

The Process Occupying and Tending to the Use of Roads by Online Motorcycle Transportation

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ABSTRACT

Jakarta is increasingly improving its public transportation services. At present, a breakthrough in the development of transportation has been made, primarily related to the protocol road. These include expanding Transjakarta routes, Mass Rapid Transit, and Light Rail Transit. The addition of the number of modes of transportation has an impact on the addition of the number of stations or stops. However, it does not match by the availability of the government in procuring land for connecting transportation modes into deeper areas. The formal and informal transportation providers as an introduction to integrated transportation users still use the highway corridor as their place to raise, lower, and wait for passengers. Not yet found a place to grow, lower, and wait for those around the top of the officially integrated mode of transportation from the government or service providers. Therefore, this study was conducted to see how the division of land used by providers of the integrated transportation mode connector. This research method is to observe the spread of land use providers of formal and informal transportation services.

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1. Introduction

Transportation is a means urgently needed today because transportation can streamline work and help in meeting their daily needs [1]. Jakarta is one of the cities with high traffic congestion, which is ranked 12th, according to Inrix 2017 research [2]. It cannot be denied, since the usage of private transportation is not insignificant, while the government continues to improve the public transportation system. With a population of more than 10 million people and a regional economic growth rate of 7% per year, the Greater Jakarta area is the largest mega area in Indonesia. As a consequence, the complexity of transportation problems in this region increases with economic and population growth [3]. Some modes of public transportation that are being improved by the government are MRT (Mass

Rapid Transit), LRT (Light Rapid Train), and buses (managed by Transjakarta).

Cities with high CO₂ levels should have a slight tendency to have more efficient public transportation [4]. Therefore, an additional amount of public transport must be provided. The addition of several public modes of transport has been felt in the city of Jakarta and the surrounding area. Not only the improvement of its facilities but also the opening of new lines. In March 2019, one of the MRT transportation modes was inaugurated by the Lebak Bulus - HI Roundabout line [5]. In 2017, as many as 13 busway corridors were functioned. The addition of modes of transportation and the additions of lines are indeed intended to reduce the number of traffic congestion in Jakarta.

Transportation is one of the vital sectors to support political, economic, and social activities culture/ tourism and defense, which be separated from one another [6]. Convenient, safe, and inexpensive public transportation is also the hope of all citizens in each city. However, because not all local governments as city managers can provide it well, private participation in the provision of public transportation services has grown. The presence of motorcycle taxi public transportation services is felt to be very helpful to the community in supporting their daily activities. One of the motorcycle taxis, which is now widely used by the public, is an online motorcycle taxi, which has started to be used by the city community in 2015 [7].

The existence of motorcycle taxi is still considered as a private mode of transportation by the government because there is no law governing the operation of this mode of transportation [8]. This situation causes the government to feel that it is not obligatory to provide facilities and infrastructure for motorcycle taxi services in operating such as stops or waiting for passengers. However, the government also did not ban the operation of a motorcycle taxi. Such conditions as the above result in motorcycle taxi drivers often interfere with the comfort of other road users, such as drivers of private vehicles or pedestrians.

In many conditions, many motorcycle taxi service providers use the shoulder of the road to wait for their passengers. Many parties feel uncomfortable with the terms above. For road users, of course, it is bothersome the smooth traffic. Pedestrians are also disturbed because sometimes they wait for passengers in the pedestrian lane area. For the lot, the front area used as a place for a motorcycle taxi and visual activities to be disturbed. Motorcycle users and motorbike drivers also feel uncomfortable because they are often driven by lots of security officers from the land where they operate.

Based on the background above, there are several conflicts between road users between online transportation service providers or even disputes between conventional and online motorcycle taxi service providers. For this reason, the researchers wanted to find out how the land divided between informal transportation providers (traditional taxi of motorcycle services and online motorcycle taxi services).

Transportation is a significant component in living and living systems, government systems, and social systems — the social demographic conditions of the region influence on the performance of transportation in the region. The level of population density will have a significant impact on the ability of transport to serve the needs of the community. In urban areas, the trend is that there is a high increase in population due to birth rates and urbanization. The level of urbanization has implications for increasingly densely populated communities, which directly or indirectly reduce the competitiveness of regional transportation [9].

Public transportation managed by the government is called formal transportation because they have obtained permission from the government to operate according to standardization and regulations governed by the government. This type of transportation varies, ranging from city transportation cars (*angkot*), buses, taxis, trains, ships, and also airplanes. Unfortunately, not all places where many people need transportation modes to support their activities can be reached by formal transportation. Formal transportation has specific routes and standardization of operations issued by the government, so they cannot operate in any place. Here, the role of informal transportation is needed to take over the service needs of the community in its transport.

Informal transportation is transportation that operates without permission and standards from

the government. This transportation develops not only due to limited formal employment but also because official transportation cannot reach certain places outside its operating lanes, such as densely populated environments, settlements in villages and pathways that have limited accessibility. Informal transportation can meet market demand because of the operating lines are not determined by the government. Besides, the costs that must be incurred by the public to use this transportation are relatively cheap, and most use the bargaining system, which certainly does not apply to formal transportation [10].

The provision of easy transportation is now also commonly referred to as paratransit, which is a small passenger vehicle that operates unofficially by charging fees and serving several places as an alternative to regular transport services [11]. Paratransit online transportation services are preferred by passengers, although the price for one way is higher, passengers do not need to change vehicles to reach their destination. It caused by passengers not having to bother to wait at the terminal, bus stop or waiting place that has been prepared, but passengers simply need to wait at the pickup point for the driver to come and pick up and then deliver to his destination [12].

There are not many theories relating to the process of occupying a motorcycle taxi. For this reason, similar research related to the process of occupying the road corridor is taken from the street vendor objects conducted by Ahmad Sarwadi & Bambang Hari Wibisono [13]:

1. How To Get Land and Buildings
 - a. Ways to be able to use land
 - b. Rental prices.
 - c. Location of the previous business.
 - d. The reason for choosing a place of business in the street corridor.
 - e. Residential status.
 - f. Previous building owner.
 - g. How to build a building.
 - h. Source of information about the land.

2. Use of Space
 - a. Use of space/buildings.
 - b. Types of users living in a business site.
 - c. The number of people living in a business location.
 - d. Occupational hours.
3. The tendency towards Displacement.
 - a. Residents' aspirations for moving.
 - b. Occupant's reasons for moving.
 - c. Residents' opinions about using the space.
 - d. The reason is allowed to use space according to the occupants.
4. Rights and Obligations Regarding the Occupy Process.
5. The pattern of raising passengers.
 - a. The pattern of lowering passengers.
 - b. The pattern of Activity-based on time.
6. The pattern of Activity Based on Time.
 - a. Morning activities.
 - b. Daytime activities.
 - c. Evening activities.
7. Effect of Physical Settings Against Online motorcycle taxi activities.
 - a. Shade element.
 - b. Physical aspects not permanent.
 - c. Basic field elements.

2. Material and Methods

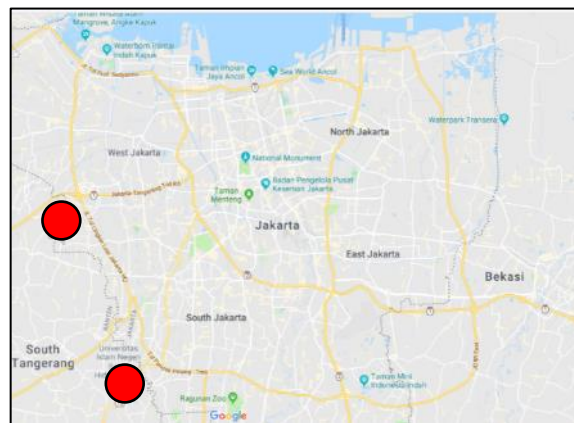


Figure 1. The Object Location of the Research

The research location was conducted around the campus of Mercu Buana University (UMB), West Jakarta, and Syarif Hidayatullah State Islamic University (UIN), South Tangerang (Fig. 1). The location was taken because there

are quite complex problems where the width of the road corridor is quite narrow, and frequent traffic jams occur. The presence of motorcycle taxi drivers waiting in the corridor area of the road makes the impact of traffic jams even higher (Fig.2).

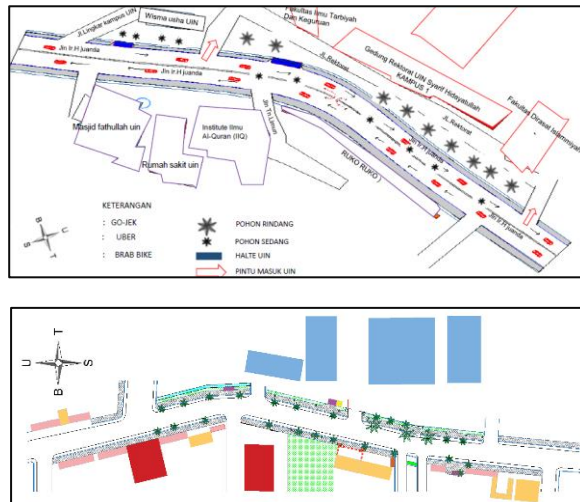


Figure 2. Areas studied in the research object (top: UIN and below UMB)

This type of research is field research, namely, direct observation of the object under study to obtain relevant data. The method used in this research is qualitative analysis research methods. Namely data in the form of numbers, not showing classification or grouping, or in the form of ranking arranged is the basis of the order.

3. Results and Discussions

Governance

The land ownership in the online motorcycle taxi areas in the UMB campus and UIN campus, are not owned by anyone. Online motorcycle taxi drivers are also not subject to user fees to wait in the area. They can wait where they have room to wait for the feeders and park their motorbikes. However, motorcycle riders still have restrictions on the area to park their vehicles, which is usually in areas close to the entrance (campus gate) into the campus area. The freedom of online motorcycle taxi riders in putting down their bikes certainly causes traffic conditions on the UMB campus and UIN to be jammed.

The pattern of Utilization of Road Corridor Spaces based on Activities

The pattern of activities raising passengers



Figure 3. Pickup the Pasengers at UIN campus
Source: Lamria, 2018

On the UMB campus, the pattern of raising passengers is by forming points in several areas along the campus road corridor. The many points are at positions close to the pedestrian in and out access door that is close to the Commercial building area – BNI (Fig. 3). The pattern of raising passengers are dominant in the form of dots, with the main point located at the UIN bus stop, followed by the roadside in front of IIQ and front of the Syarif Hidayatullah hospital. While only a few raise passengers at other points.

The pattern of activities to drop-off passengers

On the UIN campus, the activity of unloading passengers is entirely determined by the passengers because passengers want to get off at the closest access to their destination (Fig. 4). Meanwhile, the area to reduce passengers on the UMB campus is mostly done in business buildings because this area is pedestrian access that is strategic enough to enter the campus area. There are also other areas where passengers are dropped off, but not as many in the area of the business building as before.



Figure 4. The location drop off the passengers
Source: Lamria, 2018

Activity patterns awaiting passenger orders

The pattern of waiting for passenger orders on the UIN campus is more similar to the pattern of raising passengers rather than the pattern of lowering passengers because of the similarity of activities, namely waiting for activities because often before raising passengers, online motorcycle taxi drivers have to wait for passengers to come to an agreed place. While waiting for passenger orders, most of the online motorcycle taxi drivers choose the UIN stop as a gathering place, and for the opposite direction of the online motorcycle taxi driver select the front of the IIQ campus, where the two locations have similarities, such as the shoulder shoulders wide enough to stop.



Figure 5. The place for waiting for UMB campus online motorcycle taxi drivers
Source: Kuntarbiko, 2018

On the UMB campus, online motorcycle taxi waiting for patterns spread over two points, namely at the bus stop near the tower building and close to the futsal field. Forming lines,

motorcycle taxi drivers park their vehicles while they wait for order calls (Fig. 5).

Time-Based Activity Patterns

The highest activity on the UIN campus occurs in the afternoon (12.30-13.30), followed in the afternoon (15.00-15.30 and 17.30-18.00) and morning (07.40-08.10 and 09.40- 10.10). However, when viewed from the activities carried out a lot, there is no difference at each time interval, at all time intervals, the most activity is waiting for passenger orders, followed by hitching a ride and finally lowering a passenger.

On the UMB campus, morning activities are busy at 07.40 and 09.45 in the morning, at noon at 12:30, and afternoons at 15.30 and 18.30. The highest density level is at the change of lecture at noon that is 15:30. For the morning activities, the highest value occurs in the lowering activity because most of UMB students and employees come to campus, so there is only a drop-off activity.

The Effect of Physical Settings On Online Motorcycle taxi Activities

Shade Element

The physical setting of the environment there is physical elements that influence the pattern of activities, namely permanent physical elements in which there are shade elements (trees and canopies), temporary physical elements (cone limiting the road), basic element elements (fences and sidewalks).



Figure 6. A motorbike taxi shelter on the UIN campus

On the UIN campus, along the road in front of campus 1, there is no shade element in the form of shady trees (Fig. 6). Shady trees are inside the UIN campus. Places with a roof that can be used to wait are stops in front of the UIN campus and stop in front of Wisma UIN (BNI).

While on the UMB campus, the shelter elements in the campus road corridors are shady trees along the corridor. Shady trees used by online motorcycle taxi drivers to take shelter while waiting for passengers.

Physical Elements Not Permanent

Non-permanent physical elements are in front of the Syarif Hidayatullah Hospital and the Fathullah Mosque in the form of poles or cone-dividing roads connected by ropes. This barrier was installed to separate the parking lot of the hospital and the mosque that became one with the shoulder of the road. Although the left shoulder of the road is narrow, it is also still used as a place to raise, lower, and wait for passenger orders.

On the UMB campus, the shade element is chosen as a comfortable place to wait for passengers. The position of the shoulder of the road is enough to park the vehicle, and there is street furniture in the form of a split level between the pedestrian and the green area. This split level is used to sit while waiting for passengers. It does not interfere with pedestrians using pedestrians but vehicles parked on the shoulder of the road interfere with other motorists who cross the Meruya Road.

Basic Field Elements

The Elementary basic elements in front of campus 1 UIN includes pedestrian (Fig. 6), fence boundary, and wall boundary. Most of the pedestrian in front of campus 1 UIN is narrow, and only enough for pedestrians, a fairly large section only located close to the bus stop where the shoulder of the road in front of the bus stop is wide enough to park an online motorcycle taxi driver.

On the UMB campus, elements of the flat area, which includes fence boundaries, wall boundaries, and pedestrians are utilized by online motorcycle taxi drivers to wait. The difference is that online motorcycle taxi drivers who occupy this element are online motorcycle

taxi drivers who are members of the Meruya online motorcycle taxi community. The placement location is across the street from the UMB area. The location occupies the Grab community in front of the Himindo building, while the Go-jek community is in front of the BYWI futsal building. Grab online motorcycle taxi occupies the area in front of the Himindo building with the permission of the building owner. The existence of Grab forging pedestrians is not legally justified, but because pedestrian activities in this area are less than pedestrians in the opposite area, grab communities use them for waiting activities.



Figure 7. Basic Field Element at UIN Stop
Source: Lamria, 2018

4. Conclusion

In the two research study objects, visible patterns of land use around the campus, UIN campus, and UMB campus. Both have different patterns in terms of time patterns, patterns of place settings, and patterns of activities. On the UIN campus, there is no segregation of areas waiting for providers or online motorcycle taxi communities, but on the UMB campus, there is a separation of areas waiting for online motorcycle taxi providers. The distribution pattern of the area of online motorcycle taxi driver users at UIN campus is more spread to several points, while at UMB campus less area is used.

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