the experience of using the goods or services. Based on the definition, it can be concluded that customer satisfaction is an attitude, assessment and emotional response shown by the consumer after the purchase

process. Consumption derived from the comparison against actual performance against a product and the expectation and evaluation of the experience of consuming a product or service.

Kotler (2003) explains that satisfaction is the feeling of someone who described feeling happy or disappointed that the result of comparing the perceived performance of a product with the expected product performance. If performance fails to meet what is expected, then the customer will feel disappointed or dissatisfied. If the performance is able to meet what is expected, then the customer will feel satisfied. If the performance can exceed what is expected, then the customer will feel very satisfied.

2.4. Customer Perception

Quality has to be started from the customers' need and end with the customer perception. This means that only the customer can decide the quality service. According to Tjiptono (2014) Customer perception towards the quality of the service is an assessment towards the superiority of a service.

2.5. Validity Test

According to Azwar (1986) the word of validity comes from a word that has meaning which how far accuracy and precision of a measuring instruments on doing its job. A test that has a low validity will produce an irrelevant data. Validity test is done by comparing the value of r_{hitung} towards r_{table} . If $r_{hitung} > r_{table}$, then the question in the questionnaire is valid (Ghozali, 2005). In this research, the validity test is calculated by using product moment correlation.

$$r_{xy} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{((N\Sigma X^2 - (\Sigma X)^2)(N\Sigma Y^2 - (\Sigma Y)^2))}} \quad (2.1)$$

r_{xy} = correlation coefficient between x and y

N = number of respondents

X = certain item score

Y = total score

Then the r_{xy} price is consulted with the product moment table with a significant level of 5%. If $r_{xy} > r_{table}$ then the instrument is said to be valid and if $r_{xy} < r_{table}$ then the instrument is said to be invalid.

In the SPSS program the testing technique that is often used by researchers to test the validity is using Bivariate Pearson correlation (Pearson Moment Products)

a. Bivariate Pearson (Product Correlation of Pearson Moments)

This analysis is by correlating each item's score with the total score. The total score is the sum of all items. The question items that correlate significantly with the total score indicate that the items are able to provide support in revealing what they want to reveal.

The test uses a two-sided test with a significance level of 0.05. The testing criteria are as follows:

- If $r_{\text{count}} > r_{\text{table}}$ (2-sided test with sig. 0.05) then the instrument or items of the questions correlate significantly to the total score (declared valid).
- If $r_{\text{count}} < r_{\text{table}}$ (2-sided test with sig. 0.05) or negative r_{count} , then the instrument or question items do not correlate significantly to the total score (declared invalid).

2.6. Reliability Test

Reliability test is used to measure a questionnaire which act as an indicator for a variable. A questionnaire is reliable if one person answer to the question is consistent or stable from time to time. Reliability test on this research is used Alpha-Cronbach technique. The consistency of the measurement will be expressed with the number of 0 and 1 (Tavakol and Dennick, 2011). If the coefficient value of alpha is greater than 0,7 it means the instrument tested is reliable (Mitchel and Jolley,1996).

2.7. SERVQUAL Model

The SERVQUAL model was developed by A. Parasuraman and colleges in the USA. Like SERVQUAL is based on the expectations disconfirmation approach known as disconfirmation paradigm.

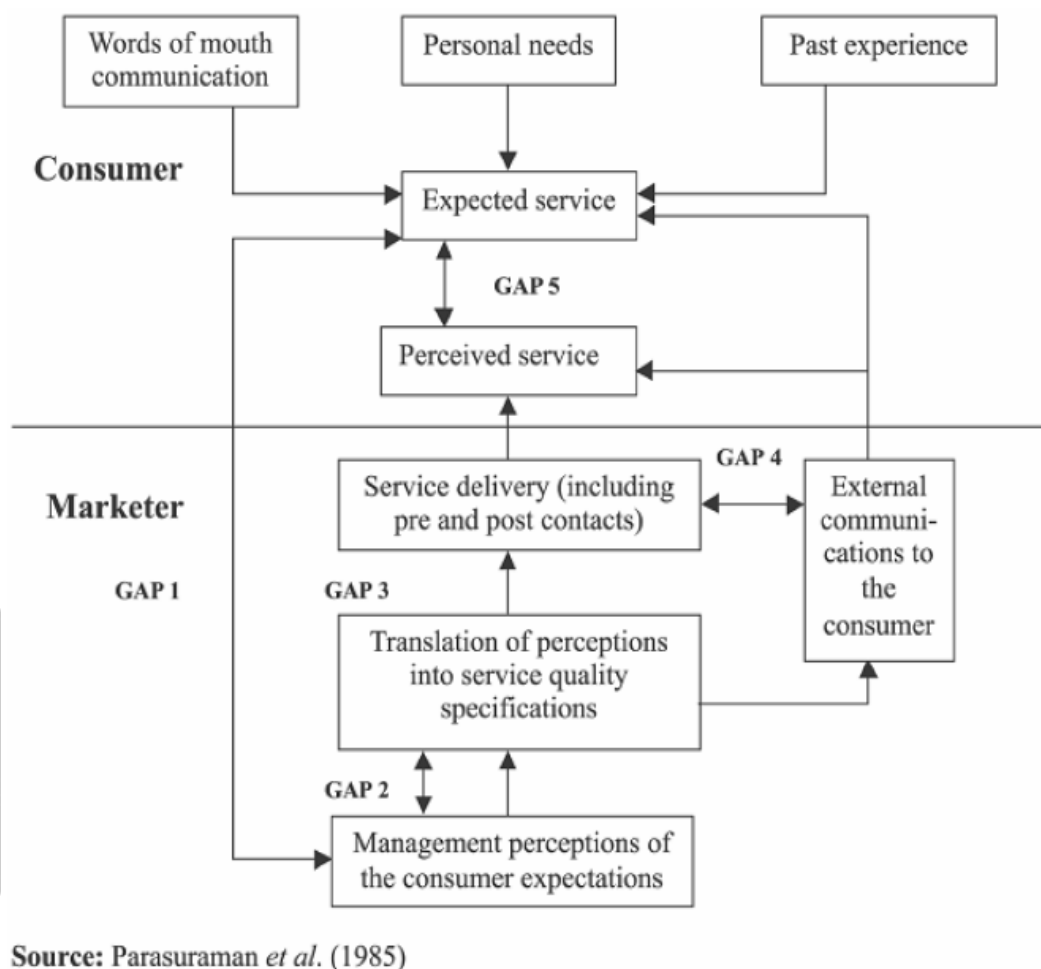


Figure 2.1. SERVQUAL Model adapted from Parasuraman et al. (1985)

The model of service quality, which they made, identifies the reasons for any gaps between customer expectations and perceptions (see the chart below). Gap 5 is the product of gaps 1, 2, 3 and 4. If these four gaps, all of which are located below the line that separates the customer from the company, are closed then gap 5 will close. The gaps are as follows.

- a. Gap 1 is the gap between what the customer expects and what the company's management thinks customers expect.
- b. Gap 2 is the gap that occurs when management fails to design service standards that meet customer expectations.
- c. Gap 3 occurs when the company's service delivery systems – people, technology and processes – fail to deliver to the specified standard

- d. Gap 4 occurs when the company's communications with customers promise a level of service performance that people, technology and processes cannot deliver.

To find the level and extent of the Gap 5, authors developed 22 or 21 item SERVQUAL scale. The model's authors identified five core components of service quality: reliability, assurance, tangibles, empathy and responsiveness.

- a. Tangibles involve appearance of physical facilities, equipment, personnel and communication materials.
- b. Reliability is ability to perform the promised service dependably and accurately.
- c. Responsiveness means willingness to help customers and to provide prompt service, whilst capturing the notion of flexibility and the ability to customize the service to customer needs
- d. Assurance means competence and courtesy of employees and their ability to convey trust and confidence. (This category includes this measured components: competence, courtesy, credibility and security)
- e. Empathy represents provision of caring, individualized attention to customers. (Includes access, communication and understanding the customer).

The relative importance of these variables is also measured. This enables you to compute the relative importance of any gaps between expectation and perceptions. Management can then focus on strategies and tactics to close the important gaps.

SERVQUAL can be used or adapted to measure service quality in variety of service settings. Another advantage is that it can be used for compare competitors and wide range of services.

This method could be used for internal marketing. It is based on the idea that every individual in an organisation, particularly a service organisation, should recognise that they have customers to serve. There is a positive link between internal service quality and external service quality and hence customer satisfaction, customer loyalty and the profitability of the organisation. Market research can be adopted for use with employees. Personnel can be given the opportunity to give feedback to management about working conditions, company policy in general and workers' own understanding about what comprises quality for the customer. The relationship between organisational subunits and their relationship to top

management are also important. This can be assessed by a variation of the SERVQUAL instrument.

Service quality assessment using the SERVQUAL model includes the difference between the values that given by the customer for every pair of question corresponding to expectation and perception. SERVQUAL score for every pair of question, for every customer can be counted by using this formula (Parasuraman et al, 1988):

$$\text{SERVQUAL score} = \text{Perception Score} - \text{Expectation Score} \quad (2.2)$$

2.8. Importance-Performance Analysis

Understanding what makes the customer, or service user, satisfied is the key to the success of any organization, regardless of its activity (Ormanovic et al., 2017). Importance-Performance Analysis was proposed and introduced by Martilla and James in 1977 as a tool to measure customer satisfaction of a product or services. According to M. Feng, Mangan, Wong, Xu, and Lalwani (2014) in a journal of Importance-Performance Analysis: Different Approaches written by Ormanovic et al. (2017), Importance-Performance Analysis (IPA) is actually a graphic method which is showed in a two-dimensional coordinate system, the average values of importance and performance of different services/products elements, which are calculated in relation to one another, mainly in the area divided into four quadrants.

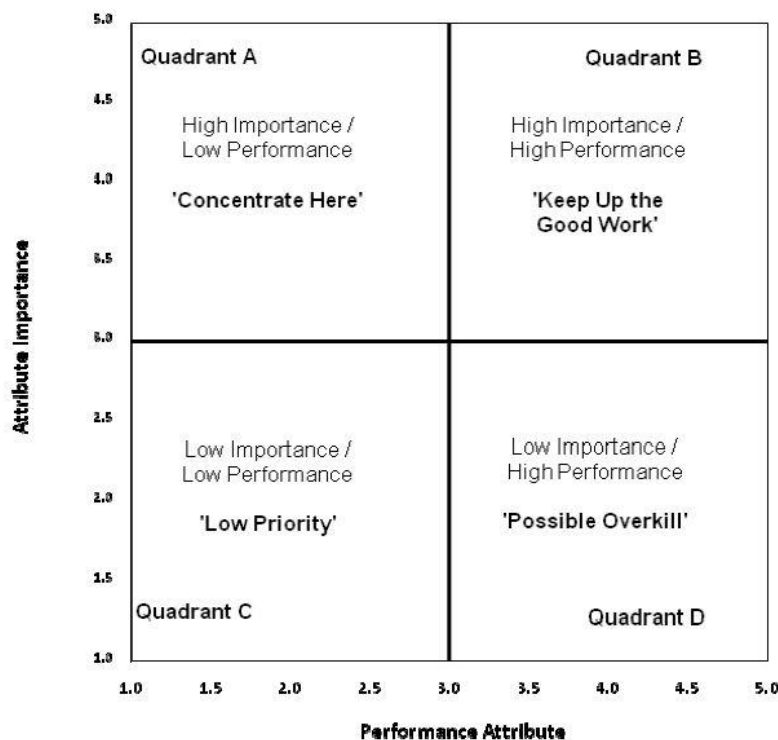


Figure 2.2. Importance-Performance Diagram (adapted from Martilla and James, 1977)

In the diagram of Importance-Performance Analysis by Martilla and James (1977) the diagram is divided into four parts/quadrants which are Quadrant A, Quadrant B, Quadrant C, and Quadrant D. Below is the explanation of the Importance-Performance Diagram.

- Quadrant A 'Concentrate Here'. The factors in this quadrant are considered as important factors or the factors that has not met the expectation of the customers. These factors have high importance but low performance according to the customers. Meaning that these factors need the most improvement.
- Quadrant B 'Keep Up the Good Work'. The factors in this quadrant are considered as the factors that have high importance and high performance according to the customers. Meaning the achievements on these factors need to be kept.
- Quadrant C 'Low Priority'. The factors in this quadrant have low importance also low performance according to the customers.
- Quadrant D 'Possible Overkill'. According to the customers, the importance of the factors in this quadrant is low but the performance level is high. Because of that, the organization will need to reduce the factors' performance in this

quadrant because it could be using higher cost more than other factors in the other quadrant.

2.9. Fishbone Diagram

Dr. Kaoru Ishikawa, a Japanese quality control expert, is credited with inventing the fishbone diagram in 1953 to help employees avoid solutions that merely address the symptoms of a much larger problem. According to Vincent Gaspersz (1998), causes and effect diagram is a diagram which showed the relationship between cause and effect. Related to statistical process, cause and effect diagram is used to shows causal factors and the quality characters caused by the causal factors.

Cause and effect diagram often called as fishbone diagram because of its shape which looks like a fishbone, or Ishikawa Diagram because it is found by Dr. Kaoru Ishikawa. Basically, the cause and effect diagram can be used for, such as:

- a. Helps identified root cause of a problem
- b. Helps generate ideas for solutions to a problem
- c. Helps in investigating or further fact finding

2.10. Scale-Up

Below is the scale that will be used on this research according to Suliyanto (2005) there are:

- a. Likert's scale

Likert's scale is used to measure an attitude, opinion, and perception on a social phenomenon. The steps on arranging the Likert's scale is deciding the variable to be studied, deciding the indicator which could measure the studied variable, derived the indicator to become a question (questionnaire). Every instruments' answer that used Likert's scale has a very positive gradation until negative. The positive item means the biggest number will be put on the strongly agree, and the negative item which means the lowest number will be put on the strongly disagree. On every question item will be given a respond that the character is closed, for example 3,5,7,9, and 11. The most used respond is usually only 5 because if the respond is too low, then the result will still be rough and vice versa. The example of Likert's scale can be seen on table 2.1.

Table 2.1. Likert's Scale (Sugiyono, 2009)

No.	Scale up	Score
1	Strongly agree	5
2	Agree	4
3	Undecided	3
4	Disagree	2
5	Strongly disagree	1

