

**COMPARISON OF PERCEPTION OF SERVICE QUALITY  
AND ONLINE TRANSPORTATION CUSTOMER  
SATISFACTION  
(Case Study of Go-Ride and GrabBike Service Users in Cempaka  
Putih Timur Village)**

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***Abstract** - This research aims to find out if there are differences in consumer perception of Service Quality and Customer Satisfaction in Users of Go-Ride and GrabBike Online Transportation Services in Cempaka Putih East Village.*

*The population in this study is a community in the eastern white neighborhood of Cempaka that uses go-ride and GrabBikeonline transportation. Researchers assigned sampel as many as 100 respondents, of which 100 respondents have used online transportation both GrabBike and Go-Ride. Aresearch enis used is quantitative research with comparative strategies. The statistical method used is instrument test and average difference test with IBM statistic SPSS v.25.0 application.*

*Based on the results of the hypothetical test calculation of the two average differences, on the quality of service is obtained a t-count value of -1,095 and a t-table value of 2,276, thus the value of t-count < t-table value (-1,095 < 2,276) or sig value > 0.05 i.e. 0.279 > 0.05. so that the test results state that no significant average differences were received. In customer satisfaction, a t-count value of 2,919 and a t-table value of 2,276, thus t-calculate > the t-table value (2.919 > 2.276) or the sig value of < 0.05 i.e. 0.005 > 0.05. so that the test results state that there is a significant average difference rejected..*

**Keywords: Service Quality, Customer Satisfaction.**

***Abstrak**– Penelitian ini bertujuan untuk mengetahui apakah ada perbedaan persepsi konsumen terhadap Kualitas Pelayanan dan Kepuasan Pelanggan pada Pengguna Layanan Transportasi Online Go-Ride dan GrabBike di Kelurahan Cempaka Putih Timur.*

*Populasi dalam penelitian ini adalah masyarakat di lingkungan kelurahan cempaka putih timur yang menggunakan transportasi *online* Go-Ride dan GrabBike. Peneliti menetapkan sampel sebanyak 100 responden, dimana 100 orang responden tersebut telah menggunakan transportasi online baik GrabBike maupun Go-Ride. Jenis penelitian yang digunakan adalah penelitian kuantitatif dengan strategi komparatif. Metoda statistik yang digunakan adalah uji instrument dan uji beda dua rata-rata dengan aplikasi IBM *statistic* SPSS v.25.0.*

*Berdasarkan hasil perhitungan uji hipotesis tentang beda dua rata-rata, pada kualitas pelayanan diperoleh nilai t-hitung sebesar -*

1,095 dan nilai t-tabel sebesar 2,276, dengan demikian nilai t-hitung < nilai t-tabel (-1,095 < 2,276) atau nilai sig > 0,05 yaitu 0,279 > 0,05. sehingga hasil pengujian menyatakan bahwa tidak terdapat perbedaan rata-rata yang signifikan diterima. Pada kepuasan pelanggan diperoleh nilai t-hitung sebesar 2,919 dan nilai t-tabel sebesar 2,276, dengan demikian t-hitung > nilai t-tabel (2,919 > 2,276) atau nilai sig < 0,05 yaitu 0,005 < 0,05. sehingga hasil pengujian menyatakan bahwa terdapat perbedaan rata-rata yang signifikan ditolak.

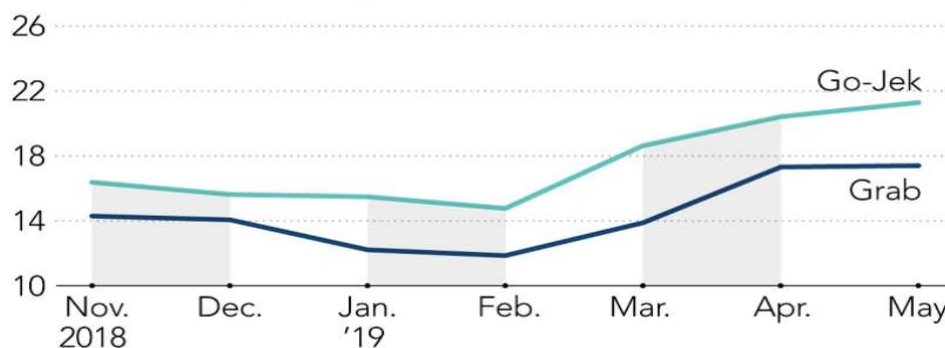
**Kata kunci : Kualitas Pelayanan, Kepuasan Pelanggan**

## I. PRELIMINARY

Phenomenon Recently, many people in the Cempaka Putih Timur Urban Village who use conventional transportation services have switched to online transportation services. This condition makes consumers in East Cempaka Putih Village have alternative choices. In addition, the promotion carried out by Go-Ride and GrabBike is quite aggressive through various promotional media. This can certainly lead to competition, as well as with Go-Jek and Grab products being able to vary their service products with two-wheeled and four-wheeled service facilities so as to provide more flexibility for their consumers. Regarding the reliability of Go-Ride and GrabBike, both have drivers who are professional in driving who really pay attention to customer safety and comfort while driving. Judging from the above phenomena, it is necessary to formulate various strategies to improve the quality of service and customer satisfaction provided to Go-Ride and GrabBike consumers in Cempaka Putih Timur Village. Besides that there is fenomena the increasing number of Go-Ride and GrabBike users is due to the fact that many transportation service users in Cempaka Putih Timur Village have switched from conventional to online for various reasons, such as faster, more convenient, and cheaper.

**Figure 1.1** Comparison of Go-Jek and Grab Period active users  
November 2018-May 2019

### Monthly active users of major ride-hailing apps in Indonesia (in million)



Source: App Ape

accompanied by a very high number of consumer needs and mobility.

Based on the above background, the author is interested in conducting research with the title "COMPARISON OF SERVICE QUALITY PERCEPTION AND TRANSPORTATION CUSTOMER SATISFACTION (Case Study on Go-Ride and GrabBike Service Users in Cempaka Putih Timur Village)"

### 1.1. Formulation of the problem

In the competition for online ojek transportation services, Gojek and Grab are required to consistently provide quality services so that customers feel satisfied, interested,

and comfortable with the services that have been provided. Based on the background description of the problem above, the problems formulated are as follows:

1. Are there different perceptions of Service Quality among Go-Ride and GrabBike users in Cempaka Putih Timur Village?
2. Are there differences in customer satisfaction perceptions of Go-Ride and GrabBike service users in Cempaka Putih Timur Village?

### **1.2. Research purposes**

The objectives of the research conducted in East Cempaka Putih Village were:

1. To find out whether there are differences in service quality for users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village.
2. To find out differences in customer satisfaction for users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village

## **II. LITERATURE REVIEW**

### **2.1. Consumer behavior**

Consumer Behavior is the study of how individuals, groups, and organizations choose, buy, use, and how goods, services, ideas, or experiences satisfy their needs and wants.

According to Hawkins (2013: 18) "Customer behavior is the study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the customer and society". The definition explains that customer behavior is the study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy the needs of customers and society.

### **2.2. Services**

Tjiptono (2014: 4) is a service that can be viewed as a system consisting of 2 (two) main components, namely service operations that are often unknown to the customer (back office or backstage) and service delivery which is usually seen. (visible) or known to the customer (often called the front office or frontstage).

### **2.3. Service quality**

The company's development creates fierce competition. Various ways are done in order to get customers and keep them. One of the strategies the company uses to be able to win the competition is with good service quality. Customers are interested in buying a product or service because of the good quality of service.

According to Tjiptono (2014: 268) service quality is the level of excellence expected and control over this level of excellence is to fulfill customer desires.

### **2.4. Customer satisfaction**

Kotler and Keller (2016: 153) suggest that customer satisfaction is a feeling of pleasure or disappointment resulting from expectations. A customer is satisfied or not, very much depends on the product's performance (perceived performance) compared to the customer's expectations and whether the customer interprets a deviation or gap between the performance and expectations. If the performance is lower than expectations, the customer will feel dissatisfied. If performance equals expectations, then he will be satisfied. Meanwhile, if the performance exceeds expectations, the customer will feel very satisfied or even happy (delighted).

### **2.5. Comparison between Research Variables**

According to Tjiptono (2014: 216), many researchers agree that customer satisfaction is a specific measure for each transaction, situation or interaction that is short-term, while service quality is an attitude formed from overall evaluation of the company's long-term performance. Here are some theories regarding the relationship between service quality and customer satisfaction:

1. Customer satisfaction with a particular service experience will lead to an overall evaluation or attitude towards service quality over time. (Bitner, Oliver, Parasuraman, et al., Quoted in Tjiptono 2014);
2. Service quality is an antecedent to customer satisfaction, regardless of whether the two concepts are measured on specific experiences or over time. (Oliver quoted in Tjiptono 2014);
3. Service quality and customer satisfaction are two distinct but closely related concepts. This implies that increased customer satisfaction tends to be followed by an increase in positive perceptions of service quality, and vice versa. (Sureshchandar quoted in Tjiptono 2014).

## 2.6. Research Hypothesis Development

According to Sugiyono (2017: 63) the hypothesis is a temporary answer to the formulation of research problems, where the problem formulation is stated in the form of a statement sentence. It is said temporarily, because the answers given are only based on relevant theories, not based on empirical facts obtained through data collection or questionnaires. Based on literature review and theoretical framework, the research is formulated as follows:

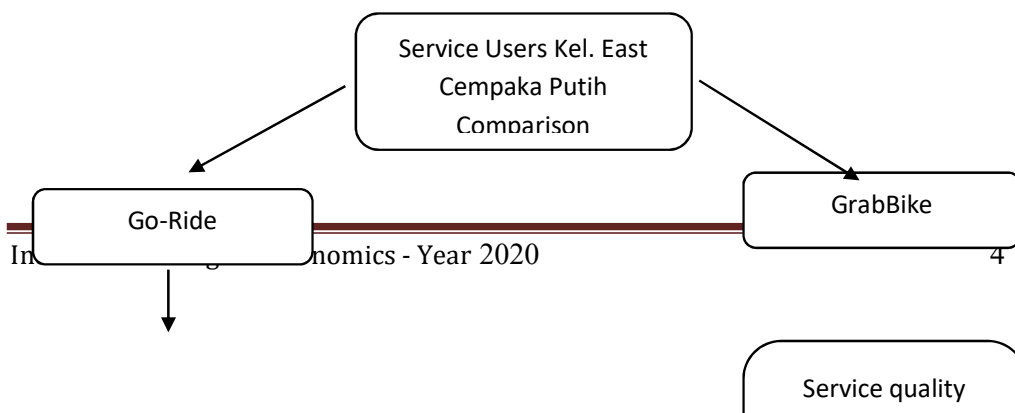
1. It is suspected that there is a difference in the perception of service quality among Go-Ride and GrabBike service users in Cempaka Putih Timur Village
2. It is suspected that there are differences in customer satisfaction for users of the Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village
- 3.

## 2.7. conceptual framework

In a framework the writer describes definitively this concept of comparison which is defined as a relationship of the independent variable and the dependent variable. The variables used are:

1. Service Quality Variable.
2. Customer Satisfaction Variable.

Clarifying the framework above, the two variables can be described in a simple paradigm with a comparison of variables, as follows:



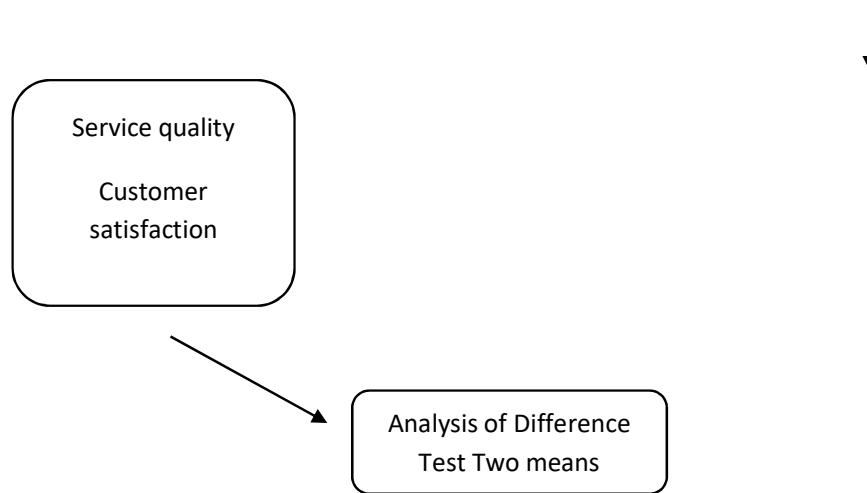


Figure 2.2 Research Conceptual Framework

### III. RESEARCH METHOD

#### 3.1. Research Strategy

The research method is basically a scientific way to get data with specific purposes and uses (Sugiyono, 2017: 2). In accordance with the objectives of this study, namely to obtain objective exposure regarding the comparison of quality and customer satisfaction, the type of research used is a comparative research stratregi.

#### 3.2. Population and Sample Research

The population in this study were 27,299 residents in the village of Cempaka Putih Timur who used online transportation Go-Ride and GrabBike. The characteristics of the respondents are that they are over 17 years old and have at least used online transportation, both Go-Ride and GrabBike, three times a month

Sugiyono (2017: 82) suggests the following sample sizes for research:

1. The appropriate sample size in the study is 50 to 500.
2. If the research will perform multivariate analysis (correlation or multiple regression, for example), then the number of sample members is at least 10 times the number of variables studied. For example, there are 4 research variables (independent and dependent), then the number of sample members =  $10 \times 4 = 40$ .

The sample of this research is 100 people who use online transportation Go-Ride and GrabBike. Determination of the number of samples in this study refers to the opinion of Sugiyono in point one above.

#### 3.3. Data Analysis Methods

The data analysis method is grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, performing calculations to answer the problem formulation, and performing calculations to test the hypotheses that have been proposed (Sugiyono, 2017: 147).

##### 3.3.1. How to process and present data

In this study, data processing was carried out using the SPSS (Statistical Package for Social Science) ver.25.0 program. This is done in the hope that a large error rate will not occur. After the data is processed, the results or SPSS output are obtained. The results of data processing will be presented in table form so that it is tidier, can be read easily and can be quickly understood.

**3.3.2. Statistical analysis of data**

The statistical data analysis method was selected and adjusted to the research objectives. The statistical analysis of the data used in this research is descriptive analysis, instrument test and two-difference test.

**1. Instrument Test**

A questionnaire depends on the quality of the data used in the test. Research data will not be useful if the instrument that will be used to collect research data does not have high validity and reliability. These tests and measurements each show the consistency and accuracy of the data collected (Sugiyono, 2017: 125).

a. Validity test

The validity test is carried out to ascertain how well an instrument is used to measure the concept that should be measured. According to Sugiyono (2017: 128) to test the validity is done by correlating the score of the questions with the total score. The total score is the sum of all statement scores. The data that has been obtained is tabulated and factor analysis is carried out using the Construct Validity method using a simple correlation method. If the result is 0.3 (critical) or more, then the factor is a strong construction or has good construction validity.

The formula used to test the validity of this instrument is Karl Pearson's Product Moment, as follows:

$$r_{xy} = \frac{n \sum X Y - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}} \dots\dots\dots (3.1)$$

Information:

- r<sub>xy</sub> = The coefficient of the validity of the question items being sought
- n = Number of respondents sought (sample)
- X = Score obtained by subjects from all items
- Y = The total score obtained from all items

Then the results of r<sub>xy</sub> are compared with the critical value of the product moment (r<sub>critical</sub>), if the results obtained r<sub>xy</sub> > 0.3, then the instrument is valid. In practice, to test the validity of the questionnaire often uses the help of Microsoft Office Excel software and the Statistical Package for Social Science (SPSS).

b. Reliability test

Reliability test is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if someone's answer to a statement is consistent or stable over time. The method used to test the reliability of the questionnaire in this study was to measure the reliability with the Cronbach Alpha statistical test. To find out that the questionnaire is reliable, it will be tested the reliability of the questionnaire with the help of the SPSS computer program. The instrument used in these variables is said to be reliable if it has a Cronbach Alpha of more than 0.60 (Duwi Priyatno, 2012: 26).

$$\text{Cronbach's Alpha Coefficient: } \alpha_{it} = \left( \frac{k}{k - 1} \right) \left( 1 - \frac{\sum S_i^2}{S_t^2} \right) \dots (3.2)$$

Information :

- k = number of questionnaire items
- α it = the reliability coefficient of the questionnaire items



$\sum Si^2$  = the number of valid item score variances

$St^2$  = variance of the total item score

To find the variance of the questionnaire items and the variance of the total item score, the following formula is used:

$$S_i^2 = \frac{\sum X_i^2}{n} - \left( \frac{\sum X_i}{n} \right)^2 \dots\dots\dots (3.3)$$

Information :

$\sum Xi$  = total score of each item

$\sum Xi^2$  = the sum of the squares of each item's score

According to Sekaran (2013), the basis for making this reliability test decision is as follows:

If the Cronbach's Alpha coefficient is  $\geq 0.6 \rightarrow$  then Cronbach's Alpha is acceptable (construct reliable).

If Cronbach's Alpha  $< 0.6 \rightarrow$  then Cronbach's Alpha is poor acceptable (construct unreliable).

**2. Two-Mean Difference Test Analysis**

Based on the parameters, the statistics are divided into two, namely Parametric and Non-Parametric statistics, both of which differ from one another and have advantages and disadvantages. Non-parametric statistics are part of statistics whose population parameters do not follow a certain distribution or have a distribution that is free of requirements and the variance does not need to be homogeneous.

Sugiyono (2017: 261) is based on the advantages that exist compared to the t test for the difference between the two paired sample t-test, because the statistical test tool will give the right results for two populations that have a continuous distribution, does not require testing the assumption of normality and is more conservative for two population with discrete distribution. To find out the significant average difference between customer perceptions of service quality and customer satisfaction for users of Go-Ride and GrabBike online transportation in Cempaka Putih Timur Village. This statistical test is carried out in the following steps:

- a) Formulate Ho and H1
  - Ho:  $\mu_1 = \mu_2$  (There is no significant difference between the means customer perceptions of service quality and customer satisfaction for Go-Ride and GrabBike online transportation users in Cempaka Putih Timur Village)
  - H1:  $\mu_1 \neq \mu_2$  (There is a significant difference between customer perceptions of service quality and customer satisfaction for Go-Ride and GrabBike online transportation users in Cempaka Putih Timur Village)

- b) Calculate the Average value

$$(\bar{X}) = \frac{\sum X}{n}$$

- c) Determining Standard Deviation  $(\bar{X})$

$$S = \sqrt{\frac{\sum (Xi - \bar{X})^2}{n - 1}}$$

- d) Determine the level of Significance
  - $\alpha = 5\%$  for  $n < 30$  and  $+ t (\alpha; n1 + n2 - 2)$

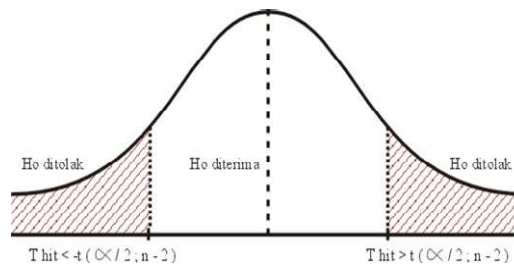
- e) Finding the t value with the formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(n_1 - 1).s_1^2 + (n_2 - 1).s_2^2}{n_1 + n_2 - 2} \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Information:

- $\bar{X}_1$  = Average value Go-Ride online transportation users
- $\bar{X}_2$  = Average value GrabBike transportation users
- $n_1$  = Number of samples Go-Ride online transportation users
- $n_2$  = Number of samples GrabBike transportation users
- $S_1$  = Target Deviation Go-Ride online transportation users
- $S_2$  = Target Deviation GrabBike transportation users
- $\alpha$  = Level of error

- f) Determine test criteria



Ho is accepted, H1 is rejected if  $-t_{(\alpha/2; n-2)} < t_{\text{arithmetic}}$  or  $t_{\text{count}} < t_{(\alpha/2; n-2)}$

Ho is rejected, H1 is accepted if  $t < -t_{(\alpha/2; n-2)}$  or  $t_{\text{count}} > t_{(\alpha/2; n-2)}$

- g) Conclusion

Ho is accepted if  $t_{\text{count}} < t_{\text{table}}$ , it means that there is no significant difference between level customer perceptions of service quality and customer satisfaction for Go-Ride and GrabBike online transportation users in Cempaka Putih Timur Village.

Ho is rejected if  $t_{\text{count}} > t_{\text{table}}$ , it means that there is a significant difference between level customer perceptions of service quality and customer satisfaction for users of online transportation Go-Ride and Grab Bike in Cempaka Putih Timur Village.

## IV. RESULTS AND DISCUSSION

### 4.1. Description of Research Object

Go-Ride was then founded in 2011 and by Nadiem and Michael Angelo. At first the Go-Ride business used a call center by means of Go-Ride staff contacting Go-Ride riders one by one to find which Go-Ride riders were empty. now operates in 50 cities in Indonesia. Then the method is deemed inefficient. Until finally the Go-Ride company launched the Go-Ride application, which can be accessed via an iOS-based smartphone, in January 2015.

GrabBike is a motorbike transportation service that can take you to various places, easier and faster without the need to wait a long time. Grab is available in seven countries in Southeast Asia, namely Myanmar, Thailand, Vietnam, Philippines, Malaysia, Singapore and Indonesia. In Indonesia, Grab has 19 cities available, namely: Bali, Bandung, Batam, Jakarta, Makassar, Malang, Medan, Padang, Palembang, Semarang, Solo, Surabaya, Banjarmasin, Balikpapan, Pekanbaru, Lampung, Palu, Bengkulu and Yogyakarta.



#### 4.2. Respondent Description

This respondent's description provides an overview of the respondents used in this study, in this study the data collection used a questionnaire of 100 respondents who used transportation services. *on line* Go-Ride and GrabBike. The respondents of this research are users Go-Ride and GrabBike in the Cempaka Putih Timur Urban Village which amounted to 100 respondents. Based on the results of the research of 100 respondents who have filled out the questionnaire, it can be seen about the characteristics of these respondents:

**Table 4.1.** Description of Respondents by Gender

Gender	Go-Ride		GrabBike		Number of people)	%
	Number of people)	%	Number of people)	%		
Women	32	64	40	80	72	72
Male	18	36	10	20	28	28
amount	50	100	50	100	100	100

Source: Primary Data (2020)

The table above shows users of the Go-Ride online transportation service that male respondents are 18 respondents or 36% of the remaining respondents, namely 32 or 64% of female respondents. So from these data it can be concluded that 64% more female respondents than the number of male respondents. Users of the online transportation service GrabBike say that there are 10 male respondents or 20% of the remaining respondents, namely 40 or 80% of female respondents. So from these data it can be concluded that 80% more female respondents than the number of male respondents.

In general, based on gender, respondents who have used online transportation services Go-Ride and GrabBike in the Cempaka Putih Timur Village environment have female gender, which is 72% or as many as 72 people out of 100 respondents. The author argues that the majority of respondents are women because the authors distribute questionnaires on the neighborhood of East Cempaka Putih Villagewhere usually the majority of workers who use online transportation are women.

**Table 4.2.** Respondents' Description by Age

Age	Go-Ride		GrabBike		Number of people)	%
	Number of people)	%	Number of people)	%		
17-26 years	18	36	30	60	48	48
27-36 years	16	32	0	0	16	16
37-46 years	2	4	4	8	6	6
47-56 years	12	24	2	4	14	14
> 57 years	2	4	14	28	16	16
amount	50	100	50	100	100	100

Source: Primary Data (2020)

The table shows that the age of respondents using Go-Ride online transportation services includes: ages from 17-26 years with a total of 18 respondents (36%), ages 27-36 years with a total of 16 respondents (32%), ages 37-46 years with total 2 respondents (4%), and aged 47-56 years with a total of 12 respondents (24%) and > 57 years 2 respondents (24%). So it can be concluded that the age of users of the Go-Ride online transportation service is dominated by users aged 17-26 years. In this age group, as many as 60% of them are respondents who often use the online transportation service GrabBike, while 36% are respondents who often use the Go-Ride online transportation service.

In general, based on the table above shows respondents who have used online transportation services Go-Ride and GrabBike in Cempaka Putih Timur Village based on their age group are divided into five groups, namely the age group 17-26 years, 27-36 years, 37-46 years, 47-56 years and the age group of 57 years and over. 48 respondents (48%), 16

respondents (16%), 6 respondents (6%), 14 respondents (14%) and 16 respondents (16%). Based on the data in Table 4.2, it can be seen that the majority of respondents who use online transportation services Go-Ride and GrabBike in the Cempaka Putih Timur Village are in the 17-26 year age group.

Researchers argue that the majority of respondents in the age range 17–26 years are usually consumers may not have their own private vehicle yet, so they use Go-ride and Grabbike services, for daily mobility. .

**Table 4.3.** Description of Respondents Based on Education

Education	Go-Ride		GrabBike		Number of people)	%
	Number of people)	%	Number of people)	%		
SMA / equivalent	14	28	20	40	34	34
Diploma	12	24	12	24	24	24
Bachelor	16	32	14	28	29	30
Postgraduate	6	12	0	0	6	6
Others	2	4	4	8	6	6
amount	50	100	50	100	100	100

Source: Primary Data (2020)

Based on the latest education of respondents using online transportation services Go-Ride and GrabBike in Cempaka Putih Timur Village, it shows that the majority of respondents are high school graduates / equivalent, namely 34 respondents (34%), followed by the Bachelor education group of 30 respondents (30%), the education group 24 diplomas (24%), and postgraduate and other education groups each as many as 6 people (12%). The author argues that the majority of respondents who use online transportation with the latest education are high school / equivalent, because it is possible that the respondents who filled out the questionnaire were new workers.

**Table 4.4.** Respondent Description Based on Income

Income	Go-Ride		GrabBike		Number of people)	%
	Number of people)	%	Number of people)	%		
<IDR 5,000,000	27	54	18	36	45	45
IDR 5,000,000- IDR 7,500,000	12	24	20	40	32	32
IDR 7,500,000- IDR 10,000,000	5	10	12	24	17	17
> IDR 10,000,000	6	12	0	0	6	6
amount	50	100	50	100	100	100

Source: Primary Data (2020)

Based on the monthly income level of users of Go-Ride and GrabBike online transportation services in the Cempaka Putih Timur Village environment, respondents with an income level of below IDR 5,000,000 per month are the majority group, namely 45 respondents (45%), followed by groups with an income of IDR 5,000,000-Rp 7,500,000 per month as many as 32 people (32%), Rp 7,500,000-Rp 10,000,000 per month as many as 17 people (17%) and groups with income above Rp 10,000,000 per month as many as 6 people (6%). From this data, it can be seen that respondents who frequently use online transportation services Go-Ride and GrabBike are respondents with high income. The author believes that the majority of respondents have lower incomes IDR 5,000,000 prefer transportation more affordable publications such as Go-Ride and GrabBike.

**Table 4.5.** Description of Respondents Based on the frequency of users of online transportation services in a week

Frequency	Go-Ride	GrabBike		%
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**COMPARISON OF ONLINE TRANSPORTATION QUALITY PERCEPTION AND CUSTOMER SATISFACTION (Case Study of Go-Ride and GrabBike Service Users in Cempaka Putih Timur Kelurahan)**

	Number of people)	%	Number of people)	%	Number of people)	
1 time a week	8	16	6	12	14	14
2-3 times a week	14	28	26	52	40	40
> 5 times a week	28	56	18	36	46	46
amount	50	100	50	100	100	100

Source: Primary Data (2020)

The majority of Go-Ride and GrabBike respondents in the Cempaka Putih Timur Urban Village are 46% with the frequency of users of Go-Ride and GrabBike online transportation services in the Cempaka Putih Timur Village environment > 5 times a week. Meanwhile, as many as 40% of respondents used Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village 2-3 times a week and only 14% of respondents used Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village as much as 1 times a week.

### 4.3. Results of Testing Research Instruments

This study uses primary data. The data were collected using a questionnaire distribution technique, namely by providing written statements to the respondents. Furthermore, the respondent gave a response to the statement given. This questionnaire is closed in nature where the answers are readily available. It is hoped that this questionnaire will be completed quickly. Before the questionnaire was distributed to the research sample, first a trial test was carried out using 15 respondents outside the research sample. to measure the validity and reliability of these measuring instruments.

#### 4.3.1. Validity test

Testing the validity of the instrument is to determine the degree of accuracy of the instrument to collect research data. This test is conducted to determine whether all statements (instruments) of research proposed to measure the research variables are valid. The type of validity used in this research is construct validity, which includes understanding the theoretical arguments that underlie the measurements obtained. To test the validity in this study, it was calculated by computer using the SPSS program, the result for making a decision was to compare  $r_{hitung}$  with  $r_{critical}$ .  $r_{hitung}$  value can be obtained by using the Product Moment Correlation Coefficient value. If the value of the Product Moment Correlation Coefficient > critical, the statement item is said to be valid or if  $r$  is positive, and  $r_{count}$  > critical, then the item or variable is valid. If  $r$  count is not positive, and  $r_{count}$  < critical, then the item or variable is invalid. Where critical uses 0.30. The results of the validity test for each statement can be seen in the table below (the results of the SPSS instrument validity test are in the attachment):

**Table 4.6.** Results of the Validity Test of Service Quality and Customer Satisfaction for Go-Ride online transportation service users in Cempaka Putih Timur Village

Variable	No. Statement	$r_{hitung}$	$r_{critical}$	Decision
Quality of service to users of Go-Ride online transportation services	1	0.618	0.30	Valid
	2	0.862	0.30	Valid
	3	0.921	0.30	Valid
	4	0.688	0.30	Valid
	5	0.851	0.30	Valid
	6	0.862	0.30	Valid
	7	0.921	0.30	Valid
	8	0.688	0.30	Valid

Variable	No. Statement	rhitung	critical	Decision
	9	0.661	0.30	Valid
	10	0.641	0.30	Valid
	11	0.800	0.30	Valid
	12	0.868	0.30	Valid
	13	0.550	0.30	Valid
	14	0.641	0.30	Valid
	15	0.800	0.30	Valid
	16	0.827	0.30	Valid
	17	0.862	0.30	Valid
	18	0.921	0.30	Valid
	19	0.747	0.30	Valid
	20	0.620	0.30	Valid
Customer satisfaction with users of the Go-Ride online transportation service	1	0.823	0.30	Valid
	2	0.585	0.30	Valid
	3	0.614	0.30	Valid
	4	0.706	0.30	Valid
	5	0.543	0.30	Valid

Source: SPSS data processing (2020)

**Table 4.7.** Results of the Validity Test of Service Quality and Customer Satisfaction on online Bike transportation service users in Cempaka Putih Timur Village

Variable	No. Statement	rhitung	critical	Decision
Service quality for users of the GrabBike online transportation service	1	0.862	0.30	Valid
	2	0.586	0.30	Valid
	3	0.672	0.30	Valid
	4	0.808	0.30	Valid
	5	0.808	0.30	Valid
	6	0.842	0.30	Valid
	7	0.759	0.30	Valid
	8	0.611	0.30	Valid
	9	0.678	0.30	Valid
	10	0.794	0.30	Valid
	11	0.865	0.30	Valid
	12	0.685	0.30	Valid
	13	0.842	0.30	Valid
	14	0.672	0.30	Valid
	15	0.616	0.30	Valid
	16	0.815	0.30	Valid
	17	0.672	0.30	Valid
	18	0.862	0.30	Valid
	19	0.586	0.30	Valid
	20	0.611	0.30	Valid
Customer satisfaction with users of the GrabBike online transportation service	1	0.775	0.30	Valid
	2	0.759	0.30	Valid
	3	0.791	0.30	Valid
	4	0.846	0.30	Valid
	5	0.729	0.30	Valid

Source: SPSS data processing (2020)

Based on this table, this shows that all statement items for variables of service quality and customer satisfaction for users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village get rcount values greater than 0.30. So that all statements are declared valid (accurate), so that all statements can be used for further testing, namely reliability testing.

#### 4.3.2. Reliability Test

Reliability test is used to determine the consistency or stability of the measuring instrument, whether the tool used is reliable and remains consistent if the measurement can be repeated. In this reliability test, the SPSS program was used with the Cronbach's Alpha method. To test the reliability of the same instrument used the Cronbach's Alpha formula. This formula is used to see the extent to which the measuring instrument can give relatively no different results when re-measuring the same symptoms at different times. So the measurement of reliability is concerned with the consistency and accuracy of the measurement. The results of the SPSS instrument reliability test are as follows:

**Table 4.8.** Overall Results of Reliability Test

Variable	Alpha Cronbach	> / <	Constant	Information
Go-Ride service quality	0.960	>	0.60	Reliable
Go-Ride customer satisfaction	0.670	>	0.60	Reliable

Variable	Alpha Cronbach	> / <	Constant	Information
GrabBike service quality	0.921	>	0.60	Reliable
GrabBike customer satisfaction	0.832	>	0.60	Reliable

Source: SPSS data processing (2020)

From the output table of the reliability test results above, it can be seen that the Cronbach Alpha value for all variables used in this study is greater than 0.60. So it can be concluded that all variables in this study are reliable.

#### 4.4. Statistic analysis

##### 4.4.1. Analysis of differences in service quality for users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village

In this study, researchers used t test analysis for two paired samples (paired sample t test) using the SPSS Program (Statistical Product and Service Solution) Version 25.00. The t test for two paired samples (paired sample t test) is used to test the comparison of two pairs of samples or means a sample with the same subject but experiencing two different treatments or measurements. Regarding the data that will be processed in the SPSS Ver. 24.00 is data that comes from the quality of service for users of the Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village

To find out the significant average difference between the quality of service for users of the Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village. Hypothesis testing will be carried out using statistical hypothesis testing with a two-way difference (tcount) as shown in the following results:

**Table 4.9.** Results of SPSS Outputs Different Test Two Average quality of service to users of transportation services *on line* Go-Ride and GrabBike in Cempaka Putih Timur Village

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Mean Error	95% Confidence Interval of the Difference				
				Lower	Upper			
Paired Sample 1 TotKP_Go - TotKP_Grab	-1.34000	8,65108	1,22345	-3,79861	1,11861	-1,095	49	,279

Source: SPSS data processing (2020)

The hypothesis proposed is:

Ho:  $\mu_1 = \mu_2$  (there is no significant average difference between the quality of service for users of online transportation services Go-Ride and GrabBike in Cempaka Putih Timur Village)

H1:  $\mu_1 \neq \mu_2$  (There is a significant average difference between service quality for users of transportation services *on line* Go-Ride and GrabBike in Cempaka Putih Timur Village)

Ho is accepted, H1 is rejected if  $-t_{(\alpha/2; n-2)} < t_{\text{arithmetic}}$  or  $t_{\text{count}} < t_{(\alpha/2; n-2)}$

Ho is rejected, H1 is accepted if  $t < -t_{(\alpha/2; n-2)}$  or  $t_{\text{count}} > t_{(\alpha/2; n-2)}$



The calculation of the t table is:

$$\begin{aligned} \alpha &= 5\% \text{ for } n \leq 30 \\ \text{t table} &= t (\alpha/ 2; n1 + n2-2) \\ &= t (0.025.50 + 50-2) \\ &= t (0.025; 98) \\ &= 2,276 \end{aligned}$$

Based on the results of the calculation of the hypothesis test about the difference between the two means, the t-count value is -1.095 and the t-table value is 2.276. Thus the t-value <t-table value (-1.095 <2.276) or the sig value> 0.05, namely 0.279> 0.05, so the hypothesis states that there is no significant average difference between service quality for users of transportation services. online Go-Ride and GrabBike in Cempaka Putih Timur Village are accepted.

#### 4.4.2. Analysis of differences in customer satisfaction among users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village

To find out the significant average difference between customer satisfaction for users of the Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village. Hypothesis testing will be carried out using statistical hypothesis testing with a two-way difference (tcount) as follows:

**Table 4.10.** Results of SPSS Outputs Different Test Two The average customer satisfaction for users of transportation services *on line* Go-Ride and GrabBike in Cempaka Putih Timur Village

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Mean Error	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 TotKep_Go - TotKep_Grab	2,02000	4,89269	69193	62951	3,41049	2,919	49	,005

Source: SPSS data processing (2020)

The hypothesis proposed is:

Ho:  $\mu_1 = \mu_2$  (there is no significant average difference between customer satisfaction for users of online transportation services Go-Ride and GrabBike in Cempaka Putih Timur Village)

H1:  $\mu_1 \neq \mu_2$  (There is a significant average difference between customer satisfaction on users of transportation services *on line* Go-Ride and GrabBike in Cempaka Putih Timur Village)

Ho is accepted, H1 is rejected if  $-t (\alpha/ 2; n-2) < t \text{ arithmetic or } tcount < t (\alpha/ 2; n-2)$

Ho is rejected, H1 is accepted if  $t < - t (\alpha/ 2; n-2)$  or  $t \text{ count} > t (\alpha/ 2; n-2)$

The calculation of the t table is:

$$\begin{aligned} \alpha &= 5\% \text{ for } n \leq 30 \\ \text{t table} &= t (\alpha/ 2; n1 + n2-2) \\ &= t (0.025.50 + 50-2) \\ &= t (0.025; 98) \\ &= 2,276 \end{aligned}$$

Based on the results of the calculation of the hypothesis test about the difference between the two means, the tcount value is 2.919 and the t-table value is 2.276. Thus the t-value > t-table value (2.919 > 2.276) or the sig value <0.05, namely 0.005 <0.05, so the hypothesis states that there is a significant average difference between customer

satisfaction perceptions of users of online transportation services. Go-Ride and GrabBike in East Cempaka Putih Village were rejected.

#### 4.6. Research Findings

Based on the results of the analysis of the two difference test on average, it shows that there is an insignificant difference in service quality users of Go-Ride and GrabBike online transportation services in East Cempaka Putih and there is a significant difference in customer service satisfaction for users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village. The following is a complete description of the differences in service quality and customer satisfaction for users of Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village. This is reinforced by studies conducted by several people in their journals which state that there is no significant difference between service quality and there is a significant difference in customer satisfaction.

The study found differences between service quality users of Go-Ride and GrabBike online transportation services in East Cempaka Putih Village, however the difference is not significant (real). Even though Go-Ride has the highest average score but both of them still have the same quality of service, Service Quality in terms of physical facilities (Tangible) such as the condition of a clean-looking driver, the driver uses shoes, the jacket used by the driver does not smell, the driver provides a helmet for users and vehicles used that are fit for use. In terms of Go-Ride and GrabBike reliability, for example, such as careful drivers, drivers are always available, there are notifications when there is a delay, drivers obey traffic regulations and drivers can be contacted via messages (chat) in the application. In terms of responsiveness (responsiveness) Go-Ride and GrabBike, for example, such as drivers immediately confirm orders, The driver comes immediately after receiving the order, the driver is quick to respond to customer complaints, and the driver immediately puts a coat on when it rains. In terms of assurance (assurance) Go-Ride and GrabBike, for example, such as drivers can drive a motorcycle well, drivers have knowledge of information about the road / address to be headed, the availability of complaint services on the application, the availability of insurance guarantees for users and drivers notify if any items left behind. In terms of empathy (empathy) Go-Ride and GrabBike, for example, such as drivers helping customers to lift goods, drivers are polite and friendly, provide services according to ethics and profession, and do not differentiate between services to customers. In terms of assurance (assurance) Go-Ride and GrabBike, for example, such as drivers can drive a motorcycle well, drivers have knowledge of information about the road / address to be addressed, the availability of complaint services in the application, the availability of insurance guarantees for users and drivers notify if any items left behind. In terms of empathy (empathy) Go-Ride and GrabBike, for example, such as drivers helping customers lift goods, drivers are polite and friendly, provide services according to ethics and profession, and do not differentiate between services to customers. In terms of assurance (assurance) Go-Ride and GrabBike, for example, such as drivers can drive a motorcycle well, drivers have knowledge of information about the road / address to be headed, the availability of complaint services on the application, the availability of insurance guarantees for users and drivers notify if any items left behind. In terms of empathy (empathy) Go-Ride and GrabBike, for example, such as drivers helping customers lift goods, drivers are polite and friendly, provide services according to ethics and profession, and do not differentiate between services to customers. The availability of insurance guarantees for users and drivers notifying if there are items left behind. In terms of empathy (empathy) Go-Ride and GrabBike, for example, such as drivers helping customers lift goods, drivers are polite and friendly, provide services according to ethics and profession, and do not differentiate between services to customers. The availability of insurance guarantees for users and drivers notifying if there are items left behind. In terms of empathy (empathy) Go-Ride and GrabBike, for example, such as drivers helping

customers to lift goods, drivers are polite and friendly, provide services according to ethics and profession, and do not differentiate between services to customers.

In addition, the study also found a difference between Go-Ride and GrabBike customer satisfaction, but this difference was not significant (real). Go-Ride has the highest average value, so it can be concluded that Go-Ride customer satisfaction is higher than GrabBike. Customer satisfaction can be seen from consumer behavior after using Go-Ride or GrabBike, for example, such as the consumer reusing Go-Ride and GrabBike again at another time, the consumer suggests friends or relatives to use Go-Ride and GrabBike, and customer satisfaction can be measured based on the quality of service provided by Go-Ride or GrabBike.

## **V. CONCLUSIONS AND SUGGESTIONS**

### **5.1. Conclusion**

Based on the results of the research that has been done, it can be concluded as follows:

1. There is no difference in the perception of service quality for Go-Ride and GrabBike users in Cempaka Putih Timur Village. This means that Go-Ride and GrabBike users view that the service quality of the two online transportation services is the same
2. There is a difference in customer satisfaction for Go-Ride and GrabBike service users in Cempaka Putih Timur Village, meaning that Go-Ride and GrabBike users experience different satisfaction between the two online transportation services.

### **5.2. Suggestion**

From the results of this study, there is no difference in Service Quality between Go-Ride and GrabBike online transportation services, so the researchers provide the following suggestions:

1. Online transportation service providers Go-Jek and Grab can maintain Service Quality by increasing innovation in each company so that consumers feel satisfied when using these services and can increase the number of customers and be able to maintain the number of customers.
2. The results of this study can be used for development science in marketing management, especially for service quality.
3. This study has limitations in terms of aspects that can be used as benchmarks for service quality which have not all been discussed, therefore for future researchers it can discuss other aspects that have not been studied in this study.

### **5.3. Limitations and Further Research Development**

The limitations that exist in this study are as follows:

1. In this study, researchers only focus on using service quality and customer satisfaction.
2. Objects and subjects used as samples in this study using employees in the East Cempaka Putih Village.
3. In this study, researchers used a comparative analysis with two different tests as a method of analyzing research data.
4. This study only knows and analyzes service quality and customer satisfaction for users of the Go-Ride and GrabBike online transportation services in Cempaka Putih Timur Village. For Further Researchers, some suggestions that need to be considered for the next writer who is interested in researching the comparative analysis of Go-Ride and GrabBike are: to study other variables, to be able to assess more deeply the differences between Go-Ride and GrabBike online motorcycle taxi services. The research is

expected to help companies make improvements, be able to compete and survive with other similar companies and become market leaders.

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