

# Building satisfaction and loyalty of student users ojek online through the use of it and quality of service in tangerang city

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**Abstract.** Online motorcycle is part of a breakthrough in the field of technology that uses applications as a liaison between users and drivers that greatly facilitates booking, in addition to routes and fares that can be directly seen to make it easier for users to calculate how much time and how much it costs to pay for his journey. Moreover, in some consumers online transportation applications are inherent in everyday life. For those whose homes are far from the reach of public transportation, online motorcycle taxis are very reliable. The purpose of this study was to determine the effect of IT utilization and service quality on the satisfaction and loyalty of students who use online motorcycle. This research was conducted in July and August 2019 in Tangerang City. The respondent is a student who uses online application-based transportation focused on Grab and Go-Jek considering that the two companies are the most popular in Tangerang City as many as 100 students. Utilization of IT through the use of the Gojek application includes 19 types of services, has 12 bank partners, collaborates with 125,000 merchants while Grab only has 8 services, but more driver partners, 2 million driver partners on the platform (two wheels and four wheels), controls 95% third-party taxi hailing market share and 75% private vehicle hailing. The analysis shows that there is a significant influence between IT users and service quality with customer satisfaction and loyalty online motorcycle.

## 1. Introduction

Along with the community's need for a fast mode of transportation, especially Jabodetabek, online ojek has become an alternative transportation and provides solutions to face traffic congestion. Online motorcycle taxi is part of a breakthrough in the field of technology that uses applications as a liaison between users and drivers that greatly facilitates booking, in addition to routes and fares that can be directly seen to make it easier for users to calculate how much time and how much it costs to pay for his journey. Moreover, in some consumers online transportation applications are inherent in everyday life. For those whose homes are far from the reach of public transportation, online motorcycle taxis are very reliable.

In his study in Jakarta, Dewanto [1], [2], [3] showed that online motorcycle taxis for the people in the capital city were considered as 'heroes' who could penetrate increasingly severe traffic jams and be used by all levels of society, as well as opening up new jobs for the community.

A survey conducted by the Indonesian Consumers Foundation (YKLI), in April 2017 related to the existence of online-based public transportation that is not covered by the route, revealed the reasons put forward by people who chose or used online transportation, namely: cheap (84.1% ), fast (81.9%), comfortable (78.8%), and safe (61.4%). This shows that the generosity of the service tariff ranks first in



the respondents' choice. The modes of transportation chosen by consumers are online transportation of cars and motorcycles (55%); car only (24%), and motorbike only (21%). In addition, Go-Jek has the highest rating of consumer choice (72.6%); followed by Grab (66.9%); then Uber (51%), and finally My BlueBird (4.4%) [4]. Interestingly, although Uber is not very popular as an online transportation service, it was chosen by 51% of respondents, while My Bluebird was chosen by only 4.4% of respondents. This is probably due to the Bluebird image that despite having a 'good name' in transportation services, but the 'expensive' image is also attached to it, making it less desirable by transportation service users.

Based on 2018 data shows that Gojek drivers can serve 3 million active users per day with 19 types of services and downloaded 70 million times, of which around 30% -40% are concentrated in Jakarta. Grab can serve 3.5 million trips per day with 8 services and 68 million downloads. ([5]. Based on data from the Ministry of Transportation, the number of drivers owned by an application provider company reached 175,000, an increase of 9,000 in 3 weeks. This figure also far exceeds the quota of 36,510 drivers set. Thus, the number of online motorcycle taxi drivers becoming more also has an impact on waiting times becoming longer. The streets will be increasingly filled with online ojeg which can be said to be underemployed because of waiting too long for passengers. Finally, online motorcycle taxis will be inefficient, like public transportation, which is everywhere because waiting passengers is too long [6].

The increasing number of motorcycle taxi online has an impact on increasingly intense competition. The factors causing this are price competition and the many alternative choices of online motorcycle taxi services. This makes consumers more selective [7] [8]. Consumers will choose one of the alternative choices according to what they want. Anticipating these conditions, online motorcycle taxi companies must be able to create quality services and prices accordingly in order to create customer satisfaction. The main key to win the competition, while the way can be overcome by providing value and satisfaction to consumers through service quality and the use of information technology.[9] If the customer is satisfied with the quality of service and the use of information technology provided by the company, it will cause customer loyalty so that interest in using services increases and makes customers loyal to the company's products [10].

Juniartono research [11] on the level of service satisfaction CV. Delta Trans obtains the difference between consumers' perceptions of the services received and consumer expectations of the services to be received. From these studies, it can be interpreted the existence of IT services on quality online motorcycle taxi applications will affect customer satisfaction. Satisfied consumers can be an effective source of marketing for companies, one of them by recommending IT services on online motorcycle taxi applications to other parties thereby increasing the number of online motorcycle taxi customers. The level of satisfaction has also been examined by Wulandari [12], and Rifaldi [13] from the research conducted, the assessment of service quality by adopting customer satisfaction will be measured from tangible, empathy, responsiveness, reliability, and assurance.

From the description above, the purpose of this study is to determine the effect of IT utilization and service quality on the satisfaction and loyalty of students who use online motorcycle taxi.

## **2. Literature review**

### *2.1. Customer satisfaction*

According to Zeithaml and Bitner [14] customer satisfaction is the response or response of consumers regarding the fulfillment of needs. Satisfaction is an assessment of the characteristics or features of a product or service, or the product itself, which provides a level of consumer pleasure related to the fulfillment of consumer consumption needs.

### *2.2. Customer loyalty*

The term customer loyalty according to Swastha [15] [16] actually comes from brand loyalty which reflects customer loyalty to certain brands. Customer loyalty can be formed if the customer is satisfied with the brand or the level of service received, and intends to continue the relationship [17].

### 2.3. *Quality of Service*

Kotler and Keller [18] explain that Quality is the totality of features and characteristics of a product or service that depends on its ability to satisfy expressed or implied needs.

### 2.4. *Utilization of Communication Technology*

According to Geenhuizen [19], ICT is a collection of heterogeneous technologies (hardware and software) that make it possible to do electronic communication, processing and collecting data in distributed networks, as well as electronic management and guidance through sensor technology.

### 2.5. *Hypothesis Formulation*

H1 Physical evidence has a positive effect on Satisfaction

H2 Reliability has a positive effect on Satisfaction

H3 Response has a positive effect on Satisfaction

H4 Certainty has a positive effect on Satisfaction

H5 Empathy has a positive effect on Satisfaction

H6 Effectivity has a positive effect on Satisfaction

H7 Efficiency has a positive effect on Satisfaction

H8 Productivity has a positive effect on satisfaction

H9 Satisfaction has a positive effect on Loyalty

## 3. Research methods

The type of data used in this paper is primary data, primary data that is the source of writing data obtained directly, without going through intermediary media. Primary data in this study are in the form of questionnaires that are distributed online to students in the city of Tangerang.

This research was conducted in July and August 2019 in Tangerang City. The respondent is a student who uses online application-based transportation focused on Grab and Go-Jek considering that the two companies are the most popular in Tangerang City as many as 300 students.

The object of this research is focused on 2 (two) largest online motorcycle taxi companies in Indonesia, namely PT Gojek Indonesia and Grab Bike. Researchers took the two focus of the Ojek Online company because of the large number of people, especially in Jakarta and surrounding areas who use Ojek Online transportation from these companies. Both of these research objects can provide a representative and comprehensive analysis of the application of appropriate communication technology to Ojek Online so that it can provide a good change from the social system, habits and mindset of the community.

**Table 1.** Operational Research Variables

No	Variable	Dimension
1	Service quality	Physical Proof (X1.1) Reliability (X1.2) Responsiveness (X1.3) Certainty (X1.4) Empathy (X1.5)
2	Use of information technology	Effectivity (X2.1) Efficiency (X2.2) Productivity (X2.3)
No	Variable	Dimension
3	Satisfaction	The company's ability to meet consumer expectations
4	Loyalty	is formed from a feeling of customer

satisfaction about the level of service received and leads to a desire to continue the relationship

Source: various literature studies that have been processed

Data analysis is an attempt to solve research problems to obtain answers to the problems studied. This study uses quantitative descriptive analysis of student attitudes on the use of online motorcycle taxis and used statistical analysis in analyzing the factors that affect the satisfaction and loyalty of students who use online motorcycle taxi.

**4. Analysis results**

*4.1. Descriptive Analysis Results*

Ojek Online which is equipped with a guaranteed safety system and also uniformity in clothing and helmets makes the image of a motorcycle taxi that used to be a lowly job, is now increasing in prestige.

The presence of Gojek and Grab Bike turned out to change the paradigm of the public about the safety of public transportation. The advantages of Gojek and Grab Bike which are equipped with applications that are connected to the data base storage and GPS can provide information about the identity of the driver. With these advantages, the public will easily find out who will be the driver of the motorcycle taxi transportation order, complete with the driver's personal data concerned.

The completeness of the data and the identity of the driver that is in the Grab Bike and Gojek application is proof that Ojek Online places great importance on the safety factor for its consumers. In the application, complete information about the driver is available, such as the name, contact, and photo of the driver. This Ojek Online service can only be obtained through ordering via the GoJek application, so customers can ensure their security and accountability.

**Table 2.** Changes in the social system from an Online Motorcycle taxi Innovation

No	Before the existence of online motorcycle innovation	After the online motorcycle innovation
1	Conventional ordering	Order online using the Ojek Online application that is installed on the user's Smartphone
2	Limited place and time to use public transportation	Anytime and Anywhere (24 hours), people can access, order and use public transportation
3	The Congestion Problem becomes a public transportation obstacle	Transportation solutions when there is traffic
4	Lack of Public Transportation Security	Guaranteed Online Motorcycle Transportation Security
5	Ojeg image as a lowly job	Improving Ojek's image as a prestigious job
6	Lack of operational service standards for transportation services	The existence of operational standards of service on Ojek Online: Friendly, clean, neat service and in accordance with driver safety standards
7	There is no business in the field of services that collaborates with internet communication technology	More and more businesses in the field of services are collaborating with internet communication technology, especially for ordering the use of these services

Source: processed data

*4.2. Statistical Analysis Results*

**Table 3.** Analysis results

Model	Coef.(β)	St. Error	t-value	p-Value	Supported (Y/N)
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Physical proof	→		0,185	0,095	4,396	0,000	Y
satisfaction							
Reliability	→	satisfaction	0,492	0,120	5,409	0,000	Y
Responsiveness	→	satisfaction	0,273	0,034	3,927	0,006	Y
Certainty	→	satisfaction	0,851	0,327	3,448	0,011	Y
Empathy	→	satisfaction	0,965	0,432	6,281	0,000	Y
Effectiveness	→	satisfaction	0,708	0,322	5,183	0,014	Y
Efficiency	→	satisfaction	0,690	0,210	4,540	0,025	Y
Productivity	→	satisfaction	0,378	0,280	4,292	0,002	Y
Loyalty	→	satisfaction	0,624	0,362	4,826	0,000	Y

Source: processed data

From the table above we can see a model for the influence between:

1. Physical evidence with satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.185, > 4.396, < 0.000$ ).
2. Reliability with satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.492, > 5.409, < 0.000$ ).
3. Responsiveness with Satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.273, > 3.927, < 0.006$ ).
4. Certainty with satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.851, > 3.448, < 0.011$ ).
5. Empathy with Satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.965, > 6.281, < 0.000$ ).
6. Effectiveness with Satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.708, > 5.183, < 0.014$ ).
7. Efficiency with Satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.690, > 4,540, < 0.025$ ).
8. Productivity with Satisfaction shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.378, > 4.292, < 0.002$ ).
9. Satisfaction with Loyalty shows a significant positive effect between variables. Statistical results support the hypothesis ( $= 0.624, > 4,826, < 0,000$ )

## 5. Conclusion

### 5.1. Conclusion

- Physical evidence, reliability, responsiveness, certainty and empathy have a positive effect on customer satisfaction. This result proves that the public is now very facilitated by the availability of Ojek Online transportation, especially for ordering. Wherever and whenever, quickly and in real time, people can easily mobilize anywhere by having an application that is connected with this internet technology. Businesses that utilize virtual applications to facilitate ordering transportation are Gojek and Grab Bike businesses.[3]. If the company does something that is not in accordance with customer expectations, it means that the company does not provide good service quality [20]. This conclusion shows that a service is needed in shaping customer satisfaction, because the better the experience the customer feels during the service delivery process, the higher the customer satisfaction [7].
- Efficiency, efficiency and productivity have a positive effect on customer satisfaction.
- Satisfaction shows the measurement of the extent to which a motorcycle taxi application user feels comfortable with the application used. Satisfaction can be measured based on subjective judgments on stars given by passengers, such as difficulty running the application, internet error, no gps according to the location of the passenger, it is difficult to get a motorbike driver, ease of application, suit communicate with the driver of the motorcycle, or the extent of the driver to the driver [21].

- Satisfaction has a positive effect on consumer loyalty. Consumer loyalty is a consumer's commitment to a market based on a positive attitude and reflected in consistent repurchases [22]. Customer satisfaction has an influence on customer loyalty online transportation Gojek, with more satisfaction using Gojek services, consumers will always use Gojek in carrying out its activities. [23].

### 5.2. Managerial Implications

The presence of Ojek Online is an innovation in the application of appropriate communication technology that is very useful for the community. The innovation offered by Ojek Online is the merging of transportation service provider businesses with internet-based data communication technology, so there is a need to improve the quality of service to increase customer satisfaction and loyalty.

Online motorcycle consumers who are satisfied with the services and utilization of information technology that has been provided so far can make their loyalty attitude grow towards services and will continue to use these services. So it is necessary to maintain and improve services and utilization of information technology that has been given at this time, so that the level of customer satisfaction and loyalty can increase. As well as looking for ways to maintain and achieve the loyalty of its users by realizing programs that make customer satisfaction increase. In addition, online motorcycle taxi management also needs to increase the use of information technology through more responsive application updates or innovations and the addition of useful features.

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