

GOJEK VS GRAB: WHICH ONE IS BETTER IN CREATING CUSTOMER SATISFACTION AND LOYALTY?

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Abstract: Online ride-hailing is now becoming a popular option for customers to travel worldwide, including for consumers in Indonesia. However, the Covid-19 pandemic caused many force majeure problems for companies serving online ride-hailing services. These situations lead to numerous customer dissatisfaction, low switching cost, and disloyalty for customers to use online ride-hailing services. In particular, this study aims to investigate the comparison of customer satisfaction and loyalty level between Gojek and Grab. This study used the online-survey method with a total sample of 569 usable online responses. The data analysis was carried out by calculating the importance-performance analysis, customer satisfaction index, and customer loyalty index. Our findings illustrate that the competition between two companies is very tight and competitive. Based on service satisfaction, Gojek is slightly better than Grab. Nevertheless, in terms of loyalty, the level of loyalty of Grab consumers is more loyal than Gojek consumers. Hence, instead of competing head to head, it would be more effective for Gojek and Grab to have diverse service strategies to provide more varied benefits to society.

Keywords: Online ride-hailing, customer satisfaction, customer loyalty, Gojek, Grab

Introduction

Online ride-hailing transportation services have been introduced in Indonesia since 2010 and became popular with the public in 2014 (Pratama et al., 2017). Currently, two online ride-hailing companies dominate the market in Indonesia. The two online ride-hailing companies are Gojek and Grab. Gojek was founded in 2010 by Indonesian Nadiem Makarim, while Grab was founded in 2012 by Anthony Tan in Singapore.

As it developed, both Grab and Gojek faced major problems from the Covid-19

pandemic and impacted the revenue decrease that led to drivers' dedication to their work. The comparison between drivers' income before and after the pandemic is significant. They were expected to get income above the regional minimum wage per domicile in Indonesia. However, in reality, they got income from online ride-hailing orders below the average of regional minimum wage. (Bukhari & Ramadhan, 2020). However, although consumers can well receive online transportation in Indonesia, many consumers are still dissatisfied and

disappointed with the services provided, starting not to get proper facilities such as masks and head coverings, unfriendly drivers, and the driver's behaviour not ethical.

Table 1. List of causes disappointment online ride-hailing consumers (YLKI, 2017)

No	Consumers disappointment reason	Percentage (%)
1	The driver asks to cancel	22.30
2	It is difficult to get the driver	21.19
3	Motorists unilaterally cancel	16.22
4	Map application crashes	13.11
5	The number plate is not the same as the vehicle being brought	12.06
6	The driver does not come	6.34
7	The condition of the vehicle is not good	6.04
8	Driver dishonesty	5.03
9	The driver starts the trip before meet the customers	4.97
10	Drivers are reckless	4.73
11	Vehicles smell of cigarette smoke	4.61
12	Drivers don't want to be informed	2.89
13	Drivers smoke while driving	0.75

The dominant opinion of consumers who value online transportation services is positive, and it does not seem necessary to erase consumer disappointment. Because, based on a survey conducted by the Indonesian Consumers Foundation (*Yayasan Lembaga Konsumen Indonesia*) in 2017, almost half of the online ride-hailing users have been disappointed when using that services. Based on the survey results, many problems were revealed that caused customers feel disappointed and dissatisfied (Table 1).

Another fact in service consumers' online ride-hailing today is the ease users can switch from one service provider to another. This low switching cost can be seen from the number of consumers who have both

applications from these service providers at once. In a business that is run online and competition is only a few clicks away, consumers have very minimal barriers to switching from one service provider to another (Yang & Peterson, 2004). Consumers choose transportation services online based on the cheapest price comparisons, so companies respond to this by providing discounted promos to attract consumer interest. This price war strategy is certainly not good for the company's sustainability in the future because if there is a new company with the same service and offering a lower price, consumers will quickly switch to the other online ride-hailing service. Loyal customers are essential for business continuity, so attracting buyers and maintaining their loyalty is essential for companies (Yen & Lu, 2008). Companies must increase loyalty by satisfying customers based on marketing theory and practical experience, thereby obtaining and maintaining an advantage in a highly competitive business environment. This is because the main output of customer satisfaction is customer loyalty (Aydin & Ozer, 2005).

Although online ride-hailing services have been widely accepted by consumers and received positive responses, there are problems faced by service providers, online ride-hailing companies, and the number of consumers who are allegedly disappointed and dissatisfied with the services provided. Coupled with the low switching costs, it is easy for consumers to switch from one service provider to another. This behaviour is certainly not good for the company's sustainability going forward. Therefore, it is necessary to compare service quality and level of loyalty to Gojek and Grab so the company can find out where its position is compared to its competitors and know what

is important for customer satisfaction to formulate the proper strategy.

This study has two objectives: (1) mapping the importance of Gojek and Grab service attributes, (2) examining the comparison of Gojek and Grab customer satisfaction and loyalty. In addition, companies can use recommendations from the results of this study to evaluate and improve the quality of Gojek and Grab consumer services so that companies can evaluate and formulate managerial implementations to strengthen customer loyalty.

Conceptual Framework

Online Ride-Hailing

Innovation in the transportation sector with the principle sharing economy has created a new service industry sector, by way of explanation is the online ride-hailing services (Wibawa et al., 2018). According to Feeney (2015), online ride-hailing is a transportation platform where customers and service providers interact in a peer-to-peer marketplace facilitated by the Internet. Online ride-hailing users can download the application on their smartphone and then register. After that, every time they need transportation, the user needs to input the pick-up address and destination, and a few seconds later they will be contacted by the driver who will pick them up and drop them off at their destination. The online ride-hailing services in Indonesia have currently been classified as the types of transportation used, such as car-hailing, bike-hailing, and carpooling (Rainaldo et al., 2017). Therefore, online ride-hailing is included in the business model sharing economy (Cohen & Kietzmann, 2014). Sharing economy can be interpreted as an abased activity peer-to-peer to obtain, provide, or share access to goods and services

coordinated through services online (Hamari et al., 2015).

The sharing economy works where the owners of resources such as vehicles and human labour can provide temporary access to their resources to customers. The role of online ride-hailing companies is as an intermediary in providing a marketplace platform that brings together the owners of these resources with customers. Although online ride-hailing has a vital role in the urban transportation cycle, the rates for online ride-hailing services are much more affordable than conventional transportation services and access is not bound by time and place (Irawati & Ezrani, 2018).

Customer Satisfaction

According to Oliver (1980), customer satisfaction is a customer's reaction after they use a product or service. These reactions arise based on fulfilling the expectations given by the products or services consumed. In general, satisfaction is a feeling of pleasure that arises from comparing the product's perceived performance to their expectations. If performance fails to meet expectations, the customer will be dissatisfied. If performance matches expectations, customers will be satisfied. If performance exceeds expectations, customers will be very satisfied or happy (Kotler & Keller, 2016). Meanwhile, Tse and Wilton (1988) state that customer satisfaction or dissatisfaction is the customer's responsibility to evaluate, disconfirmation the perception between previous expectations and the product's actual performance that is felt after its use. Based on these definitions, it can be underlined that customer satisfaction is a customer's psychological reaction after using a product or service and feeling the benefits that match or exceed his expectations.

Customer Loyalty

Oliver (1999) stated that loyalty is a consumer's willingness to continue purchasing at a company in the long term and use the product or service repeatedly. They also recommend it to friends and other companies voluntarily. Consumer loyalty is a deeply held commitment to buy or re-support a preferred product or service in the future, even though situational influences and marketing efforts have the potential to cause customers to switch (Karya, 2020). Based on these definitions, customer loyalty is a condition where customers are willing to use a product or service repeatedly for a long period and recommend it to others and are not easily influenced by competitors' product offerings. Customer satisfaction has a relationship with loyalty. Two things can be used as a measure of loyalty. The first is indicated by the tendency of customers to continue to use the product or service, which is realized by making repeat purchases. Then the second is the tendency of customers to recommend products or services that are consumed or used by their relatives (Wibawa and Aryanto, 2016).

The four characteristics of loyal customers are making regular purchases, buying outside the product or service line, recommending products to others, and showing immunity from the appeal of similar products from competitors (Griffin, 2010). Meanwhile, Bilgihan (2016) stated that Generation Y or Millennial Generation as the generation that will dominate the market in the future is the most faithless generation compared to previous generations and finds that trust and brand equity determine the loyalty of the millennial generation.

Service Quality

Service Quality is defined as an assessment of how well the services delivered match the client's expectations. Service business operators often assess the quality of services provided to their customers to improve their services, quickly identify problems, and better assess client satisfaction (Patterson & Spreng, 1997). Assessing the quality of service can be done by using the method of service quality (Parasuraman et al., 1985). Service quality, often referred to as ServQual, aims to assess consumer perceptions of service quality (Karya, 2016). ServQual consists of five dimensions. Those are tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988).

The eService Quality (eServQual) theory is a modification of the theory ServQual, which aims to assess the quality of a service based on information systems and is generally online based. According to Yen & Lu (2008), eServQual is related to user satisfaction and system success in information systems and is also related to customer satisfaction, retention, and loyalty in marketing.

Online transactions are complex processes divided into sub-processes such as navigation, information retrieval, negotiation, payments online, shipping, and after-sales service. Thus, eService quality contains multi-components, which reflect two attributes in the measurement: system attributes and service attributes (Yen & Lu, 2008). eServQual has six attributes which are explained in Table 2.

Table 2. Attributes of eService Quality (Yen & Lu, 2008)

eService Quality	Attributes
	Efficiency
	System Availability
	Privacy Protection
	Contact
	Fulfillment

	Responsiveness
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RESEARCH METHODS

This study will be using conclusive-descriptive and multiple cross-sectional as the research methods. This study requires data representing the characteristics of satisfaction and loyalty of service users online ride-hailing to answer the questions raised in this study. The data was obtained through the questions posed in the questionnaire.

The questionnaire in this study uses a Likert Scale of 1-5 (1 = strongly disagree and 5 strongly agree) (Malhotra et al., 2017). The questionnaire was distributed online using the Google Form platform to reach a broader range of respondents. Dissemination of online questionnaires has the advantage of accessing a large and geographically distributed population (Lefever et al., 2007). The sampling technique used is convenience sampling, with the respondent's criteria being that they have experienced services from Gojek and Grab ride-hailing within the last two months. The use of convenience sampling was chosen because the population could not be determined, and it was possible to collect as much data as possible (Piero et al., 2018). The target respondents in this study were a minimum of 500 respondents. The analytical tools used in this study are the importance-performance analysis, customer satisfaction index, and customer loyalty index.

The variables in this study will adopt the components of eService Quality proposed by Yen & Lu (2008): efficiency, system availability, privacy protection, contact, fulfilment, and responsiveness. The following is an overview of the research variables, their definitions, and

the operationalization of the variables (Table 3).

Table 3. Definition of Operational Variables
(Source: Yen & Lu, 2008)

Dimension	Indicators Variables	Definition
<i>Efficiency</i>	Information	The information contained in the application (such as promos, locations, vehicles) is by existing conditions.
	Appearance	The appearance of the application is well organized
	Convenience	application is easy to use
	Ease of transaction	Transactions on the application are easy to do
<i>System Availability</i>	System availability	The application can always be used
	System speed	When the application is opened smoothly without loading
	System reliability	The application always runs well without crashes
	System expedite	When placing an order system, the application does not freeze or run smoothly
<i>Privacy Protection</i>	Security	The application has a good level of security.
	Data privacy	The application does not share personal data with other parties.
	Data protection	The application protects my data from unauthorized parties.
	Confidentiality	The application keeps my transaction history confidential.
<i>Contact</i>	Contact	The application always provides the driver's phone number.

Dimension	Indicators Variables	Definition
	Contactable	The driver is always contactable.
	Customer service	There is customer service that can be contacted if a problem occurs.
	Communication platform	There is an online communication platform in the application between me and the driver.
<i>Fulfillment</i>	Suitability	The driver who arrives as stated on the Application
	Punctuality	The driver arriving according to the estimated pick-up listed on the Application
	Fulfillment	The driver delivers according to the ordered destination (not stopping in the middle of the trip).
	Compliance Fulfillment	The driver delivers according to the route stated on the Application
<i>Responsiveness</i>	Responses	The driver responds to my requests quickly (such as asking for a mask, driving slowly, stopping somewhere, etc.).
	Communication	Driver Notifies me when unable to make a pick-up.
	Act fast	Drivers act quickly when a problem occurs.
	Honesty	The driver returns the items left behind.
<i>Loyalty</i>	Recommend	Would recommend the brand to people asking for advice

Dimension	Indicators Variables	Definition
	Positive comments	Willing to speak positively about the brand
	Intend to be loyal	Willing to continue use the brand
	Loyalty	Definitely to continue use the brand

RESULTS AND DISCUSSION

Data was collected by distributing questionnaires online and was carried out in February-March 2021. From the results of broadcasting the questionnaires, 644 respondents were participated, with 569 respondents who successfully passed the process screening stage. The following is a demographic and usage table provided from data collected (Table 4 and Table 5).

Table 4. Demographics of Respondents

Demographic	Frequency	Percentage (%)
Gender		
Male	131	23.0
Female	438	77.0
Total	569	100.0
Age		
12-18 Years	181	31.8
19-24 Years	340	59.6
25-40 Years	39	6.9
41-60 Years	9	1.6
>60 Years	0	0
Total	569	100.0
Age		
12-18 Years	181	31.8
19-24 Years	340	59.6
25-40 Years	39	6.9
41-60 Years	9	1.6
>60 Years	0	0
Total	569	100.0
Jobs		
Students	464	81.5
ASN	7	1.2
Private Employees	64	11.2
State-owned	3	0.5
Enterprise Employees		
Entrepreneurs	15	2.6
Others	16	3.0
Total	569	100.0

Table 5. Usage

Usage	Frequency	Percentage (%)
Average usage per month		
1 Time	32	5.6
2-4 Times	190	33.4
4-6 Times	80	14.1
> 6 Times	267	46.9
Total	569	100.0
Most frequently used		
Gojek	261	45.9
Grab	308	54.1
Total	569	100.0
Most preferred provider		
Gojek	272	47.8
Grab	297	52.2
Total	569	100.0
Purpose		
Go to work/office	65	11.4
Go to school/college	236	41.5
Travel to shopping centers/malls	136	23.9
Others	132	23.2
Total	569	100.0
Most preferred payment method		
Cash	382	67.1
In Apps Wallet (GoPay / GrabPay)	182	32.0
Other	5	0.9
Total	569	100.0

The first analysis is the Importance-Performance Analysis (IPA), which produces an output in visual display in a chart that shows the distribution using four quadrants (Martilla & James, 1977). This study analysed the importance-performance analysis for each online transportation service provider, specifically Gojek and Grab. The first step of importance-performance analysis is to calculate the level of conformity, calculate the mean importance and mean satisfaction of each indicator and calculate the gap between interest and satisfaction according to Gojek customers (Table 6). The calculation of the mean of each indicator will later be used as a cut-off point in the chart. Meanwhile, the gap, which is the distance or reduction from the level of importance to customer satisfaction, has a function similar to the level of conformity analysis, which shows

whether Gojek's services are by on the expectations of consumers. If the value of the gap that appears is positive, then the company's performance has exceeded consumer expectations. However, if the value of the gap appears negative, then the customer has not reached the level of satisfaction with the company's performance (Nadiri & Husain, 2005). From the calculation of the gap on Gojek's performance, there are similar results to the conformity analysis where the display indicators and compliance get positive results where consumers are satisfied with the application's appearance, and the driver delivers according to the route listed in the application. Meanwhile, other indicators get a negative value, which means that Gojek still has to improve its services on these indicators. Overall, Gojek also gets a score of -0.44, which means Gojek still has to improve its services to match consumer expectations.

Table 6. Mean interest, Mean Satisfaction and Gap Gojek

Dimensions	Indicators	Mean Interest	Mean Satisfaction	Gap
Efficiency	Information	4.38	3.77	-0.61
	Display	3.88	3.92	0.04
	Ease	4.40	3.98	-0.42
	Ease Transaction	4.44	4.10	-0.34
System Availability	Availability Systems	4.42	3.95	-0.47
	System Speed	4.41	3.72	-0.69
	System Reliability	4.40	3.73	-0.67
	System Fluency	4.35	3.73	-0.63
Privacy Protection	Security	4.45	3.93	-0.52
	Data Privacy	4.46	3.98	-0.48
	Data Protection	4.50	3.98	-0.52

Dimensions	Indicators	Mean Interest	Mean Satisfaction	Gap
	Confidentiality	3.92	3.89	-0.03
Contact	Contact	4.33	4.03	-0.30
	Communication	4.39	3.88	-0.51
	Customer Service	4.28	3.85	-0.44
	Communication Platform	4.40	3.94	-0.46
Fulfillment	Conformity	4.35	3.87	-0.48
	Punctuality	4.34	3.75	-0.59
	Fulfillment	4.44	4.06	-0.37
	Compliance Fulfillment	3.93	3.95	0.02
Responsiveness	Response	4.41	3.92	-0.50
	Communication	4.48	3.95	-0.53
	Act Fast	4.45	3.89	-0.56
	Honesty	4.56	4.03	-0.52
Overall		4.35	3.91	-0.44

After calculating the mean and gap, the next step is to estimate the average of all attributes of importance (Y) and performance (X) which will be the limits in the Cartesian diagram of importance-performance analysis. The following formula can calculate the X-axis limit:

$$\bar{X} = \frac{\sum \bar{X}_i}{K}$$

$$\bar{X} = \frac{93,79}{24}$$

$$\bar{X} = 3,91$$

The Y-axis limit can be calculated by the following formula:

$$\bar{Y} = \frac{\sum \bar{Y}_i}{K}$$

$$\bar{Y} = \frac{104,37}{24}$$

$$\bar{Y} = 4,35$$

Based on these calculations, the limit value on the diagram importance-performance analysis for the X-axis is 3.91, and the limit for the Y-axis is 4.35. After finding the limit value on the diagram, each attribute is plotted into a scatterplot matrix of importance-performance analysis (Figure 1).

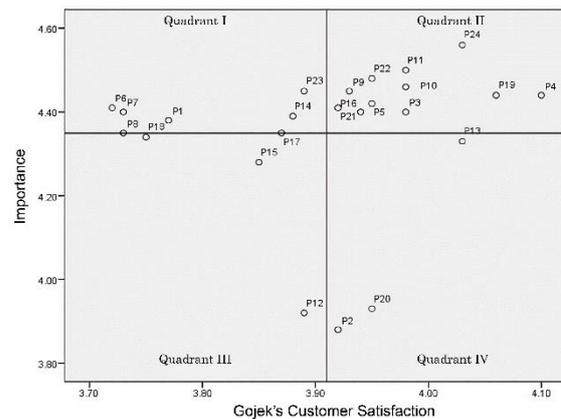


Figure 1. Importance-Performance Analysis Matrix of Gojek

Based on the results of the important-performance analysis of all Gojek service attributes, there are 11 attributes or 46 per cent of them in the second quadrant, which indicates that Gojek's performance is good enough on these attributes it is recommended to maintain its performance. However, there are still many attributes in the main priority quadrant, which is as many as seven attributes. The following is a table of categories resulting from Gojek's matrix importance-performance analysis (Table 7).

Table 7. Importance-Performance Analysis of Gojek

Quadrant	Service
Quadrant I Top Priority	System Speed
	Reliability Systems
	System Fluency
	Information
	Suitability
	Can be contacted
Quadrant II Maintain Achievement	Communication Platform
	Security

Quadrant	Service
	Response
	Communication
	System Availability
	Data Privacy
	Data Protection
	Convenience
	Honesty
	Fulfillment
Quadrant III Low Priority	Ease of Transactions
	Customer Service
	Confidentiality
Quadrant IV Redundant	Timeliness
	Views
	Compliance
	Contact

All service attributes that still have a value gap negative based on the calculation results certainly require attention and improvement from Gojek management. However, Gojek service attributes that are included in quadrant I are service attributes that must be the main priority. Consumers consider these service attributes essential for them. Unfortunately, the services provided by Gojek are still unable to fulfil consumer desires.

Services require more urgency and attention because these services have a low satisfaction value even though the service attribute is important according to customers. Based on the calculation results of the important-performance analysis, there are seven service attributes contained in quadrant I or the main priority for improvement. The service attributes are system speed, system reliability, system smoothness, information, suitability, drivers can be contacted, and drivers act quickly.

After analyzing the importance-performance for Gojek, the same analysis was performed for Grab. However, no indicators obtained positive results, which means Grab still has to improve its services on these indicators. Overall, Grab gets a score of -0.49, which means Grab still has to improve services to meet consumer expectations.

Table 8. Mean interests, Mean Satisfaction and Gap of Grab

Dimensions	Indicators	Mean Interest	Mean Satisfaction	Gap
Efficiency	Information	4.38	3.86	-0.52
	Display	3.88	3.79	-0.09
	Ease	4.40	3.87	-0.53
	Ease Transaction	4.44	3.91	-0.53
System Availability	Availability Systems	4.42	3.78	-0.65
	System Speed	4.41	3.61	-0.79
	System Reliability	4.40	3.62	-0.79
	System Fluency	4.35	3.59	-0.76
Privacy Protection	Security	4.45	3.90	-0.55
	Data Privacy	4.46	3.95	-0.51
	Data Protection	4.50	3.97	-0.53
	Confidentiality	3.92	3.88	-0.04
Contact	Contact	4.33	4.00	-0.33
	Communication	4.39	3.86	-0.52
	Customer Service	4.28	3.85	-0.44
	Communication Platform	4.40	4.05	-0.35
Fulfillment	Conformity	4.35	3.86	-0.49
	Punctuality	4.34	3.78	-0.56
	Fulfillment	4.44	4.01	-0.43
	Compliance Fulfillment	3.93	3.91	-0.02
Responsiveness	Response	4.41	3.87	-0.55
	Communication	4.48	3.89	-0.59
	Act Fast	4.45	3.89	-0.56
	Honesty	4.45	3.88	-0.57
Overall		4.35	4.56	3.98

After calculating the mean and gap, the next step is to calculate the average of all attributes of importance (Y) and performance (X) which will be the limits in the Cartesian diagram of importance-performance analysis. Based on these calculations, the limit value on the

diagram importance-performance analysis for the X-axis is 3.86, and the limit for the Y-axis is 4.35 (Figure 2).

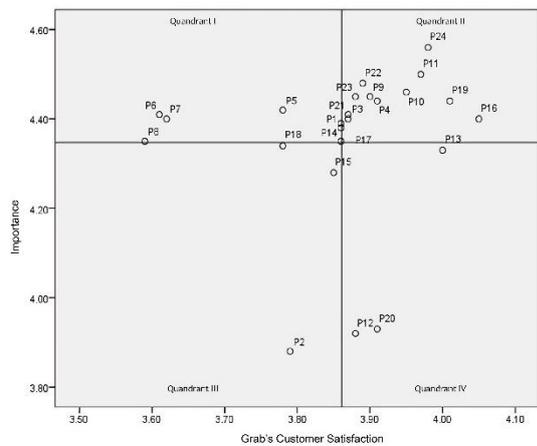


Figure 2. Importance-Performance Analysis of Grab Matrix

Based on the results of the importance-performance analysis, the most attributes are in quadrant II, which is 11 service attributes. This means that Grab's performance is quite good on these attributes, and it is recommended to maintain its performance. However, there are still many attributes in the central priority quadrant, as many as seven attributes. The following is a table of categories resulting from matrix importance-performance analysis Grab's (Table 9).

Table 9. Importance-Performance Analysis of Grab

Quadrant	Service
Quadrant I Top Priority	Availability of the system
	System Speed
	System Reliability
	System Fluency
	Information
	Can be contacted
	Conformity
Quadrant II Maintain Achievement	Easiness
	Response
	Act fast
	Communication
	Security
	Easy transaction
Honesty	

Quadrant	Service
	Data privacy
	Data protection
	Communication platform
	Fulfillment
Quadrant III Low Priority	Punctuality
	Display
	Customer service
Quadrant IV Redundant	Confidentiality
	Contact
	Compliance

All service attributes that still have a value gap negative based on the calculation results certainly require attention and improvement from Grab management, but Grab service attributes included in quadrant I are service attributes that must be made a top priority. Grab consumers consider these service attributes to be very important for them, and the services provided by Grab are still unable to fulfil consumer desires.

Services require more urgency and attention because these services have a low satisfaction value even though, according to customers, the service attribute is important. Based on the calculation results of the importance-performance analysis, there are seven service attributes contained in quadrant I or the main priority for improvement. The service attributes are system availability, system speed, system reliability, system smoothness, information, suitability, and contactable drivers.

After knowing what attributes need attention from each transportation service provider online, then an analysis of theory will be carried out on the customer satisfaction index of each Gojek and Grab. The customer satisfaction index measures the level of customer satisfaction (Fornell, 1992). Therefore, this analysis was conducted to determine the level of satisfaction of Gojek and Grab customers.

To determine the customer satisfaction index, the first step is to calculate the values Mean Important Variable (MIS) and Mean Satisfaction

Score (MSS). Then after getting the MIS and MSS values, the next step is to calculate the weight score (WSi) for each Gojek and Grab service attribute by multiplying MIS by MSS for each attribute. After all WS values are obtained, the next step is to add up all WSi to determine the total weight score (Table 10 and Table 11).

Table 10. MIS, MSS, and WSi of Gojek

Dimensions	Indicators	MIS	MSS	WS _k (MIS x MSS)
<i>Efficiency</i>	Information	4.38	3.77	16.52
	Display	3.88	3.92	15.23
	Ease	4.40	3.98	17.53
	Ease Transaction	4.44	4.10	18.20
<i>System Availability</i>	Availability Systems	4.42	3.95	17.47
	System Speed	4.41	3.72	16.38
	System Reliability	4.40	3.73	16.43
	System Fluency	4.35	3.73	16.21
<i>Privacy Protection</i>	Security	4.45	3.93	17.50
	Data Privacy	4.46	3.98	17.75
	Data Protection	4.50	3.98	17.93
	Confidentiality	3.92	3.89	15.24
<i>Contact</i>	Contact	4.33	4.03	17.45
	Communication	4.39	3.88	17.00
	Customer Service	4.28	3.85	16.48
	Communication Platform	4.40	3.94	17.31
<i>Fulfillment</i>	Conformity	4.35	3.87	16.86
	Punctuality	4.34	3.75	16.27
	Fulfillment	4.44	4.06	18.02
	Compliance	3.93	3.95	15.50
<i>Responsiveness</i>	Response	4.41	3.92	17.29
	Communication	4.48	3.95	17.67
	Act Fast	4.45	3.89	17.29
	Honesty	4.56	4.03	18.37
Total WSi		407.89		
HS		521.85		

Table 11. MIS, MSS, and WSi of Grab

Dimensions	Indicators	MIS	MSS	WS _k (MIS x MSS)
<i>Efficiency</i>	Information	4.38	3.86	16.93
	Display	3.88	3.79	14.74
	Ease	4.40	3.87	17.05
	Ease Transaction	4.44	3.91	17.35
<i>System Availability</i>	Availability Systems	4.42	3.78	16.71
	System Speed	4.41	3.61	15.92
	System Reliability	4.40	3.62	15.91
	System Fluency	4.35	3.59	15.64
<i>Privacy Protection</i>	Security	4.45	3.90	17.37
	Data Privacy	4.46	3.95	17.60
	Data Protection	4.50	3.97	17.87
	Confidentiality	3.92	3.88	15.22
<i>Contact</i>	Contact	4.33	4.00	17.31
	Communication	4.39	3.86	16.95
	Customer Service	4.28	3.85	16.48
	Communication Platform	4.40	4.05	17.79
<i>Fulfillment</i>	Conformity	4.35	3.86	16.81
	Punctuality	4.34	3.78	16.40
	Fulfillment	4.44	4.01	17.78
	Compliance	3.93	3.91	15.35
<i>Responsiveness</i>	Response	4.41	3.87	17.06
	Communication	4.48	3.89	17.39
	Act Fast	4.45	3.88	17.27
	Honesty	4.56	3.98	18.13
Total WSi		403.01		
HS		521.85		

After the total WSi is obtained, the next step is to calculate the HS or highest score. HS is the product of the total MIS with the highest Likert scale used. In this study, the highest Likert scale used was 5, so that after the calculations, the HS value was 521.85. Next, we calculate the customer satisfaction index by inputting the total weight score divided by the highest score and percentage.

The following is the CSI of Gojek:

$$CSI = \frac{\sum_{i=1}^p WSi}{HS} \times 100\%$$

$$CSI = \frac{407,89}{521,85} \times 100\%$$

$$CSI = 78,2\%$$

The following is the CSI of Grab:

$$CSI = \frac{\sum_{i=1}^p WSi}{HS} \times 100\%$$

$$CSI = \frac{403,01}{521,85} \times 100\%$$

$$CSI = 77,2\%$$

Based on the customer satisfaction index, Gojek has 78.2 per cent. The value of 78.2 per cent is in the range of 61-80 per cent, whereas the satisfaction index is in the range that means that consumers are satisfied with Gojek's services. Therefore, a score of 78.2 per cent can be identified through which service components provide the highest level of satisfaction for Gojek users. Overall, what provides the highest level of satisfaction for Gojek consumers is the ease of transaction indicators. Gojek is considered to have had satisfactory transaction convenience compared to other services.

Meanwhile, the Grab customer satisfaction index value is 77.2 per cent. The value of 77.2 per cent is in the range of 61-80 per cent, whereas the satisfaction index is in the range that means that consumers are satisfied with Grab's services. The 77.2 per cent score can be identified through which service components provide the highest level of satisfaction for Grab users. Overall, what provides the highest level of satisfaction for Grab consumers is the indicator of a communication platform within the application. Grab is considered to have had a communication platform between customers and drivers satisfied in the application compared to other services.

After analyzing the customer satisfaction index, the following analysis will be the customer loyalty index to determine how high the level of customer loyalty of a product or service is. This analysis was conducted to determine the level of loyalty of Gojek and Grab customers. The first step is to calculate the performance or mean of each loyalty attribute. In this study, there are four loyalty attributes for each company. After knowing the score of the willing statement of each attribute, the value is then divided by the highest Likert scale score of 5 and then multiplied by 100 per cent. The following is the score of Gojek and Grab loyalty attributes (Table 12 and Table 13).

Table 12. Customer Loyalty Index of Gojek

Loyalty Indicator	Willing Statement	CLI (%)
LJ1	3.63	72.7
LJ2	3.70	74.0
LJ3	3.53	70.7
LJ4	3.43	68.6
Overall		71.5

Table 13. Customer Loyalty Index of Grab

Loyalty Indicator	Willing Statement	CLI (%)
LG1	3.71	74.1%
LG2	3.72	74.3%
LG3	3.62	72.5%
LG4	3.57	71.5%
Overall		73.1%

Finally, the four values of each attribute are calculated on average to get the value customer loyalty index overall. Based on the calculation, the value of the customer loyalty index Gojek's is 71.5 per cent. The value of 71.5 per cent is in the 71-90 per cent range, which can be interpreted as saying that Gojek consumers are "loyal" customers. While the customer loyalty index of Grab customers reached 73.5 per cent, which is slightly better than Gojek. The value of 73.5 per cent is in the 71-90 per cent range which can be interpreted as Grab

consumers being "loyal" customers. Even so, both Gojek and Grab should increase the loyalty of their users, seeing that its value is almost in the range below it. Thus, both Gojek and Grab companies must push to make their customers in the loyalty range above 90 per cent or categorized "very loyal", so they do not easily switch to other service providers.

CONCLUSIONS

The results gathered from the importance-performance analysis indicated that 24 attributes of online ride-hailing services are analyzed and divided into four quadrants. The importance-performance analysis reveals that Gojek should improve at least seven priority attributes: system speed, reliability, fluency, information, suitability, contact ability, and quick action. Similar but slightly different from Gojek, Grab also has to improve seven main service attributes: system availability, system speed, system reliability, system smoothness, information, contact ability, and suitability.

Our findings stated that based on the level of customer satisfaction, Gojek has a 78.2 per cent of customer satisfaction level, slightly better than Grab's customer satisfaction level of 77.2 per cent. In general, consumers of the two services are in the "satisfied" category regarding the online ride-hailing services provided by Gojek and Grab. However, even though customers are satisfied, both companies must continue to improve their service performances to keep increasing the customer satisfaction level. Furthermore, customer loyalty analysis reveals that Grab customers are slightly more loyal than Gojek customers. The level of customer loyalty index for Grab customers is 73.1 per cent, slightly above the value of Gojek's customer loyalty 71.5 per cent.

Based on the results, both Gojek and Grab customers are in the "loyal" category. It can be concluded that the competition in creating customer satisfaction and loyalty between two companies is very tight and remarkably competitive. Therefore, Gojek and Grab should consider innovating and differentiating from each other by maintaining service attributes rated well by current customers and considering a new way of problem-solving in online-ride-hailing services to acquire more satisfied and loyal customers.

There are some limitations to this study. First, it is limited to the satisfaction variable referred to from the e-ServQual theory. It does not include other factors affecting satisfaction and loyalty, such as price and terms conditions. Second, this study on online ride-hailing is also limited to ride-hailing features. It does not consider customer satisfaction and loyalty on other features such as food delivery, payment services, or billing services. Further investigation by including more comprehensive variables and provider service other than ride-hailing features is recommended to examine the overall satisfaction and loyalty between Gojek and Grab.

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