

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1. Theoretical Review

The health care service quality has been a study material and concern for many experts all over the globe. In Indonesia, GBHN has already stated that health care sector policies, included the direction of health care sector development and the improvement of public health care service performance and quality. This statement has obviously reflected the government's seriousness about the position and how strategic the health care service quality in public's mind. Then, it was followed up in *Repelita VI*, in which necessary policies that included the efforts of quality and the health care service improvement were well-formulated.

While in United States, '*Health Service Act*', which required the presence of '*National Quality Management Program*' had already been issued. This program was aimed for managing the different standards and protocols. Nowadays, '*Quality Assurance Committee*' as an external organization has been founded in many European countries. As well as in Australia, the health care service quality provided by hospitals has been a major concern.

2.1.1. The Nature of Hospital

Naturally speaking, hospital is one of service industries that focuses on health care service. Therefore, hospital must pay complete obedience toward business rules and also its various managerial function roles. However, the reality that hospital possesses its own specific natures, has distinguished it from remaining other industries. As the consequence, hospital needs different treatment and different approach at the meantime.

Rachael Massie in "*Essential of Management*" (1987) explained three natures of hospital that distinguished it from other industries. *First*, the reality that "the raw material" of health care service industry is "human". In hospital industry, the suggested main objective is satisfying human needs, not only creating products through and by process and costs as efficient as possible. Human is the element that needs to be treated attentively and to be major responsibility carried out by every hospital supervisor. The differences delivered by this situation bring important impact to "management" as a science, especially when we deal it with the ethical and value consideration of human life.

Second, the reality that in hospital industry, those who are recognized as customers do not always stand for those who are 'service-receivers'. Patients are those who are cured in hospital. However, sometimes they do not make their own decision the hospital they will be nursed by. In simple words, someone else or others make the decision for them. For instance, an employee must go to a hospital suggested by the company where he / she

works for. Even in some cases, patients go to the hospital just because the doctor suggests it that way. The situation in abroad might be another phenomena. In well-developed countries, the '*decider*' for the patients is insurance offices. These insurance offices list several suggested hospitals to organize the medical treatments and consultations upon their clients (the patients). It is different when we compare it to restaurant business, which is obviously contrast. Soon after a customer walked in to a restaurant, he / she personally decides the meal menu to order from the restaurant. Thereby, the marketing object is not the patient, but the doctor who treats. This fundamental difference deserves a priority attention from the hospital supervisors.

Third, the reality that explains the importance of professionals' role in hospital, includes the doctors, nurses, pharmacians, physiotherapists, radiographers, nutritionists, physicians etc. Those professionals are numerous in a hospital. The proportion of professional workers and regular workers in a hospital is much greater than in other organizations.

The doctors are very important professionals in a hospital. The importance of a doctor for a hospital becomes more real if he / she personally encourages the patients to come to the hospital and determines the treatment actions upon them. William Anlyan in a book entitled "*Essential of Management*" (1987) stated that professional relationship between the doctor and hospital is '*symbiosis*'. As direct consequence to it, this relationship needs to be well-maintained.

2.1.2. The Nature of Health Care Service Quality

The understanding of health care service quality has frequently been studied by numerous experts. Tracendi in his book *"Cost, Quality, Access in Health Care"* (1988) explained that one of the most complex issues in health care was the measurement of service quality. The scope was very vast, from the perfectability of clinical intervention technique up to its role of depressing the mortality rate. Some believed that health care service quality in a hospital could be measured from the mortality rate scored. Some also believed that it could be measured from the surgical mortality rate. The remaining other even still believed in the bed occupancy rate or the frequency of visits as the measurement object. Meanwhile, Edlund and Tracendi (1985) convinced that to understand well the nature of health care service quality, it was necessary to raise questions like: by whom (?), for whom (?), and what purposes the health care service is provided for (?).

In a profit-oriented organization, the management is forced to do efforts in order with relatively minimum costs to earn relatively fair profits. The success indicator then is measured with the profit margin the organization may earn within a certain time period. Whereas, in a non profit organization, the management is encouraged to deliver maximum service performance by using the existing resources. The success indicator for a non profit organization is more determined by the service quality it could deliver. It is very relevant to what Anthony and Herzlinger have said in a book *"Management Control in Non Profit Organization"*, which was cited from

the book “*Essential of Management*”, which stated that non profit organization like hospital, was an organization whose orientation was not profits for its owner – except providing service – subject to the organization’s mission.

Basically, the objective of every health system is improving the quality of people’s health. As “*World Health Report 2000*” (in Soeroso, 2003: 21-22) described, the function and the objective of health system is visualized in the figure below:

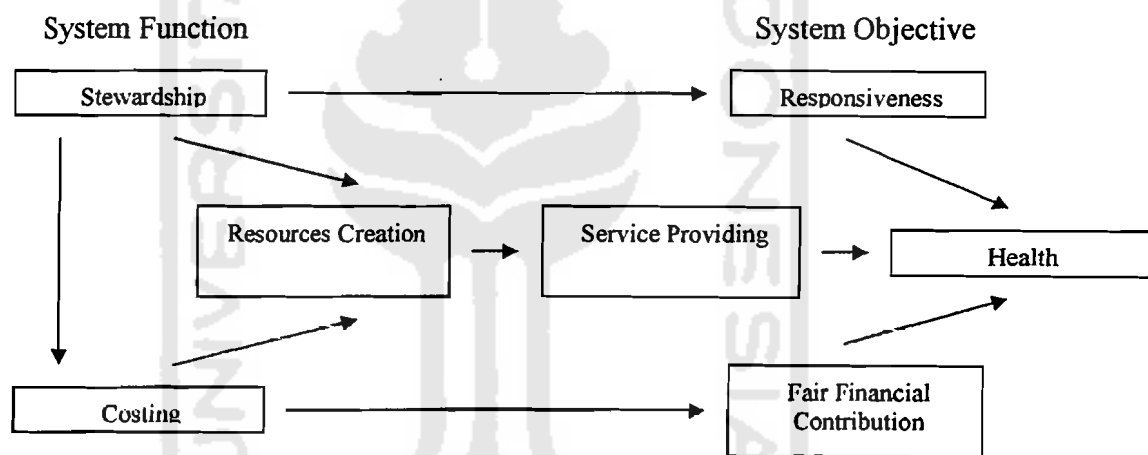


Figure 2.1: Function and Objective of Health System
 (Cited & adapted from Soeroso, 2003: 21)

Description :

- a. *Responsiveness* means to achieve the objective. The system must be responsive toward the public’s needs and fulfill the needs of unhealthy individuals subject to their individual dignity.

- b. Fair financial contribution means the burden beared by individuals / families is financially fair. In other words, the financial burden of a family deserving the health care service is proportionally equal to the family's income beyond the primary needs. Even though the system provides high quality medical facilities while the public's financial contribution is unfair, it is a constraint to the accessibility of those medical facilities.
- c. Organizing a sustainable health care service is one of major functions of a health system.
- d. Creating resources is one of major concerns in health system function. It includes the infrastructure investment and the presence of human resources development through education and trainings.
- e. The subsystem of costing is assigned to do '*pooling*' (fund rising) and '*purchasing*' for the purposes of health care service.
- f. *Stewardship* is the government's function to be responsible for the improvement of public welfare and health, aware of public trust, and providing the legitimation for health care sector's policies what public really aspire about.

The industry of health care service has its own characteristics as developed by Gani (in Soeroso, 2003 : 22-23) below:

1. Consumer ignorance

The consumers of health care service are usually in weak position because of the '*asymmetric information*'. They have no idea about what

and how they will be treated and they even do not know since the beginning how much cost they have to spend for every single health care service they receive. In practices, the consumption of health care service that a patient can make is mostly arranged by '*service provider*'. In other words, '*consumer choice*' or '*well informed consumer*', which becomes a supporting force of competition in market mechanism, it is void within health care industry.

2. Supply induced demand

By understanding the nature of '*consumer ignorance*', service providers would be easier to encourage the usage of service they provide. Oftenly, the application of certain sophisticated medical devices for disease diagnosis do not deliver meaningful contribution at all for patients therapy.

3. Health care service product is not a homogen concept

The demand elasticity of each service is different from the others. For example, the demand for intensive care service is very inelastic toward the price change. Whereas the price elasticity for minor sicknesses will be obviously seen.

4. Restriction toward competition

As an ethical-natured public service, it strictly limits the '*commercial marketing*' (commercial ads). However, as an industry, there are frequent availability of ethical breakings, such as disguised bonuses or discounts.

5. Inassurance of sickness

Generally, there is inassurance about someone's sickness. It usually occurs when health care service provided is cheap or cost-free.

6. Tendency of labor-intensive

The development of science and medical technology runs differently from others. The development of other sciences and technologies goes to the automatization, which decreasing the number of human resources needed. The development in medics requires more skilled and trained human resources for certain diseases.

7. *Healthy as rights*, the unique nature of health care service is the presence of universal perspective that health is human rights so that the distribution of health care service must be organized according to the needs, not the demands.

2.1.3. Quality Measurement

Indeed, measuring the service quality in a non profit organization which is qualitative-natured is more complicated than measuring the profit earning in a profit-oriented organization which is quantitative-natured. The measurement of service performance quality in a hospital is complicated by other specific factors. Again, in health care sector, the patients are definitely not in the position with the ability to measure exactly the clinical service quality they perceive.

Even though there are numerous factors the hospital must consider, the existence of parameter to measure the achievement and service quality made by the hospital organization is a compulsory. One definition stated that the quality of health care service usually referred to the ability of a hospital in delivering services that meet the medical profession standards and it must be something the patients could take in the whole part. Then, the usage of resources needs to be considered as efficient as possible.

Prof. Albin Krczal (in Aditama, 2002: 174) from Australia who wrote in *'Hospital Management International Magazine'* (1996) explained that the service quality measurement oftenly viewed from different perspectives, either by the government, hospital managers, doctors, other medical officials, or even public. Therefore, to achieve a common perspective, those parties need to uniform the differences by knowing well each other their understanding pattern.

According to Longest (in Aditama, 2002: 175) as stated in book entitled *"Management Practices for the Health Professional"* (1976), there were a lot of aspects could be used to measure the health care service quality. For example, it could be measured from the "structure" of the service itself and the physic of service to provide. It included the service scope, the education rate of the *'service-deliverers'*, or other characteristics. The "process" of service delivery itself might also be measured to judge the quality. In this case, the interaction between *'service-deliverers'* and *'service-receivers'* is obviously seen. The activities may include a field

observation to assess the patient service in polyclinics and the nursing rooms; checking the medical record data; and assessing the *'fit-and-proper'* of the therapy actions. The alternative measurement can be done by observing the outputs like the mortality rate, handicap rate, etc.

Generally, the activity of measurement / assessment should pass through three stages, which are orderly (Aditama, 2002: 175):

1. Standard setting;
2. Performance assessment;
3. Performance improvement efforts.

Table 2.1:
Approach, Technique, & Criterion of Service Quality Measurement

<ul style="list-style-type: none"> • Approach <i>General</i> License Accreditation Sertification <i>Specific</i> Medic committee Profession associate
<ul style="list-style-type: none"> Patient satisfaction Malpractice regulation
<ul style="list-style-type: none"> • Technical Structure evaluation Process evaluation Output evaluation
<ul style="list-style-type: none"> • Criterion Explicit Implicit

Jonas and Rosenberg (in Aditama, 2002: 176) formulated three aspects of service quality measurement, those are *approach aspect*, *technical aspect*, and *criterion aspect*. Thus, as visualized on the table above, there are two approaches, three techniques, and two criteria. Those might be used in combination one to another.

Through the '*approach aspect*', the general approach is directed to evaluate the hospital's ability and its employees to compare with the current standards. Then the education rate, working experience, and necessary knowledge of the employees are tested. The hospital itself is inspected from the physical building, the administration, the managers, the qualification of human resources, and the service delivery under the current standards. The special approach on the other hand evaluates the interaction between the patients and the '*service-deliverers*' in a hospital.

The '*technical aspect*' is done through three components of measurement which are *structure*, *process*, and *outputs*. '*Structure*' evaluates the condition of facilities, physical building, organization structure, qualification of hospital staffs, etc. '*Process*' evaluates the activities of doctors and other medical workers in handling patients. Finally, '*output*' evaluates the medication.

Explicit criterion is the written criterion. It means the doctor must write his / her full name when he / she finishes writing the status. Thus, it can be detected in the medical record whether or not the full name is already filled in. Implicit criterion is the unwritten criterion.

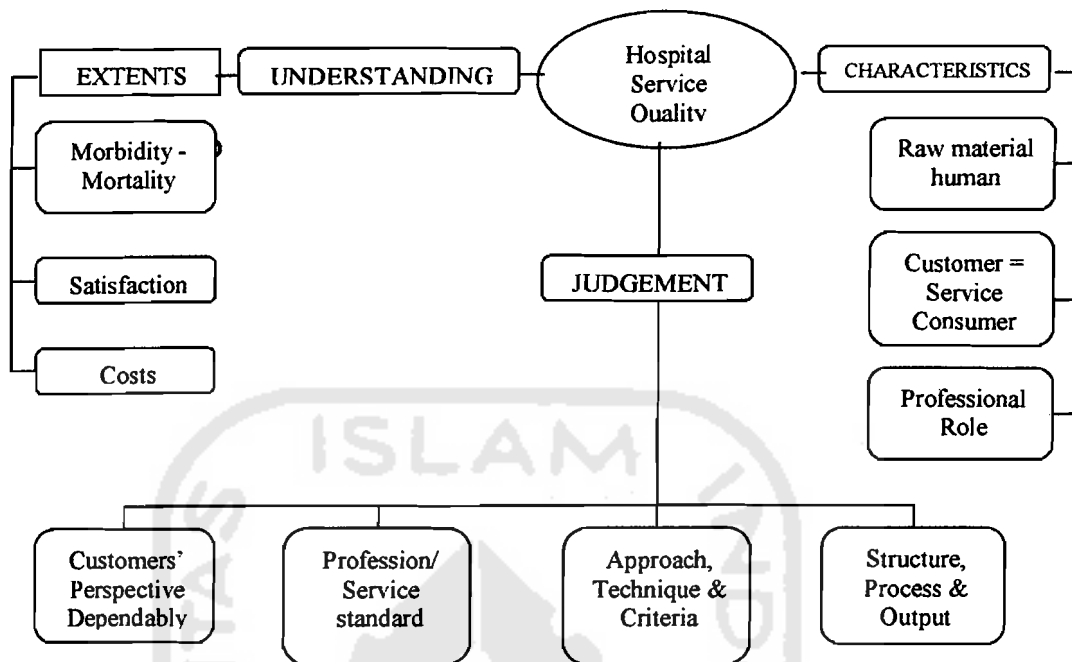


Figure 2.2: Service Quality in Hospital
 (Cited & adapted from Aditama, 2002: 177)

2.1.4. Service Quality Parameters

As explained previously, indeed, service quality is relatively more complicated than the goods quality. Naturally, service quality is perceived after the consumer experiences it. The dissatisfaction perceived by consumer happens because there is a gap between the promised satisfaction of delivered services and the perceived satisfaction of received services. This consumer dissatisfaction would lead the consumers turning to another promising company. Below these are two possible approaches of measuring service quality:

1. SERVQUAL Method;
2. The Gap Model.

2.1.4.1. SERVQUAL Method

SERVQUAL Method was developed by Leonard L. Berry, A. Parasuraman, and Valerie A. Zeithaml. It is developed to measure how thick or how thin the incapability of a company in fulfilling customer's expectations. It relies on five service quality dimensions, which are *tangible*, *reliability*, *responsiveness*, *assurance*, and *empathy*. This method applies two steps, *first*, obtaining customer perception about the expected services, and *second*, measuring customer perception about the company's services. In practice, customers are required to respond several questions that represent these five service quality dimensions.

The common formula of SERVQUAL Method is:

$$\text{SERVQUAL Score} = \text{Perception Score} - \text{Expectation Score}$$

2.1.4.2. The Gap Model

This model is developed to identify the actual position of satisfaction gap between service delivery and service receiving. This gap model is very helpful in '*planning*' and '*strategic decision making*' in order to improve the company's performance, also the success of goals achievement.

This model – developed by Zeithaml et al – consists of five gaps.

These gaps are as follows:

1. Gap 1 (Understanding Gap);
2. Gap 2 (Design Gap);
3. Gap 3 (Delivery Gap);

4. Gap 4 (Communication Gap);
5. Gap 5 (Service Gap).

The nature of these gaps is '*customer-oriented*'. This model also focuses on possible differences while process of service delivery is being conducted.

2.1.5. Concept of Customer Value

Value may have several meanings. But in this term, '*customer value*' is defined as "*summation of benefits and sacrifices that result as a consequence of a customer using a product / service to meet certain needs*"¹

According to Garvin (in Aditama, 2002: 179), the market segment can be classified in to eight quality dimensions as follows :

1. Performance;
2. Features;
3. Reliability;
4. Conformance;
5. Durability;
6. Serviceability;
7. Aesthetics;
8. Perceived quality.

¹ Aditama, Tjandra Y. (2002). *Manajemen Administrasi Rumah Sakit*, Edisi Kedua. Jakarta: UI-Press. p. 179.

2.1.6. Concept of Customer Evaluation

What influences customers in using products / services is derived from the factors below (Aditama, 2002: 180):

- Macroenvironment;
- Customer characteristics;
- Usage process;
- Connection with suppliers.

The sketch below will visually describe the buying process of a product / service will finally be referred to the concept of customer evaluation toward both products and services. In simple explanation, people do not buy products for the product value only, but also they buy products for the utility / function of the products.

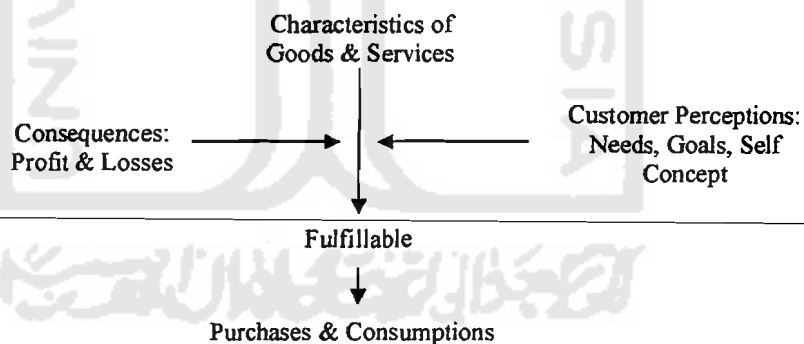


Figure 2.3: Factors Affecting Purchases And Consumptions of Products
(Cited & adapted from Aditama, 2002: 181)

Geraldine Fenbnel (in Aditama, 2002: 182) stated seven customer perceptions in product consumption referred to the time of usage as follows:

1. Current problem;
2. Potential problem;
3. Normal depletion;
4. Interest opportunity;
5. Sensory pleasure opportunity;
6. Product-release problem;
7. Satisfaction / frustration.

Except identifying the customer perceptions for the product usage as listed previously above, it is compulsory to identify the concept of '*realized value vs anticipated value*'. Basically, '*anticipated value*' is the concept of value the customers already anticipated that they will get after they purchase or use a product. This concept of value (*anticipated value*) is very useful in helping the customers while being '*fastidious*' in products shopping. The '*realized value*' itself stands for the product value the customers get after purchasing and using certain products.

Other experts – Robinson, Faris and Wind (in Aditama, 2002: 183) – differentiated the purchase situations at several possibilities in to three below:

- *New Tasks*, at which an organization purchases a product that's never been used before;

- *Modified Rebuy*, at which the purchased product is to replace / improve today's product;
- *Straight Rebuy*, at which the purchased product is also today's product.

The concept of customer judgement is the equality of advantages and disadvantages the customer experiences when using a product in purpose of satisfying his / her needs, the better the product serves the needs, the higher the customer's value toward the product. It will effectively influence the customer in choosing what (product) to purchase.

2.2. Theoretical Framework

2.2.1. The Nature of Quality

The term '*quality*' is defined in various definitions and meanings. The different interpretations about '*quality*' might happen because each person interprets it differently. The effort to define exactly the term '*quality*' is not something easy to do.

There are at least four "Master of Quality" who have formulated the nature of quality (Tjiptono, 2003: 11-12). They are:

1. Joseph M. Juran

The '*Juran's Quality Improvement Strategy*' emphasized on a project-by-project implementation and breakthrough stages. He also emphasized the importance of identification and elimination of problem roots. He

defined *'quality'* as “fitness for use”. This definition emphasized the orientation toward the fulfillment of customer’s expectations.

2. Philip B. Crosby

The Crosby’s approach paid large attention to the transformation of quality culture. Crosby stated about the importance of involving everyone within the organization into a process, which applied the individual fitness toward requirements / prosecutions. Generally, the Crosby’s approach was recognized then as *'top-down process'*.

3. W. Edwards Deming

Deming’s strategy was based on the statistical tools which made this strategy was *'bottom-up natured'*. The main emphasis of this strategy was the continuously quality improvement and measurement².

4. Taguchi

Taguchi’s philosophy was based on a premise that improving qualities could minimize cost and these qualities could automatically be improved in the way of diminishing variations in a product and / or a process. Taguchi’s strategy had focused on *'loss function'*, which defined every deviation from the target to be considered as losses covered by consumers. Then Taguchi defined quality as losses appeared by a product for people after it to be delivered, and also the losses caused by product’s intrinsic function.

² Deming did not calculate the customer dissatisfaction cost, because (according to him), it was impossible to measure.

To define good services, we need additional characteristics to be considered then. Garvin (in Lovelock, 1994), identified for us the eight quality dimensions as follows:

1. *Performance*, the basic operating characteristic of a product that can be measured which constitutes the performance dimensions;
2. *Features*, these are extras or “bells and whistles” that come with the product but normally not part of the standard package in similar products;
3. *Reliability*, refers to the probability that a product will perform its intended function for a specified period of time under specified environmental conditions;
4. *Conformance*, is the degree to which a product meets the design specifications;
5. *Durability*, is the amount of use which a consumer gets from the product before it physically deteriorates or continuous use becomes uneconomical;
6. *Serviceability*, refers to the ease and speed of repairs and the courtesy of repair personnel;
7. *Aesthetics*, this dimension includes subjective traits such as how a product looks, feels, sounds, tastes, or smells;
8. *Perceived quality*, is the perceptions that have been formed in the consumer’s mind as a result of advertising, brand promotion, word of mouth, or personal experience in use.

However, most of those dimensions were more suitable for manufacture companies, not for service companies. Stamatis (1996) then modified Garvin's eight service quality dimensions into seven, which were suitable for service companies. They are:

1. Function;
2. Features;
3. Conformance;
4. Reliability;
5. Serviceability;
6. Aesthetics;
7. Perception.

Zeithaml, Parasuraman, and Berry identified five dimensions by which consumers judge the service quality as follows³:

1. *Reliability*

Reliability in services is defined as the ability to perform the promised service dependably and accurately.

2. *Responsiveness*

This concerns the willingness or readiness of employees to provide service.

³ Haksever, Cengiz, and Render, Barry cs. (2000). *Service Management and Operations*; 2nd Edition. New Jersey: Prentice-Hall International Inc.

3. *Assurance*

This dimension refers to the knowledge, competence, and courtesy of service employees and their ability to convey trust and confidence.

4. *Empathy*

Empathy is defined as the caring and individualized attention provided to customers.

5. *Tangibles*

Tangibles include the physical evidence of the service such as physical facilities, appearance of service providers, tools or equipments used to provide the service, physical presentation of the service, and other customers in the service facility.

2.2.2. Total Quality Service (TQS)

According to Stamatis (in Tjiptono, 2003: 56), Total Quality Service (TQS) was defined as strategic and integrative management system which involves all managers and employees, and using qualitative and quantitative methods to continuously improve the organizational process, thus it can fulfill and exceed needs, wants, and customer's expectations.

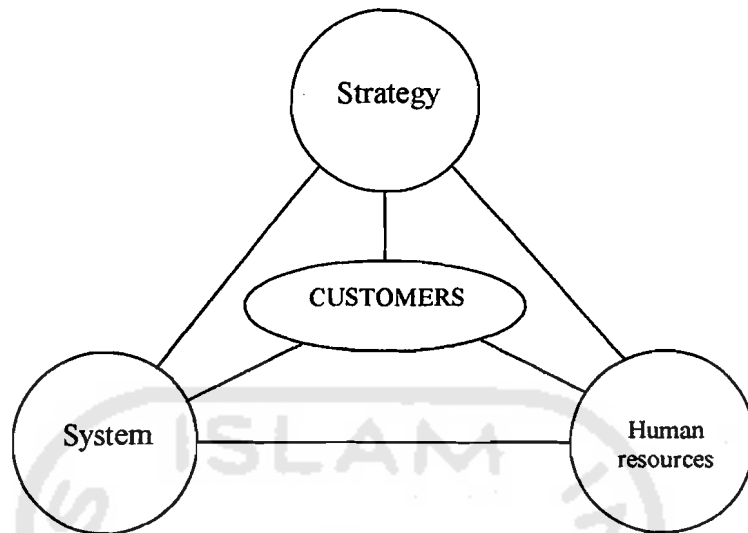


Figure 2.4: The TQS System
(Cited & adapted from Tjiptono, 2003: 56)

- Strategy** : A clear and well-communicated statement about the position and target of the organization in term of customer service.
- System** : The programs, procedures, and organizational resources designed to encourage, deliver, and evaluate the comfortable and high quality services for customers.
- Human resources** : The employees in all position who have capacity and desire for being responsive toward customer's needs.
- The entire objectives** : To create customer satisfaction, delegating responsibilities to everyone, and to do repeatedly improvements.

2.2.2.1. The Focuses of Total Quality Service (TQS)

In its implementation to establish high quality service, Total Quality Service (TQS) focuses on five (5) spots as follows (Tjiptono, 2003: 57-59):

1. Customer Focus

Customer identification (either internal, external, and / or intermediary) is the top priority. When it is completed, the next would be identifying the needs, wants, and customer's expectations. It needs to design a system that could provide certain services to satisfy these needs. In addition, the organization needs to build a partnership with the '*key-suppliers*' in a win-win situation basis.

2. Total Involvement

Total involvement here means total commitment. The management must provide the opportunity of quality improvement for all employees and must be able to show a good leadership that could positively inspire (through active participations and real actions) the organization they manage. They must also delegate responsibilities and authorities of work process completion to those who actually do certain jobs. Again, the management is also required to empower the employees that organization has. It is necessary to create a conducive climate and continuously supports the multidisciplinary work teams and the cross-functional in order to be able to actively participate in designing and improving products, services, processes, system, and the company's environment.

3. Measurement

In this scope, the essential purpose of TQS is determining the basic sizes, either internal or external for the organization and for the customers as well. Figure 2.5 describes a simple measurement system. The elements of this measurement system consist of:

- Determining the size of process and outputs;
- Identifying the outputs of critical work process and measuring their fitness with the customer's expectations;
- Correcting deviations and improving performances.

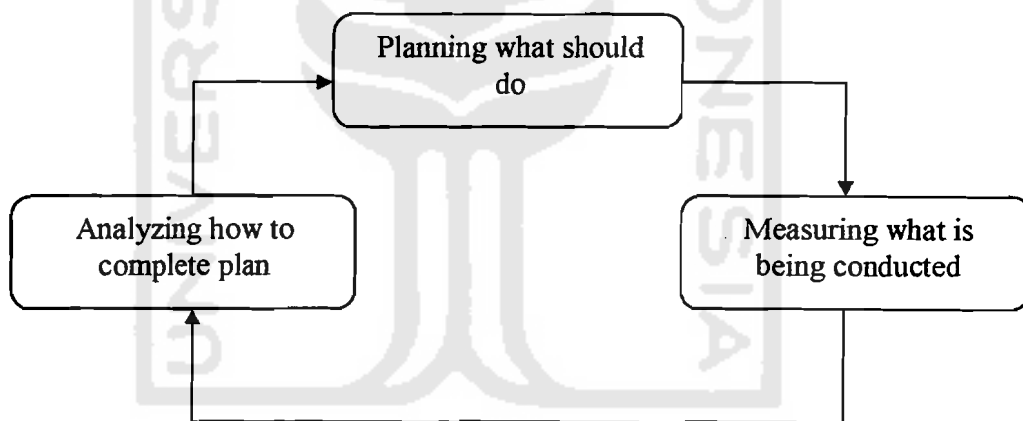


Figure 2.5: Measurement in Excellent Services Cycle
(Cited & adapted from Tjiptono, 2003: 58)

4. Systematic Supports

Management is responsible for supervising the quality process by:

- Constructing the quality infrastructures that deal with the internal management structure;

- Connecting quality with the existing management system, such as:
 - Strategic planning;
 - Performance management;
 - Recognitions, rewards, and employees promotion;
 - Communication.

5. Regular Improvement

Everyone is responsible for:

- Considering the whole works as a process;
- Anticipating the change of needs, wants, and customer's expectations;
- Applying an incremental improvement;
- Shortening the cycle time;
- Encouraging and with pleasure receiving the feedback without fear or worry.

2.2.2.2. Conceptual Model of Service Quality

Zeithaml, Parasuraman, and Berry developed this model. In this model, there are five gaps that might cause a service company unable to provide excellent services to the customers, as visualized by Figure 2.6.

These service gaps are as follows:

1. Customer's Expectations – Management Perception Gap

It explains the different perception between the 'service-users' (customers) and the management about the customer's expectations. It is because the company misunderstands what the customers expected.

2. Management Perception – Expected Service Quality Gap

This gap exists because there is misinterpretation of the correct management perception about the customer's expectations into a service quality specification.

3. Expected Service Quality – Service Delivery Gap

This gap exists because human resources potential belongs to the company is incapable to achieve the common service quality standards.

4. Service Delivery – External Communications to Customer Gap

This gap exists because a company cannot keep promises it previously communicated through various marketing promotions.

5. Expected Service – Perceived Service Gap

This gap exists as the consequences of the unfulfilled customer's expectations.

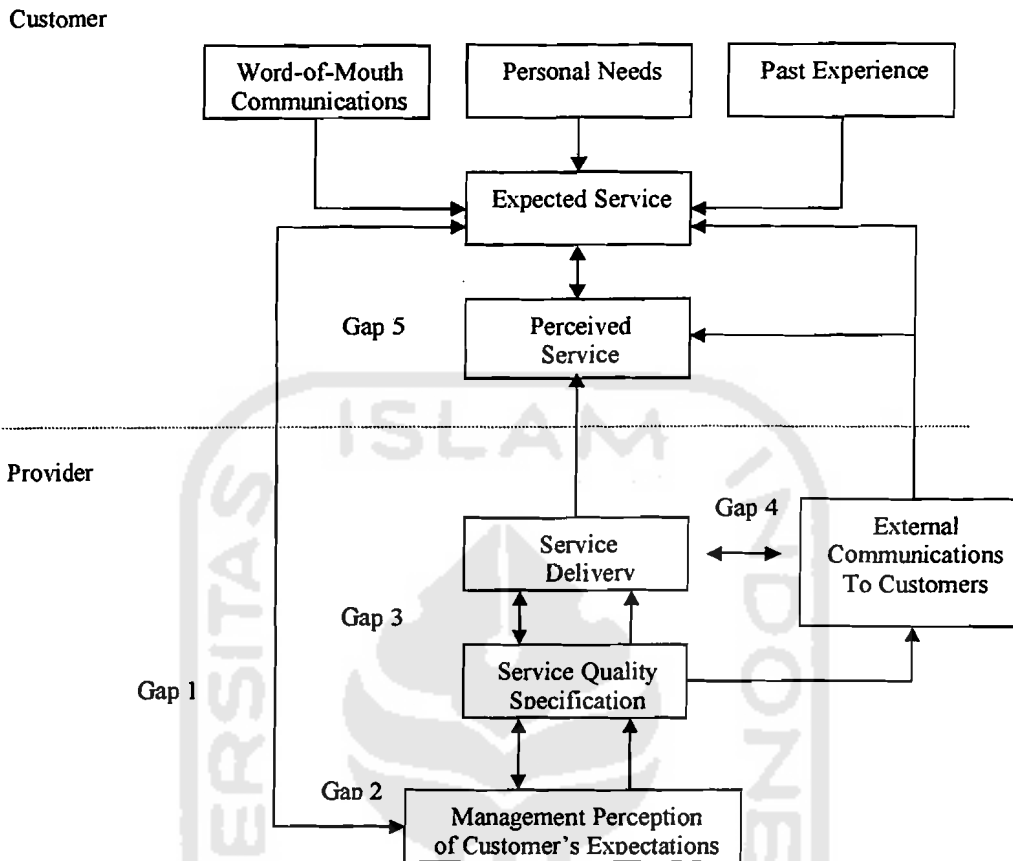


Figure 2.6: Gap Model Analysis
 (Cited from Zeithaml, Parasuraman & Berry, 1990: 46)

2.2.2.3. The Benefits of Total Quality Service (TQS)

The implementation of Total Quality Service (TQS) would deliver several major benefits (Tjiptono, 2003: 59), which are as follows:

1. The increase of quality satisfaction index, which is measured with any measurement;
2. The increase of productivity and efficiency;
3. The increase of profits;

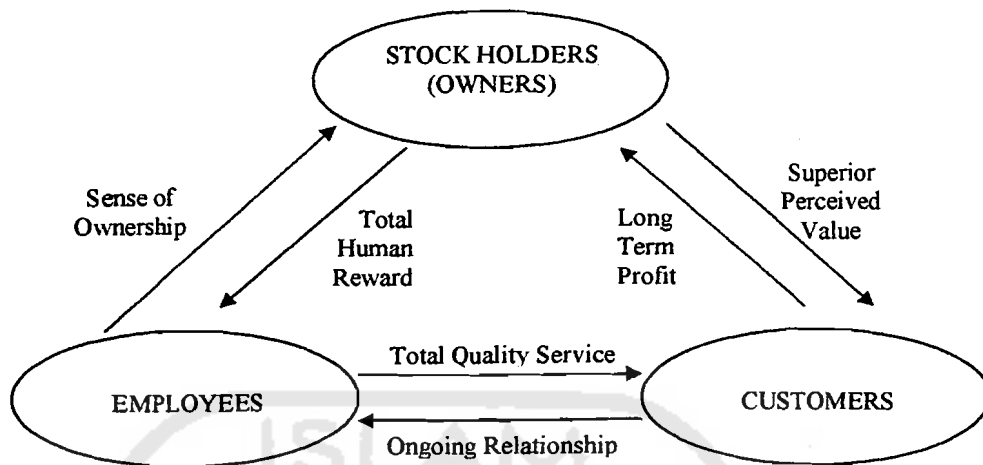
4. The increase of market share;
5. The increase of employee's morale and spirit;
6. The increase of customer satisfaction.

2.2.3. Customer Service And Customer Satisfaction

2.2.3.1. Value Creation And Value Adding

To respond today's global competition in which the intensity is high, it moderately requires a fundamental shifting in business. As the consequences, profits are no longer the essential mission of a business, but the '*value creation*' and '*value adding*' for customers. Naturally, profits are vital consequences of the value creation and value adding process. It is now obviously understandable that profits are much closer to the outputs / results rather than the goals. To earn profits through a value creation process might be implemented in the way of (Tjiptono, 2003: 118):

- Upsizing the customer acquisition;
- Hiring better employees;
- Providing a total human reward for employees;
- Improving employees' productivity;
- Encouraging employees to offer values to customers;
- Building investments and better ownership structure.



**Figure 2.7: The Service Triangle
(Cited from Tjiptono, 2003: 118)**

The value creation itself stands for the creation of satisfied customers, loyal employees, and higher profits. These could be achieved when a service organization completely understands the relationship among the aspects in the service triangle (Figure 2.7).

2.2.3.2. Customer Satisfaction

Again, as a basic criterion in 'value-maximization', customers determine the expectations upon the values they will earn. Toward the chosen offer, they will evaluate whether or not it meets their expectations. Customer satisfaction after the purchase depends on the offer's performance (perceived performance). The definition of customer satisfaction according to Philip Kotler (1994: 40) is given below this:

“Satisfaction is the level of a person’s felt state resulting from comparing a product’s perceived performance (or outcome) in relation to the person’s expectations.”⁴

Thus the satisfaction level is a function of the difference between ‘perceived performance’ and ‘expectations’.

2.3. Hypothesis Formulation

Hypothesis is a statement of supposition about the correlation between two or more variables. The hypothesis formulations this thesis presents are as follows:

1. There is significant relationship between the dependent variable (customer satisfaction) and five independent variables (tangible, reliability, responsiveness, assurance, and empathy) at PKU Muhammadiyah Hospital in Yogyakarta.
2. Reliability contributes most dominantly the customer satisfaction at PKU Muhammadiyah Hospital in Yogyakarta.

⁴ Kotler, Philip. (1994). *Marketing Management: Analysis, Planning, Implementation, and Control*; 8th Edition. New Jersey: Prentice-Hall International Inc. p. 40.