



## Proposed Service Quality Improvement at Aya Travel using SERVQUAL Method and Importance Performance Analysis

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**Abstract.** Intercity travel is a transportation service that facilitates movement between cities and cities. *Aya Travel* is here to facilitate transportation between Bandung and Depok. *Aya Travel* was established in 2005 with a fleet of 16 units. As time passes, there are travel competitors whose presence makes the sales of *Aya travel* departure tickets decline in 2016. This can be caused by the quality of *other travel* services being better than *Aya Travel*, so lately, people have switched from *Aya Travel*. The phenomenon is that what *Aya travel* consumers expect is not what they receive. Service quality measurement is carried out to respond to the above phenomenon using SERVQUAL. In the process, initial attributes from literature studies and *Critical Incident Techniques* were collected. After the attributes are collected, the questionnaire is distributed. The *Factoring process* is carried out to produce factors that are formed so that it is easier for *Aya Travel* to find out in which dimension it turns out that the quality of the service is inferior. After the SEVQUAL measurement process, an *important Performance Analysis process* was carried out to find improvement priorities from *Aya Travel*. The IPA method will map attributes into quadrants to produce priorities ranging from those that must be improved immediately to those that do not add value to the quality of *Aya Travel's* services. A Factor Analysis was produced from 22 attributes grouped into four factors, and it turned out that the display factor had the worst idea. The measurement of *Aya travel* service quality produces six attributes that need to be improved, which are those in the second quadrant (*Consternate here*) in the IPA diagram. For the proposed improvement, a discussion was carried out with *Aya Travel* so that the improvement proposal could be under the opinions and input of *Aya Travel*.

**Keywords:** SERVQUAL, Service Quality, Science, Factor Analysis, Attributes, Critical Incident Technique

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### INTRODUCTION

Over time, the city of Bandung was able to build its tourism industry so that it could be aligned with Yogyakarta and Bali. Tourism itself is one of the aspects that the Indonesian state can be proud of. There are many tourism destination areas, one of which is the city of Bandung. But one of the reasons people come to Bandung today is not only for tourism purposes. Many people come to Bandung to gain knowledge, considering the many prominent universities in Bandung.

The city of Depok actually has the attraction of its education sector, namely the

location of the University of Indonesia (except for the Faculty of Medicine, Faculty of Dentistry, and several Postgraduate programs). For Depok city residents, before there was an intercity travel service that is open in the city of Depok, Depok city residents had to travel to the city of Bandung, the closest to the city of Jakarta, or use a bus. Some people then saw an opportunity to open a travel service in the city of Depok.

Travel services in Depok City with the famous Bandung destination, one of which is Aya Travel. Aya Travel has been established since 2005. In terms of marketing strategy, it is known that Aya travel actually already has a clear target market, namely the residents of Depok. Many people choose to use Aya Travel because of its location in the heart of Depok City, namely on the protocol road, Jalan Margonda. Until now, in 2016 in Depok City, there are six alternatives for Depok City residents to go to the city of Bandung, namely by using MGI Bus, Sararrea Travel, DoorToDoor Travel, Baraya Travel, Aya Travel, and private transportation.

Based on interviews with the owner of Aya Travel, the travel party has received a lot of input from consumers. The input was well received by the management, but what needs to be known is that the countermeasures carried out by Aya Travel are not necessarily in accordance with what is expected by every Aya Travel consumer. If the quality of service from Aya Travel is not improved, there is a possibility that consumers will no longer use Aya's services and use other alternatives. This then becomes something that needs to be considered, considering the condition of the decline in the number of consumers who use Aya Travel from June 2015 to May 2016. From the existing trends, it can be seen that June to July is the month that has the highest demand due to the Eid holiday. Demand will be high again in December and January when there is a New Year holiday.

What can be concluded from the demand data is that Aya Travel has a demand of around 2875 for a normal month, but there has been a decline even to touch 2700 in the last three months, namely March, April, and May. As a measure taken in response to this decline in ticket sales, several interviews and field studies were conducted and it was found that poor service quality was the cause of the problem.

## **METHODS**

A preliminary interview showed that the quality of the service made some consumers finally choose other alternatives to travel to the city of Bandung. It is felt that

Aya Travel needs to improve the quality of its services in order to maintain and improve its quality as a travel service. Service quality measurement is carried out at Aya Travel to help systematically measure the quality of service that consumers feel towards Aya Travel.

To reach this, two methods were chosen, namely the Service Quality and the Importance Performance Analysis method. The Service Quality (SERVQUAL) method itself is a method that evaluates how far the difference between what consumers feel and what consumers expect from the services they receive (Parasuraman, 1990). Ideally, the expectations of consumers should be the same as those promised and given by the company to consumers. Expectations themselves can be in the form of word-of-mouth information, personal needs, personal experiences, and promotions provided by the company. The advantage of this method compared to others is that the company can concentrate on the expectations of its customers so that it can provide services that are in accordance with consumer expectations. This research refers to journals written by Govender and Qi Pan (2011) who conducted a study on service quality measurement in intercity transportation in South Africa using the SERVQUAL method.

The second method is the Importance Performance Analysis (IPA) method, which is a method that identifies the weaknesses and advantages of a company based on two criteria, namely the level of importance of service quality (importance) and the level of performance of service quality (performance) used by consumers in making a decision (Martilla & James, 1977). The IPA method is expected to complement the SERVQUAL approach by determining the priority of proposed improvements. This research refers to a journal by Andre Luis in 2013, which researched the quality of services in intercity transportation in Brazil using the scientific method.

Furthermore, this study also uses an attribute collection technique developed by Gramler (2004), and a grouping of the selected attributes is carried out to make it easier to conclude using factor analysis according to Santoso (2002)

## **DISCUSSION**

Attribute collection interviews with CIT were conducted with ten initial respondents, which then resulted in attribute interpretation. Interviews were conducted with the following three respondents. However, because the experience had been repeated and did not produce new attributes, the respondents' interviews stopped at the thirteenth respondent. The following are the initial attributes of measuring the quality of Aya travel

services from Govender and Qi Pan and attributes from CIT.

Then, a questionnaire was prepared to be disseminated, and information related to measuring the quality of Aya travel services. The preparation of this Questionnaire consists of two parts: the first part is the respondent's profile, and the second is related to questions about measurement attributes. The second part is a question related to attributes for measuring service quality from Aya Travel. This second part contains 22 questions drawn from 22 previous measurement attributes. The questionnaire in part two references a questionnaire from Tjiptono (2016), where part two is a questionnaire related to three aspects. The following are the three aspects measured in part two: the level of Importance, the level of Expectations, and the level of Perception. The assessment was carried out for the second part of the questionnaire using the Likert scale, which is an attitude scale with a value of 1 to 6.

**Table 1. Service Quality Measurement Attributes**

<b>Selected Attributes from the Journal</b>	
1	Vehicles using modern technology
2	Staff and Drivers are professional and neat.
3	Accuracy in departure
4	Reliability of the shuttles used
5	Ease of booking tickets
6	Friendly staff and drivers
7	Driver compliance with traffic congestion
8	Have comfortable operating hours for all customers
9	Ease of getting information on facilities and services
10	Staff and drivers are responsive to customer requests.
11	Driver's expertise in driving
12	Easy and affordable pool location
<b>CIT Interpretation Attributes</b>	
13	The comfort of the pool lounge
14	Consumer comfort on the shuttle while traveling (no noise, no glare, and clean)
15	The choice of the chosen road route
16	Toilet safety in the pool
17	Consumer leeway to stop at rest areas on every trip
18	Attractive interior state of the shuttle
19	Completeness of facilities provided to consumers
20	Ease of consumers providing complaint information when traveling.
21	Have adequate departure traffic for all customers.
22	Driver fitness in driving

After the measurement instrument is determined, it is continued with the determination of sampling. In this study, the existing population consists of consumers of Aya Travel, whose number cannot be determined. Therefore, the researcher determined the population in this study, namely Aya Travel consumers, from October 2016 to

November 2016. The method was determined using probability sampling, namely simple random sampling. According to Sekaran (2000), determining a good sample is five to ten times the number of measurement attributes. Because the number of attributes is 22, the number of sound samples is 110 (5x22) to 220 (10x22). In this study, up to 120 samples will be collected.

The following is the data from the recapitulation of respondent profiles. This result shows that students from the cities of Depok and Bandung play a vital role in the entry or sale of Aya Travel tickets.

**Table 2. Respondent Profile Data**

Gender	Man 75	Woman 45					
Age	< 17 years 0	17-25 years old 76	26-45 years old 32	46-65 years old 12	>65 years 0		
Work	Civil servants 32	Employer 12	Student 63	Entepreneuer 7	Other jobs 6		
Frequently selected departure days (select 1)	Monday 53	Tuesday 0	Wednesday 0	Thursday 0	Friday 41	Saturday 6	Sunday 20
Frequently selected departure times	05.00- 07.00 57	09.00- 12.00 4	13.00- 16.00 41	17.30-20.30 18			
The importance of leaving for Bandung/Depok	Recreation 14	Work 28	Studying 60	Family interests 10	Other 8		

Furthermore, factor analysis is carried out to prevent variables from being used regarding whether or not they are included in the factors formed; the researcher will carry out a rotation process on the factors formed to clarify the position of the variable that will be included in one factor or another. In the process of assessing feasible variables, often referred to as validity tests, Santoso (2009) said that some of the parameters that need to be met in this validity test include the values of the Kaiser-Meyer-Olkin Measure of Sampling, the Signification Barlett's Test of Sphericity, and the Measure of Sampling Adequacy. The following is a table of KMO and Bartlett's Test of tests against measuring instruments.

**Table 3 KMO and Bartlet Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.616
Bartlett's Test of Sphericity	Approx. Chi-Square	627.124
	Df	231
	Sig.	0.000

Then, it is necessary to discuss the Anti-Image Correlation of the measurement instrument variable on the MSA number in each diagonal column, showing the correlation number in the diagonal direction from the top left to the bottom right. Each MSA number in each variable has a value above 0.5. In other words, the 22 variables of the Aya travel service quality measurement instrument can be further analyzed and said to be valid.

The variables are then grouped into four or five factors. The decision on the number of factors formed is obtained by analyzing the diversity of variables in the factors concerned. In the table of matrix component components, the attributes enter the factor by indicating the most significant factor loading number above 0.5, where the minus sign "-" indicates the direction of the correlation. The results showed that the selected one and the forming factor had similarities between the attributes of factor 4.

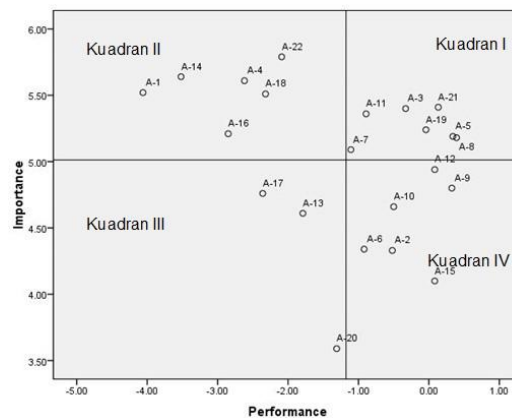
The researcher will average the overall score results to the number of samples sought. The SERVQUAL score value is obtained by subtracting the average value of the measurement attribute perceived by consumers from the average value of the measurement attribute expected by the consumer. The SERVQUAL score will then show which attributes of Aya Travel consumers are still dissatisfied with. Measuring the overall quality of Aya Travel's services can be done by calculating the average of the overall SERVQUAL score.

The positive extreme value is found in the A-9 measurement attribute with a value of 0.625 and the A-8 attribute with a value of 0.392. The measurement data also shows the range from the smallest value - 4,075 to 0,325. The information obtained after that is the average of each. Each expected value was 5.18, the perceived average value was 3.98, and the average value was -1.173. This shows that consumers are still not satisfied with the service from Aya Travel overall.

**Table 4 Calculation of SERVQUAL score**

Atribut	Expected	Perceived	SERVQUAL score
A-1	5.583	1.508	-4.075
A-2	4.583	4.033	-0.550
A-3	5.292	4.958	-0.333
A-4	5.708	3.083	-2.625
A-5	5.267	5.617	0.350
A-6	4.917	4.000	-0.917
A-7	5.258	4.150	-1.108
A-8	4.875	5.267	0.392
A-9	4.933	5.258	0.325
A-10	5.075	4.575	-0.500
A-11	5.675	4.783	-0.892
A-12	5.025	5.108333	0.083
A-13	4.783	3.008	-1.775
A-14	5.617	2.117	-3.500
A-15	4.483	4.567	0.083
A-16	4.817	1.975	-2.842
A-17	4.692	2.342	-2.350
A-18	5.450	3.150	-2.300
A-19	5.392	5.350	-0.042
A-20	4.283	2.967	-1.317
A-21	5.400	5.533	0.133
A-22	5.792	3.733	-2.058
Rata-Rata	5.132	3.958	-1.173

The quadrant of science, while the value of importance (Importance) will be used as the Y axis. What needs to be done next is to determine the intersection point so that the matrix can be divided into four quadrants. In this study, the priority of improvement is carried out in quadrant two, namely *Concentrate here*.



**Figure 1. Science Quadrant**

Then, the SERVQUAL score per dimension that has been formed into the factors explained previously is also calculated. The calculation results above can be seen as follows: the display dimension with the smallest SERVQUAL score value reaches -1.477, and the responsiveness dimension with the largest SERVQUAL score value reaches -0.947.

**Table 5 SERVQUAL score Formation Factors**

Factor	Attribute	Service quality measurement attributes	SERVQUAL SCORE
Reliability	1	Vehicles using modern technology	-4.075
	3	Accuracy in departure	-0.333
	8	Have comfortable operating hours for all customers	0.392
	9	Easily get information on facilities and services	0.325
	14	Convenience of shuttle consumers while traveling	-3.500
	19	Completeness of facilities provided to consumers	-0.042
	21	Have adequate departure quantity for all customers	0.133
		Average SERVQUAL SCORE reliability dimension	-1.014
Display	2	The staff and drivers are professional and neat	-0.550
	12	Easy and affordable pool location	0.083
	13	The comfort of the pool lounge	-1.775
	16	Toilet comfort in the pool	-2.842
	18	Shuttle interior cleanliness	-2.300
		Average SERVQUAL SCORE display dimensions	-1.477
Security	4	Reliability of the shuttles used	-2.625
	7	Driver compliance with traffic regulations	-1.108
	11	Driver's expertise in driving	-0.892
	15	Completion of the selected road route	0.083
	22	To fit an driver in driving	-2.058
		Average SERVQUAL SCORE of the security dimension	-1.320
Responsiveness	5	Ease of booking tickets	0.350
	6	Friendly staff and drivers	-0.917
	10	Staff and drivers respond to customer requests	-0.500
	17	Consumer leeway to stop at every rest area on the trip	-2.350
	20	Ease of consumers providing complaint information on travel	-1.317
		Average SERVQUAL SCORE of the responsiveness dimension	-0.947

In data processing for prioritization, the SERVQUAL score (performance) value will be used as the X-axis in the matrix. The improvement proposal was prepared by discussing it directly with Aya travel. The discussion was carried out by examining the possibilities of the root cause of the existing problem. The debate began by providing the results of measuring the quality of services and the priority of science. Aya Travel agrees and feels that the attributes in the second quadrant can indeed be a problem in Aya Travel's services. After analyzing the attributes that are *Aya Travel's problems* in improving service quality, the following is a recapitulation of the proposed improvements from the study of the proposals.

**Table 9. Recapitulation of Proposed Improvements**

<b>Attribute</b>	<b>Proposed Improvements</b>
Aya Travel does not use modern technology vehicles	Briefing on the importance of exterior appearance  Give additional tasks to the operations manager to oversee the maintenance department.
Aya Travel does not use reliable vehicles	Provide clear SOPs for the pre-departure check-in process
Aya travel does not provide comfort when driving	Installing curtains on the windows of each vehicle to avoid glare Installing informative appeals on vehicles so that drivers provide comfort for passengers Using vehicle deodorizer in every vehicle Briefing on the importance of air conditioning coldness levels and their maintenance
Aya Travel does not have a comfortable toilet.	Briefing the officers at the pool about the importance of toilet cleanliness Replace damaged toilet equipment.
Aya Travel does not have a clean vehicle interior	Conduct briefings on vehicle cleanliness  Equip equipment for vehicle interior salons.
Aya Travel does not use a fit driver to drive	Adding additional drivers daily

**CONCLUSION**

There are 22 measurement attributes to measure the quality of Aya Travel's services, and consumers are still not satisfied with the services provided. This is shown by SERVQUAL's average score of -1.173 and the display factor being the least satisfactory factor. From this result, it turned out that attributes 1,4,14,16,18, and 22 needed to be prioritized to improve the quality of service from Aya Travel.

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