Adaptation of Ojek Online's Behavior to Open Space Settings in Pontianak City

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Abstract. In the era of the Industrial Revolution 4.0, technological developments greatly facilitated the city community to carry out various activities and were no longer limited to space and time. The ease of online applications such as online motorcycle taxis provides city-class convenience in all matters and across socio-political and economic sectors. The emergence of online motorcycle taxis in Indonesia in general and the entry of Ojek Online in the City of Pontianak made a new behavior in the economic transaction system and provided convenience for the community in its activities. On the one hand it has a positive impact and on the other hand, raises new sights in the open spaces of the city which are used as hangouts or activities waiting for online motorcycle taxis. This study aims to determine the level of adaptation behavior carried out by online motorcycle taxi drivers to the space settings they are waiting for and what forms of adaptation behavior are carried out in open spaces in Pontianak City. The method used is Behavior Mapping, which looks at the relationship between the Space Setting variables and behavioral settings variable towards the adaptation behavior of online motorcycle taxi drivers in Pontianak City. The level of adaptation that arises that is derived from Adaptation By Adjustment, Adaptation by Reaction and Adaptation by Withdrawal. The results of this study are The behavior of Adaptation by Adjustment of the Ojek Online in the open space is influenced by Fixed Featured Space. If there is no Fixed Featured Space setting and the Semi-Fixed Feature Setting can trigger the occurrence of Adaptation by Reaction, and Adaptation by Withdrawal behavior is influenced by weather conditions such as heat and rain. This research is expected to be the input of the Pontianak City government in managing open spaces and facilitating online motorcycle taxi drivers to get a more orderly and humane waiting place.

Keywords: adaptation behavior, settings, open space, online ojek

1. Introduction

One interesting issue occurred in the city of Pontianak, which began the entry of Ojek Online around April 2017 which had a multi-dimensional impact, in a short time its existence quickly fulfilled and became a part of supporting the activities of the people of Pontianak City and became a new source of income for the people of Pontianak City we easily find almost in every corner of the public room of the City of Pontianak, starting from offices, places to eat, restaurants, pedestrian lanes, and open spaces. Online motorcycle taxi drivers use open space as a place to wait for orders online. Waiting behavior in open space that is not designed as a special area to wait for orders, raises a new form of...
behavior in open spaces in the city of Pontianak. The sight of Ojek Online or known as "Ojol" began to decorate the face of the City of Pontianak with its distinctive “green jacket”, located in all strategic public spaces. The behavior of the Ojol in occupying open space is an interesting thing to observe, namely how the Ojol from adaptive behavior in occupying a space setting waiting for orders.

This study aims as input material and the proposed arrangement of open space in the city of Pontianak so that the existence of Ojol in the open space does not become destructive a face/image of Pontianak City.

Open space that comes from the word open space, which means open, free, or outside the home. Space which means space, place, area (Echols, 2005 [1]). So open space is a place that is in an open area freely (Open space).

Open space if we look at it in two dimensions can be seen as a form of solid pattern (building) and void (open space) and if we review figure-ground theory (Trancik, 1986 [2]) said: Understanding the shape of urban space begins with an analysis of the relationship between building masses and open space (solid and void). In other words, an area that does not have a building (void) is an area that forms open space around a building (solid). Open space itself is a forming element of a city image, between solid patterns (buildings) and voids (open spaces), which are an integral and inseparable element.

Based on the type of Layout Patterns there are three things that are the main components that need to be considered, namely (Hall, 1966 in [3]) and Rapoport, 1982 [4]):

a. Fixed-feature space, for example, solid walls, floors, windows;

b. Semifixed-feature space, for example, chair table furniture; and

c. Informal space (non-fixed), namely space that occurs outside of consciousness (activity) in a certain period of time.

Barker in (Laurens, 2004 [5]) mentions Behavioral setting is a "behavior code" that is a pattern of human behavior related to the physical environment. And this opinion is also supported by Haviland in (Laurens, 2004[5]) related to behavioral governance which is an "activity space" to describe the relationship between behavior and environment in aspects of architectural design. Other opinions expressed by Heimstra and McFarling's, in (Bell, 1996 [6]), namely a study of the relationship of behavior (physical) and physical environment (effort) is an attempt to build empirical establishments and theories of relationships between one's behavior and experience of the environment awakened.

Barker, 1968 (in Lang, 1987 [3]) defines Behavior Setting as a combination of activity and place consists of four major items such as:

a) A recurrent activity, there is a recurring activity, in the form of a behavior pattern (sandling pattern of behavior).

b) A particular layout of the environment (setting space), certain environmental arrangements (circumjacent milieu) social environment related to behavior patterns.

c) A specific time period (time), carried out at a certain time period.

d) Forming the same relationship between the two (synapomorphy), conformity and relevance.

Further explained (Altman, 1980 [7]) concerning three models/levels of adaptation that are carried out to be able to be in harmony with their environment, namely:

a) Adaptation by Adjustment, which is changing behavior to suit the environment (adaptation).

b) Adaptation by Reaction, which is to change the environment to suit the desired conditions (Adjustments).

c) Adaptation by Withdrawl, which is running/escaping from environmental conditions. This condition can be called as an inability to adapt because of environmental pressure factors that exceed the acceptable.

2. Research method

Data collection was carried out by field observation, interviews and questionnaires, and mapping behavior through the help by software/applications online, to find the distribution points of Ojol location, especially those in the open spaces. Field observations were carried out to check the
correctness of the data taken online. The application of data in the form of mapping the location of open spaces for gathering locations, identifying the variable setting for the place where the motorcycle taxi was gathered online. Interviews and questionnaires are conducted to extract information that cannot be seen directly, such as personal opinions or expectations of the perpetrators. The time period of the observation is in July 2018 to September 2018 in a week including a weekend at a day and night, to make sure the data is valid.

The observation variable of this study consisted of independent variables namely Space Settings and bound Variables, namely behavior settings.

Table 1. Research variable

| NO | Variable            | Parameter | Indicator                                                                 | Method          |
|----|---------------------|-----------|---------------------------------------------------------------------------|-----------------|
| 1  | Free variable       | Fix       | Use of all elements that are difficult to change or fixed (Trees, stairs,  | Observation,   |
|    | (Space Setting)     |           | Pavement, etc.)                                                           | Behavior Mapping, Interview |
|    |                     | Semi Fix  | The use of all elements that are not fixed or flexible is easy to change  | Observation,   |
|    |                     |           | (benches, tables, etc.)                                                   | Behavior Mapping, Interview |
|    |                     | Non Fix   | Space formed because of activities such as gathering                     | Observation,   |
|    |                     |           |                                                                          | Behavior Mapping, Interview |
|    | Behavior Settings   | Person    | Online motorcycle taxi group                                             | Observation, Behavior Mapping, Interview |
|    |                     | Activity  | -Activities performed                                                     | Observation, Behavior Mapping, Interview |
|    |                     |           | -Returning Activities                                                     | Observation, Behavior Mapping, Interview |
|    |                     | Time      | -Duration                                                                 | Observation, Behavior Mapping, Interview |
|    | Bound variable      |           |                                                                          | Observation, Behavior Mapping, Interview |
|    | (Behavior Settings) | Behavioral | -Adaptation By Adjustment / Behavior adjusts to setting (AA)               | Observation, Behavior Mapping, Interview |
|    |                     | Phenomenon|                                                                          | Observation, Behavior Mapping, Interview |
|    |                     |           | -Adaptation By Reaction / AR Modify the Setting                           | Observation, Behavior Mapping, Interview |
|    |                     |           | - Adaptation By Withdraw / Exit Settings (AW)                             | Observation, Behavior Mapping, Interview |

The distribution of reasearch area can be seen in this figure 1:

![Figure 1. Distribution research area in Pontianak City](image)
3. Results and Discussion
Analysis of Behavior Setting of Online Motorcycle Adaptation Behavior in open spaces in Pontianak City at Table 2:

Table 2. Behavioral analysis of online motorcycle ojek adaptation at open space

| No | Location | Picture | The space settings | Phenomena Behavior (Adaptation Level) | Analysis |
|----|----------|---------|--------------------|---------------------------------------|----------|
| a  | Location A | Behind Texas Chicken -Jl Budi Karya | Time Periode: Day And Night | a AA: Behavior that adapts to setting conditions, activities waiting for orders made by sitting on a motorcycle and sitting on a concrete ladder | A location setting allows online motorcycle taxi drivers to wait or wait for orders because they easily park vehicles on the road that are deserted from activities and there are no restrictions and are free from the supervision of the owner of the building owner. Online motorcycle taxi occupies space settings by doing AA, while AR does not occur. AW occurs at dusk because the setting does not have shelter/shelters or when it rains they do not occupy the location setting A. Usually the Ojol occupy the setting at night. |
| b  | Location B | T-junction Sepakat II Next to Ice Sugar Cane -Jl Sepakat II, Jl Reformasi | Time Periode: Day | a AA: Behavior that adapts to setting conditions, activities waiting for orders made by sitting on a motorcycle or riding on a bench provided by street vendors | B Location settings allow online motorcycle taxi drivers to wait or wait for orders, namely by occupying the shoulder of the road from the ground 2-3m wide. They simply park the vehicle easily on the shoulder of the road and do not interfere with the traffic community's activities. Online motorcycle taxi occupies space settings by doing AA, AR does not occur. AW occurs only at night or during rain. |
| c  | Location C | Infront Of Toko/ Ruko SS -Jl | | a AA: Behavior that adapts to setting conditions, activities waiting for orders to be | C location settings allow online motorcycle taxi drivers to hang out or wait for orders by occupying the front yard of the closed shop. Online |

a. Location A

- b Semi-Fix
- Furniture: None
- Activity: there is no informal activity

b. Location B

- a Fix
- Horizontal: Road Shoulders, Shaded Tree Leaves
- Vertical: Tree Trunk
- Furniture: Wagon
- Activity: Street Vendors Activities

Place Centered Mapping Location A

Place Centered Mapping Location B

Place Centered Mapping Location C
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| No | Location | Picture | The space settings | Phenomena Behavior (Adaptation Level) | Analysis |
|----|----------|---------|--------------------|---------------------------------------|----------|
|    | Adisucipto/G H. Saleh | Time Periode: Night | Trunk b Semi-Fix - Furniture: none c Non-Fix - Activity: no activity | carried out by sitting on top of the storefront area | motorcycle taxi occupies space settings by doing AA, AR does not occur. AW, which is Ojek Online, comes out of the setting, occurs in the morning until the store closes in the afternoon, and occupies the setting at night because there are no activities in the shop. Although there are shade or trees as one of the determinants of the selection of waiting rooms for order, online motorcycle taxis cannot occupy space due to the factor of supervision of the shop owner and the ongoing activity of the store. |
| d. 6 | Location D in front of the school Smp 11 Pontianak -Jl. Ahmad Marzuki | Time Periode: Day | a Fix - Horizontal: Road Pavement in front of the School, - Vertical: Tree Trunk b Semi-Fix - Furniture: none c Non-Fix - Activities: PKL Activities | a AA: Behavior that adapts to setting conditions, activities waiting for orders made by sitting on a commensurate road along the front of the school, b AR: Doesn't appear, c AW: Exit / does not occupy the setting at night | D Location setting allows online motorcycle taxi drivers to hang out or wait for orders by occupying the road ahead of the school which is wide enough for the Online motorcycle to do AA, which is waiting for orders while sitting on a motorbike. AR behavior does not occur. AW behavior, which is Ojek Online, comes out of the settings that occur at night because there is no activity in the setting that allows getting orders |
| e. 7 | Location E Near the Gas stall -Jl. DI Panjaitan | | a Fix - Horizontal: Electric Pole Base, - Vertical: Electric Pole b Semi-Fix - Furniture: Gasoline Kiosk Pedestal Chairs, Gasoline Selling | a AA: Behavior that adapts to setting conditions, activities waiting for orders made by sitting on a motorbike or sitting on a bench at the existing petrol station. | E location settings allow online motorcycle taxi drivers to hang out or wait for orders by occupying a pedestrian lane that has also been occupied by petrol kiosk sellers. Online motorcycle taxi drivers conduct AA, which is to adjust the behavior of waiting for orders while sitting on a motorcycle or |

Place Centered Mapping Location C

Place Centered Mapping Location D

Place Centered Mapping Location E
| No | Location | Picture | The space settings | Take effect | Phenomena Behavior (Adaptation Level) | Analysis |
|----|----------|---------|--------------------|-------------|--------------------------------------|----------|
| 6  | Location E | ![Diagram](diagram.png) | Carts Non-Fix - Activities: Gasoline Kios Seller / PKL Activities | b AR: Doesn’t Appear c AW: Exit / does not occupy the setting at night | Sitting on a bench selling stall, AR does not occur. AW, which is Ojek Online, came out of the setting, which happened at night because there was no informal activity of the gasoline seller. |
| f. 8 | Location F | ![Diagram](diagram.png) | a Fix - Horizontal: Shoulder of road and road of concrete, Tree Branch - Vertical: Tree Trunk b Semi-Fix - Furniture: None c Non-Fix - Activity: None | a AA: Behavior that adapts to setting conditions, activities waiting for orders made by sitting on a motorcycle. b AR: Doesn’t Appear c AW: Does Not Appear | F Location settings allow online motorcycle taxi drivers to hang out or wait for orders by occupying a lane that is still quietly passed by vehicles. Online motorcycle taxi drivers conduct AA, namely adjusting the behavior of waiting for orders while sitting on a motorcycle or squatting and sitting on a road made of concrete, AR does not occur. AW does not appear, the existence of shade trees allows this location to be the place for online motorcycle taxis at all times. |
| g. 9 | Location G | ![Diagram](diagram.png) | a Fix - Horizontal: Shoulder of road and road of concrete, Tree Branch - Vertical: Tree Trunk b Semi-Fix - Furniture: None c Non-Fix - Activity: None | a AA: Behavior that adapts to setting conditions, activities waiting for orders made by sitting on a motorcycle. b AR: Doesn’t Appear c AW: Exit the setting at night | G location settings allow online motorcycle taxi drivers to wait for orders by occupying the road body which is quite 2-3m wide. Online motorcycle taxi drivers conduct AA, which is to adjust the waiting behavior of orders while sitting on a motorcycle, AR does not occur. AW, the inability to occupy/leave the setting occurs at night or when it rains. |
null
The space settings take effect by changing the place of setting they wait by giving the pedestrian seat a pedestal in the form of a tarpaulin, so it is more comfortable waiting for orders, not just sitting, still allowing to lie down, AA doesn't happen. AW does not appear.

Place Centered Mapping Location J

k. Location k
Infront Empty Shop House side of D'Bamboo -Jl. Merdeka

Time Period: Day And Night

a Fix
- Horizontal: Cantilever Buildings
  - Vertical: Building Wall
    b Semi-Fix
    - Furniture: None
    c Non-Fix
    - Activity: None

a AA: Waiting for orders while sitting in front of the empty office terrace.

b AR: None

c AW: None

Place Centered Mapping Location K

l. Location L
Infront of RM. RIO 2 -Jl Merdeka Barat

Time Period: Day And Night

a Fix
- Horizontal: Branch, Pedestrian Path
  - Vertical: Tree
    b Semi-Fix
    - Furniture: None
    c Non-Fix
    - Activity: None

a AA: Waiting for orders while sitting on a pedestrian lane near the shade of a tree.

b AR: None

c AW: None

Place Centered Mapping Location L

m. Location M
In Front of Mitra Mart Department

Time Period: At

a Fix
- Horizontal: Branch Pedestrian Track Tree,

a AA: Waiting for orders while sitting on a pedestrian lane near the shade of a tree.

b AR: None

c AW: None

Place Centered Mapping Location M

N location settings allow online motorcycle taxi drivers to wait or wait for orders by sitting in the pedestrian line in front of restaurants/eating places that are classified as AA behavior and popping their motorbikes in the restaurant parking lot. The behavior of AR is to change the settings in which they wait does not occur. AW does not appear.
| No. | Location | Picture | The space settings | Phenomena Behavior (Adaptation Level) | Analysis |
|-----|----------|---------|--------------------|--------------------------------------|----------|
|     | Store Sungai Jawi - Jl. H Rais A. Rachman | Night | concrete bridge - Vertical: Tree Trunk b Semi-Fix - Furniture: None c Non-Fix - Activity: None | near the shade of a tree. | classified as AA behavior and put their motorbikes on the bridge as a parking area. The behavior of AR is to change the settings in which they wait does not occur. AW, which is the inability to occupy a setting occurs in the morning because the bridge is used as a store activity near the bridge. |
| n. 17 | Location N In front Of Garuda Mitra Department Store - Jl. H Rais A. Rachman | Time Period: Night | a Fix - Horizontal: Branch Tree, bridge - Vertical: Tree Trunk b Semi-Fix - Furniture: None c Non-Fix - Activity: None | AA: Waiting for orders while sitting above the bridge boundary. AR: None AW: Does not occupy the Morning Time setting N location settings allow online motorcycle taxi drivers to hang out or wait for orders by sitting in concrete bridge constraints that are classified as AA behavior and popping their motorbikes on the bridge. The behavior of AR is to change the settings in which they wait does not occur. AW, which is the inability to occupy a setting occurs in the morning because the bridge is used as a store activity near the bridge. |
| o. 19 | Location O In front of Shop House - Jl. Karya Baru | | a Fix - Horizontal: Concrete hardness, building canopy - Vertical: Building Wall b Semi-Fix - Furniture: None c Non-Fix - Activity: None | AA: Waiting for orders while sitting on a motorcycle. AR: None AW: None O location settings allow online motorcycle taxi drivers to wait for orders by sitting on motorbikes belonging to AA behavior and putting their motorbikes in front of empty shops. The behavior of AR is to change the settings in which they wait does not occur. AW does not appear. |
Based on the analysis, there are several things that affect the behavior of adaptation in the open space. The first factor that is quite strong influences the adaptation behavior of online motorcycle taxi drivers, namely fix featured space settings, the existence of trees that are in the process of greening open space as a determining factor for the choice of the place where they gather, according to a study conducted by Zhu, et al. (2017) there is a factor in the existence of a green area that provides comfortable/satisfaction for humans when in an open space [8]. Shelter trees or building shelters or building canopies are also factors that give rise to Adaptation by Adjustment Behavior of online motorcycle taxi drivers in the waiting room settings, they can occupy space easily without the need to make changes to settings.

The second determining factor is the existence of space that allows parking their vehicles so that the place settings can be used while waiting for orders by doing Adaptation by Adjustment that is waiting while sitting on a motorcycle. The existence of a shelter becomes a unit with the availability of an area that allows parking the vehicle and if there is no shade, Adaptation by Withdrawal will emerge, which is out of settings due to uncomfortable setting conditions such as too hot during the day or rainy day.

The third factor is the Non-fix variable, which is an informal activity that already exists as one of the determinants of Ojek Online in occupying a space setting to wait for orders, the *Ojol* can easily adjust in occupying the space settings already formed (Adaptation by Adjustment).
Space that is weak against supervision and does not have activities that are clearly one of the factors that determine the perpetrators of Ojol occupy settings such as in front of empty shophouses, or deserted roads and pedestrians. Online motorcycle taxi drivers who occupy the settings in front of empty shops/shophouses still allow Adaptation By Withdrawal if there are activities in the store/shop or the privatization of the ownership of the space.

The semi-fix element is a factor that does not determine the existence of online motorcycle taxis, in occupying an open space setting, even though there are no semi-fix elements Ojol can easily occupy settings (Adaptation by Adjustment).

By setting the behavior of Ojol activities waiting in the open space can be categorized as forming a non-fix space setting, namely space that arises because of informal activities, this is theoretically proposed by Hall, 1966 (in [3]) Can bring up other new activities and this needs to get a serious response from the Pontianak City government to regulate the regulations regarding the existence of Ojol, especially those in public open spaces, not to the extent that currently the life of the people of Pontianak City in economic activities becomes neglected or even disrupting the activities of urban life because of gathering behavior in open spaces of the city.

Adaptation behavior that needs special attention is the behavior of Adaptation By Reaction, which has the potential to change settings, such as what happened to P location of observations and J location of observations, will have a bad impact related to the arrangement of open spaces in Pontianak City especially to build semi-permanent buildings which is not official and of course this needs attention from the local government to creating sustainability development.

Analysis diagram can be seen in this figure 2.

![Figure 2. Analysis diagram](image)

4. Conclusions and Suggestions

Based on the results of the analysis, it is concluded as follows:

a. The behavior of Adaptation by Adjustment of the Ojol in the open space is influenced by Fix Featured Space, namely the existence of an area that allows parking for vehicles, building shelters, and shady trees.

b. If there is no Fix Featured Space in setting like the Shading area and the Semi Fix Feature Space Setting can trigger the occurrence of Adaptation by Reaction Behavior, which changes the open space setting according to the expected comfort.

c. Adaptation by Withdrawal behavior is influenced by weather conditions such as heat and rain and from mechanisms control from the owner, so Ojol cannot occupy space settings.

d. Semi-fix variable is not too strong to influence the emergence of Adaptation by Reaction Behavior and enough to do Adaptation by Adjustment or change behavior.
e The Variable of time and weather conditions become one of the considerations of an online motorcycle taxi in the open space setting or will come out of the open space setting of Adaptation by Withdrawal.

Suggestions:

a There needs to be special attention from the Pontianak City Government regarding the existence of online motorcycle taxi drivers who occupy open spaces so that they are more humane in their activities which have already helped the Pontianak City social-economic life in a form that regulates zones that are allowed to stand Online Ojek.

b A place to eat that has a lot of orders from Online motorcycle taxi orders should provide a special area for Ojek Online waiting for orders, and also parking lots so as not to wildly occupy the open space around the place of order

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