

## THE QUALITY SERVICES OF AGROWISATA HORTIMART AGRO CENTER BAWENSUB-DISTRICT, SEMARANG DISTRICT

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### ABSTRACT

The objectives of this research are: 1) determine the level of service quality and the satisfaction of visitors with the service quality provided by agrotourism Hortimart Agro Center and 2) determine the correlation between visitor's appraisal on the service quality with the characteristics of visitors agrotourism Hortimart Agro Center which is a complement to the analysis, as well as the element of novelty of this research. The method used to determine the service qualities is SERVQUAL and IPA, while customer satisfaction on the quality of service is known by the Customer Satisfaction Index (CSI). Furthermore, the correlation test was applied to determine the correlation between visitor appraisal on service quality and visitor characteristics. This research used primary data that comes from interviewing 40 people as respondents. The result of SERVQUAL shows that three dimensions have negative gap value, namely tangible, responsiveness, and assurance, while the other two dimensions (reliability and empathy) has a positive gap value. IPA analysis results show that there are six attributes located in quadrant I as the main priority for improved performance, ten attributes located in quadrant II which must be maintained its achievement, and seven attributes in quadrant IV are overvalued. There are no attributes that are in quadrant III in the Importance Performance Matrix. The result of the CSI method shows that the level of visitor satisfaction is 82.42%. The value is in the range of 81-100%. Thus the overall visitor is very satisfied with the service performance. The research data's correlation test obtained the correlation between visitors' appraisal of the service quality with visitors' characteristics (age, sex, education, and income).

**Keywords:** Agrotourism, Customer Satisfaction Index, Service Quality, SERVQUAL

### INTRODUCTION

Indonesia's agricultural sector is a vital sector that occupies a strategic position in the economy and national development. However, what has been the government's main focus so far is the aspect of production because it is the most crucial aspect in that sector. Many potentials can be developed from this sector, given the quite diverse agricultural functions. Not only focusing on the scope of agriculture itself, but also agricultural developments are also projected to encourage other sectors.

Agro-tourism can be defined as a form of tourism activity that makes agriculture (agribusiness) a tourist attraction for various purposes, including expanding knowledge, experience, recreation, and business relations in agriculture. According to Sutjipta (2001), agrotourism can be interpreted as an integrated and coordinated system of tourism development and agriculture activities, with environmental preservation, improving farming communities' welfare. In essence, the development of agrotourism, apart from increasing the types and variations of Indonesian tourism products, can also

promote cultural products, increase volume, and boost farmers' welfare.

Agro-tourism is alternative tourism with promising prospects. During the increasingly fierce business competition, improving service quality is one aspect that needs to be optimized to attract and retain customers. In general, customers want the goods or services they enjoy accompanied by good service satisfying. For this reason, the assessment of service quality and customer satisfaction needs to be known to find out how customer attitudes and assessments have been and to explore what customer needs are.

Hortimart Agro Center is one of the agrotourism in the Semarang Regency. The distance is approximately 17 km from the center of Semarang City, and the location is quite strategic because it is on the edge of the Bawen highway. The Hortimart Agro Center presents a relatively complete agro-tourism concept, starting from a stretch of fruit gardens, plant nurseries, and a mini market that sells garden products, and a restaurant that provides a menu of processed garden products. In this place, visitors can enjoy a tour around the 27-hectare garden by driving a car or tourist train that is available. Besides, visitors can also pick

fruit directly while walking around the garden. Visitors can buy fresh fruit and vegetables available at the minimum or enjoy a meal at the Agro Restaurant and Green Resto. Since its inception 38 years ago, now the Hortimart Agro Center has become one of the most visited agrotourisms. Therefore, the quality of service needs special attention because it will greatly affect visitors' assessment and satisfaction with this agrotourism. A company's service quality can be assessed through several dimensions, including tangibles, responsiveness, reliability, assurance, and empathy. Through this dimension, it can be seen how the visitor's assessment of the perceived satisfaction with a company's performance. Applying a good, effective, and efficient service system is essential to learn to find out what consumers want. Knowledge of this can then be a meeting point that can bridge consumer perceptions and responses to its services.

**METHOD**

The primary method used is the descriptive analysis method. This method systematically and accurately describes the facts and characteristics or certain conditions (Azwar, 1998). Meanwhile, according to Hartono (2011), this method collects existing data, that is then explained, compiled, analyzed, and explained qualitatively and quantitatively. The data analysis used in this research is the quantitative method. The obtained will be categorized in the form of numbers to calculated to obtain a quantitative interpretation.

This research was conducted at Agrotourism Hortimart Agro Center, Bawen District, Semarang Regency, Central Java. This research's location selection was carried out deliberately, namely, by using a purposive sampling method. The number of samples used in this study was forty (40) samples and was part of the research grant data entitled "Economic Valuation and Service Quality of Kampong Kopi Banaran and Hortimart Agro Center in Semarang Regency" chaired by Dr. Jangkung Handoyo Mulyo, M.Ec. The sampling technique in this study was carried out by the incidental sampling method. The implementation of the grant research data collection itself took place during May-August 2017.

The data collection techniques used were interviews, observation, and literature study. Meanwhile, the data used is primary data, namely data obtained from direct observation of research subjects and secondary data, data obtained by taking existing data from related agencies or institutions, books, records, and associated reports, with research topics.

Data collection in this study used a Likert scale where the result was an ordinal scale. According to Sappaile (2007), the ordinal scale is not appropriate when adding between scores. The addition of scores can be done if the data is an interval scale so that a transformation with the Z distribution approach is needed. The scoring transformation method aims to analyze the frequency distribution of answers from the statements in the questionnaire. There are four (4) answer categories in the questionnaire to determine the expected value of service quality, namely SP (very important), P (important), TP (not important), and STP (very insignificant). The determination of the value of service quality performance is SM (very satisfying), M (satisfying), TM (unsatisfactory), and STM (very unsatisfactory). Following are the steps to determine the score or Z value for each answer from the questionnaire statement (Sappaile, 2007):

1. Calculate the frequency (f) of respondents' answers in each category.
2. Determine the proportion (p) by dividing each frequency by the number of respondents.
3. Determine the cumulative proportion (cp), namely the balance of a category plus the category's proportions on its left.
4. Determine the midpoint of the cumulative proportion (m-cp).
5. Determine the Z-score score by comparing the Z table for each mean of the cumulative proportion.
6. Adding a number such that the negative z value becomes zero. Determining the zero points can be done by adding up the numbers in the far left or lowest response.

Validity test

According to Ghozali (2005), the validity test is carried out by comparing the calculated r-value with the r table for the degree of freedom (df) = n-2. In this case, n is the number of samples. If the calculated r value > r table, then the question is valid, and vice versa. The confidence level used is 95% or alpha ( ) 0.05. The technique used to determine the validity of the attribute or question is the Pearson product-moment correlation technique. The formula is as follows (Arikunto, 2002):

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

Description:

- rx<sub>y</sub> = grain correlation coefficient
- X = score for each question
- Y = total score of the question item for the n<sup>th</sup> respondent
- N = number of samples or number of respondents

The hypothesis used is as follows:

$H_0$  = The questionnaire is invalid

$H_1$  = The questionnaire is valid

For the basis of decision making, namely:

- If the value of r count > r table,  $H_0$  is rejected
- If the value of r count < r table, so  $H_0$  is accepted

Reliability Test

A measuring instrument or instrument can be reliable if it repeatedly shows the results (Sugiyono, 2012). A questionnaire is reliable if it provides an alpha value of  $\alpha > 0,60$  (Ghozali, 2005). The following is the formula for the reliability test:

$$r_i - 1 = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\sum \delta b^2}{\delta t^2} \right) \dots \dots \dots (2)$$

Where:

$r_i - 1$  = attribute reliability

k = many questions

$\delta b^2$  = variance of question items

$\delta t^2$  = total variance

The hypothesis used is as follows:

$H_0$  = The questionnaire is unreliable

$H_1$  = The questionnaire is reliable

For the basis of decision making, namely:

- If the alpha value  $\alpha > 0,60$ ,  $H_0$  is rejected
- If the alpha value  $\alpha < 0,60$ ,  $H_0$  is accepted

SERVQUAL

In this study, the SERVQUAL method was used to measure the difference (gap) between

visitors' perceptions of the performance of the Hortimart Agro Center Agrotourism and visitors' expectations. The steps that need to be taken on the Servqual method to measure service quality are as follows (Yuniar *et al.*, 2014):

1. Determine the average value of perception ( $\bar{P}$ ) for each variable.

$$\bar{P} = \frac{\sum_{i=1}^n P_i}{n} \dots \dots \dots (3)$$

Where:

$P_i$  = Perceptual value given customers or management for question-i

n = Number of respondents

2. Determine the average expected value ( $\bar{E}$ ) for each variable.

$$\bar{E} = \frac{\sum_{i=1}^n E_i}{n} \dots \dots \dots (4)$$

Where:

$E_i$  = Expectation value provided by the customer for the question-i

n = Number of respondents

3. Determine the Servqual Score (S) for each variable:

$$S = \bar{P} - \bar{E} \dots \dots \dots (5)$$

Table 1. Z-score transformation

Number Question Point	Category of Answer			
	STP	TP	P	SP
f				
p				
cp				
m-cp				
0.5 - (m-cp)				
Z score				
Z				
Rounding off				

Source: Sappaile, 2007

Description: f = the frequency of answers in each category; p = the proportion of each category; cp = cumulative proportion; m-cp = the midpoint of the cumulative proportion; Z skor = Z value from normal deviation table; STP = Very unimportant; TP = Unimportant; P = Important; TP = Very important

Importance Performance Analysis (IPA)

The Importance Performance Analysis method is used to map the relationship between the importance and its performance from each described attribute. The respondent's assessment of the company's level of importance and performance level will be averaged and analyzed in the Importance - Performance Matrix.

The first stage in analyzing these attributes is determining the level of conformity between the visitor's expectation level and the quality performance level of the study's attributes. The determination is made by comparing the service performance score with the expected score with the following formula (Tjiptono & Chandra, 2011):

$$T_{ki} = \frac{X_i}{Y_i} \times 100\% \dots\dots\dots(6)$$

Description:

- $T_{ki}$  = the suitability level of the respondents
- $X_i$  = the respondents performance assessment scores
- $Y_i$  = expectation assessment score

The second stage of the IPA method is to calculate the average for service performance ( $\bar{X}$ ) and the expectations of all visitors ( $\bar{Y}$ ) with the following formula:

$$\bar{X} = \frac{\sum X_i}{n}, \bar{Y} = \frac{\sum Y_i}{n} \dots\dots\dots(7)$$

Description:

- $\bar{X}$  = Performance level average score
- $\bar{Y}$  = The average score of the level of expectation
- $\sum X_i$  = Total performance level score
- $\sum Y_i$  = The sum of the expected level scores

therefor, the third stage is to calculate the average service performance ( $\bar{X}$ ) and visitor expectations( $\bar{Y}$ ) for all attributes with the following formula:

$$\bar{X} = \frac{\sum_{i=1}^N X_i}{k}, \bar{Y} = \frac{\sum_{i=1}^N Y_i}{k} \dots\dots\dots(8)$$

Description:

- $\bar{X}$  = the average service performance level score across attributes
- $\bar{Y}$  = the average level of expectation all the attributes
- k = the number of attributes that can affect customer satisfaction

The final stage is the translation of each attribute  $\bar{X}$ ,  $\bar{Y}$  in a Cartesian diagram divided into four quadrants bounded by  $\bar{X}$ ,  $\bar{Y}$ .

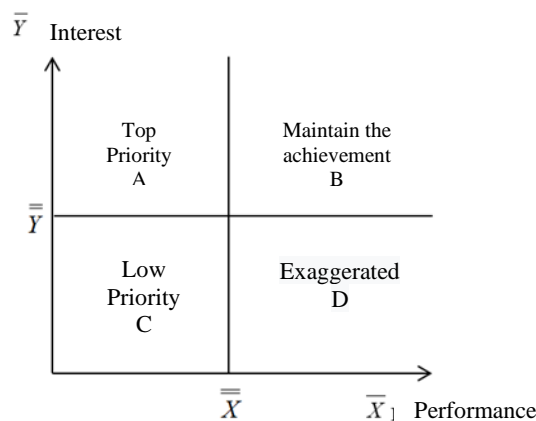


Figure 1. Cartesian Diagram  
Source: Tjiptono and Chandra, 2011

*Customer Satisfaction Index (CSI)*

This method is often used because it is simple and can determine the overall service quality regardless of its dimensions. In calculating CSI, four steps must be taken, namely (Pratama *et al.*, 2011):

1. Determine the Mean Importance Score (MIS) and Mean Satisfaction Score (MSS). This value comes from the average level of importance and performance of each respondent:

$$MIS = \frac{\sum_{i=1}^n Y_i}{n} \text{ dan } MSS = \frac{\sum_{i=1}^n X_i}{n} \dots\dots\dots(9)$$

Description:

- n = number of respondents
- $Y_i$  = the importance value of the i th attribute
- $X_i$  = the performance value of the i th attribute

2. Making a weight factor (WF), this weight is the percentage of the MIS value per attribute to the total MIS of all attributes:

$$WF = \frac{MIS}{\sum_{i=1}^n MIS_i} \times 100\% \dots\dots\dots(10)$$

3. Calculating the Weighting Score (WS), which is the multiplication value of the average

performance level of each MSS attribute with the WF of each attribute:

$$WSi = WFI \times MSSi \dots\dots\dots(11)$$

Description:  
i = service attributes

4. Calculating the Weighted Total (WT), by adding up all the WAS from each attribute.
5. Calculating the Satisfaction Index, which is the WT divided by the maximum scale (HS) used (in this study, the maximum scale is 5), then multiplied by 100%:

$$CSI = \frac{\sum_{i=1}^n WSi}{HS} \times 100 \dots\dots\dots(12)$$

Table. 2 Criteria for Value Customer Satisfaction Index

CSIValue	CSICriteria
0.81-1.00	Very satisfied
0.66-0.80	Satisfied
0.51-0.65	Quite satisfied
0.35-0.50	Less satisfied
0.00-0.34	Not satisfied

Source: Ihshani, 2005

Table 3. Guidelines for providing Interpretation of Correlation Coefficients

R	Relationship Criteria
0.00 – 0.19	Very low
0.20 – 0.39	Low
0.40 – 0.59	Moderate
0.60 – 0.79	Strong
0.80 – 1.00	Very strong

Source: Sugiyanto, 2008

**RESULT AND DISCUSSION**

The validity test is used to determine or measure each statement item’s accuracy in the questionnaire, where statements that are deemed inappropriate must be replaced or eliminated (drop). The validity test will be valid if the calculated r-value is greater than the r table value. The r table value in this study is 0.1648 obtained from n-2; namely, the number of respondents is reduced by 2 and is matched in the table. The number of respondents who became the reference in determining the r table’s value was 140 respondents, the total number of respondents in collecting research grant data. Meanwhile, the alpha value used is 0.05.

Based on Table 4 and Table 5, it can be seen that all question attributes for expectations and service quality performance have a calculated r-value greater than the r table value, which is 0.1648 with a confidence level of 5% provisions in

**Correlation Test**

Correlation analysis is a statistical method used to determine the strength or degree of a linear relationship between two or more variables. The simple correlation coefficient calculation can use the following formula:

$$r = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}} \dots\dots\dots(13)$$

Description:

- n = The number of data
- X = Independent variable
- Y = Dependent variable

statistics for testing. These results imply that all question attributes in the questionnaire regarding the expectations and performance of service quality by visitors are declared valid. Therefore, the questionnaire’s attributes are suitable for use as a tool to determine the quality of services at the Hortimart Agro Center agro-tourism.

In this research, the reliability test was carried out using the SPSS24 tool. A data can be said to be reliable, Cronbach’s Alpha is greater than the comparable alpha, which is 0.6. Based on Table 6 and Table 7, it can be seen that the five dimensions for the expectation of service quality have a Cronbach’s Alpha value that is greater than the comparable alpha value, namely 0.6. These results imply that all dimensions of service quality test can be said to be reliable so that they can be used to explain the quality of service at the research location.

SERVQUAL analysis is an analytical tool used to determine service quality by measuring the difference between perceived performance data and expectations data. The difference between the perceived performance data and expectations is called the gap value. If the gap value obtained is

positive, this indicates that the perception of actual performance exceeds consumer expectations, or in other words, the quality of the service provided is satisfactory. On the other hand, if the value of the gap obtained is negative, the service quality is considered unsatisfactory.

Table 4. Attribute Validity Test for Service Quality Expectations of Hortimart Agro Center Agrotourism

No	Question Points	R Count	Description
<b>Tangible</b>			
1	Comfortable meeting room/pavilion facilities	0.730	Valid
2	The convenience of worship facilities	0.601	Valid
3	Comfort toilet facilities	0.533	Valid
4	Convenience and safety of parking facilities	0.670	Valid
5	The convenience of the agro-tourism environment	0.541	Valid
6	A well-functioning communication network in the agro-tourism area	0.578	Valid
7	Sufficient and well-functioning electricity	0.667	Valid
8	Continuous updating of information media related to agro-tourism activities	0.740	Valid
9	The tidiness of employee appearance (uniform)	0.470	Valid
<b>Responsiveness</b>			
10	The readiness of employees in serving visitor requests	0.698	Valid
11	Service is swift and minimal errors occur	0.647	Valid
12	Employees who are fast in handling visitor complaints	0.915	Valid
13	The willingness of employees to provide information	0.925	Valid
<b>Reliability</b>			
14	Agrotourism facilities that provide education to visitors	0.667	Valid
15	On-time service	0.738	Valid
16	The Clarity in providing information	0.652	Valid
<b>Assurance</b>			
17	Knowledge and insight of employees about agro-tourism	0.819	Valid
18	Friendliness and courtesy of employees in serving visitors	0.863	Valid
19	Security around the agro-tourism area	0.757	Valid
<b>Empathy</b>			
20	The attention that employees pay to visitors	0.844	Valid
21	The seriousness of employees in serving visitors	0.770	Valid
22	The willingness of employees to listen to criticism and suggestions from visitors	0.711	Valid
23	The patience of employees in handling complaints/criticism of visitors	0.729	Valid

Source: Primary data analysis, 2017

Table 8 shows that the average expected value is greater than the average performance value, so the gap is negative. These results indicate that based on the analysis of service quality or SERVQUAL, in general, the performance of the dimensions of service quality provided by the Hortimart Agro Center agro-tourism has not met the expectations of visitors. However, let us look at each dimension from the five dimensions of service quality. Two dimensions have a positive gap value, namely the reliability dimension with a value of 0.050 and the empathy dimension with a value of 0.125. Although, in general, the assessment of service quality is still unsatisfactory, if we look at each dimension, there are still several

dimensions that show good performance and have met the expectations of visitors.

Importance Performance Analysis is used to map the relationship between expectation and performance from each attribute assessment of the company's ensuing. Performance levels will be averaged and analyzed and presented in a diagram using the SPSS 24 scatter plot program. The vertical axis in the diagram is the expected value, while the horizontal axis in the diagram is the performance value. The center axis for the two axes is determined so that later a diagram will be formed, divided into four quadrants.

Table 9 is the average value of the performance and service quality expectations of the Hortimart Agro Center agro-tourism, which

shows that the average value of all dimensions for performance is 4,120 and the mean value of all dimensions for expectation is 4,134. The average value will later be used for the x-axis, and y-axis in the IPA diagram. The x-axis is the average of all

performance dimensions, and the y-axis is the average of all expected dimensions. The two points will produce an intersection point that will cut the diagram into four parts, as shown in Figure 2.

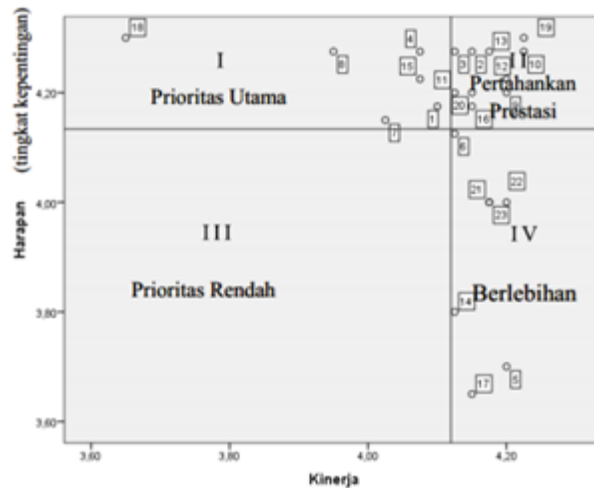


Figure 2. Cartesian Diagram of Importance Performance Analysis  
Source: Primary data analysis, 2017

Quadrant II is an area that contains factors considered necessary by visitors, and factors considered by visitors are following what they feel so that the level of satisfaction is relatively higher. The variables included in this quadrant must be maintained because all these variables make the product or service superior in visitors' eyes. There are ten attributes in this area (10) that come from the five service quality dimensions.

Quadrant III is an area containing factors that are considered less critical by visitors, and the performance is not that special. The increase in the variables included in this quadrant can be reconsidered because the effect on visitors' benefits is minimal. In the mapping results of the Cartesian diagram, none of the attributes are in this area.

Quadrant IV is an area that contains factors that are considered less critical by visitors and which are considered too excessive. The variables included in this quadrant can be reduced so that the company can save costs for the attributes in this region as many as seven (7) attributes derived from the dimensions of physical evidence (tangible), reliability, responsiveness, and empathy.

The satisfaction of visitors to the Hortimart Agro Center with the quality of service can be seen through the Customer Satisfaction Index analysis. The Customer Satisfaction Index (CSI) method is an analytical tool that can describe customer satisfaction with an approach that considers the importance level of the measured service quality attributes. The calculation of visitor satisfaction using the Customer Satisfaction Index (CSI) can be seen in Table 10.

Table 5. Attribute Validity Test for Service Quality Performance of Hortimart Agro Center Agrotourism

No	Question Points	R Count	Description
<b>Tangible</b>			
1	Comfortable meeting room/pavilion facilities	0.580	Valid
2	The convenience of worship facilities	0.566	Valid
3	Comfort toilet facilities	0.733	Valid
4	Convenience and safety of parking facilities	0.661	Valid
5	The convenience of the agro-tourism environment	0.653	Valid
6	A well-functioning communication network in the agro-tourism area	0.589	Valid
7	Sufficient and well-functioning electricity	0.645	Valid
8	Continuous updating of information media related to agro-tourism activities	0.627	Valid
9	The tidiness of employee appearance (uniform)	0.716	Valid

Responsiveness			
10	The readiness of employees in serving visitor requests	0.754	Valid
11	Service is swift and minimal errors occur	0.718	Valid
12	Employees who are fast in handling visitor complaints	0.660	Valid
13	The willingness of employees to provide information	0.653	Valid
Reliability			
14	Agrotourism facilities that provide education to visitors	0.743	Valid
15	On-time service	0.727	Valid
16	The Clarity in providing information	0.502	Valid
Assurance			
17	Knowledge and insight of employees about agro-tourism	0.637	Valid
18	Friendliness and courtesy of employees in serving visitors	0.718	Valid
19	Security around the agro-tourism area	0.668	Valid
Empathy			
20	The attention that employees pay to visitors	0.711	Valid
21	The seriousness of employees in serving visitors	0.686	Valid
22	The willingness of employees to listen to criticism and suggestions from visitors	0.839	Valid
23	The patience of employees in handling complaints/criticism of visitors	0.827	Valid

Source: Primary data analysis, 2017

Table 6. Dimensional Reliability Test Results for Service Quality Expectations of Hortimart Agro Center Agrotourism

No	Quality Dimensions	Cronbach's alpha	Description
1	Tangible	0.844	Reliable
2	Responsiveness	0.901	Reliable
3	Reliability	0.720	Reliable
4	Assurance	0.837	Reliable
5	Empathy	0.892	Reliable

Source: Primary data analysis, 2017

Table 7. Dimensional Reliability Test Results for Service Quality Performance of Hortimart Agro Center Agrotourism

No	Quality Dimensions	Cronbach's alpha	Description
1	Tangible	0.877	Reliable
2	Responsiveness	0.841	Reliable
3	Reliability	0.803	Reliable
4	Assurance	0.754	Reliable
5	Empathy	0.885	Reliable

Source: Primary data analysis, 2017

Table 8. Average Gap Value between Perceptions of Performance and Expectations per Dimension of Service Quality of Hortimart Agro Center Agro-tourism

No	Question Points	Average Value		Gap
		Performance	Expectation	
1	Tangible	4.106	4.161	-0.056
2	Responsiveness	4.181	4.244	-0.063
3	Reliability	4.117	4.067	-0.050
4	Assurance	4.008	4.083	-0.075
5	Empathy	4.175	4.050	0.125
Total		20.587	20.605	-0.018
Average		4.117	4.121	-0.004

Source: Primary data analysis, 2017

Based on Table 10, it can be seen that the total weighting score (WS) value of the service quality dimension attributes is 4.121. TE

Each attribute's value is obtained from the multiplication of each attribute's performance value with the Weight Factor (WF) value of each



attribute. The WF value is obtained from calculating each attribute's expected value divided by the total attribute value, equal to 95.130.

Table 9. Average between Performance Value and Expectation of each Attribute per Service Quality  
The dimension of Hortimart Agro Center Agrotourism

No	Question Points	Performance	expectation
<b>Tangible</b>			
1	Comfortable meeting room/pavilion facilities	4.100	4,175
2	The convenience of worship facilities	4.150	4,275
3	Comfort toilet facilities	4.125	4,275
4	Convenience and safety of parking facilities	4.075	4,275
5	The convenience of the agro-tourism environment	4.200	3,700
6	A well-functioning communication network in the agro-tourism area	4.125	4,125
7	Sufficient and well-functioning electricity	4.025	4,150
8	Continuous updating of information media related to agro-tourism activities	3.950	4,275
9	The tidiness of employee appearance (uniform)	4.200	4,200
<b>Responsiveness</b>			
10	The readiness of employees in serving visitor requests	4.225	4,275
11	Service is swift and minimal errors occur	4.125	4,200
12	Employees who are fast in handling visitor complaints	4.200	4,225
13	The willingness of employees to provide information	4.175	4,275
<b>Reliability</b>			
14	Agrotourism facilities that provide education to visitors	4.125	3,800
15	On-time service	4.075	4,225
16	The Clarity in providing information	4.150	4,175
<b>Assurance</b>			
17	Knowledge and insight of employees about agro-tourism	4.150	3,650
18	Friendliness and courtesy of employees in serving visitors	3.650	4,300
19	Security around the agro-tourism area	4.225	4,300
<b>Empathy</b>			
20	The attention that employees pay to visitors	4.150	4,200
21	The seriousness of employees in serving visitors	4.175	4,000
22	The willingness of employees to listen to criticism and suggestions from visitors	4.200	4,000
23	The patience of employees in handling complaints/criticism of visitors	4.175	4,000
<b>Total</b>		<b>94,750</b>	<b>95,075</b>
<b>Average</b>		<b>4,120</b>	<b>4,134</b>

Source: Primary data analysis, 2017

The WS value that has been obtained is then divided by the High Score (HS) or the highest weight obtained from the calculation of the scoring transformation. The HS value used in this calculation is five (5). The results of the analysis using the Customer Satisfaction Index method were 82.42%. According to the criteria Satisfaction Index's value, this criteria is in the range of 81-100%. Thus overall, visitors feel very satisfied with the service performance at the Hortimart Agro Center agro-tourism.

The relationship between the visitor's assessment of service quality and visitor characteristics can also be determined using a correlation test between the dependent variable (SERVQUAL gap value) and the independent variable (age, gender, education, and income).

Before doing the correlation test, first, the normality test was carried out with the Kolmogorov-Smirnov. The normality test results of visitor satisfaction data with visitor characteristics can be seen in Table 11.

Furthermore, a correlation test was carried out to determine the relationship between the end's assessment of service quality and visitor characteristics, namely age, gender, education, and income. The gap value used in this correlation test is obtained from calculating the SERVQUAL analysis of each visitor who was tested using SPSS 24. The closeness relationship can be seen in the significance column if the significance value is less than 0.05, there is a correlation relationship, and if the significance value is higher than 0.05, there is no correlation and to see the direction of the

relationship, it can be seen from the Pearson Correlation column, if the coefficient value is negative (-), it is called negative linear correlation,

and if the coefficient value is positive (+), it is called positive linear correlation.

Table 10. Customer Satisfaction Index (CSI)

No	Question Points	Expectation	WF	Performance	WS
1	Comfortable meeting room/pavilion facilities	4.180	0.044	4.100	0.180
2	The convenience of worship facilities	4.280	0.045	4.150	0.187
3	Comfort toilet facilities	4.280	0.045	4.130	0.186
4	Convenience and safety of parking facilities	4.280	0.045	4.080	0.184
5	The convenience of the agro-tourism environment	3.700	0.039	4.200	0.163
6	A well-functioning communication network in the agro-tourism area	4.130	0.043	4.130	0.179
7	Sufficient and well-functioning electricity	4.150	0.044	4.030	0.176
8	Continuous updating of information media related to agro-tourism activities	4.280	0.045	3.950	0.178
9	The tidiness of employee appearance (uniform)	4.200	0.044	4.200	0.185
10	The readiness of employees in serving visitor requests	4.280	0.045	4.230	0.190
11	Service is swift and minimal errors occur	4.200	0.044	4.130	0.182
12	Employees who are fast in handling visitor complaints	4.230	0.044	4.200	0.187
13	The willingness of employees to provide information	4.280	0.045	4.180	0.188
14	Agrotourism facilities that provide education to visitors	3.800	0.040	4.130	0.165
15	On-time service	4.230	0.044	4.080	0.181
16	The Clarity in providing information	4.180	0.044	4.150	0.182
17	Knowledge and insight of employees about agro-tourism	3.650	0.038	4.150	0.159
18	Friendliness and courtesy of employees in serving visitors	4.300	0.045	3.650	0.165
19	Security around the agro-tourism area	4.300	0.045	4.230	0.191
20	The attention that employees pay to visitors	4.200	0.044	4.150	0.183
21	The seriousness of employees in serving visitors	4.000	0.042	4.180	0.176
22	The willingness of employees to listen to criticism and suggestions from visitors	4.000	0.042	4.200	0.177
23	The patience of employees in handling complaints/criticism of visitors	4.000	0.042	4.180	0.176
Total		95.130	1.000	94.810	4.121

Source: Primary data analysis, 2017

Table 11. Normality Test Results

		Gap	Age	Gender	Education	Income
N		40	40	40	40	40
Normal Parameters <sup>a,b</sup>	Mean	-0.01405	38.45	0.48	14.45	5316125
	Std.Deviation	0.387723	14.982	0.506	1.974	6585507.835
	Absolute	0.222	0.115	0.351	0.285	0.294
Most Extreme Differences	Positive	0.222	0.115	0.351	0.218	0.294
	Negative	-0.15	-0.086	-0.325	-0.285	-0.232
Test Statistic		0.222	0.115	0.351	0.285	0.294
Asymp.Sig.(2-tailed)		.000 <sup>c</sup>	.197 <sup>c</sup>	.000 <sup>c</sup>	.000 <sup>c</sup>	.000 <sup>c</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: Primary data analysis, 2017

Table 12. Correlation Test Results

		Gap	Age	Gender	Education	Income
Gap	Pearson Correlation	1	0.283	-0.033	0.173	0.011
	Sig. (2-tailed)		0.077	0.839	0.285	0.946
	N	40	40	40	40	40

Source: Primary data analysis, 2017

Based on Table 12. It can be seen that the significance value of the three independent variables > alpha (0.05) so that Ho is accepted. It shows that the relationship between the independent variables (age, gender, education, and income) with the dependent variable (visitor assessment of service quality / SERVQUAL gap) is mutually independent or there is no correlation so that in improving and developing service quality in agro-tourism, the characteristics visitors above cannot be used as a reference because indeed the visitor's assessment of the quality of services provided does not depend on the characteristics of these visitors. Reference to improve service quality will be more appropriate if it refers to assessing each service quality attribute that has been mapped.

## CONCLUSIONS

Based on the SERVQUAL analysis results, the dimensions of physical evidence (tangible), responsiveness, and assurance have a negative gap value, which means that the three dimensions' level of service quality is still below visitor expectations. In contrast, the dimensions of reliability and empathy have a positive gap value, which means that service quality from the ability and assurance has met visitors' expectations. Meanwhile, based on the Importance Performance Analysis (IPA) quadrant map, six attributes are located in quadrant I or attributes that are the main priority for improved performance. As for quadrant II, ten attributes need to be maintained. The value of the Customer Satisfaction Index is 82.42%, which means that visitors are very satisfied with the performance of the Hortimart Agro Center agro-tourism service. The closeness of the visitors' assessment of service quality and visitor characteristics (age, gender, education, and income) is mutually independent, or there is no relationship.

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