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Does Go-Jek affected Smart City Operational in Jakarta

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Abstract. Online transportation such Go-Jek affected a lot of daily routine activity which change the lifestyle of living nowadays. Therefore, a question of does online transportation such Go-Jek really make Jakarta become a smart city? In fact some of online transportation users feel their life more effective dan flexible because of the service, however private drivers feel that the road is more crowded since the existence of online transportation which enhance the usage of motorcycle. Because of the uncertainty in between, this phenomenon needs to be testify with some data gathering and theory matrix. The finding would be different from the first thought of the usage in online transportation, therefore, be that meaning, the tendency is not by overlooked in a good or bad way, but from few point of perspectives.

Keywords: Online Transportation, Smart City, Go-Jek, Jakarta.

1. Introduction

Jakarta, the capital city of Indonesia is one of the most densely populated cities in the world, with 9.6 million citizens [1]. Unfortunately, Indonesia is still listed as a developing countries as which it is still lacking from the perspective of social, economic and infrastructure. In response to its infrastructure, Jakarta still misses

the quality of public transportation system in which many private sectors are trying to fill the gap of solutions in between by providing an effective kind of transportation. [2]

At the moment, modern society has already used a different kind of public transportation service through the use of IT that is called online transportation. This transportation service could be called online if all transactions are done online by using internet, software applications, and by the usage of smartphone [3]. The life style of people has changed by the existence of new online transportation services,

people easily find transportation services anywhere and anytime by the utilization of the smartphone [4]. Thus, users do not need to bargain the fare as the application will provide fix calculations which many of traditional public service in Jakarta still using bargain method [5]. Nowadays, we could easily find this online application everywhere in Jakarta as the local product, *Go-Jek*.



Go-jek has reached the status of deca-corn on the IT industry [6] as it always brings out of Indonesian language on its name which came from “ojek” that means motorcycle taxi. One of the reasons we chose *Go-Jek* as our research study because it is an Indonesian product in which is founded by Nadiem Makarim who has an Indonesian citizen. This paper focuses on the impact of online transportation (*Go-Jek*) on making Jakarta to become a smarter city and more resilient to its residence. Therefore, in this section, we will have a look at the process in between the relation of Go-Jek and Smart City that taking part in making Jakarta into a better and resilience city.

Additionally, with the existence of Go-Jek, we might have a feeling of optimism that this online transportation application would make our life more efficient, could help Jakarta to overcome their problems, growing to be smarter and resilience city. Nevertheless, pessimistically, it is possible that with every new creation, the old one will be abandoned as the phenomenon of „zero sum game“. [7]

In reality, to become a smart city, there are some assessment process, innovation & action that has to be done. Thus, a strategy to become a smart city are based on the broad point of views and has to be seen from 6 important aspects which we could call *Smart Economy, Smart Environment, Smart Government, Smart Living, Smart People & Smart Mobility*. [8]

Nonetheless, the smart label orientation does not have to be Information and Communications Technology (ICT) driven. The orientation should be defined by the innovation use of state of art technology systems in which the term „smart city“ is used to indicates specific goals are met using innovative systems and the process orientation of the stakeholders [9]

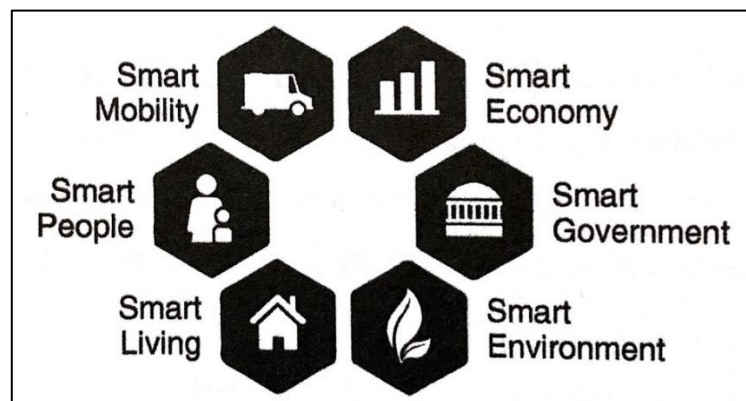


Figure 1 The six smart-city indicators

Source: (City, 2018)

The table above will be linked to the discussion sections below in which will be analyzed deeply with the comparison of Go-Jek. However, there are some explanations that lead cities toward smart approaches; rapid urbanization, environmental concerns, demographic changes, ICT advancements and complex administrative bureaucracy. [10]

At the moment, the mobility/ transportation systems in Jakarta could not be called smart yet, not only in its mobility but on the other indicator such as surveillance, safety, and economics as well [11].

However, with the existence of online transportation as Go-Jek, will it make a difference in making Jakarta more towards smart city?

As it seems to get more crowded, *Go-Jek* drivers in Jakarta that has reached 1 million in 2018 [12] has grown rapidly over a few years back since it has started in 2010. It is because it expands its wings to innovate and develop their services to some extent in which will be shown by the table with some explanations below;

Go-Jek has developed their application and services rapidly and innovatively in Jakarta, in which all of those services and applications are tracked by GPS (Global Positioning Systems) that will be giving live location of the drivers, users, business and others relevant conditions. With the GPS all activities could be tracked which the services will be transparent and safety users. Yet, upon those innovations and advances, could it really enhancing the city of Jakarta to become a smarter city? A Better city? Being Resilience and Sustainable?

2. Methodology

This research utilized a qualitative method [13], revealed that qualitative research is used to understand and define the social reality that is experienced by the informant through a direct interaction. This analysis has been made to gain a descriptive result from different perspectives in different condition and situations of individuals and groups. Different point of views of data and information was gathered and analyzed deeply in line to discover the impact of online transportation (Go-Jek) in Jakarta towards its resilience and the aspect of smart city.

The Primary data that was collected through in-depth interview conducted with 3 different backgrounds related to the online transportation matters and observations. *Secondary data*, was gathered from the literature review, online websites, and news that could support the result of primary data. The in- depth interview was done with informants who actively use Go-Jek service at least 3 times/ week. These criteria were chosen as the users used it as a daily routine, thus, the information could be fulfilled without any risk of misinformation.

The subjects of the research were coming from 3 different points of view about online transportation. The *First group of informants* were 3 users of Go-Jek, AB that has a background in architecture and uses the service of taxi application 3 times/ week, NT is a lecturer that uses Go-Car more than 3 times/ week, JS is an informant who has a food business that uses Go-food to send his product 7 times/ week.

The Second group of informants were 3 drivers of Go-Jek (Go-Ride & Go-Send) that more or less came from the same background as Go-Jek partners.

Third informants were from the Local Government.

3. Results and discussion

3.1 Results of Interview

This section was made to explore the possibilities that could be extracted and analyzed deeply in the discussions chapter. The characters were explored from 3 different perspectives towards online transportation impact on Jakarta's smart city. There will be driver's point of view, Users point of view, and the local government point of view.

Go-Jek Drivers

(+) It is inevitable that online transportation such *Go-Jek* really helping the life of its partner (drivers, couriers, etc). As because the existence of *Go-Jek*, therefore it provides some people to have a new business and employment opportunities that is flexible and profitable in which may not been presented in Jakarta before or even in the world.

(+) The main reason they work with *Go-Jek* is because their working time is flexible in which they could perform as a part-timer and depends on the frequent times of their rides in which they will get points on every ride they did and then those bonuses can be exchanged as real money. Additionally, they find new communities and co-workers in this online transportation corporation. As the community that is united by design, in which the green color on the attributes and helmets of the drivers has the power to bring solidarity, sense of trust and safety among the community of *Go-Jek* drivers. [14]

(±) In terms of smart mobility, 3 of drivers informants admit that Jakarta is getting crowded with the amount of *Go-Jek* drivers and motorcycles that is increased. But, for them those matters were another positive response in which indicates that their business partner *Go-Jek* is doing well and in every places they would meet another *Go-Jek* drivers that could exchange information with one another and the feeling of safety because they are in a specific kind of group.

Go-Jek Users

Three different backgrounds of *Go-Jek* users were interviewed in which each of the informants had a diverse responds towards the thrive of online transportation in Jakarta.

(+) The first informants (AB) have an architecture background and experienced as a *Go-Jek* Driver as well, but in this case he will be in the perspective of users. His responds was positive about the presence of *Go-Jek* in Jakarta, he said that it has enhanced the efficiency of the users such less time and energy to buy food/ sending things to other people.

(-) The first informants (YN) also realized that the road is getting crowded as a lot of *Go-Jek* motorcycle waiting for the orders on the side of the road. Pollution is one thing

that concerning him as well, which getting worse because the increasing of Go-Jek motorcycle in Jakarta.

(+) The second interview (NT) also has a positive response as she always uses *Go-Car* for almost every day as she is working from morning until 10 pm evening in which the usage of personal driver is really not efficient for her that she has to pay the driver full day until overtime yet the driver will be having a lot of free time in between employer's work office time.

(-) The Opposite thinking occurred that (NT) had been also pollution in Jakarta has worsened since Go-Jek has risen to Unicorn. *Go-Jek* online transportation does not reduce the traffic density instead an increase of congestion. She said that the best transportation for *Go-Jek* system supposed to be using electric transportation in which it is environmentally friendly and could be the trend breaker to using electric vehicle. Mass transportation also another alternative that is stated by her in which such MRT, LRT and BRT could reduce the usage of vehicles and decreasing the travel time and distance of its users.

(+) Third informants (JS) owns a food business for less than a year, he is in partner with *Go-Food* to sell, branding, and deliver their products. He is so grateful about the presence of *Go-Food* services as his business is new and does not have a restaurant to eat on the spot. His product will only be served in taking away service, in which he cooperates with *Go-Jek* to register their brand in the food list of *Go-Food* application. It is very simple, helpful and efficient for MNW to sell his product, efficient courier manpower, and call orders.

(-) The only drawback for JS is that the delivery charge will be higher than usual because they do not have any branches yet in many areas, so the delivery service will be counted from the trip distance in which it is not efficient at all for the users.

Local Government

On the other hand, the local governments respond was contradictory as they do see this *Go-Jek* anomaly from urban aspects.

(+) It is true that online transportation is helpful to some users as they have saved up their energy and time by using *Go-Jek* services, cashless payment has been used since then and also new jobs, business also came up from this new application.

(-) On the other hand, every delivery that *Go-Jek* did, for each order to each driver and each users are not efficient because it has no difference with you have a private delivery service to your house and if the total of Jakarta's citizen is 9.6 million [15] then 9.6 million are ordered to their house, imagine how crowded the traffic will be. Additionally, most of the transport that they are using is an inefficient motorcycle in which the more the it grows the more pollutants will be covering all over Jakarta, as the engine of motors are more polluted than normal cars. The impact of this digital transport also causing other transport loss of passengers and it could dissolve the conventional transportation industry such as conventional taxi, *Metromini* (Conventional bus), *opang/ ojek pangkalan* (conventional motorcycle taxi), etc.

3.2 Discussions

Smart City Indicators: The Truth of Online Transportation in Jakarta

In this section, the six indicators will be broke down step by step to analyze and testify if the existence of *Go-Jek* could make Jakarta a smart city. Arguments that could enlighten this whole research paper results will be shown by the advantage (+) and disadvantage (-) by each section.

- *Smart Environment (-)*: As It has been discussed on the section above, the existence of *Go-Jek* increases the pollution index in Jakarta. It is because the drivers of *Go-Jek* are using motorcycle in majority in which turns out that motorcycle is 10 times more polluting per mile rather than a vehicle car. [15]. Therefore, imagine that there are 1 million *Go-Jek* drivers in Jakarta [12] are ordered at the same time all together with a lot of motorcycle drivers as well every day in Jakarta which we can wander the air pollution that will be occurring in one day.
- *Smart Government (-)*: The bureaucracy claimed still not doing their best to provide the important needs to the citizen of Jakarta as a mega city. For example, the development of mass transportation that has not finished until now in which a lot of Asian countries has done it long ago such Singapore, Malaysia and Thailand. Thus, it is causing a great traffic jam in Jakarta in which it has been used by *Go-Jek* as their business problem solving by using a slim motorcycle to slip through the congestions and effectively deliver passengers on time.
- *Smart Living*: There are not much relationship in between *Go-Jek* and smart living, therefore this indicator does not issue any results from the analysis.
- *Smart People (-)*: Online transportation such as *Go-Jek* surely has a lot of drivers in charge either for motorcycles or cars. The corporation will not teach how to respect the passengers. Many of the online transportation drivers do not know the value of politeness to the costumer, in which from the user's perspective, some of them are in the mood swing and not really care with the passengers. On the other hand, a conventional corporate taxi in Jakarta has something called "corporate culture" such as Blue Bird which gives their drivers some training and culture learning before they start driving and the results are amazing, for example: when they are being complained by the costumer, the Blue Bird driver will always listen and never resist in which will be a different situation with the online transportation car drivers. Same as when we step into their taxi, they will always greet politely to the customers, which it is rarely happened in online cars.

- *Smart Mobility (-)*: In the case of *Go-Jek*, it is very visible that the mobility in Jakarta is getting more congested and not efficient day by day as the ordered system 1on1 on every user of the online transportation applications. Imagine if there is 100.000 orders and there are 100.000 motorcycles that have to come out to the road at the same time. However, if there is no order coming in, most of *Go-Jek* drivers just park and wait on the side of the roads that caused congestions at the busy time. This 1on1 service delivery is just the same as using private vehicles, not reducing any congestion and not decreasing any travel time. In this section, a mass transportation that could be reached by $\pm 500\text{m}$ walking radius, such as MRT, BRT or LRT and reducing the travel distance will be called as smart mobility.
- *Smart Economy (+)*: Last but not least, the only smart city indicators that has a positive result with presence of *Go-Jek* would be Smart Economy. This could be seen in the new business and field of jobs that are created along the growth of *Go-Jek*. It is also has created a cashless payment system that is new to Jakarta city and becoming a trend nowadays because of *Go-Jek/ Go-Pay* application.
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4. Conclusion

“Does Go-Jek making JAKARTA smart enough for its Smart city”?

The first time this research was started, many of thoughts possess a view of positive results to this new online transportation that could get rid of Jakarta's transportation problem and change them into a Smart City. However, that feeling could not any longer bonded in this research since it has been observed from the two points of perspectives, micro as an individual and macro as an urban area. For the individual point of view, online transportation is really efficient and flexible on their daily routine activity, but they do not realize that in the short time, the price will get higher and it is not sustainable for a long term matters. However, the local government considers this phenomenon from urban and broader perspective in which making us realize that online transportation is just a temporary convenience.

Finally, from the 6 indicators, there is only 1 barometer that is successfully developed with the existence of *Go-Jek* which is Smart Economy. By that means, this research has been concluded that *Go-Jek* still could not be called as Smart city to Jakarta by the absolute comparison of 1:5 in Smart City Indicators.

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