
Analysis on Demand for Service Quality of Pertamina Klaten Indonesia and PTT Yarang District Pattani Thailand Gas Stations

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Abstract

This study aims to examine the gaps in consumer service expectations and perceptions in two state-owned oil and gas service companies in two cities, namely Klaten Indonesia and Pattani Thailand. Testing the model used Servqual Test. The research design was quantitative. The hypothesis formulation used the Cronin Taylor Importance Servqual Test formula. The population is all consumers, the sample of consumers are adult consumers in both cities who have finished getting the services of the two Public Fuel Filling Stations. The technique of taking sample was purposive as many as 200 consumers. The test results show that the dimensions of empathy at the Pertamina Klaten gas station have the largest gap value. Pertamina gas stations parties must improve services which still provide the largest gap value to improve the quality of services and people satisfaction. Recommendation for this research, two gas stations must improve of the quality of services. The competitive advantage of institutions will be created in the future

Keywords: demand, service quality, expectation, perception, gas stations

1. Introduction

Service quality and customer satisfaction are two important factors for every organization. Complete service quality will be followed by the formation of community satisfaction with the services provided. Profit and non-profit organizations must always make efforts to improve quality to meet customer satisfaction. Profit and non-profit organizations must make efforts so that consumer expectations for service quality are fulfilled and can even exceed minimum satisfaction.

Service quality and customer satisfaction are very closely related. Excellent service quality provides an impetus to consumers to establish strong loyalty with the institution. In the long term, this strong loyalty allows the institution to understand carefully consumer expectations, their needs and changing tastes that arise. Thus, institutions can increase consumer satisfaction by maximizing a pleasant consumer experience and minimizing a disappointing consumer

experience. In the end, everything sources from consumer loyalty bonds and the ability of consumers to recommend brands and products and services to other parties.

Consumer satisfaction is a condition where the desires, expectations and needs of consumers are met. Services are considered satisfactory if they can meet the desires, needs and expectations of consumers. Several factors that can be considered by consumers in assessing a quality of service are: timeliness of service, reliability, excellent technical ability which is expected, and things commensurate with the sacrifice. Based on these factors, consumers will give an assessment of the level of satisfaction they receive from the goods or services provided, as well as their level of trust in the ability of the service provider.

Competition for the quality of fuel filling services in Indonesia and Thailand is currently very competitive. Multinational gas stations have appeared, such as BP, Exxon, Petronas, Shell which provide excellent service. SOEs for oil and gas services in the two cities must improve in the face of competition from several MNCs. If there is no improvement in service quality, it is possible that consumers will switch to other brands that provide better service quality than Pertamina Indonesia and PTT Thailand.

There is a growing view among the people of Klaten, Indonesia and Pattani, Thailand, that there are relatively few complaints about the lack of public services because both cities have dense populations. Based on the initial findings, empirical evidence is needed about the truth of a situation aimed at the Pertamina Gas Station Klaten and PTT Yarang District Pattani Thailand institutions. The two SOEs are tasked with providing oil and gas refuelling services for people in the cities of Klaten, Indonesia and Pattani, Thailand. For this reason, this research was conducted with the aim of examining the effect of service quality on customer satisfaction in refuelling services at two locations. The formulation of the main research problem is as follows: "Are refuelling services of Pertamina Klaten and PTT Yarang District satisfying consumers in both cities?"

Research that refers to measuring community satisfaction with the services that have been received, measuring the degree of community satisfaction and analyzing the possibility of a gap as a result of the difference between expectation service and perceived service was carried out by A. Parasuraman, V.A. Zeithaml, and L.L Berry (1988). Parasuraman developed the Servqual dimension in five dimensions, namely:

- a. *Tangibles*, emphasis on the quality of physical appearance, visible, such as the physical equipment of gas station equipment, buildings, rooms, personnel and so on.
- b. *Reliability*, the institution's ability to provide services as promised accurately.
- c. *Responsiveness*, the institution's ability to provide services as promised accurately.
- d. *Assurance*, knowledge and courtesy of employees of the two gas stations as well as their ability to foster public confidence in oil and gas refuelling service companies.
- e. *Empathy*, sincere attention given to consumers.

This view of ServQual is based on a model called the Conceptual Model of Service Quality, along with gaps that may occur, namely gaps 1, 2, 3, 4 to gap 5. Among the five gaps, the fifth gap is the most important and the key to eliminating these gaps is by eliminating gaps one to four

3. Research Methodology

Method of collecting data

The research method used in this study was a survey method, namely seeking information directly from consumers using a questionnaire. In other words, the survey method is a study that takes a sample from the population and uses a questionnaire as a primary data collection tool (Singarimbun and Effendi, 1989).

a. Required data

- 1) Primary data, namely data obtained directly from sources who have an understanding of the object under study. By distributing the questionnaires, it is hoped that there will be information about the quality of SOE services in the two cities, Pertamina Klaten Gas Station and PTT Yarang District Gas Station.
- 2) Secondary data, namely data obtained from sources of literature, research records or institutional archives as well as other journal sources related to research.

b. Data collection technique

- 1) Interview, this activity was carried out to obtain information related to the general description of SOE Pertamina Klaten Gas station and PTT Yarang District Pattani gas station and the strategic planning that has been carried out.
- 2) To obtain information from the public, the researchers randomly distributed questionnaires to consumers in the two cities who had received the services of Pertamina Klaten Gas Station and PTT Yarang District Pattani gas station.
- 3) Literature Study, carried out to obtain supporting data through the library, the internet that is relevant to research.

c. Sampling Method

In this study, the survey method was used as the main tool. Therefore, not all individuals in the population were studied due to time and cost constraints. For it used the sampling method with the following criteria:

1) Population

The population is the total number of units of analysis whose characteristics will be estimated. The population in this study were all people in the Klaten District and Yarang District Pattani who had received the services of the two gas stations.

2) Sampling technique

The characteristics of the subjects that were used in this study are 2x 102 community users of Pertamina Klaten gas stations and PTT Yarang District by purposive sampling. In addition, the subjects in this study are adult individuals, with the assumption that they have mature considerations in assessing the quality of the two SOEs in serving the community.

d. Data Analysis Plan

1) Respondent description

Respondent descriptions were used to interpret the characteristics of the respondent's primary data.

2) Quantitative Analysis

Quantitative analysis used mathematical calculations to draw a conclusion of test results.

Data analysis method

a. Validity and Reliability Test

Validity test is used to determine the extent to which the accuracy and precision of the attributes, in this case the questionnaire can carry out its function. A measuring instrument is said to be valid if it is able to carry out measurements and the measurement results are really accurate. This test was carried out using the Pearson product moment method and corrected using the part whole correlation method (Sutrisno Hadi, 1991).

Reliability test is used to determine the extent to which the measuring instrument is able to make measurements consistently. It is said to be reliable if the measurement is able to provide results that are relatively the same if it is carried out again on the same object with the same technique. The calculation for this test was carried out using the Hoyt method and using the SPSS program computer aids.

b. Community Confirmation Rate Assessment

This analysis was measured using the 5th gap with the Weighted ServQual method (Cronin & Taylor, 1992):

$$I_{kj} = \sum I_{ij} (P_{ij} - E_{ij})$$

I_{kj} = Confirmation index for object j if

$I_{kj} < 0$ = Negative confirmation/consumers of gas station services are dissatisfied

$I_{kj} \geq 0$ = Positive confirmation/ consumers of gas station services are satisfied

I_{ij} = The importance weight of attribute i of object j

P_{ij} = Performance of attribute i on object j

E_{ij} = Expectation of attribute i on object j

4. Results

In this study, researchers used a sample of 200 questionnaires from 204 questionnaires distributed in the two cities, as many as 4 questionnaires turned out to be defective, damaged, the respondents did not want to answer, the answers were incomplete so they were not included in the calculations. Each respondent is a customer community at gas stations in two cities after receiving fuel purchase services. While the characteristics of the subjects studied in this study

were adult respondents, on the grounds that the subjects could feel and assess the quality of the fuel and gas services they received. In addition, the subjects studied have perfect consideration and understanding in assessing how the service quality of the two gas stations in two cities serve the community and can feel satisfaction from the service.

In order that the research is optimally successful, the researcher conducted a pre-survey and literature study and then consulted with the management to obtain a clear description of the attributes on the service quality dimension. From the results of the pre-survey the researcher obtained the appropriate attributes, then they could be categorized into 5 dimensions of service quality where 4 items were Tangibles dimensions, 2 items were Reliability dimensions, 3 items were Responsiveness dimensions, 3 items were Assurance dimensions and 3 items were Empathy dimensions. The five dimensions were then compiled into statements that are easily understood by the fuel and gas consuming public, which were completely filled in, so that they are valid for further processing in quantitative tests.

a. Validity and Reliability Test

The sincerity and seriousness of the respondents in answering questions is the essence of the survey method because the validity of a research result is largely determined by the measuring instrument used in the data collection process. If the data obtained is invalid or inaccurate, the research results will not be able to describe the actual situation. Therefore, it is necessary to test the validity and reliability.

b. Validity Test

There are two types of validity tests used in current research, namely content validity and construct validity. Content validity is the validity that is estimated through the content test of the attributes. Content validity tries to find answers to a number of attributes in a test covering the entire content of the object to be measured through various tests. This test shows not only how comprehensive the content is but also that the content is relevant and does not go outside the boundaries of the objective of the measurement. There are two kinds of content validity, namely face validity and logical validity. Face validity considers that if the content has appearance in accordance with what is measured, face validity has been fulfilled. While logical validity is used to determine the extent to which the contents of the test represent the aspects to be measured. In getting the validity value, the sampling test is arranged through a question in such a way that it has relevant attributes.

Construct validity is validity that reveals the theoretical construct being measured. Testing the validity of the construct is a process that goes hand in hand with the development of the concept of the trait being measured. This validity is a test of whether the measuring instrument is in accordance with the research concept. Another validity that is commonly considered in general research is item validity. This validity tests the attributes of a measuring instrument. Item validity produces a correlation score between attributes with a relevant criterion through the total score in an aspect. The total score is obtained from the sum of all item values. If the value of the correlation results between these items produces a significant value, it means that the items are

able to measure the concept to be measured. In this study, it was tested early on 30 first responders' answers with all items declared valid.

c. Reliability Test

The item reliability test is used to determine the extent to which measurements can give the same or consistent results if repeated measurements are carried out on the same subject (Nasse, 2022). This test was carried out factor by factor, as many as the factors in the questionnaire. The approach taken in this reliability test is the Hoyt technique, namely consideration of the high level of flexibility and practice of its application. This technique only requires that all items measure the same thing (univocal). From the results of the study, the test results obtained for all items were reliable.

d. ServQual Analysis

In the analysis of the consumer confirmation level, the Weighted Servqual formula (Cronin & Taylor, 1992) was used. This formula was used to quantitatively calculate the gap between the quality expected by consumers and the quality actually felt by consumers at two oil and gas filling stations in two cities. The formula is as follows:

$$I_{kj} = \sum I_{ij}(P_{ij} - E_{ij})$$

From the formula above, it can be calculated that the total community confirmation rate from the Plembon gas station service is -119.77. While the maximum or minimum level of community confirmation that may be achieved is (according to the attachment):

$$I_{kj \max} = 95 \times (7 \times (7-1)) \quad I_{kj \max} = 3990$$

$$I_{kj \min} = 95 \times (7 \times (1-7)) \quad I_{kj \min} = -3990$$

The maximum confirmation level achieved by the consumer is assumed that the consumer has minimal expectations of the quality of service to be received and feels the maximum actual performance of the quality of service received. Vice versa, the minimum confirmation level is assumed that consumers have maximum expectations of the quality of service to be received, but in fact feel the minimum actual performance of the quality of service received.

From the results of calculations, the confirmation level of the public for two gas stations in two cities in two cities has a confirmation interval of 7980 and is divided into 6 confirmation level scales: very dissatisfied, dissatisfied, less dissatisfied, somewhat satisfied, satisfied and very satisfied, according to consumer preferences with a range of 1330.

Figure 1 shows the level of community confirmation in two cities on the service quality of two gas stations in an interval:

Very dissatisfied Dissatisfied Less satisfied Neutral Somewhat satisfied Satisfied Very satisfied

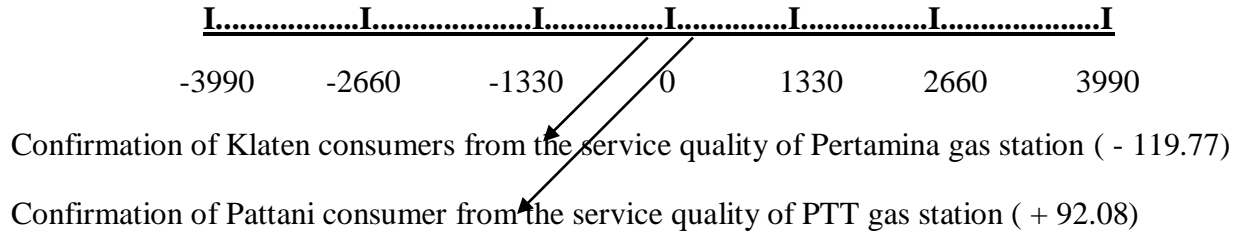


Figure 1. Consumer confirmation of service quality

Figure 1 concludes that the level of consumer confirmation for Pertamina gas stations is in the interval between 0 to -1330 with the predicate being dissatisfied. Minimum standards must be achieved to obtain consumer satisfaction if the confirmation level reaches a value equal to 0 or more (Importance > 0), so that it is concluded that the Pertamina gas stations have not been able to meet consumer expectations in terms of service quality.

After conducting a thorough confirmation analysis, the following table presents an analysis of the level of confirmation of the dimensions of service quality including the Tangibles, Reliability, Responsiveness, Assurance and Empathy dimensions, to determine the extent to which each dimension influences service quality at the two gas stations in two cities.

Table 1. Confirmation rate per dimension

Dimension	Confirmation of PTT Yarang Thailand Gas Station	Confirmation of Pertamina Indonesia Gas Station
Tangibles	20.25	-99.28
Reliability	42.33	-68.77
Responsiveness	87.26	-177.00
Assurance	140.78	-96.78
Empathy	170.00	-112.25

From the table it can be broken down that the dimension of responsiveness at the Pertamina Klaten gas station has the lowest negative confirmation rate of -117.00, then the empathy dimension is -112.25, Tangibles is -99.28, Assurance is -96.78 and Reliability is -68.77. The Responsiveness dimension relates to the responses of employees and Pertamina gas station management in helping consumers and providing fast and satisfying service when consumers need it. This dimension must be prioritized first in improving the quality of service quality, then moving on to the priority of the next dimension. In other words, to increase public satisfaction with Pertamina gas station services, in improving service quality, priority must be given to the responsiveness dimension. The PTT Yarang Thailand has positive point in quality services on 5 dimension of Servqual.

5. Conclusion

Based on the process of data processing and analysis several conclusions are drawn as follows: The standard that must be achieved to obtain a minimum level of consumer satisfaction is when the confirmation level reaches a value equal to zero or more ($I > 0$). The results of the analysis of the consumer confirmation level at Pertamina gas stations and PTT Yarang show a value of -119.77. And + 92.08. The minimum confirmation level that can be achieved by two gas stations is -3990. Meanwhile, the maximum confirmation level that can be achieved by 2 gas stations is 3990. This means that the satisfaction level achieved by consumers is -3% of the maximum possible satisfaction level, or in other words, to achieve minimum satisfaction level ($I = 0$), the Pertamina gas stations in Klaten Indonesia must be able to close the gap of 3% from the minimum level of consumer satisfaction. Thus, it is concluded that the Pertamina Klaten gas stations are less able to provide consumer satisfaction at the expected confirmation level.

Suggestion

Based on the conclusions and findings that have been obtained, the management of 2 gas stations in 2 cities, researchers provide the following suggestions:

1. The negative consumer confirmation rate indicates that the Pertamina gas station have not been able to provide services that meet the expectations of the community. This is possible because of the high expectations of the community for the quality of fuel services. This high expectation can occur because previously there was an impression/perception in the minds of consumers that the people of Klaten Indonesia have high intellectual qualities and awareness of living in society, this leads to high demands for services for public business entities.
2. The relatively slightly negative level of public confirmation may also be due to the fact that the quality of service provided to the Pertamina gas stations. For this reason, the management of the Pertamina gas station must continue to improve the quality culture of business entities. This activity can be started from the leadership, then socialized evenly to all employees. The management of 2 gas stations must be able to motivate all employees to improve excellent service to consumers. This of course can be done by giving additional awards to employees who do very good performance, and conversely there is a punishment program for employees who violate rules and business discipline.
3. Management at the 2 gas stations should periodically continue conducting customer surveys related to the development of service quality. This activity needs to be carried out because of the increasingly high and critical demands of consumers for the excellent service quality of public institutions

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