

Phenomena of Online Transportation Mode Choice as an Alternative Public Transport in South of Jakarta

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Abstract

Online transportation has appeared quite attached to our ears in recent years. With increasingly advanced digital technology, many new platforms have emerged, such as Gojek, Grab, and others. This paper aims to find out the public's choice of online transportation in Jakarta amidst increasingly severe traffic jams. The method used in this study was carried out quantitatively by distributing questionnaires to 100 correspondents on social media. As a result, the level of importance of all online transport parameters is considered very important, with an average of 4.27. While the performance value obtained is slightly below 4.25, which means it is still considered satisfactory. So, the gap between performance and interest is manageable, only -0.02.

Keywords: Online Transportation, Public Transportation, Gojek

1. Introduction

The advancement of transportation technology is constantly evolving. An increase in human wants characterizes today's digital era. By offering different vehicle options, including cars and motorcycles, online transportation caters to these individuals' unique demands and increases their services' functionality (Munandar & Munthe, 2019). Consider the LYFT platform in America, the HAILO platform in Europe, and many others. These platforms are a permanent fixture in the hands of millennials today. Gen "Y" customers currently dominate the market (better known as millennials). They regulate the majority of online transactions. (Basalamah, Syahnur, Ashoer, & Bahari, 2020).

The availability of current transportation access significantly impacts how the economy develops in Indonesia's major cities, including Jakarta and its neighboring cities (Sitasi & Riyanto, 2019). Access to transportation becomes more limited as the number of automobiles rises. People frequently select private vehicles over public transportation to work, which is why this occurs. Due to the high level of mobility among Indonesians, particularly in the Jabodetabek region, online transportation providers compete by providing the same types of services. (Murti, 2020).

The government pays more attention to Jakarta's transportation infrastructure because it is its economic hub. One of the answers and clever solutions to this issue is the availability of information technology-based online transportation as a form of public transportation, especially given its superiority in terms of ease of ordering and speed of mobilization on roads that are congested with traffic, especially during rush hours (Erica & Al Rasyid, 2018). The most significant metropolitan region in the nation, DKI Jakarta, exhibits a development of 9.25 percent in the information and communication technology development index of Indonesia's other 10 highest provinces, according to statistics from the Central Statistics Agency (BPS) in the data box (Indra, Regita, & Purba, 2019).

Congestion has come from Indonesia's rising car population. Public transportation is preferred in areas outside Jakarta due to the high awareness of this issue. However, in Jakarta, people favor private mobility over public transportation (Sitanggang & Saribanon, 2018). The DKI Jakarta administration developed the odd-even regulation, which is used on some highways in the city, but is this system effective in reducing congestion? (Putra, 2020). Many individuals gripe about having to trek to the motorbike taxi stand or navigate traffic to get to bus stops when they want to get to work. As a result, internet transportation developed to satisfy local demands.

It all started with the establishment of Nadiem's PT Go-Jek Indonesia in 2011. Go-Jek, a cutting-edge, order-based shuttle service featuring motorcycle taxis, was founded by Nadiem (Azizah & Adawia, 2018). Within a year, Gojek transformed a new mobile app into a significant service, which prompted GrabTaxi, a rival, to raise objections (Febrilia, 2019). This research seeks to understand Jakartans' preferences for online transportation in the face of the city's worsening traffic bottlenecks. In order to lessen the level of congestion.

2. Literature review

2.1 Online Transportation

Online transportation services are well-known and well-liked in industrialized nations like the United States and Europe, where they are popular. This service is becoming increasingly popular in Indonesia, and numerous foreign businesses are beginning to operate there. Gojek has been around for more than ten years, and many people have used it for online transportation. However, what exactly is a transportation service offered online? Research sometimes refers to online transportation services as "trip sharing" (Silalahi, Handayani, & Munajat, 2017). It is known as "ride-sharing" because the used cars/automobiles are personal vehicles owned by the persons who provide the services and are then shared with other individuals (customers).

After the introduction of Gojek, the term "transportation" started to flourish in Indonesia. For most Indonesians, especially the Z generation and millennials, internet transportation has become their mobility hero thanks to an IT-based industry (Ikhsan, 2020). Using online transportation as e-commerce is beneficial because customers and drivers may communicate (Sanny, Claudia, & Widarman, 2019). Customers will place orders through mobile applications using LBS (Location Based Service) technology in this systematization of online transportation. One of the services that actively modifies an entity's position in order to identify object locations and give services based on those places is LBS. The system will determine the entity's location according to the position of the customer's spatial device, which has the application installed. The closest driver will get the customer's order once it has been announced. The driver and the customer will be aware of each other's locations on the mobile if the driver receives a customer notification.

2.2 Public Transportation

People frequently use transportation as a method of facilities to (Nova & Widiastuti, 2019). Moving, transporting, and rerouting an object from one location to another is considered commerce. Humans were given the ability to move things around and travel in order to make their jobs easier. Public and private transportation are the two categories of transportation for users. Public transportation is a service used by the community that is routinely administered according to schedules, travel routes, and trip costs.

When seen from the perspective of transportation education, it can be utilized as a teaching tool for kids, with one goal being to help develop their character. Children in the primary school age group with superior autonomous character characteristics to their peers serve as examples of this. Additionally, it might convey a social perception to kids, heightening their sense of worry about a particular issue. It can be observed not just in traditional transportation but also in public and internet transportation.

Public transportation is a form of paid transportation that takes patrons to their destinations. In order to satisfy people's basic transportation demands, the public transit system is a crucial component of urban mobility (Luo, Zhang, Zhang, Yu, & Li, 2019). As public transportation systems receive more investment

in metropolitan areas, it is critical to seize political possibilities and overcome challenges that justice planners may encounter (Yeganeh, Hall, Pearce, & Hankey, 2018). As a result, planning is essential, and online transportation is one option. A highly positive impression is created when consumers and drivers are combined into one mobile service to address public issues.

2.3 Gojek

A digital platform called Gojek offers services for public transit. Mr. Nadiem Makarim founded it in 2009, which is still in use today. This business has almost 10 million Android and iOS users across more than 50 cities in Indonesia. PT Gojek, the first startup to provide this service, also provides additional services. Developing into a massive company that caters to daily needs, including food delivery, courier services, taxi rides, online ticket purchases, prescription purchases, and other services while initially only providing motorbike trips (Azzuhri, Syarafina, Yoga, & Amalia, 2018). Up till this point, Gojek has expanded not just to Indonesia but also to Vietnam, Singapore, and Thailand. This firm has helped the Indonesian economy grow through the MSME partner channel.

The ten-year journey of Gojek as an Indonesian motorbike "ride-hailing" call center. Up until 2015, homegrown applications only offered three services. First, Go-ride, Go-send, Gomart, and 3. Over 2 million users and hundreds of thousands of partners utilize Gojek, which has had over 50 million downloads on Google Play as of September 2019. Gojek has also updated its logo, which now features the hashtag #ThereAlwaysAWay and a new "solution" design. The transition of Gojek from a "ride-hailing" service to the largest Super App with three platforms is symbolized by its new logo. 1) Customer Application, 2) Driver Application, and 3) Merchant Application, all of which use clever techniques to make things simpler. (Simarmata, Sitorus, & Arubusman, 2018).

Customers can utilize the new Gojek credit function through the Gojek application on smartphones at any time that has been determined by Gojek, including peak hours, or will not have a price difference. There is little difference between the set prices and what you would pay. The customer is made aware of the expense of preparation thanks to the tariff being presented on our smartphone screen. Compared to traditional motorcycle taxis, their rates can occasionally be relatively high and must be negotiated, which takes time and could be more effective (Medeiros, Duarte, Achmad, & Jalali, 2018).

3. Methodology

The study was carried out in November 2022, specifically in the Jakarta region, with the help of about 100 correspondents who were tracked by Jakarta residents in the predefined age range who were either still in school or working at the time. Data is one of the main strengths in compiling research and scientific modeling (Rifai A. I., Hadiwardoyo, Correia, Pereira, & Cortez, 2015)

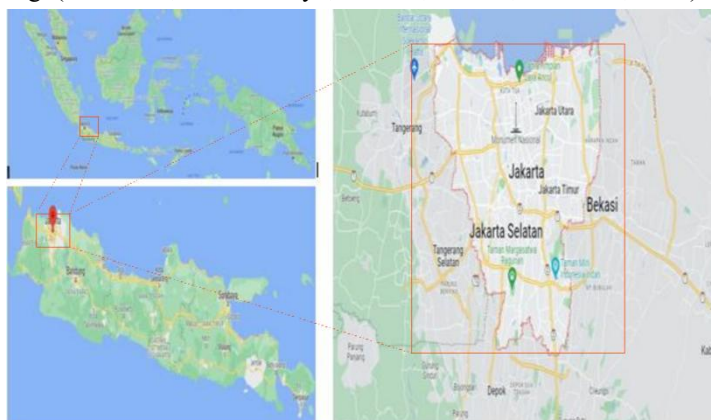


Figure 1. Research Locations

This study used a quantitative methodology and distributed questionnaires to up to 100 correspondents via social media. Then, after examining the available data on the selection of online

transportation modes and the application's user experience, we outline all of these ways. Then, provide five options for each correspondent who responded to the survey. One being very inconsequential and five being very important on a scale.



Figure 2. Likert Scale

Additionally, the outcomes of the collected data are added to the Cartesian diagram. The upward line represents the average of the average implementation level scores, and the lateral line represents the average of the average importance level scores of all factors. The Cartesian diagram is a figure divided into four parts and bounded by two perpendicular intersecting lines. A customer's level of It is possible to interpret the image above.

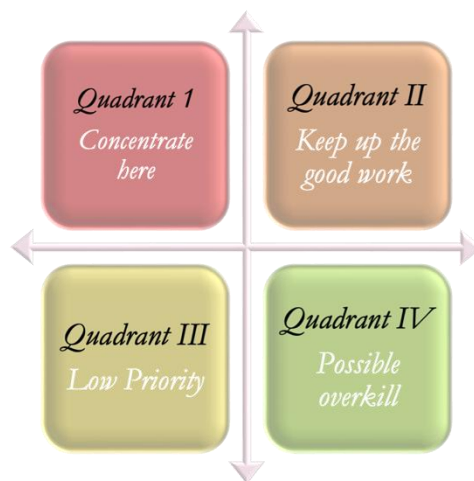


Figure 3. IPA diagram

In Quarantine I (concentrate here), consumers place some criteria in this quadrant as vital and expected, but the company's performance is viewed as lacking. As a result, the company must concentrate on directing. Quarantine II (Keep up the good work), companies are required to maintain these performance achievements since several factors in this quadrant are crucial and are anticipated to support aspects of customer satisfaction. Quarantine III (low priority), some of the factors in this quadrant are thought to have low levels of perceived importance or actual performance, and consumers do not anticipate them. Therefore businesses can give them a higher priority and more significant attention. Finally, in quarantine IV (possible overkill), some of the elements in this quadrant are not considered particularly significant by customers. Thus the business would be better off directing resources connected to them to other factors with a higher priority level. Furthermore, it is necessary to determine the parameters used in this study, as seen in table 1.

Table 1. Parameters

Parameter	Description	sources
Reliability	A1 Your ability to provide the services you have promised consistently, accurately, and on time	(Luke & Heyns, 2020)
	A2 There is no error in providing services	

Parameter	Description	sources
	A3 Providing good service from the start	
assurance	B1 The knowledge, skills, and credibility of staff and their ability to use this expertise to inspire trust and confidence	
	B2 The behavior of the service provider	(Priya & Bhoomadevi, 2020)
	B3 Make customers feel safe when making transactions	
	B4 Knowledge of service providers in answering customer questions	
	B5 Courtesy of the service provider	
Tangibles	C1 Physical appearance	
	C2 Equipment	
	C3 Personal (appearance of the service provider)	
	C4 Communication tools	
	C5 Service-related materials	
Empathy	D1 Relationship between service provider and customer.	(Carter, 2022)
	D2 Service providers pay attention to customers	
	D3 Service providers understand consumer needs	
	D4 Give personal attention	
	D5 Provide service with heart	
Responsive	E1 Your ability to provide fast and quality service to your customers.	(Safrizal, Gaol, & Warnash, 2022)
	E2 Desire to help customers	
	E3 Never feel busy serving customers	

4. Results And Discussion

Questionnaires were distributed on social media on Instagram, Facebook, and WhatsApp, which many people in Jakarta then filled out. Starting from those who work as employees of BUMN, ASN, entrepreneurs, and even students who go to school while working or who only have an income status. Most questionnaire fillers were women, with a percentage of 76.1% with an age range below 20th, meaning they were still in junior high or high school status.

Table 2. Correspondent characteristics

No	Aspect	Description	Percentages
1	Gender	Man	23.9%
		Woman	76.1%
2	age	<20 yrs	58%
		21-30	36.4%
		31-40	1.1%
		41-50	4.5%

No	Aspect	Description	Percentages
		>51	0%
		Student/student	70.5%
		ASN	3.4%
3	Profession	Businessman	6.8%
		Housewife	2.3%
		BUMN employees	3%
		Others	14%
		< 1,500,000/month	10.2%
		1,500,000-3,500,000/month	12.5%
4	Income	3,500,000-5,000,000/month	13.6%
		> 5,000,000/month	13.6%
		Not yet earning	50%
5	Ownership	Cars and motorbikes	86.4%
		Motorcycle	13.6%
		Working	30.7%
		school	35.2%
6	Necessity	holidays	29.3%
		Others	4.8%

Results are acquired from online transportation users after data collection. One hundred correspondents were gathered, with 38% going to Gojek users and 52% to Grab users. Table 3 displays the information from the questionnaire completed by about 100 correspondents and then processed using Microsoft Excel. To determine which elements need to be upgraded and which need to be retained, we will turn this data into a Cartesian diagram.

Table 3. Questionnaire results

Parameter		Importance	Performance	Gaps
reliability	A1	4,3	4,3	0.00
	A2	4,3	4,2	-0.10
	A3	4,4	4,4	0.00
assurance	B1	4,3	4,3	0,00
	B2	4,3	4,4	0,10
	B3	4,4	4,5	0,14
	B4	4,4	4,2	-0,16
	B5	4,4	4,6	0,24
Tangible	C1	4,1	3,9	-0,24
	C2	4,2	4,1	-0,10
	C3	4,2	4,2	0,00
	C4	4,3	4,3	0,00
	C5	4,3	4,0	-0,29
Empaty	D1	4,2	4,1	-0,10
	D2	4,2	4,2	0,00

Parameter	Importance	Performance	Gaps	
	D3	4,3	4,3	0,00
	D4	4,1	3,9	-0,20
	D5	4,3	4,3	-0,01
Responsibility	E1	4,3	4,5	0,21
	E2	4,3	4,4	0,11
	E3	4,1	4,2	0,10
Means	4,27	4,25	-0,02	

If you pay attention to table 3, each parameter shows an even number. Based on the survey results, the level of importance of all online transport parameters is considered very important, with an average of 4.27. While the performance value obtained is slightly below 4.25, it means that it is still considered satisfactory. So, the gap between performance and interest is manageable, only -0.02. According to the Cartesian diagram in figure 4, components A2, B4, and C5 do not need to be prioritized or allocated resources because the community does not value them and does not place much importance on them. The community feels that factors C2, C3, D1, and D2 are not essential or expected, and the performance that results is not optimal. Thus the business can leave this factor as is. On the other side, the community expects factors A1, A3, B1, B2, B3, B5, C1, C4, D3, D4, D5, E1, E2, E3 to exist, and the community is highly content with the performance. As a result, thus the corporation needs to maintain this factor and, if necessary, increase it by providing additional resources.

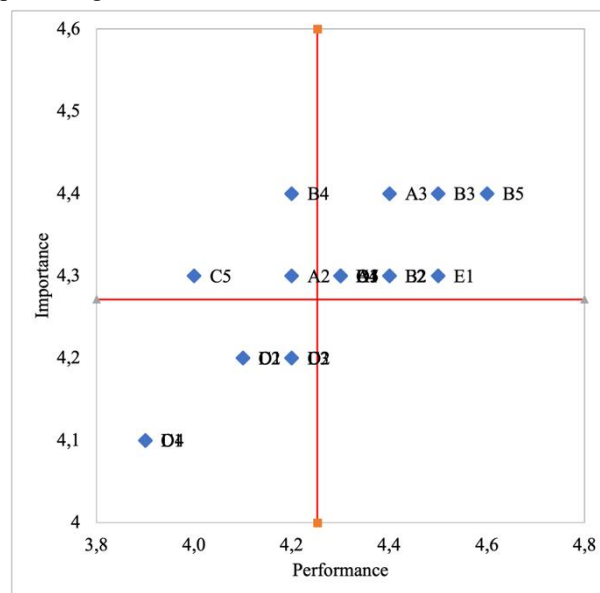


Figure 4. IPA Cartesian diagram

In quadrant IV, where these elements are unimportant and unanticipated by customers, are factors A2 (There are no errors in providing services), B4 (Service providers' knowledge in responding to client queries), and C5. On the other hand, the results of the questionnaire, namely the A2 score (4.3), the B4 score (4.4), and the C5 score, show that these factors are performing in a way that is extremely pleasant for the community (4.3). Companies do not have to give these aspects top priority or resources.

The linked components in quadrant III are C2 (Equipment), C3 (Personal or the provider's look), D1 (Relationships between Providers and Customers), and D2 (Service providers pay attention to customers). These are elements that are not expected in society and are not given much weight. Of course, the business does not need to give these things further consideration. Even though the satisfaction values for these

factors—C2 (4.2), C3 (4.2), D1 (4.2), and D2—are deemed satisfactory (4,2).

The community considers other characteristics in quadrant II to be significant. This factor supports the use of internet transportation services. The factors are A1 (Your ability to deliver the service you promised consistently, accurately, and on time), A3 (Providing good service from the start), B1 (Staff knowledge, skills, and credibility and their ability to use this knowledge to inspire trust and confidence), B2 (Service Provider Behavior), B3 (Make Customers Feel Safe When Making Transactions), B5 (Service Provider Courtesy), C1 (Physical Appearance), C4 (Communication Tools), Service providers must score highly on D3 (understanding customer needs), D4 (personal attention), D5, and E1 (ability to serve consumers with quick, high-quality service), E2 (want to assist customers), and E3 (Never feel busy serving customers).

5. Conclusion

According to the survey's findings, which were gathered from social media, students make up most users of online transportation services or 70.5% of all users. According to Figure 4, the majority of people, particularly women, opt to utilize the Grab service over Gojek for work (30.7%), school (35.2%), and holidays (29.3%). This suggests that women are more interested in using the Grab online transportation service application. Based on the survey results, the level of importance of all online transport parameters is considered very important, with an average of 4.27. While the performance value obtained is slightly below 4.25, it means that it is still considered satisfactory. So, the gap between performance and interest is not too big, which is only -0.02

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