

CHAPTER IV

DATA ANALYSIS

4.1. Introduction

The research entitled “Service Quality towards the BPR Customer Buying Decision of BPR Shinta Daya Kalasan’s Products” has several purposes, such as mentioned on chapter I.

The research purposes are to know the customers’ attitude to the service quality of BPR Shinta Daya Kalasan Yogyakarta. In reaching the purposes, the collected data will be analyzed with the statistical model such as descriptive analysis and statistical analysis. These analyses were used to separate the data from the respondent’s questionnaires. To get the purpose it will be described the characteristics of the respondents.

4.2. Descriptive Analysis

The descriptive analysis is the analysis that is based on the collected answers from the respondents, where the respondents have stated the statement and valuation of the criteria made by the writer into the questionnaire. Then, the data collected from the respondents are calculated in to percentage.

The customer buying decision will be applied when the service delivery from the server is suitable with the customer perception. There are

a lot of factors such as the server subjectivity, physical condition (both customer and the server), external environment condition etc. the characteristics of the customer are explained as follow:

4.2.1. Respondents' Characteristics

4.2.1.1. Respondent Gender

The writer classified the respondent gender into 2 gender groups, which are female and male. The proportion of respondent gender is displayed in the table below:

Table 4.1:

The Characteristics of Respondents based on Gender

Gender	Amount	Percentage
Male	66	66
Female	34	34
Total	100	100

Source: data processed

From the table above, it is shown that most of the respondents are male. The male respondents are 66 or 66% from 100 respondents and the female

respondents are 34 or 34% from 100 respondents. It can be caused by the probability that males are more often to have a business trip out of town.

4.2.1.2. Respondent Age

In this research the age is categorized based on the market segmentation as formulated by Philip Kotler, which were teenager, youth, old, elder, eldest (retirement). The teenager are between 10 to 19 years old, the youth is between 20 to 34 years old, the old is between 35 to 49 years old, the elder is between 50 to 64 years old, and the eldest or retirement is more than 64 years old.

Table 4.2:

The Characteristics of Respondents based on Age

Age	Amount	Percentage
Teenager	44	44
Youths	34	34
Old	14	14
Elder	8	8
Eldest (retirement)	0	0
Total	100	100

Sources: processed data

From the table above, the teenager respondents are 44 or 44%; youth respondents are 34 or 34%; the old are 14 or 14%; and the elder are 8 or 8%, and none of the customer, is more than 64 years old from total 100 respondents.

4.2.1.3. Respondent Occupation

The writer classified the respondents' occupation types into 4 major groups, which were government employees, entrepreneurs, students and others. The proportion of respondents' occupation is presented in the table below:

Table 4.3:
The Characteristics of Respondents based on Occupation

Occupation	Amount	Percentage
Government employees	10	10
Entrepreneurs	20	20
Students	60	60
Others	10	10
Total	100	100

Sources: processed data

From the table above, it shows that the government employees are 10 or 10%; entrepreneurs are 20 or 20%; students are 60 or 60%; and the others are 10 or 10%.

4.2.1.4. Respondent Salaries

The writer classified respondents' salary ranges into 3 major groups, which were under Rp. 1,000,000; Rp. 1,000,000 — Rp. 2,000,000; and above Rp. 2,000,000. The proportion of salary ranges is presented in the table below:

Table 4.4:

The Characteristics of Respondents based on Salaries

Salaries	Amount	Percentage
<Rp.1.000.000	64	64
Rp.1.000.000-Rp.2000.000	21	21
>Rp.2000.000	15	15
Total	100	100

Sources processed data

From the table above, it shows that the respondents who have the salary below 1,000,000 rupiahs are 64 or 64%; the respondents who have the salary between 1,000,000 rupiahs are 21 or 21%; and the respondents who have the salary more than 2,000,000 rupiahs are 15 or 15%.

4.3. Service Quality Dimension Analysis

The service quality is the characteristics of the service. This research is using the service quality dimension that had been developed by

Parasuraman Zeithaml (1988) that concludes 5 (five) dimensions, those are: *tangibles* (physics, communication facilities, and equipment), *reliability* (Suitable satisfaction promised.), *responsiveness* (performance in giving the services), *assurance* (capability in giving the service), and *empathy* (ability to understand the customer wants). Those dimensions are called service quality used for the tools of the service quality. From the five dimensions, there are 15 various questions, where each which has a question of three items. Basically, the service quality is the customer valuation of the service level perceived. By calculating the interval category where the lowest score = 1 and the highest score = 5, the interval calculation is as follows:

$$\text{Interval} = \frac{5-1}{5} = \frac{4}{5} = 0,8$$

From the interval calculation above, it can be categorized from the table as follows:



Table 4.5:

Score - Intervals

Score - Intervals	Criteria
1.00- 1.79	Least qualified
1.80-2.59	Less qualified
2.60-3.39	Quiet qualified
3.40-4.19	Qualified
4.20-5.00	Very qualified

By the assumption that:

- 1 - 2.59 means least qualified
- 2.60 - 3.39 means quiet qualified
- > 3.39 means qualified

From the research result, there are differences between expectation and perception that can be seen from the table below:

Table 4.6:
Expected Service Quality Valuation with the Service Quality Perceived

No	Service Quality Dimensions	Perception Valuation (Average)	Explanation
1	Tangibles	3.38	Qualified
2	Reliability	3.14	Qualified
3	Responsiveness	3.10	Qualified
4	Assurance	3.20	Qualified
5	Empathy	3.22	Qualified

Source: data processed

a. Tangibles Dimension Analysis

The tangible dimensions of BPR Shinta Daya Kalasan Yogyakarta are described from the employee performance, displays, and the physical facilities that fulfilled the customers expectation. It can be seen from the perception average of 3.38 that showed the tangible dimensions of BPR Shinta Daya Kalasan is assumed quiet qualified.

b. Reliability Dimension Analysis

Reliability dimension of BPR Shinta Daya Kalasan Yogyakarta are that consists of the ability of the employee in giving the services (comfort and satisfaction) as it has been promised is quiet qualified. It can be seen from the perception average of 3.14, so the service is considered qualified enough.

c. *Responsiveness* Dimension Analysis

Responsiveness dimension of BPR Shinta Daya Kalasan Yogyakarta that is the willingness of the employees to help the customer and give the perceptive service, has fulfilled the customers expectation enough. It can be seen from the perception average of 3.10. So it can be said that the service is considered quiet qualified.

d. *Assurance* Dimension Analysis

Assurance dimension of BPR Shinta Daya Kalasan Yogyakarta that consists of capability, ethics, trust that are owned by the employees has quite fulfilling the customer expectation. It can be seen from the perception average of 3.20, so that the service is considered quite qualified.

e. *Empathy* Dimension Analysis

The *empathy* dimension of BPR Shinta Daya Kalasan Yogyakarta that consists of the easiness to communicate and personal attention given by BPR Shinta Daya Kalasan Yogyakarta employees is enough in fulfilling the customers' expectation. It can be seen from the perception average of 3.22 so it can be said that the service is considered quite qualified.

4.4. Statistical Analysis

Quantitative analysis is the analysis of the data that is stated by numbers where the numbers are collected from the questionnaires in the score scale system. The analysis quantitatively can be done by several statistics methods.

4.4.1. Multiple Linear Regression Analysis

In this research, the influences of tangibles dimension (X₁), reliability dimension (X₂), responsiveness dimension (X₃), assurance dimension (X₄), empathy dimension (X₅), towards the customer (Y) are stated in the following model:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$$

Where:

a = *constant*

b₁ = *tangibles regression coefficient*

b₂ = *reliability regression coefficient*

b₃ = *responsiveness regression coefficient*

b₄ = *assurance regression coefficient*

b₅ = *empathy regression coefficient*

Based on the data analysis that is done by the package program of SPSS 10, the results are:

$$a = 0.759$$

$$b_1 = 0.198$$

$$b_2 = 0.216$$

$$b_3 = 0.246$$

$$b_4 = 0.07146$$

$$b_5 = 0.102$$

The regression equation is:

$$Y = 0,759 + 0,198X_1 + 0,216X_2 + 0,246X_3 + 0,07146X_4 + 0,102X_5$$

$$Th (2,727) \quad (3,557) \quad (3,683) \quad (4,123) \quad (1,073) \quad (1,553)$$

$$r = 0,740 \quad r^2 = 0,547$$

The Significance test of service quality variable towards the buying is as follows:

a). Hypotheses

$$H_0 = b_1, b_2, b_3, b_4, b_5 = 0; \text{ not significant}$$

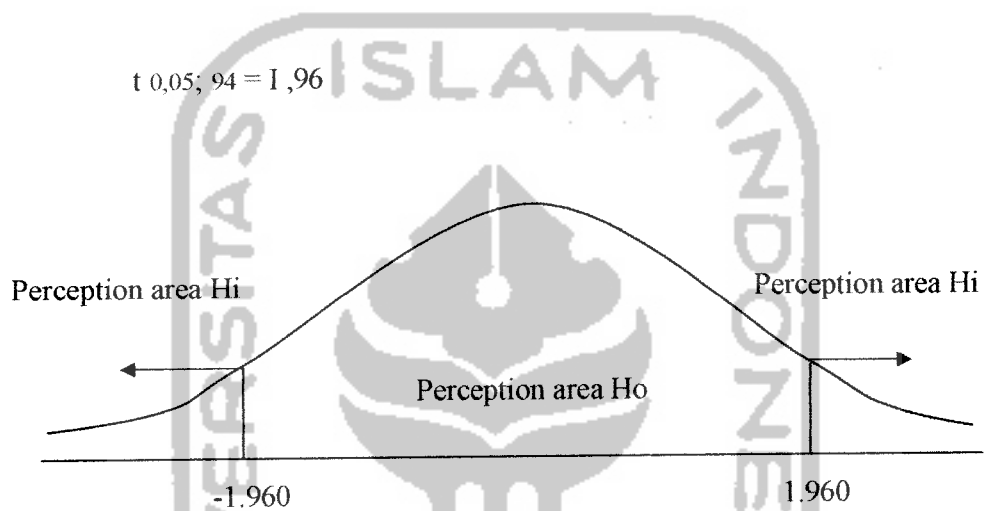
$H_1 = b_1, b_2, b_3, b_4, b_5 \neq 0$; significant

b). Determining the testing critical area

$$\alpha = 0.05; \alpha/2 = 0.025$$

$$df = n - k - 1 = 100 - 5 - 1 = 94$$

$$t_{0.05; 94} = 1.96$$



Picture 4.1:

Perception and Rejection Ho Graph

c). t-calculated results

Table 4.7:

**The Results of the Independent Variable Coefficient Test
Towards the Dependent Variable**

Independent Variables	Regression Coefficients	t-test	Significant Limited Numbers	Conclusion	Decision
Tangibles	0.198	3.557	.001	Ha accepted; Ho rejected	Significant
Reliability	0.216	3.683	.000	Ha accepted; Ho rejected	Significant
Responsiveness	0.246	4.123	.000	Ha accepted; Ho rejected	Significant
Assurance	0.07146	1.073	.286	Ha rejected; Ho accepted	Not significant
Empathy	0.102	1.553	.124	Ha rejected; Ho accepted	Not significant

Source: processed data

$$\alpha = 0.05 \quad df = k-1 = 100-5-1 = 94$$

$$t \text{ table } 0.05; 94 = 1.960$$

d). Conclusion

b1, b2, b3; significant

b4, b5; not significant

From the equation above, the conclusions are:

- a. The constant is 0.759, it means that if the service quality perception (X1, X2, X3, X4, X5) is zero, so the buying decision value of the customer (Y) of BPR Shinta Daya Kalasan Yogyakarta is 0.759
- b. If X1 (*tangibles* dimension) increases 1%, so the customer decision (Y) will increase 0.198 by assuming that X2, X3, X4, and X5 are constant.
- c. If X2 (*reliability* dimension) increases 1%, so the customer decision (Y) will increase 0.216 by assuming that X1, X3, X4, and X5 are constant.
- d. If X3 (*responsiveness* dimension) increases 1%, so the customer decision (Y) will increase 0.246 by assuming that X1, X2, X4, and X5 are constant.
- e. If X4 (*assurance* dimension) based on the significance test of *assurance* dimension is not significant So, it cannot be used for the prediction.
- f. X5 (*empathy* dimension) based on significant test of *empathy* dimension is not significant. So it cannot be used for the prediction.

4.4.2. Multiple Correlation Coefficient Analysis

The tools of multiple correlation analysis is used to know the degree of the relation of the whole X variable simultaneously with the Y variable. Based on the calculation and the analysis done by using SPSS 10 program, it resulted that the R value is 0.740, which means that the correlation is close to 1 and more than 0.5. So, the correlation is strong

enough. On the other hand, the determination coefficient is resulted by the determination coefficient (R^2) of 0.547 or 54,7%. It means that 54,7% variation that influences the customer's decision to buy the product of BPR Shinta Daya Kalasan Yogyakarta is contributed by the dimension variations of the service quality, and the rest of 45,3% is influenced by other variables, outside the equation.

4.4.3. Regression Coefficient at Single Test

The test is to know whether the correlation of regression line is significant or not. The test is the coefficient regression at single test, with the assurance degree (CL) = 5%, for the basis. Based on the calculation by SPSS 10 program, the result is as follows:

Table 4.8:
ANOVA Test Result

Model	Summary of Square	df	Mean Square	F	Significance
Regression	10.680	5	2.136	22.691	.000
Residual	8.848	94	0.09413		
Total	19.528	99			

Source: processed data

The ANOVA test indicated that the F test = 22.691 so, the F test is significant, since the significance is 0.000 (<0.05), it is a prediction for Y

variable, so that the regression method can be used in the prediction. The steps of F test:

a. H_0 b_1, b_2, b_3, b_4, b_5 (the regression line cannot be used for the prediction.)

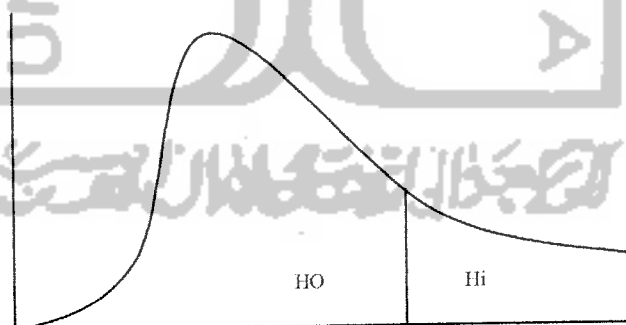
H_a : H_0 incorrect = regression line can be used for the prediction

b. With the level of significance

$$F_{\alpha} = 0.05 ; df = n - k - 1 \\ = 100 - 5 - 1 = 94$$

c. F_h resulted: 22.691

Table F 0.05 ; $df = 94$



Picture 4.2:

H_0 Acceptance and Rejection Graph

4.4.4. Partial Correlation Analysis.

Partial correlation is used to know the relation between one to another of dependent variable with the independent variables, so it will be known the service quality that mostly influences the customer's buying decision.

Moreover, the determination correlation is done to prove whether the partial correlation calculation has significant relation or not. In other words, to prove the R value, that is resulted from the correlation analysis is correct or it is a coincidental situation. The resulted summary of the correlation analysis by using *Pearson Correlation Test* is as follows:

Table 4.9:
Pearson Correlation Test

Service Quality Dimensions	Customer Decision	Table T A = 0.05; df= 98	Significance
Tangibles	0.552	1.960	0.000
Reliability	0.567	1.960	0.000
Responsiveness	0.453	1.960	0.000
Assurance	0.421	1.960	0.000
Empathy	0.353	1.960	0.000

Source: primary data processed

The test was done by comparing the probability value with the significance level (α) that is used. The whole test was done by using the significance level $\alpha = 5\%$ or 0.05 .

- a. The partial correlation between *tangibles* dimension with the customer's buying decision.

Based on the data calculation by using SPSS 10, the results are:

$$r_{1.2345} = 0.552$$

$$P = 0.000$$

Because P is less than 0.05 , so the correlation value is significant. It means that it has a strong influence, and it can be said that the trust is 95% , the customer's responses towards the *tangibles* dimension (X_i) influences significantly to the customer's buying decision (Y).

- b. The partial correlation between *reliability* dimensions with the customer's buying decision.

Based on the data calculation by using SPSS 10 program, the results are:

$$r_{2.1345} = 0.567$$

$$P = 0.000$$

Because P is less than 0.05 , so the correlation value is significant. It means that it has strong influences, and it says that when the trust level

is 95%, the customer's responses towards the *reliability* dimension (X2) influences significantly to the customer's buying decision (Y).

- c. The partial correlation between *responsiveness* dimensions with the customer's buying decision.

Based on the data calculation by using SPSS 10 program, the results are:

$$r_{3.1245} = 0.453$$

$$P = 0.000$$

Because P is less than 0.05. It means that it has the strong influences, and it says that the trust level is 95%, the customer's responses towards *responsiveness* dimension (X3) influences significantly to the customer's buying decision (Y).

- d. The partial correlation between *assurance* dimensions with the customer's buying decision.

Based on the data calculation by using SPSS 10 program, the results are:

$$r_{4.1235} = 0.421$$

$$P = 0.000$$

Because P is more than 0.05, it means that it has a weak influence, and it says that when the trust level is 95%, the customer's responses

towards *assurance* (X4) does not influence significantly to the customer's buying decision (Y).

- e. The partial correlation between *empathy* dimensions with the customer's buying decision.

Based on the data calculation by using SPSS 10 program, the results are:

$$r = 0.353$$

$$P = 0.000$$

Because P is less than 0.05. It means that it has a weak influence, and it says that when the trust level is 95%, the customer's responses towards *empathy* (X5) does not influence significantly to the customer's buying decision (Y).

