ANALYSIS SERVICE QUALITY WITH METHOD IMPORTANCE PERFOMANCE ANALYSIS (IPA) ON TRANSJAKARTA BUS

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Abstract - *This study aims to service quality, assesing 5 dimensions of service quality judging from the perfomance and interests with using importance perfomance analysis (IPA) on Transjakarta bus.*

This research uses quantitative method with the type of descriptive research. Sampling is done by technique Non Probability Sampling with sampling type Cluster Random Sampling,that is sampling is taken by region. Researchers used 10 transjakarta shelter from 5 region of Jakarta. The nummber of samples taken was 100 respondents.

The results of this study are based on an average percentage of perfomance that is equal 3.45 which means good. Then the realibility of 3.41 which means also good. The attribute that must be improved is quadrant A,in the statement numer 3 and 7, the dimensions of tangible statement number 3,the quality of facilities the lounge. The dimension of responsiveness of statement number 7, friendlty service of officers..

Keywords: Service Quality, Importance Perfomance Analysis (IPA)

Abstrak– Penelitian ini bertujuan untuk menganalisis kualitas pelayanan, menilai 5 dimensi kualitas pelayanan dilihat dari kinerja dan kepentingan dengan menggunakan metoda *Importance Perfomance Analysis* (IPA) pada bus Transjakarta.

Penelitian ini menggunakan metoda kuantitatif dengan jenis penelitian deskriptif. Pengambilan sampel dilakukan dengan teknik *Non Proportional Random Sampling* dengan tipe sampling *Cluster Random Sampling*, yaitu pengambilan sampel yang diambil berdasarkan wilayah. Peneliti menggunakan 10 halte transjakarta dari 5 wilayah Jakarta. Jumlah sampel yang diambil sebanyak 100 responden.

Hasil penelitian ini berdasarkan persentase rata-rata pada kinerja yaitu sebesar 3.45 yang berarti baik. Kemudian kenyataan sebesar 3.41 yang berarti juga baik. Adapun atribut yang harus ditingkatkan adalah kuadran A, pada pernyataan nomer 3 dan 7, yaitu dimensi *tangible* pernyataan nomer 3, kualitas fasilitas ruang tunggu. Dimensi *responsiveness* pernyataan nomer 7, pelayanan petugas yang ramah.

Kata kunci : Kualitas Pelayanan dan Importance Perfomance Analysis (IPA)

I. PRELIMINARY

Many factors influence people in using the transportation they choose to make it easier to move places or reach a desired destination. This cannot be separated from the government's role in intensifying public transportation to reduce congestion in Jakarta. Usually there are many things that are considered in choosing public transportation services, but quality, price, and facilities are factors that prioritize users

Quadrant analysis or Importance Performance Analysis (IPA) is a descriptive analysis technique introduced by John A. Martilla and John C. James in 1977. Science is an analytical technique used to identify what important performance factors a person should demonstrate. organizations in meeting the satisfaction of their service users (consumers). Initially this method was used in the field of marketing research and consumer behavior. However, in subsequent developments, now its use has expanded to research on hospital services, tourism, schools, even to analysis of the performance of the public bureaucracy (government).

Therefore, the researcher is interested in analyzing the service quality (Servqual) of Transjakarta buses using the IPA method. This method is chosen to see the extent to which the company's service quality has been achieved, as well as what the company needs to maintain and improve in order to develop even better in providing good service quality in accordance with the expectations and desires of consumers in using Transjakarta bus public transportation services.

1.1. Formulation of the problem
Based on the background of the problems that have been stated, the problems that can cause decision support in choosing public transportation services are as follows:
1. What is the level of customer perception / performance and expectations / interests of the quality of Transjakarta bus services?
2. How is the level of satisfaction of Transjakarta buses when analyzed by the IPA method?
3. What service quality attributes need to be improved on the Transjakarta bus?

1.2. Research purposes
This study aims to determine :
1. Perceptions / performance and expectations / interests of the services provided by Transjakarta buses
2. The level of customer satisfaction is based on the Transjakarta bus with the IPA method
3. What service quality attributes need to be improved on the Transjakarta bus

II. LITERATURE REVIEW
2.1. Service concept
According to Kotler and Lupiyoadi (2014: 7) service is any action or activity that a party can offer to another party, basically it is intangible and does not result in any transfer of ownership. The production of services may or may not be related to physical production

2.2. Service quality
According to Sunyoto (2012: 236) says that quality or quality in the service industry is a product or service according to the prevailing size at the place where the product is made and its delivery is at least the same as what consumers want and expect. Service quality is centered on fulfilling needs and desires as well as the accuracy of its delivery to balance consumer expectations, namely conformity between expectations and management perceptions, conformity between employee work standards and services provided with promised services and conformity between services received and expected consumer

2.3. *Importance Performance Analysis* (IPA)

The IPA method was first introduced by Martilla and James in 1977. IPA aims to measure the relationship between consumer perceptions and product / service quality improvement priorities, which is also known as quadrant analysis (Repi; 2014: 1446). IPA has the main function of displaying information related to factors -service factors which according to consumers greatly affect their satisfaction and loyalty and service factors according to consumers need to be improved because current conditions are not satisfactory

2.4. Cartesian diagram

The Cartesian diagram is intended as a framework in understanding customer satisfaction as a function of expectations (Importance or level of importance) associated with an attribute and customer assessment of organizational performance (Performance) seen from related attributes (Supranto; 2011: 107). Cartesian diagrams are able to provide important information to service industry managers in the form of measures of customer satisfaction and efficient allocation of resources, both in a format that is easy to apply

2.5. The relationship between research variables

In this study, using independent variables, so that they cannot be linked to other variables because it only has one variable, namely service quality. In previous journals, there was no explanation regarding the relationship between variables, because in previous studies the independent variable only consisted of one variable.

2.6. Research Conceptual Framework

In this study, service quality is important to customers based on the five dimensions of service quality, namely tangible, responsiveness, reliability, assurance and empathy, a theoretical framework can be made as below by using, the conceptual framework of research in manufacturing can be described below:

Figure 2.1 Research Conceptual Framework
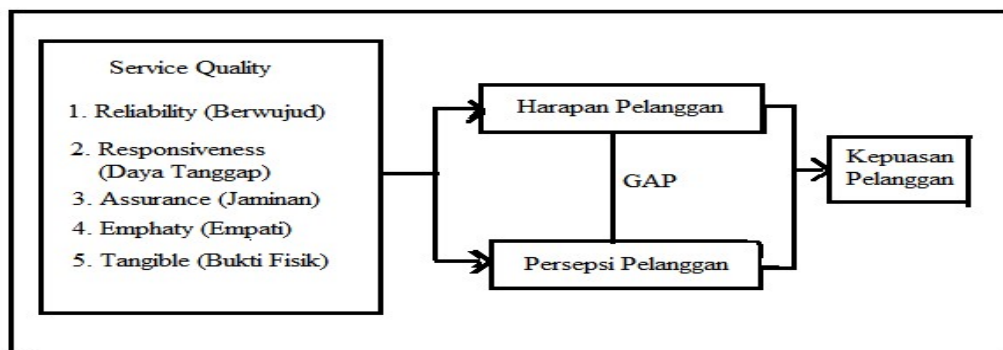
Source: Palero and Widiyanesti (2017: 277)

Based on Figure 2.1 above, it can be concluded that tangible evidence is important for customers. This gives an appreciation for customers in seeing the availability of facilities, facilities and equipment. Responsiveness is an important service in the service process, service is required to be alert and ready to immediately serve customers when needed. On service quality reliability (reliability) in providing the main service with a fast service process and not favoritism. Assurance is a form of providing quality service in accordance with the commitment by giving trust to customers, ensuring the safety and comfort of consumers in getting service.

2.7. Hypothesis Development

The hypothesis or basic assumption is a temporary answer to a problem that is presumptive because it still has to be proven. The presumed answer is a temporary truth, which will be verified by data collected through research.

According to Sugiyono (2017: 63) the hypothesis is the answer to the formulation of research problems, where the formulation of the research problem has been stated in the form of a statement sentence. However, in this study, the researcher did not use a hypothesis because in previous studies the hypothesis was not found.

III. RESEARCH METHOD

3.1. Research Strategy

This study uses a descriptive strategy, which is intended to obtain an accurate and in-depth picture or explanation of the current situation related to the symptoms and facts being studied. Descriptive is a problem formulation that relates to the statement of the existence of independent variables, either only on one or more variables (Sugiyono, 2016: 53). The purpose of the descriptive method is to find a comprehensive and researched description of a situation that can be used as a basis for making decisions to improve services.

3.2. Population and Sample Research

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics that are determined by researchers to study and then draw conclusions (Sugiyono, 2015: 190). The population in this study are customers who use Transjakarta buses from 3337 bus stops, in the Jakarta, Depok, Bekasi and Serpong areas, (Trafi-Transjakarta. 2019). The population size in this study is not known with certainty.

The sample selection used in this study is *Area*(Cluster) Random Sampling with Non Proportional Random Sampling technique. According to Margono (2004: 127) this technique is used when the population does not consist of individuals, but consists of groups of individuals or clusters. Transjakarta has a total of 3337 bus stops in the Jakarta, Depok, Bekasi and Serpong areas (Trafi-Transjakarta. 2019). In this study, the clusters were divided according to regions, namely in 5 areas of Jakarta. From each region, 2 bus stops were chosen randomly. From the 2 bus stops, 10 respondent shelters were selected by Non Proportional Random Sampling (Table 3.1).

Table 3.1. Research Respondents by Region and Transjakarta Bus Stop

No.	Jakarta area	Stop Location	Respondents (Person)
1	East Jakarta	Buaran	10
		Milling	10
2	Central Jakarta	Monday	10
		Gambir	10
3	North Jakarta	Ancol	10
		Two mango	10
4	South Jakarta	Manggarai	10
		Tebet	10
5	west Jakarta	Ugly	10
		Grogol	10
total	5	10	100

The sampling technique in this research is Non Proportional Random Sampling. In this technique, 10 respondents were chosen from each location of the research stop. The criteria used by researchers while selecting respondents were age, that is, over 17 years. The age limit is used as a criterion with the consideration that they can provide opinions / opinions in conducting the questionnaire given by the researcher.

In determining the research sampling according to Arikunto (2013: 49), the number of population is not known with certainty. Arikunto also suggested a suitable sample using an infinite sampling technique. In this study, researchers used a sample size of 100 respondents, who felt that it was sufficient to represent the population.

$$n = \frac{Z^2}{4(MOE)^2}$$
$$n = \frac{1,96^2}{4(0,1)^2}$$
… .. …………………………………… (3.1)$n = 96,04$

Information :

n = Number of Samples

Z = The level of confidence required in determining the sample is 95%

Moe = Margin of error, that is, the maximum error rate obtained is tolerated, determined (10%)

Based on the above calculations, the number of samples in this study was 96.04. However, the study fulfilled the research sample to be 100 respondents.

3.3. Data Analysis Methods
3.3.1. Data processing methods

The data collected from the questionnaire were then processed using the SPSS Ver program. 25.0. The purpose of using this program is to assist researchers in analyzing data that is difficult to calculate manually and speed up calculation time.

3.3.2. Method of presenting data

The resulting data is presented in the form of tables and figures. The use of tables and figures aims to make data easy to read and understand.

3.3.3. Statistical analysis of data

After the data is collected, then the data from the research results are described in accordance with the research objectives. The data analysis used was the Servqual method, IPA, and Cartesian diagram.

1. Servqual Method

The Service Quality (Servqual) method is based on the assumption that customers compare performance or services on relevant attributes with ideal or perfect standards for each service attribute. In principle, the data obtained through the Servqual instrument can be used to calculate the service quality gap score or service at various levels in detail (Tjiptono and Chandra, 2014: 157).

The research data is processed to calculate the perceived value and expectations of the attributes (Spi and Shi) with the following formula:

.... (3.3)$Spi = \frac{(P_1 \ x \ 1)+(P_2 \ x \ 2)+(P_3 \ x \ 3)+(P_4 \ x \ 4)}{n}$

Information :

Spi = Perception score on service attributes

P_1 = Number of respondents with the answer "Strongly Agree"

P_2 = Number of respondents with the answer "Agree"

P_3 = Number of respondents with the answer "Disagree"

P_4 = Number of respondents with the answer "Strongly Disagree"

n = Number of respondents

1-4　　= Likert scale

$$..................................... (3.4) Shi = \frac{(H_1 \ x \ 1)+(H_2 \ x \ 2)+(H_3 x \ 3)+(H_4 x \ 4)}{n}$$

Information :

Shi　= Score expectations of service attributes
H_1　= Number of respondents with the answer "Strongly Agree"
H_2　= Number of respondents with the answer "Agree"
H_3　= Number of respondents with the answer "Disagree"
H_4 = Number of respondents with the answer "Strongly Disagree"
n　　= Number of respondents
1-4 = Likert scale

The value of Spi and Shi is then used to calculate the value of perception and expectation for each dimension (Pij and Hij). The formula for calculating the value of perceptions and expectations for each dimension is:

$$P_{ij} = \frac{\sum_{i=j}^{nj} SP_{ij}}{n_j} .... (3.5)$$

$$H_{ij} = \frac{\sum_{i=j}^{nj} SH_{ij}}{n_j} .... (3.6)$$

Information :

P_{ij}　= Respondent's perception score on dimension i (indicator) -j
H_{ij} = The score of the respondent's expectation on the j dimension (indicator)
SP_{ij} = Score of respondent's perception of each service attribute i (indicator) -j
SH_{ij} = Score of perception of expectation for each service attribute i (indicator) -j
n_j　= Number of attributes of the jth dimension

Furthermore, the Pij and Hij values are used to calculate the Servqual score as follows:

Servqual = Perception Score (Pij) - Expectation Score (Shi) .... (3.7)

After the Servqual score is obtained, it will be concluded about the level of customer satisfaction with service quality, with the following criteria:

(1) The result of Servqual score is positive (greater than zero), meaning that the level of perception is higher than the level of expectation, so that the service can be said to be very satisfying.

(2) The result of the Servqual score is negative (less than zero), meaning that the level of perception is higher than the level of expectation, so the service can be said to be unsatisfactory.

(3) The result of the Servqual score is zero (equal to zero), meaning that the level of perception is the same as expected, so that the service can be said to be satisfactory.

2. Importance Performance Analysis (IPA)

The level of suitability is the result of a comparison of the performance / perception score with the importance / expectation score. This level of suitability will determine the priority order of improving the measured performance factors. The formula used is as follows:

$$x \ 100\% .... (3.8) Tki = \frac{X_i}{Y_i}$$

Information :

= Respondent suitability level Tki

= Performance appraisal score X_i

= Interest rating score Y_i

= Indicator to- (= 1,2, ..., 19)iii

The suitability analysis is done by calculating the level of suitability first, then calculating the average value of expectations and perceptions for each statement (factor). The factors are ranked and then grouped into four quadrant sections in the Cartesian Diagram.

3. Cartesian diagram

Cartesian diagram is a building divided into four parts bounded by two lines that intersect perpendicular to the point (), which is the average of the perception level score of all attribute factors and is the average score of the level of expectation of all factors or attributes who have customer satisfaction (Supranto, 2006: 241). $\bar{\bar{X}}, \bar{\bar{Y}} \bar{\bar{X}} \bar{\bar{Y}}$

Furthermore, the horizontal axis (X) will be filled with Transjakarta performance scores, while the axis (Y) will be filled with customer importance level scores. In simplifying the formula, each attribute that affects customer satisfaction (Supranto, 2006: 241) can be found with the formula:

= and = ... (3.9) $\bar{\bar{X}} \dfrac{\sum_{i=l}^{n} \bar{X}_i}{K} \bar{\bar{Y}} \dfrac{\sum_{i=l}^{n} \bar{Y}_i}{K}$

Information :

= Average of average performance score $\bar{\bar{X}}$

= Average of the mean score of importance $\bar{\bar{Y}}$

= Number of attributes / factors that influence performance appraisal K

= The average of the weighted assessments of performance $\bar{X}_i$

= The average of the weighted rating of importance $\bar{Y}_i$

Cartesian diagram is used to map the service quality attributes that have been analyzed. The X and Y attribute values are used as a coordinating pair of points to position an attribute in the Cartesian diagram. The description of the Cartesian diagram can be seen in Figure 3.1.
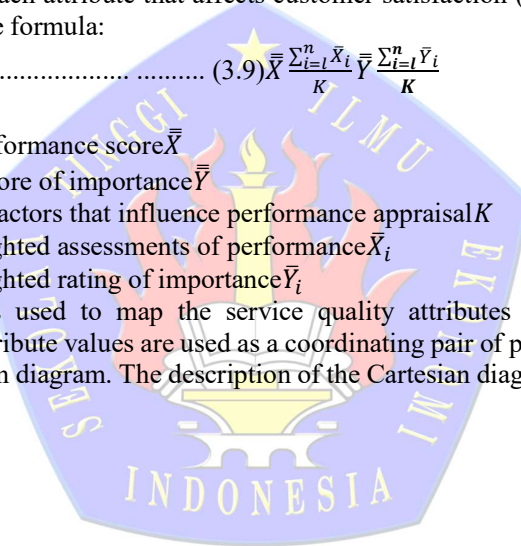
Figure 3.1. Cartesian diagram of the level of expectations / interests and performance / perceptions based on science
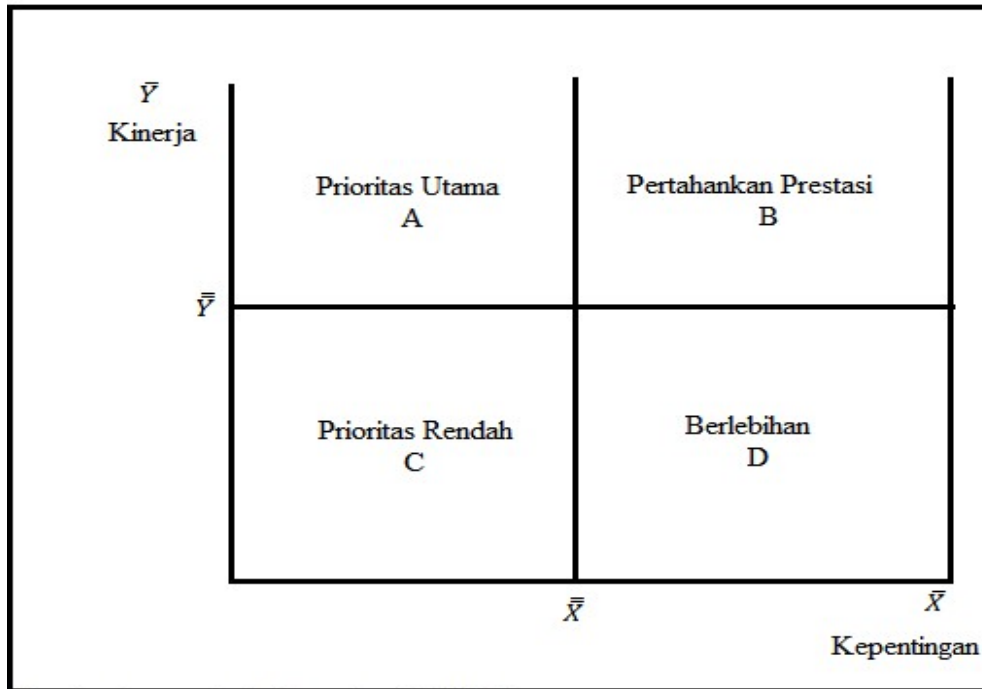
Sumber : Lupiyoadi dan Bramulya (2015:242)

The four quadrants become the four strategies, depending on which quadrant is the consumer's assessment of the product or service issued. For an assessment of the four quadrants, see the explanation below:

To be able to see the position of the data placement that has been analyzed, it can be divided into four parts (Lupiyoadi and Bramulya, 2015: 242) as follows.

(1) Quadrant A, "top priority" means having a high score in terms of importance level but having a low score in terms of performance. This result shows the location of customer dissatisfaction.

(2) Quadrant B, "maintain achievement" means having a high score both in terms of level of interest and performance. The aspects in this category are ideal aspects, because it shows that the organization has advantages in areas that are considered important by customers.

(3) Quadrant C, "low priority" means that both the importance level score and the performance level score are low. Aspects included in this group can be ignored from management's attention in the future.

(4) Quadrant D, "excessive" means a low importance score but a high performance level score. These results indicate that the organization focuses too much on aspects that have little impact on customer satisfaction so that the resources originally allocated to aspects in this category can be diverted to other aspects that have a high importance score but low performance.

IV.   RESULTS AND DISCUSSION
4.1.   Description of Research Object

TransJakarta is the first Bus Rapid Transit (BRT) transportation system in Southeast and South Asia with the longest track in the world (208 km). This BRT system is designed based on the TransMilenio system in Bogota, Colombia. Starting from 1

February 2004 and the opening of the first Transjakarta corridor with the Blok M-Kota route, TransJakarta officially operates.

PT Transportation Jakarta was built during the leadership era of the Governor of DKI Jakarta Jend. (Ret.) Soetiyoso. The PT Transportation Jakarta bus is designed as a mode of mass transportation to support the very busy activities of the capital. PT Transportation Jakarta is a BRT system with the longest track in the world (208 km), and has 3,337 bus stops spread over 13 corridors, which initially operated from 05.00-22.00 WIB, and now operates 24 hours.

4.2. Respondent's description

The following is data carried out on 100 respondents obtained from Transjakarta bus customers. In this report, data regarding the descriptions of respondents consisting of gender, age and occupation will be presented based on Table 4.1 as follows:

Table 4.1. Respondent Data Description

No.	Respondent Characteristics	Category	Number of people)	Percentage (%)
1	Gender	Male	48	48
		Women	52	52
	total		100	100
2	Age (Years)	17-25	61	61
		26-40	33	33
		41-50	4	4
		> 50	1	1
	total		100	100
3	Profession	College student	25	25
		General employees	55	55
		Others	20	20
	total		100	100

Source: Data processed (2020)

Table 4.1. shows that the majority of respondents are female respondents, amounting to 52%. This shows that many female customers do not use private vehicles to carry out outdoor activities or activities, and women prefer Transjakarta transportation for economic, safety and comfort reasons. The age column shows that most respondents are aged 17-25 years, as many as 61 people or 61%. At this age their activities are very high, outside of college or work activities, at this age they cannot buy private vehicles so for traveling they choose to use Transjakarta which is comfortable, economical and easy to reach, and for private employees, as many as 55 people or 55% .

4.3. Results of Testing Research Instruments

4.3.1. Perception and Expectation Validity Test

Before the analysis is carried out, first the validity of each item of the questionnaire statement is carried out which represents the perception / performance and expectations / interests. Validity is tested by comparing values r_{hitung} and for each of the existing statement items. If the value> is said to be valid. The results of the validity test on perception / performance (Appendix 5) can be seen in the table below: $r_{kritis} r_{hit}$ r_{kritis}

Table 4.2. Validity Results Statement of Customer Perceptions and Expectations

		Customer Perception	Customer Expectations

Item Number	r_{kritis}	r_{hitung}	Decision	r_{hitung}	Decision
1	0.30	0.281	Invalid	0.670	Valid
2	0.30	0.655	Valid	0.815	Valid
3	0.30	0.568	Valid	0.743	Valid
4	0.30	0.698	Valid	0.547	Valid
5	0.30	0.728	Valid	0.753	Valid
6	0.30	0.698	Valid	0.733	Valid
7	0.30	0.787	Valid	0.785	Valid
8	0.30	0.762	Valid	0.772	Valid
9	0.30	0.546	Valid	0.702	Valid
10	0.30	0.729	Valid	0.692	Valid
11	0.30	0.718	Valid	0.500	Valid
12	0.30	0.474	Valid	0.593	Valid
13	0.30	0.687	Valid	0.708	Valid
14	0.30	0.687	Valid	0.775	Valid
15	0.30	0.707	Valid	0.768	Valid
16	0.30	0.703	Valid	0.796	Valid
17	0.30	0.670	Valid	0.726	Valid
18	0.30	0.779	Valid	0.632	Valid
19	0.30	0820	Valid	0.762	Valid

Source: Data processed (2020)

In the table above, it can be seen that 19 items of customer perception statements are declared valid and 1 other statement item is invalid. The results of the validity test on customer expectations above can be seen (Appendix 6), it can be concluded that the results of the validity of expectations in 19 statement items are declared valid.

4.3.2. Instrument reliability test

Reliable means stable or consistent. After the validity test was carried out on each statement in the questionnaire, then the reliability test was carried out on the valid statement, while invalid statements were not used in the reliability test.

Reliability test is done by method *Cronbach alpha* by using SPSS Ver. 25.0. Reliability for perceptions / performance and expectations / interests has value *Cronbach alpha* > 0.50 then the item is reliable, but if *Cronbach alpha* <0.50 then it is declared unreliable. The results of the performance and importance reliability test can be seen in table 4.5.

Table 4.3. Reliability Results of Perception / Performance and Expectations / Variables   Customer's Interests

No.	Variable	*Cronbach alpha*	r_{kritis}	Decision
1	Perception / Performance	0.752	0.50	Reliable
2	Expectations / Interests	0.768	0.50	Reliable

Source: Data processed (2020)

Reliability for performance variables has value *Cronbach alpha* equal to 0.752, meaning *Cronbach alpha*>r_{kritis} for perceptions / reliable performance, while for expectations / interests, the value of expectations / interests was 0.768. The Cronbach alpha

value for the perception / performance and hope / interest variables is above the value (0.50). Thus, both variables are reliable.r_{kritis}

4.4. Data analysis
4.4.1 Servqual Analysis
Servqual analysis is used to determine the quality of service on Transjakarta buses from the attributes for each servqual dimension and the extent of service levels to these attributes (Attachments 3 and 4). The servqual value is obtained from the difference between the perception score and the expectation score. The following is an analysis of each dimension.

1. Tangible dimensions
   *Tangible*is the ability to show its existence to external parties. Processing results are presented in the following table:

Table 4.4. Servqual Score on Tangible

No.	Attribute	Perception Score	Expectation Score	Servqual Score
1	Transjakarta bus facilities	3.73	3.61	0.12
2	CCTV stop and bus	3.59	3.57	0.02
3	Quality lounge facilities	3.46	3.37	0.09
4	Cleanliness of the stop	3.42	3.40	0.02
5	Air conditioner in the bus	3.46	3.53	-0.07
	Average	3.53	3.50	0.04

Source: Data processed (2020)

The average level of customer perception was 3.53, while the expectation score was 3.50, so the servqual score was 0.04. This shows that the level of service provided by Transjakarta to customers is satisfactory, so in the tangible dimension, customers are satisfied with the physical evidence services of Transjakarta facilities and infrastructure.

2. Responsiveness dimension
   *Responsiveness*is the desire to meet customers and provide answers accurately and quickly, and with the delivery of clear information. Processing results are presented in the following table.

Table 4.5. Servqual Score on Responsiveness

No.	Attribute	Perception Score	Expectation Score	Servqual Score
1	Ease of obtaining information	3.56	3.47	0.09
2	Friendly clerk service	3.53	3.39	0.14
3	Payment speed and ease	3.41	3.31	0.10
	Average	3.50	3.39	0.11

Source: Data processed (2020)

The table above shows the average level of customer perception of 3.5, while the level of importance is 3.39, and the servqual score is 0.11. This shows that the level of service provided has met customer expectations.

3. Realibility dimension
   *Realibility*is the company's ability to provide services as promised accurately and reliably. Processing results are presented in the table below.

Table 4.6. Servqual Score on Realibility

No.	Attribute	Perception Score	Expectation Score	Servqual Score
1	Digital information board	3.59	3.5	0.09
2	Clarity of information and clarity of bus stop officers	3.47	3.42	0.05
3	Bus officers run SOPs well	3.42	3.39	0.03
4	Availability and completeness of bus stop facilities	3.23	3.22	0.01
	Average	3.43	3.38	0.05

Source: Data processed (2020)

The average level of perception is 3.43, while the expectation score is 3.38, and the servqual score is 0.05. This shows that the level of service provided has met customer expectations.

4. The assurance dimension

Assurance is courtesy, knowledge, and the ability of company employees to generate customer trust in the company. Processing results are presented in the table below.

Table 4.7. Servqual Score on Assurance

No.	Attribute	Perception Score	Expectation Score	Servqual Score
1	Quality attributes of stop	3.40	3.46	-0.06
2	The gate machine is functioning properly	3.41	3.32	0.09
3	Security around the stop	3.29	3.12	0.17
4	Timely work procedures	3.43	3.42	0.01
	Average	3.38	3.33	0.05

Source: Data processed (2020)

The average perception score is 3.38, the expected score is 3.33, and the servqual score is 0.05. This shows that customers are satisfied with Transjakarta services on the assurance dimension.

5. *Emphaty dimension*

Emphaty is all forms of sincere and personal attention given to customers to strive to fulfill customer desires. Processing results are presented in the following table.

Table 4.8. Servqual Score on Emphaty

No.	Attribute	Perception Score	Expectation Score	Servqual Score
1	Ease of access to change other modes of transportation	3.52	3.55	-0.03
2	The officers' alertness to serve priority passengers	3.36	3.33	0.23
3	Alert stop officers handle consumer complaints	3.35	3.33	0.02
	Average	3.41	3.40	0.07

Source: Data processed (2020)

The average perception score was 3.41, the expected score was 3.40 and the servqual score was 0.07. This shows that customers are not satisfied with the empathy Transjakarta provides to customers.

6. Servqual Score Recapitulation on 5 dimensions

Table 4.9. Servqual Score Recapitulation

No.	Attribute	Perception Score	Expectation Score	Servqual Score
1	*Tangible*	3.53	3.5	0.04
2	*Responsiveness*	3.5	3.39	0.11
3	*Realibility*	3.43	3.38	0.05
4	*Assurance*	3.38	3.33	0.05
5	*Emphaty*	3.41	3.40	0.07
	Average	3.45	3.40	0.06

Source: Data processed (2020)

Based on Table 4.9, the overall mean value of servqual in the five dimensions is tangible of 0.04, responsiveness dimension of 0.11, reliability dimension of 0.05, assurance dimension of 0.05, and empathy of 0.07. Then the servqual score of the five dimensions is obtained at 0.06. This value is obtained from the difference between the average performance of 3.45, with an average interest score of 3.40. This value means that the overall quality of service provided by Transjakarta has not fully met customer satisfaction.

4.4.2. Importance Performance Analysis (IPA)

IPA is an analytical tool used to analyze the level of perception / performance and level of expectation / interest in order to find out which attributes are still considered low in performance and should be improved and which of the 19 service quality attributes have been rated as good and must be maintained so as to increase customer satisfaction Transjakarta buses.

The Level of Conformity Analysis (TKI) is the result of a comparison between the expectation / importance score and the perception / performance score. The level of conformity between perceptions / performance and expectations / interests with the expected score can be seen in Table 4.10 below:

Table 4.10. Conformity Level Value

No.	Interest	Performance	Average importance	Average performance	Gap	Tki (%)
1	361	373	3.61	3.73	0.12	96.78
2	357	359	3.57	3.59	0.02	99.44
3	337	346	3.37	3.46	0.09	97.40
4	340	342	3.4	3.42	0.02	99.42
5	353	346	3.53	3.46	-0.07	102.02
6	347	356	3.47	3.56	0.09	97.47
7	339	353	3.39	3.53	0.14	96.03
8	331	341	3.31	3.41	0.1	97.07
9	350	359	3.5	3.59	0.09	97.49
10	342	347	3.42	3.47	0.05	98.56

11	339	342	3.39	3.42	0.03	99.12
12	322	323	3.22	3.23	0.01	99.69
13	346	340	3.46	3.4	-0.06	101.76
14	332	341	3.32	3.41	0.09	97.36
15	312	329	3.12	3.29	0.17	94.83
16	342	343	3.42	3.43	0.01	99.71
17	355	352	3.55	3.52	-0.03	100.85
18	333	336	3.33	3.36	0.03	99.11
19	333	335	3.33	3.35	0.02	99.40
Average			3.41	3.45	0.05	98.60

Source: Data processed (2020)

Based on the IPA calculations in Table 4.10, it shows the conditions of each dimension of Transjakarta service quality. The Gap value shows the difference between the perception / performance perceived by the customer with the interests / expectations of the customer for the services provided. The results of the study obtained a positive gap value of 0.05, which means that the perception / service performance has exceeded customer expectations / interests.

The value of Conformity Level (Tki) between perceptions / performance and customer expectations / interests gets a value of 98.60%, and from the table above shows the highest statement is found in point 5, namely the tangible dimension with a value of 102.02% in the statement of the AC on the bus well maintained, customers feel that with the air conditioner on the bus at each stop, maintaining the customer's body temperature with outside conditions during the day and when the bus is in a congested condition during peak hours. In the next statement there is the lowest point found at number 15 with the security attribute around the bus stop on the assurance dimension, customers feel less safe when waiting for the bus at night, from some respondents stated that some Transjakarta bus feeders at night they wait for the Transjakarta bus,

4.4.3 Cartesian Diagram

The results of measuring customer satisfaction based on the level of performance and importance allow Transjakarta to focus on improvement efforts on attributes that are considered important in order to satisfy in providing customer satisfaction.

Table 4.11. Average Value of Performance and Interests of Transjakarta

No.	Attribute	Performance (X)	Interest (Y)	$\bar{X}$	$\bar{Y}$
1	Transjakarta bus facilities	373	361	3.73	3.61
2	CCTV stop and bus	359	357	3.59	3.57
3	Quality lounge facilities	346	337	3.46	3.37
4	Cleanliness of the stop	342	340	3.42	3.4
5	Air conditioner in the bus	346	353	3.46	3.53
6	Ease of obtaining information	356	347	3.56	3.47
7	Friendly clerk service	353	339	3.53	3.39
8	Payment speed and ease	341	331	3.41	3.31
9	Digital information board	359	350	3.59	3.5

10	Clarity of information from the bus stop officer	347	342	3.47	3.42
11	Bus officers run SOPs well	342	339	3.42	3.39
12	Availability and completeness of bus stop facilities	323	322	3.23	3.22
13	Quality attributes of stop	340	346	3.40	3.46
14	The gate machine is functioning properly	341	332	3.41	3.32
15	Security around the stop	329	312	3.29	3.12
16	Timely work procedures	343	342	3.43	3.42
17	Ease of access to change other modes of transportation	352	355	3.52	3.55
18	Bus officers alacrity to serve priority passengers	336	333	3.36	3.33
19	Alert stop officers in serving customer complaints	335	333	3.35	3.33
Average				3.45	3.41

Source: Data processed (2020)

After calculating in Table 4:11 above, the points in the Cartesian Diagram are obtained below:
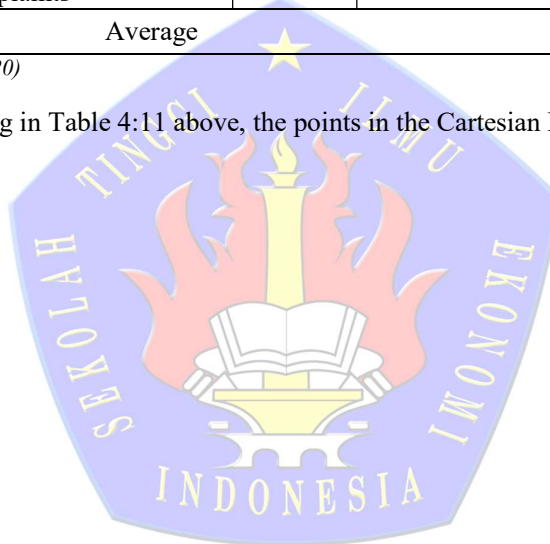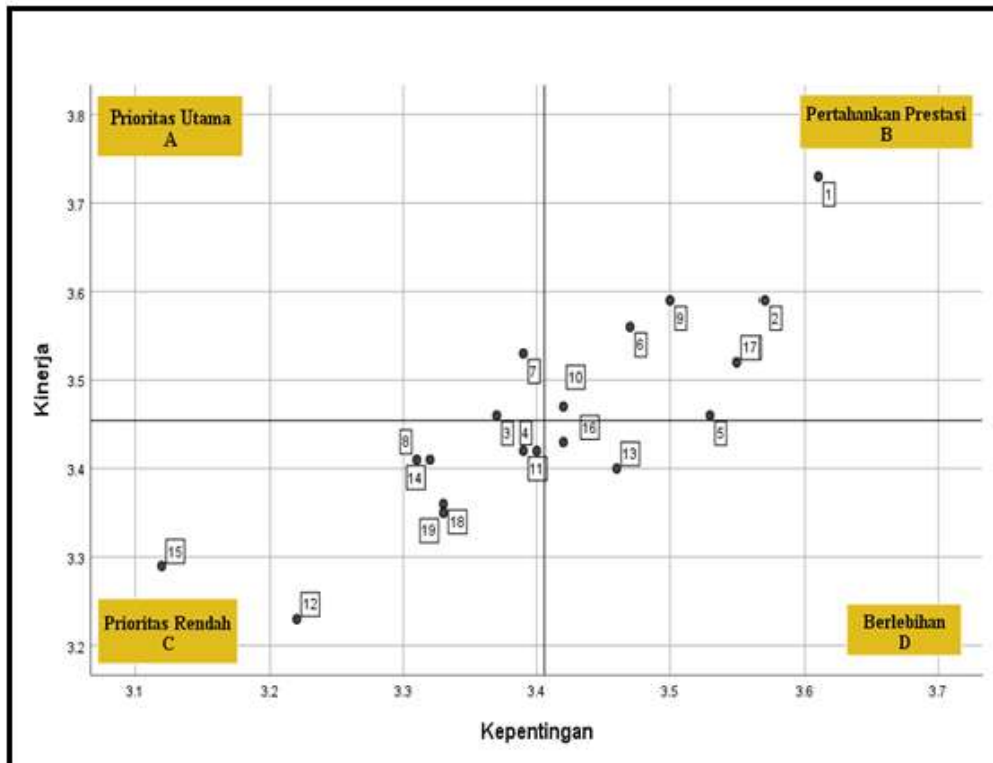
Figure 4.11. Cartesian Diagram of Service Quality in Transjakarta

In the Cartesian diagram above, it can be seen from the location of the question of the quality of Transjakarta services. The following is an explanation of the results of the Cartesian Diagram above:

1. Quadrant I (Top Priority)

    This shows that it is clear that the dimensions of the variables in this quadrant need to get priority to be addressed first. The attributes in quadrant I are considered very important by Transjakarta customers, but they are still not satisfactory. The following are statements that fall into quadrant I:

    (1) Statement number 3   : Quality of waiting room facilities
    (2) Statement number 7   : Friendly staff service

2. Quadrant II (Maintain Achievement)

    Shows the variables that the company has successfully implemented, therefore it must be maintained. Considered very important to satisfy customers. The statement which lies in this quadrant is considered a supporting factor for customer satisfaction so that it must be maintained by the company because all statements make the service superior in the eyes of the customer. The statements in this quadrant are as follows:

    (1) Statement number 1   : Transjakarta bus facilities
    (2) Statement number 2   : CCTV stops and buses
    (3) Statement number 6   : Ease of obtaining information
    (4) Statement number 9   : Digital information board
    (5) Statement number 10   : Clear information from bus and bus stop officers
    (6) Statement number 17   : Ease of access to change modes of transportation other

3. Quadrant III (Low Priority)

This shows that the variables in this quadrant are considered less important by Transjakarta customers. The implementation is normal and the service level of interest in this quadrant is considered sufficient. So that in the future it is expected to be able to re-evaluate to focus more on variables that have a higher level of importance. The following are the variables contained in quadrant III:

(1) Statement number 4 : Cleanliness of the stop
(2) Statement number 8 : Speed and ease of payment
(3) Statement number 11 : The bus staff runs SOPs well
(4) Statement number 12 : Availability and completeness of bus stop facilities
(5) Statement number 14 : The gate machine is functioning properly
(6) Statement number 15 : Security around the stop
(7) Statement number 18 : The bus officers' alertness to serve passengers priority
(8) Statement number 19 : Alert stop officers in serving consumer complaints

4. Quadrant IV (Excessive)

Statements located in quadrant IV are variables which according to respondents are considered less important, but in fact the quality of service is very good. So that in the future it is hoped that the authorities will focus more on variables that have higher levels or expectations. Variables in the form of statements that lie in this quantification include:

(1) Statement number 5 : Air conditioning in the bus
(2) Statement number 13 : Quality attributes of the stop
(3) Statement number 16 : Work procedures on time

4.5. Research Findings

The results of the study using the servqual method with five main dimensions, namely tangible, responsiveness, reliability, assurance, and empathy, showed that the servqual scores on the quality of Transjakarta bus service were as follows: tangible 0.04, responsiveness 0.11, reliability 0.05, assurance 0.05, and empathy 0.07. Obtained an average servqual score of the five dimensions of 0.06, obtained from the difference between the average perception / performance of 3.45 and the average expectation / importance of 3.4. Overall, the level of customer satisfaction of Transjakarta buses has a positive score which indicates that the good quality of Transjakarta bus service has met the expectations / interests of customers.

The results of the Gap value from 19 statements of the five dimensions of service quality. The gap shows a positive value of 0.05 which is obtained from the difference between the perception / performance perceived by the customer and the score for the customer's interest / expectation, which means that the perception / performance of the service has exceeded the expectations / interests of the customer. The IPA value at the Level of Conformity (Tki) between perceptions / performance and customer expectations / interests gets a value of 98.60%, based on the value (Tki) in Table 4.12 of 19 data processed statements, the emphaty dimension of the AC statement on the bus is maintained well, get the highest score of 102.02% with a value (Tki) above 100%, which shows that customers are very satisfied with the services provided by Transjakarta.

The test results with a Cartesian diagram have interpretations such as quadrant A (top priority) which affect customer satisfaction for Transjakarta bus services and their handling needs to be prioritized. Quadrant B (maintain performance) affects customer satisfaction for services that need to be maintained and the level of implementation is in accordance with performance and interests so as to satisfy customers. Quadrant C (low priority) affects customer satisfaction for Transjakarta services which are considered low while service

quality is considered adequate. Quadrant D (excessive) affects customer satisfaction for Transjakarta services which are considered less important and need to focus more on higher variables.

This finding resulted in findings that were different from previous research conducted by Chairul Nindya and Fani Husnul (2019) in conducting research on the level of customer satisfaction of UD Trucks Bandung. Servqual research shows that the quality of services provided by UD Trucks Bandung is "good", based on the quality of service obtained "very good" expectations, this shows that customers have very high expectations of UD Trucks Bandung services, based on IPA calculations an average is obtained "very good". The results of the Cartesian Diagram of the five quality services which are the top priority for repairing UD Trucks Bandung are located in quadrant I (Main Quadrant).

The conclusions from the results of previous studies indicate that the quality of services provided is good, however, there are several quadrant I statements that need to be improved by the company in increasing customer satisfaction in using transportation services.

V.   CONCLUSIONS AND SUGGESTIONS
Conclusion

1. Based on the results of the research conducted, several conclusions were obtained to answer the problem formulation. Overall, the quality of Transjakarta bus service does not meet customer expectations. The unfulfilled needs and desires of customers are indicated by several attributes that fall into quadrant I in the Cartesian diagram, namely friendly staff facilities and services. The attributes located in quadrant I are obtained from the results of the quadrant and the Importance Performance Analysis (IPA) method. Where it can be concluded that there is a suitability problem when conducting a survey to the Transjakarta bus stop. Using the analysis with the IPA method which shows the attributes that need to be improved.

2. The proposed improvements are, namely, adding to the waiting room for the bus stop such as replacing outdated facilities, adding some of the latest equipment to make it easier for customers and making customers feel comfortable when they have to wait at the bus stop. Perform additional employees and employee training. With an adequate number of security personnel, it will make travel safer from criminal cases. With such a good reputation, passengers will increasingly trust in Transjakarta bus transportation services.

5.2.   Suggestion

Based on the results of the research that has been done, it is hoped that Transjakarta can improve the attributes that have been mentioned in the conclusion, where these attributes are in quadrant I as the main priority for improvements in accordance with the order of priority so that it will be better in the future. Keep maintaining the attributes that are considered satisfactory so that Transjakarta will focus more on improving services that are deemed lacking.

5.3. Limitations of research and further research development

This research has been attempted and carried out in accordance with scientific procedures, however, it still has limitations and can carry out further research development, namely:

1. Researchers are only carried out on Transjakarta bus customers. Further research development can be carried out by examining another transportation company so that the research results can be used as a comparison.

2. In this study, many respondents filled in too fast so that customers did not give too many opinions or suggestions to researchers regarding the quality of Transjakarta services, they complained about their rush to get on the Transjakarta bus to quickly get to their destination.

3. Further research development can be carried out more casually to respondents who have longer waiting times so that they are more efficient in providing information and opinions of respondents about Transjakarta services. So that knowledge about Transjakarta can develop and be useful for previous or post research

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