



Analysis of Customer Satisfaction Levels towards the Parking System at Ittelkom Surabaya using Servqual Methods

Nabilla Adinna Cahyani^{1*}

Industrial Engineering, Institut Teknologi Telkom Surabaya, Surabaya, Indonesia

ARTICLE INFORMATION

Article history:

Received:

Revised:

Accepted:

Category: Research paper

Keywords:

Satisfaction

Parking Lot

Servqual

Linier Regression

Gap Test

A B S T R A C T

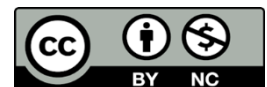
ITTelkom Surabaya is a campus that was established in 2018. The increasing number of students can affect the quality of parking lots that can be accommodated. Based on data on the quality and service satisfaction of parking attendants, students feel dissatisfied due to the many shortcomings in the facilities and quality of service in parking at ITTelkom Surabaya. This study aims to measure service quality and analyze which factors affect customer satisfaction with the parking system at ITTelkom Surabaya. This research is conducted using quantitative analysis with the Servqual method. In data collection, questionnaire forms were distributed to parking lot users, and the data were collected from students. The existence of this research can be used as an evaluation material to develop the satisfaction of the parking system as measured. The results showed that the measurement of the service quality of the vehicle parking system at ITTelkom Surabaya is still not optimal. The gap value in some statement attributes shows that the quality of parking system customer service still doesn't meet expectations. Then the factors that have an impact on customer satisfaction of the parking system at ITTelkom Surabaya are the variables X1 (Tangible) and X3 (Responsiveness). Both variables have a low significance T test value so there needs an attention in improving and evaluating the parking system at ITTelkom Surabaya in order to fulfill customer wants and needs.

*Corresponding Author

Nabilla Adinna Cahyani

E-mail: nabillaadinna@student.ittelkom-sby.ac.id

This is an open access article under the **CC-BY-NC** license.



1. INTRODUCTION

Parking is a temporary state of inactivity for a vehicle while stopping is a vehicle that is temporarily stationary with the driver not leaving (Mulki, 2019). The increasing number of ITTelkom Surabaya students also affects the required vehicle parking capacity, especially the student motorcycle parking lot. After the 2022/2023 school year, the parking lot that was previously a car parking lot was converted into a motorcycle parking lot to increase capacity. Meanwhile, the car parking lot was moved to the north of the campus building or behind the campus building. To find out the level of customer satisfaction of the parking system, supporting data is needed based on a satisfaction questionnaire distributed to students as respondents.

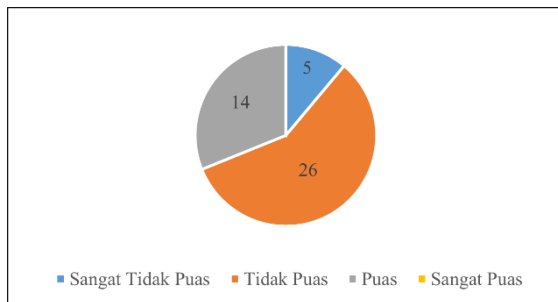


Figure 2. Facility Quality Satisfaction Data

Based on the graph in Figure 1 above, 26 students are not satisfied with the quality of parking facilities at ITTelkom Surabaya. This is due to the condition of the parking lot which is often flooded, muddy, and slippery when it rains. Some students also complain that open parking lots are often rained on so it is necessary to provide canopies and car parking lots to access distant campus buildings.

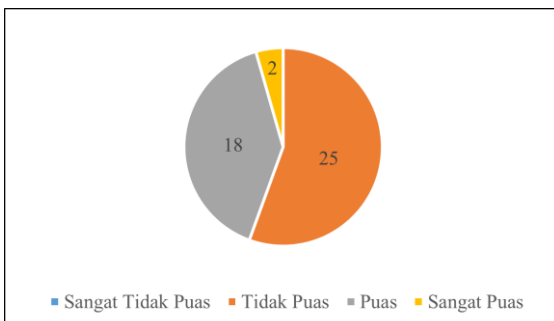


Figure 1. Parking Attendant Service Satisfaction Data

The graph in Figure 2 shows that 25 students were dissatisfied with the parking attendant service at ITTelkom Surabaya. Many complaints about the use of stickers and checking STNK when leaving campus. This is considered very ineffective for students because they feel that they have installed stickers, so they don't need to be rechecked. Some students also complained about the service of parking attendants who did not direct when parking so that vehicles were parked irregularly, the attitude of officers who were less friendly, and a lot of behavior to students.

One of the research methods used to measure customer satisfaction in the parking system is using the Servqual method. Servqual is a tool that can be used to measure customer expectations and customer perceptions as well as the gap between the service provider and its consumers (Novadi & Mahbubah, 2021).

To measure service quality, the data used comes from a research questionnaire that has been distributed to students and then measured using the gap test. The gap test results will answer whether the parking system evaluation has met student expectations or not. If the quality of service received by customers is better or in accordance with what is expected, then customers will be satisfied and tend to try it again (Tjoanoto & Kunto, 2013).

To find out the variables that affect customer satisfaction of the parking system at ITTelkom Surabaya, questionnaire data from the five servqual variables are used. Of the five variables, it is then sought which variables affect the satisfaction of the parking system at ITTelkom Surabaya. Variables that have an influence on satisfaction can be used as a reference for evaluating and improving the quality of the parking system at ITTelkom Surabaya. Low quality will cause dissatisfaction, therefore it is important to make efforts to improve better services in order to provide satisfaction to consumers (Alaan, 2016).

2. LITERATURE REVIEW

Parking is one of the elements of transportation infrastructure that is inseparable from the transportation network system, so parking arrangements will affect the performance of a network, especially road networks (Nugraha et al., 2019). This parking problem is not only experienced by universities that have narrow land but also by universities that have large land (Fuad & Mabur, 2019).

Quality is all the characteristics and properties of a product or service that affect the ability to satisfy stated or implied needs (Kotler et al., 2009). Quality is also defined as a dynamic condition related to service products, people, processes and environments that meet or exceed expectations (Tjiptono, 2001). Service quality can be interpreted by the level of customer satisfaction (Trimarjoko et al., 2020). Customer satisfaction is described as a person's feeling of being satisfied or otherwise, after comparing the reality and expectations received from a product or service (Philip et al., 2005).

Services are economic activities that do not produce physical products or construction, but are generally produced and consumed simultaneously and provide added value. If the service received is in accordance with expectations, then the quality of service will be considered good and satisfying. If the service received exceeds customer expectations, then the service quality will be considered the best. Conversely, if the service received is below expectations, service quality will depend on the service provider's ability to consistently meet customer expectations (Lukita et al., 2019).

3. RESEARCH METHOD

Servqual is a tool that can be used to measure customer expectations and customer perceptions as well as the gap between the service provider and its consumers (Novadi & Mahbubah, 2021). The Servqual method is built on a comparison of two main factors, namely perceived service with expected service (Yolanda et al., 2017). Servqual measurement allows for comparison before and after changes,

for the location of quality-related problems, and for the establishment of clear standards for service delivery (Bryland & Curry, 2001).

Service Quality has 5 aspects as the basis for its assessment, namely reliability, responsiveness, assurance, empathy, and tangible (Kuncoro et al., 2022).

1. Reliability
The ability to perform services as promised, satisfactorily, and reliably.
2. Responsiveness
The ability to help customers or service users by providing fast service.
3. Assurance
Knowledge and politeness that can provide trust and confidence to customers or service users.
4. Empathy
A form of care and attention in knowing and understanding the needs of customers or service users.
5. Tangible
Demonstrable appearance of physical facilities, equipment and communication materials.

4. RESULT AND DISCUSSION

Before collecting data, population and data samples are determined. The population taken in this study were ITTelkom Surabaya students. Meanwhile, the sample was determined using the slovin method. The following is the calculation of student sampling:

$$n = \frac{N}{1 + N(e)^2} = \frac{2325}{1 + 2325(0,1)^2} = 95,9$$

$$n \approx 96 \text{ sample}$$

The sample size calculation in this study shows that the number of respondents needed in primary data collection is at least 96 people from the total number of students at ITTelkom Surabaya. To collect data, a questionnaire is distribute with 5-dimensional scale, namely Likert Scale. The following are the variables and attributes of the questions in this research questionnaire:

Table 1. Questionnaire Variables and Attributes

Dimention	Code	Question Attribute	Source
Tangibles	T1	The location of the ITTelkom Surabaya parking lot is easily accessible.	Kuncoro et al., 2022
	T2	Facilities at the parking lot at ITTelkom Surabaya are complete and adequate.	Kuncoro et al., 2022
	T3	Convenience of the location to park the vehicle, such as a level road and a canopy to protect the vehicle.	Kuncoro et al., 2022
	T4	The parking lot at ITTelkom Surabaya is quite large.	Yolanda et al., 2017
	T5	There are parking lines separating vehicles.	Yolanda et al., 2017
	T6	Parking security systems carried out by officers, such as the use of stickers and checking vehicle registration.	Yolanda et al., 2017
Reliability	R1	The accuracy of the officer's service in assisting the process of parking the vehicle.	Novadi & Mahbubah, 2021
	R2	Parking attendant service in welcoming parking users.	Kuncoro et al., 2022
	R3	Performance of parking attendants in providing services.	Bachtiar et al., 2022
	R4	The accuracy of the information provided by parking attendants, such as indicating empty parking spaces.	Alfatiyah & Apriyanto, 2019
Responsiveness	Re1	The speed of the parking attendant in assisting the process of parking the vehicle.	Novadi & Mahbubah, 2021
	Re2	Response of parking attendants in handling lost vehicle attributes.	Kuncoro et al., 2022
	Re3	Responsiveness of parking attendants when dealing with users who want to remove vehicles.	Kuncoro et al., 2022
	Re4	The parking attendant's decision to handle parking user complaints.	Kuncoro et al., 2022
Empathy	E1	Attention of parking attendants to parking lot users.	Yolanda et al., 2017
	E2	Parking attendants do not look at the status of parking users, whether they are known or unknown.	Yolanda et al., 2017 Novadi & Mahbubah, 2021
	E3	The actions of parking attendants when parking users are frustrated because they have lost their vehicle attributes.	Kuncoro et al., 2022
	E4	Parking attendants apply the 5S culture (Smile, Greet, Salute, Polite, and Courtesy).	Novadi & Mahbubah, 2021
Assurance	A1	The level of security of parking attendants in guarding parked vehicles.	Novadi & Mahbubah, 2021
	A2	Checking vehicles that will leave the	Fuad, 2019

Dimension	Code	Question Attribute	Source
		campus area.	
	A3	Safe, convenient, and organized parking area.	Yolanda et al., 2017
	A4	Parking attendants are available at all times.	Yolanda et al., 2017
Customer Satisfaction	X1	Are you satisfied with the parking attendant service?	Kuncoro et al., 2022
	X2	Are you satisfied with the safety and comfort of the parking lot at ITTelkom Surabaya?	Kuncoro et al., 2022
	X3	Are you satisfied with the parking lot facilities at ITTelkom Surabaya?	Nugraha et al., 2019

This questionnaire is closed by using information about the scope of the proposed answers. This questionnaire is divided into two rating scales, namely the evaluation level rating scale and the expectation level. This research questionnaire uses a five-point rating scale. The expectation questionnaire uses a scale of (1) Very Unimportant, (2) Unimportant, (3) Sufficient, (4) Important, and (5) Very Important. In the evaluation and Customer Satisfaction questionnaire using a scale of (1) Very Dissatisfied, (2) Dissatisfied, (3) Enough, (4) Satisfied, and (5) Very Satisfied.

The data collected from distributing questionnaires were 135 respondents. Then at the beginning of data processing by conducting validity and reliability tests. After the data is declared valid and reliable, the gap test and multiple linear regression test are carried out. Before the multiple linear regression test is carried out, a classical assumption test is carried out which consists of a linearity test and a correlation test. Then multiple linear regression model tests were conducted. To test the validity of the regression model, the r2 test, t test, multicollinearity test, heteroscedasticity test, autocorrelation test, normal error test, and random error test were conducted.

Table 2. Expectation Validity Test

Validity Test			
Variables	Indicator	Sig.	Status
TH	T1	< 0.05	Valid
	T2	< 0.05	Valid
	T3	< 0.05	Valid

Validity Test			
Variables	Indicator	Sig.	Status
	T4	< 0.05	Valid
	T5	< 0.05	Valid
	T6	< 0.05	Valid
RH	R1	< 0.05	Valid
	R2	< 0.05	Valid
	R3	< 0.05	Valid
	R4	< 0.05	Valid
ReH	Re1	< 0.05	Valid
	Re2	< 0.05	Valid
	Re3	< 0.05	Valid
	Re4	< 0.05	Valid
EH	E1	< 0.05	Valid
	E2	< 0.05	Valid
	E3	< 0.05	Valid
	E4	< 0.05	Valid
AH	A1	< 0.05	Valid
	A2	< 0.05	Valid
	A3	< 0.05	Valid
	A4	< 0.05	Valid

Table 3. Evaluation Validity Test

Validity Test			
Variables	Indicator	Sig.	Status
TE	T1	< 0.05	Valid
	T2	< 0.05	Valid
	T3	< 0.05	Valid
	T4	< 0.05	Valid
	T5	< 0.05	Valid
	T6	< 0.05	Valid
RE	R1	< 0.05	Valid
	R2	< 0.05	Valid
	R3	< 0.05	Valid
	R4	< 0.05	Valid

Validity Test			
Variables	Indicator	Sig.	Status
ReE	Re1	< 0.05	Valid
	Re2	< 0.05	Valid
	Re3	< 0.05	Valid
	Re4	< 0.05	Valid
EE	E1	< 0.05	Valid
	E2	< 0.05	Valid
	E3	< 0.05	Valid
	E4	< 0.05	Valid
AE	A1	< 0.05	Valid
	A2	< 0.05	Valid
	A3	< 0.05	Valid
	A4	< 0.05	Valid

Table 4. Customer Satisfaction Validity Test

Validity Test			
Variables	Indicator	Sig.	Status
X	X1	< 0.05	Valid
	X2	< 0.05	Valid
	X3	< 0.05	Valid

Based on Table 2, 3, and 4 of the validity test, it can be concluded that the five attributes of the dimensions of expectations and the reality of customer response and satisfaction on the satisfaction questionnaire are valid measuring instruments. It has been proven that the significance value on all attributes has a value of less than 0.05. It can be stated that each question item on the questionnaire has been able to provide the right measurement results according to its purpose.

Table 5. Expectation Reliability Test

Reliability Test		
Variable	Cronbach's Alpha	Status
TH	0,634	Reliable
RH	0,681	Reliable
ReH	0,622	Reliable
EH	0,654	Reliable
AH	0,680	Reliable

Table 6. Evaluation Reliability Test

Reliability Test		
Variable	Cronbach's Alpha	Status
TE	0,709	Reliable
RE	0,661	Reliable
ReE	0,699	Reliable

EE	0,620	Reliable
AE	0,641	Reliable

Table 7. Customer Satisfaction Reliability Test

Reliability Test		
Variable	Cronbach's Alpha	Status
X	0,642	Reliable

Based on Table 5, 6, and 7 of the reliability test, it can be concluded that the results of the Cronbach's Alpha test on all dimensions as measuring instruments can be declared reliable with a value of more than 0.6. The largest Cronbach's Alpha value is 0.709 which is owned by the TE (Tangible Evaluation) indicator. Meanwhile, the lowest Cronbach's Alpha value is 0.620 which is owned by EE (Empath Evaluation).

Table 8. Gap Test

Gap Test						
	X	Y	G	GD	Sig.	Stat.
Tangible						
T1	3,64	3,95	-0,31	-1,19	< 0,001	H0 rejected
T2	2,73	4,07	-1,34		< 0,001	H0 rejected
T3	2,33	4,35	-2,02		< 0,001	H0 rejected
T4	2,75	4,00	-1,25		< 0,001	H0 rejected
T5	2,93	3,88	-0,95		< 0,001	H0 rejected
T6	2,88	4,13	-1,25		< 0,001	H0 rejected
Reliability						
R1	3,18	3,93	-0,75	-0,76	< 0,001	H0 rejected
R2	3,18	3,92	-0,74		< 0,001	H0 rejected
R3	3,19	3,84	-0,65		< 0,001	H0 rejected
R4	3,06	3,94	-0,88		< 0,001	H0 rejected
Responsiveness						
Re1	3,01	3,89	-0,88	-0,76	< 0,001	H0 rejected
Re2	3,06	4,24	-1,18		< 0,001	H0 rejected
Re3	2,99	3,93	-0,94		< 0,001	H0 rejected
Re4	3,10	4,04	-0,94		< 0,001	H0 rejected
Empathy						
E1	3,25	4,04	-0,79	-0,99	< 0,001	H0 rejected
E2	3,38	4,24	-0,86		< 0,001	H0 rejected
E3	3,16	4,01	-0,85		< 0,001	H0 rejected

Gap Test						
	X	Y	G	GD	Sig.	Stat.
E4	3,25	3,84	-0,59		< 0,001	H0 rejected
Assurance						
A1	4,10	4,23	-0,13	-	0,065	H0 received
A2	3,44	4,01	-0,57		< 0,001	H0 rejected
A3	3,74	3,89	-0,15		0,084	H0 received
A4	4,11	3,99	0,12		0,128	H0 received

Based on Table 8, the results of the gap test with the t test on each statement attribute in the distributed questionnaire, it is obtained that the significance level value of all attributes is less than 0.001 except for attributes A1, A3, and A4 which are worth more than 0.05. If the significance value is less than 0.05, the result is H0 rejected and H1 accepted. But if the significance value is more than 0.05 then the result is H0 accepted and H1 rejected.

The dimension of physical evidence (tangible) has the largest negative gap value so that it is necessary to improve all indicators in this dimension in order to improve the quality and satisfaction of parking lot users at ITTelkom Surabaya. Then the second largest gap value is in the responsiveness dimension, the third is the empathy dimension, and the fourth is the reliability dimension. These four dimensions need improvement and evaluation in order to improve the quality and satisfaction of parking lot users. Inappropriate facilities and policies are usually a factor where the gap between reality and expectations has a rather large gap (Kuncoro et al., 2022). A large enough parking lot cannot solve the problem of parking arrangements in each parking lot (Nugraha et al., 2019). Meanwhile, the assurance dimension has the lowest gap value and some indicators of this dimension have a T Test significance value of more than 0.05, which means that this dimension has met the expectations and satisfaction of parking lot users so that it is necessary to maintain the quality of this dimension. The gap test results can be concluded that the parking system at ITTelkom Surabaya has not yet reached the expectations desired by customers.

Table 9. Linearity Test

Linearity Test				
Variable	Linearity	Stat.	Deviation from Linearity	Stat.
X1 (Tangible)	< 0,001	Linear	0,297	Linear
X2 (Reliability)	< 0,001	Linear	0,453	Linear
X3 (Responsiveness)	< 0,001	Linear	0,534	Linear
X4 (Empathy)	0,002	Linear	0,941	Linear
X5 (Assurance)	0,034	Linear	0,315	Linear

Based on Table 9, the results of the linearity test with the ANOVA test on each variable show that the significance value of Linearity for all variables is less than 0.05 and the significance value in Deviation from Linearity for all variables is more than 0.05. This indicates that the relationship between the evaluation variable and the customer satisfaction variable is linear. This shows that the relationship between the evaluation variable and the customer satisfaction variable is linear.

Table 10. Correlation Test

Correlation Test		
Variable	Sig.	Status
X1	< 0,05	Correlation
X2	< 0,05	Correlation
X3	< 0,05	Correlation
X4	< 0,05	Correlation
X5	< 0,05	Correlation

Based on Table 10 of the Pearson correlation test on each variable, it is found that the significance value of all x variables on the y variable is less than 0.05. This shows that the relationship between the evaluation variable and the customer satisfaction variable has a correlated relationship.

$$Y = 1,824 + 0,198x_1 + 0,079x_2 + 0,172x_3 - 0,020x_4 + 0,060x_5 + e$$

The Y value in this equation is the customer satisfaction variable. The constant value (α) has a positive value of 1.824. So it can be concluded that the constant value has a unidirectional influence between the evaluation variable and the customer satisfaction variable. Tangible

variable X1 has a regression coefficient value of 0.198 and the significance value in the t test is less than 0.05, indicating that the physical evidence dimension has a positive influence on student satisfaction. It can also be interpreted that the better the parking system facilities, the lower the level of customer satisfaction felt. Reliable variable X2 has a regression coefficient value of 0.079, indicating that the reliability dimension has a positive influence on student satisfaction. It can be concluded that if the reliability of parking attendants is getting better, then students will feel more satisfied with the parking system at ITTelkom Surabaya. Responsiveness variable X3 has a regression coefficient value of 0.172, indicating that the responsiveness dimension has a positive influence on student satisfaction. It can be concluded that if the officer has the right responsiveness, then students will feel satisfied to park the vehicle. The Empath X4 variable has a regression coefficient value of -0.020, indicating that the empathy dimension has a negative effect on student satisfaction. So it can be concluded that when parking attendants pay full attention, students will be more confident to park their vehicles in the ITTelkom Surabaya parking lot. The Assurance variable X5 has a regression coefficient value of 0.060, indicating that the guarantee dimension has a positive effect on student satisfaction. It can be concluded that if parking attendants increase the level of security in guarding vehicles, students will feel safe and satisfied.

Table 11. R² Test

R ² Test		
R	R Square	Adjusted R Square
0,587	0,344	0,319

Based on Table 11, the results of the R2 test on each variable show that the resulting R Square value is 0.344. So it can be interpreted that the R Square value is categorized as weak because the resulting value is small. If the R2 value is close to 1, the better. If the R2 value is small, it means that the error component is large (Hair et al., 1998).

Table 12. T Test

T Test			
Variable	B	Sig.	Stat.
Constant	1,824		
X1	0,198	< 0,001	Effect
X2	0,079	0,426	No Effect
X3	0,172	0,018	Effect
X4	-0,020	0,815	No Effect
X5	0,060	0,349	No Effect

Based on Table 12, the results of the t test on each variable show that the significance value for variable x is more than 0.05, except for variables X1 and X3 which are less than 0.001 and 0.018. So it can be interpreted that there needs to be special attention in improvement, especially in Physical Evidence (Tangible) and Responsiveness in the ITTelkom Surabaya parking system.

Table 13. Multicollinearity Test

Multicollinearity Test				
Var.	Tolerance	Stat.	VIF	Stat.
X1	0,645	No Symtons	1,549	No Symtons
X2	0,371	No Symtons	2,697	No Symtons
X3	0,539	No Symtons	1,854	No Symtons
X4	0,528	No Symtons	1,894	No Symtons
X5	0,914	No Symtons	1,095	No Symtons

Based on Table 13, the results of the multicollinearity test on each variable show that the tolerance value of all variables is more than 0.10 and the VIF value of all variables is less than 10. So it can be concluded that there are no symptoms of multicollinearity between the evaluation variables and customer satisfaction of the parking system at ITTelkom Surabaya.

Table 14. Heteroscedasticity Test

Heteroscedasticity Test		
Variable	Sig.	Status
X1	0,059	No Symtons
X2	0,790	No Symtons
X3	0,183	No Symtons
X4	0,966	No Symtons

X5	0,315	No Symtons
----	-------	------------

Based on Table 14, the results of the heteroscedasticity test on each variable show that the significance value for all x variables is more than 0.05. So it can be concluded that there are no symptoms of heteroscedasticity between the evaluation residual variables and the customer satisfaction variable.

Table 15. Autocorrelation Test

Autocorrelation Test	
K	5
N	135
DU	1,7962
4-DU	2,2038
Durbin-Watson	2,023
Sig	5%

Based on Table 4.10, the results of the autocorrelation test on each variable show that the Durbin-Watson value is 2.023 and the value is compared with the significance value of 0.05 with a sample size (N) of 135 and the number of independent variables of 5 (K = 5). Then this test model has a formula:

$$DU < \text{Durbin-Watson} < 4-DU$$

resulting in $1.7962 < 2.023 < 2.2038$. The Durbin-Watson value is between 1.7962 and 2.2038. So it can be concluded that the regression model of this study does not occur autocorrelation.

In the normal error test, the data is processed using the Kolmogorov-Smirnov test because the data amounts to more than 100. The results of the Kolmogorov-Smirnov normality test show that the significance value is 0.200 so that the value is more than 0.05. So it can be interpreted that the regression model of this study is normally distributed.

In the random error test, the data is processed using the run test to determine whether the regression model is random or not. The results of the run test found that the Asymp. Sig value is 0.546 so that this value is more than 0.05. So it can be interpreted that the regression model of this study is random.

The results of multiple linear regression testing can be concluded that the variables X1 Tangible and X3 Responsiveness are factors that affect customer satisfaction because in the t test the coefficients of the two variables have a significance value below 0.05. Physical aspects that are visible to the customer's eyes can affect the formation of customer satisfaction in assessing service quality. If all facilities and physical aspects provided have been fulfilled properly, customers will feel satisfied (Tjoanoto & Kunto, 2013). To improve quality, parking attendants play an important role in providing customer satisfaction. If parking attendants fail to provide good service, then there is no influence between the responsiveness dimension on customer satisfaction (Alaan, 2016).

5. CONCLUSION AND INDUSTRIAL IMPLICATIONS

Based on the research results that the measurement of the service quality of the vehicle parking system at ITTelkom Surabaya is still not optimal. This is evidenced by the negative value of the gap in some Service Quality attributes. The negative gap value in some dimensions and all statement attributes indicates that the service quality of parking system customers at ITTelkom Surabaya still does not meet expectations and there is a need for improvement and evaluation regarding all research attributes.

The results of research with linear regression tests, the variables that affect customer satisfaction with the parking system at ITTelkom Surabaya are the X1 tangible variable and X3 responsiveness. The X1 and X3 variables have a low significance t test value so it can be concluded that both variables are factors that affect satisfaction. So there needs to be special attention, especially on the X1 tangible and X3 responsiveness variables to make improvements and evaluations related to the parking system at ITTelkom Surabaya.

Based on managerial implications, it is necessary to improve the quality of parking system services in accordance with the five dimensions of Service Quality. Proposed improvements to facilities, review of parking policies, quality of services provided by parking

attendants, and quality of parking system guarantees are expected to help parking lot managers improve the service quality of the parking system at ITTelkom Surabaya to meet the expectations of parking lot users, namely students.

REFERENCES

- Alaan, Y. (2016). Pengaruh Service Quality (Tangible, Eempathy, Reliability, Responsiveness, dan Assurance) terhadap Customer Satisfaction: Penelitian pada Hotel Serela Bandung. *Jurnal Manajemen*, 15(2). <http://publication.petra.ac.id/index.php/manajemen-pemasaran/article/view/126>
- Alfatiyah, R., & Apriyanto. (2019). Analisis Kualitas Pelayanan Parkir Dengan Metode Servqual, Ipa Dan Qfd Untuk Meningkatkan Kepuasan Pelanggan Di PT. Securindo Packatama Indonesia. *JITMI*, 2 No.2, 106–116. <https://doi.org/http://dx.doi.org/10.32493/jitmi.v2i2.y2019.p105-115>
- Bachtiar, M. Y., Ismiyah, E., & Rizqi, A. W. (n.d.). Analisis Kualitas Pelayanan Dengan Metode Servqual Guna Meningkatkan Kepuasan Pelanggan Pada Pelayanan Jasa Transportasi Terminal Maulana Malik Ibrahim. *Jurnal Teknik Industri*, 8(2), 2022. <https://doi.org/http://dx.doi.org/10.24014/jti.v8i2.20075>
- Bryslan, A., & Curry, A. (2001). Service improvements in public services using SERVQUAL. *Managing Service Quality: An International Journal*, 11(6), 389–401. <https://doi.org/10.1108/09604520110410601>
- Fuad, H., & Mabur, A. (2019). PENGARUH KUALITAS PELAYANAN TERHADAP KEPUASAN PELANGGAN PENGGUNA JASA PARKIR (Studi Pada Mahasiswa Universitas Sultan Ageng Tirtayasa Serang. *Jurnal Manajemen Dan Bisnis*, 1(2), 55–70. <https://ejournal.lppm-unbaja.ac.id/index.php/jmb/article/view/1230>
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*. Prentice Hall, Inc.
- Kotler, P., Keller, K. L., Molan, B., & Sarwiji, B. (2009). *Manajemen Pemasaran* (13th ed.). PT. Indeks Kelompok Gramedia.
- Kuncoro, D., Abimanyu, R., Kurniawan, R., & Umam, K. (2022). Analisis Tingkat Kepuasan Pelanggan Pada Pelayanan Lahan Parkir Menggunakan Metode Service Quality. *IMTechno: Journal of Industrial Management and Technology*, 3(2). <https://doi.org/https://doi.org/10.31294/imtechno.v3i2.1228>
- Lukita, C., Pranata, S., & Agustin, K. (2019). Metode Servqual Dan Importance Performance Analysis Untuk Analisa Kualitas Layanan Jasa Pendidikan Tinggi Pada Mahasiswa Di Cirebon. *Jurnal DIGIT*, 9(2), 167–177. <https://doi.org/https://doi.org/10.51920/jd.v9i2.117>
- Mulki, M. N. M. (2019). Tinjauan Hukum Positif Dan Hukum Islam Tentang Tarif Parkir Di Kawasan Pantai Tulungagung.
- Novadi, I. N., & Mahbubah, N. A. (2021). Evaluasi Kualitas Pelayanan Pelanggan Berbasis Integrasi Servqual-Six Sigma Di Kuma Coffee And Eatery Kabupaten Gresik. *Jurnal Sains Dan Teknologi*, 21(2), 302–317. <https://doi.org/http://dx.doi.org/10.36275/stsp.v21i2.423>
- Nugraha, A. E., Kusnadi, K., & Dampang, S. (2019). Pengaruh Kualitas Pelayanan dan Fasilitas Lahan Parkir terhadap Kepuasan Civitas Kampus. *JIEMS (Journal of Industrial Engineering and Management Systems)*, 12(1). <https://doi.org/10.30813/jiems.v12i1.1536>

- Philip, K., Molan, B., & Sarwiji, B. (2005). Manajemen Pemasaran (11th ed.). PT. Indeks Kelompok Gramedia.
- Tjiptono, F. (2001). Manajemen Jasa (2nd ed.). Andi Yogyakarta.
- Tjoanoto, M. T., & Kunto, Y. S. (2013). Pengaruh Service Quality terhadap Customer Satisfaction di Restoran Jade Imperial. *Jurnal Manajemen Pemasaran Petra*, 1(1), 1–9. <https://publication.petra.ac.id/index.php/manajemen-pemasaran/article/view/126>
- Trimarjoko, A., Mukhlis, D., Fathurohman, H., & Suwandi, S. (2020). Metode Value Stream Mapping dan Six Sigma untuk Perbaikan Kualitas Layanan Industri di Automotive Services Indonesia. *IJIEM (Indonesian Journal of Industrial Engineering & Management)*, 1(2), 91–104. <https://doi.org/http://dx.doi.org/10.22441/ijiem.v1i2.8873>
- Yolanda, H., Rahmi, I., & Maiyastri. (2017). Evaluasi Pelayanan Administrasi Terpadu (Paten) dengan menggunakan Metode Servqual Six Sigma (Studi Kasus di Kecamatan Kuranji, Padang). *Jurnal Matematika UNAND*, VI No.1, 118–127. <https://doi.org/https://doi.org/10.25077/jmu.6.1.118-127.2017>