# Comparison of Online Transportation Policy Problems Between Major Cities in Indonesia

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**Abstract.** His study aims to explain the problems of online transportation in big cities such as Jakarta, Medan, and Surabaya in Indonesia. The method used in this research is qualitative analysis. Furthermore, this study uses Nvivo-12 Plus Software to analyze qualitative data and present cross-tabulation and Visual analysis. There are five stages in using the Nvivo application in this study: data collection, data coding, data classification, and data presentation. The data that has been processed with Nvivo-12 Plus is then carried out with qualitative analysis. The data sources in this study were from well-known local media websites. The findings in this study indicate that the highest level of problems for online transportation is DKI Jakarta, with seven problems: congestion problems, fictional orders, violence, tariff problems, licensing, quotas, and zoning, Ranked second in Surabaya with problems of thought order, tariffs, permits, quotas, zones, and permits, Then the third rank is Medan City, with licensing problems, quota problems, and the controversy over the Minister of Transportation Regulation No. 108 of 2017. This study only analyzes the problems that arise due to online transportation by comparing them in three big cities. Further research is needed regarding the government's response in providing solutions to the problems caused by the arrival of online transportation.

**Keywords:** Sharing economy · Online transportation · Innovation disruptive

## 1 Introduction

Technological developments can help humans to carry out various kinds of activities. Efficient facilities are needed in their activities. One of the facilities referred to in supporting community mobility is the mode of transportation. Each available mode of transportation has its advantages. In the transportation sector, converting transportation services from traditional/conventional to modern is a technological advancement [1].

In the era of technology-based transportation, effectiveness and efficiency are factors that everyone needs. The name of online transportation has realized Internet-based transportation sector innovation. This type of transportation can connect directly with the applications available on smartphones. Online transportation has its advantages when compared to the previous transportation system. Some of the advantages of online transportation include accessibility, transparency, and cost-efficiency [2]. Another advantage


C. Stephanidis et al. (Eds.): HCII 2022, CCIS 1654, pp. 241–248, 2022.
https://doi.org/10.1007/978-3-031-19679-9_30

of online transportation is that it can provide the speed of time, convenience, security, and is environmentally friendly, all of which are connected to one system platform [3]. The following online mode of transportation also offers other conveniences such as goods delivery services, cash, and food ordering [2].

The presence of online transportation in Indonesia since 2015 began with PT. Gojek. Online transportation was present in Indonesia at a time when the government did not well organize the transportation system. Some Indonesians think that online transportation is a solution to support their activities, but some people who depend on conventional transportation think online transportation is a new problem. Along with the development of transportation, online transportation has triggered social jealousy for conventional transportation such as motorcycle taxis, taxis, buses, etc. In California, online transportation is considered a company that creates unfair competition in the transportation sector because it charges lower prices and drivers who do not have professional driver's licenses [4].

Several previous studies on the problems that arise due to the presence of new entrants in the transportation sector. Have an impact on the socio-economic conditions of conventional transportation, namely a decrease in the income of conventional transportation drivers caused by tariff problems, the shift in passenger interest [5]. Online transportation has succeeded in driving social change at three levels: the individual level, the inter-individual level, and the community level [6]. The reduction in the income of conventional transportation drivers, up to 70%, makes the social conflict between stakeholders of transportation services unavoidable [7].

This study is different from previous research. This study analyzes several problems caused by online transportation in three major cities in Indonesia. A comparative study was conducted to see which cities had the highest problems caused by disruptive innovations. Furthermore, the data used is sourced from a collection of reputable online media news narratives in the form of a spreadsheet.

## 2 Literature Review

### 2.1 Sharing Economy Online Transportation Sector

Literature on online transportation is increasingly in demand to observe application technology development that can change behavior when choosing travel transportation (Pawlak et al. 2019). The utilization of application-based information and communication technology in the online transportation sector is commonly referred to as the online transportation sector sharing economy [8–10].

The sharing economy as a new business model is trending in the transportation sector. Slowly, the sharing economy has changed people's travel patterns and significantly impacts work and social relations [11]. The sharing economy of the online transportation sector is a concept often used by carpooling and vanpooling [12].

This type of online transportation is to make it easier to connect passengers and taxi drivers. Anyone easily accesses online transportation through an application on a smartphone [13]. Online transportation can be used by individuals who previously did not know each other using online platforms. Online transportation is more dominated

by students or groups who do not have private vehicles [14]. Furthermore, online transportation can support the mobility of low-income groups of workers, singles, and women [15].

Online transportation benefits from the convenience and security sector, supports the mobility of households without a vehicle and people with physical limitations and provides very efficient rides [16]. Another positive impact is minimizing the use of car parkland [17, 18].

### 2.2 Disruptive Technology in the Transportation Sector

Disruptive innovation, such as the online transportation business, is a leap of innovation in services triggered by chaos in competition law [19]. Disruptive innovations emerge outside previously established corporate networks [20]. Innovations that disrupt the transportation sector arise not through formal competition, such as promotions through billboards or door-to-door promotions. These new entrants are present in the market through information technology (IT), providing the same service products in different ways [21].

The disruptive innovation of the transportation sector has changed the conventional business model to a modern one equipped with internet-based applications. It is causing competition between existing business actors and new business actors in the same market. Innovations that disrupt the transportation sector have created radical changes in the transportation industry, marked by the emergence of new products and services [22].

One innovation that disrupts the transportation sector is the online platform-based Uber company [23]. Furthermore, online transportation companies born in Indonesia, such as Grab and Gojek, have also caused problems in urban transportation governance. Disruptive innovation has resulted in competition using an online platform model that is very different from the previous model. Fundamentally disruptive innovations can influence the behavior of privately owned assets into shared consumption so that such a pattern can challenge existing traditions and social patterns [24]. Disruptive innovations can affect people's travel behavior patterns and have also influenced the government in implementing regulations on the new business model [19]. Competition problems, changes in people's travel behavior patterns, and disruption of existing policies have caused social chaos in several countries such as the Philippines, Taiwan, the United States, the European Union, Japan, and others [19].

## 3 Methods

This research uses qualitative methods; then, this research uses a content analysis approach sourced from searches on Google using the keywords online transportation problems. News related to online transportation issues for the next coding stage using the Nvivo 12 plus software. The stages in using nvivo 12 Plus include data collection, data import, data coding, data classification, and data visualization. Data was obtained from nvivo 12 Plus for further qualitative analysis.

## 4 Results and Discussion

*Online transportation* is a new technology service rife in big cities in Indonesia, such as DKI Jakarta, Surabaya, and Medan. However, behind the success of online transportation, it also has a significant impact on the community environment and the taxi industry. The three sub-discussions below discuss the problems in the three big cities.

### 4.1 Online Transportation Issues in Jakarta

Online transportation has entered DKI Jakarta since 2015. From 2015 to 2022, several problems have also emerged, specifically for DKI Jakarta. Here you can see a list of online transportation problems by year (Fig. 1);

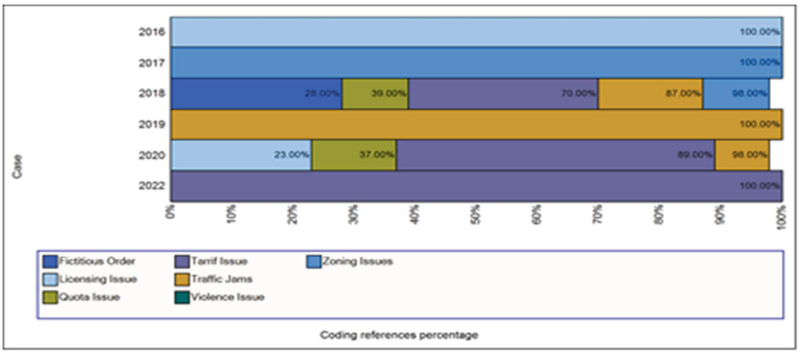


**Fig. 1.** Online transportation issue in DKI Jakarta

Online transportation entered DKI Jakarta in 2015; in 2016, the first problem related to licensing was a percentage of 100%. In 2016 the narrative related to the issue of operating permits was not yet straightforward. The government at that time still did not have the proper permits to regulate online transportation. In 2017 the problem of online transportation arose regarding zoning or regions with a percentage of 100%. In that year, the online transportation space sector was problematic in several public places, including airports. In 2016, they only allowed online transportation to operate in the airport area. In 2018, more complex problems emerged, including the problem of fictitious orders, which accounted for 28% of all orders. Unscrupulous online transportation drivers carry out fictitious orders to make fraudulent attempts to obtain daily bonuses offered by the application. Next is the problem of online vehicle quotas with 39%. The number of online vehicles in DKI Jakarta is increasing, making the government take quick steps to limit the potential for new problems that will arise. The next problem is the tariff or cost per kilometer set by the application with 70%. The low rate set by the application company makes online transportation drivers take action to the streets, demanding that the government also provide solutions for setting low rates. The congestion problem is also part of the online transportation problem in DKI Jakarta, with 87%. The congestion problem is unavoidable in DKI Jakarta, which comes from unscrupulous online transportation drivers who eat the shoulder of the road. The last problem in 2018 was the

problem of the prohibition zone for taking passengers with a percentage of 98%. The problem arose due to the government's prohibition against shutting down applications at specific points of prohibition, receiving a response from online transportation drivers who protested. It was judged that the policy did not provide a good solution for online transportation.

In 2019, online transportation also created a congestion problem with a percentage of 100%. Congestion occurs due to unscrupulous online transportation drivers who are not orderly in waiting for orders on the shoulder of the road and in front of public facilities such as terminals and busway stops. In 2020 there are legality or permit issues with 23%. The problem of clarity on the professional status of online transportation drivers requested by online transportation drivers to application companies and the government is related to their rights and obligations as application partners. The next problem is related to the quota with a percentage of 89%. Online transportation drivers protest against application companies limiting the acceptance of new drivers because the number of drivers is not proportional to the number of passengers. The last problem in 2020 is related to congestion with 98%. Congestion occurs due to unscrupulous transportation drivers who are again disorganized in waiting for orders at road shoulders and busway stops.

In 2022 online transportation problems arise about the tariffs set by the application companies no longer by the provisions in the regulations. So online transportation drivers protest and demand the DKI Jakarta government provide the best tariff problem solution.

### 4.2 Online Transportation Issues in Surabaya

Online transportation has been in Surabaya since 2015. From 2015 to 2022, several problems have also emerged, specifically for the city of Medan. Here you can see a list of online transportation problems by year (Fig. 2);

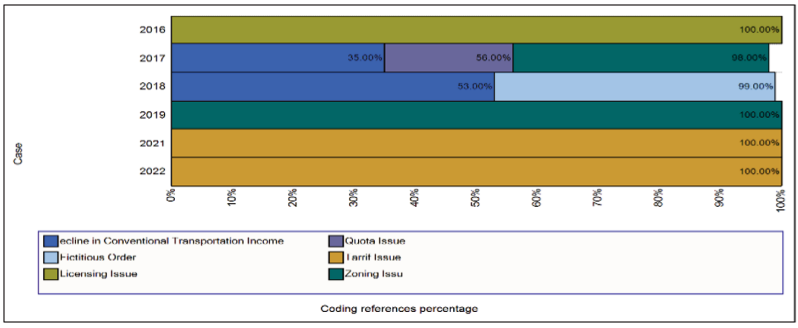


**Fig. 2.** Online transportation issue in Surabaya

Online transportation entered the city of Surabaya in 2015 as an application company that challenges incumbents. The dynamics of the entry of online transportation in that year have begun to be felt. As the diagram data above shows, in 2016, there were licensing problems with a percentage of 100%. The polemic about licensing occurred

because, in 2016, the Surabaya city government temporarily had not issued an online transportation permit to operate. This step was taken to prevent new problems in the community, especially the competition in the urban transportation sector.

Furthermore, the online transportation problem that emerged in 2017 was associated with a 35% decline in the income of traditional transportation drivers due to the emergence of newcomers. The second problem arises regarding the quota with a percentage of 56%. The high growth rate of online transportation in Surabaya made the government respond to online transportation companies to provide accurate data to the government to record the ratio of Surabaya urban vehicles. The third problem is related to the operational area of online transportation with a percentage of 98%. The prohibition against online transportation in transporting passengers in certain areas has become a polemic between the government and online transportation drivers.

In 2018, the problem caused by online transportation was linked to a 53 percent decrease in the income of conventional transportation drivers. In 2018, there was another increase in competition between new transportation companies and incumbents. In 2019 problems arose regarding the online transportation operation zone, and the prohibition of picking up passengers at some point was carried out again. In 2021 and 2022, the same problems arise regarding tariffs. The low rate set by the applicator has made several online transportation drivers take action against it.

### 4.3 Online Transportation Issues in Medan

Online transportation has been in Medan since 2015. From 2015 to 2022, several problems have also emerged, specifically for the City of Medan. Here you can see a list of online transportation problems by year (Fig. 3);

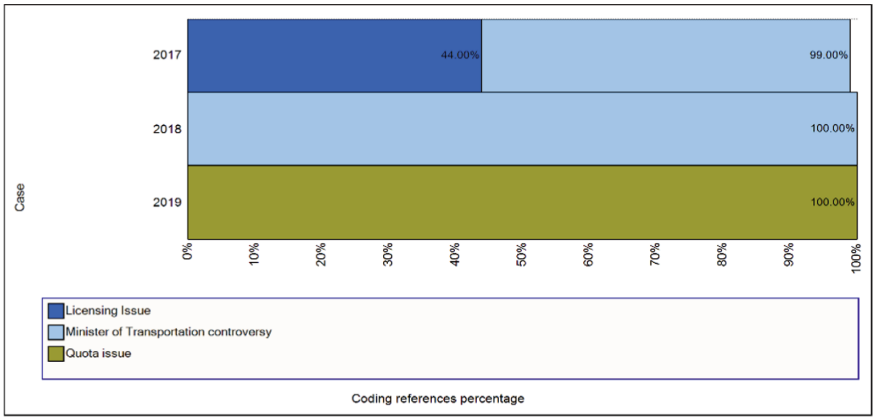


**Fig. 3.** Online transportation issue in Medan

Medan city is a part of the city that the arrival of online transportation companies. The presence of online transportation in the field also reaps several similarities, including; in 2017, licensing problems emerged with a percentage of 44%. The rejection of online

transportation emerged from groups of conventional transportation drivers, asking the government not to permit online transportation to operate. In 2018 there was a problem with the Minister of Transportation Regulation No. 108 of 2017; protests against several points in the Minister of Transportation's regulation occurred from online transportation drivers, such as refusing to give unique labels to online vehicles. The polemic of protest against the regulation of the minister of transportation continued in 2018. Finally, in 2019 problems arose regarding online transportation quotas. The increase in driver partnerships with online transportation companies continues to increase, so online transportation drivers provide input to companies so as not to limit quotas.

## 5 Conclusion

The presence of online transportation in the three major cities studied in DKI Jakarta, Surabaya, and Medan presents new problems in the transportation sector. DKI Jakarta is the highest-ranking city with transportation problems among the other two cities. Found seven problems that arise: licensing problems, congestion problems, quota problems, fictitious order problems, violence problems, tariff problems, and zoning problems. Next, the city of Surabaya is ranked second with problems that arise, such as the problem of decreasing the income of conventional transportation drivers, congestion problems, quota problems, tariff problems, licensing problems, and zoning problems. Finally, the city of Medan has the fewest problems, including licensing issues, transportation ministerial regulations issues, and quota issues. This study cannot only analyze the problems that arise due to the presence of online transportation by comparing them in three big cities. It is necessary to do further research related to the government's response in providing solutions to problems caused by the arrival of online transportation.

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