

# THE ROLE OF POLICY ACTORS IN DETERMINING THE DIRECTION OF DISRUPTIVE INNOVATION POLICY

Pahmi Amri<sup>\*</sup>, Achmad Nurmandi<sup>\*\*</sup>, Dyah Mutiarin<sup>\*\*</sup>

<sup>\*</sup> Corresponding author, Universitas Muhammadiyah Yogyakarta, Bantul; Universitas Islam Riau, Pekanbaru, Indonesia  
Contact details: Universitas Muhammadiyah Yogyakarta, Jl. Brawijaya, Kasihan, Bantul, Yogyakarta 55183, Indonesia

<sup>\*\*</sup> Universitas Muhammadiyah Yogyakarta, Bantul, Indonesia



## Abstract

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The issue of the presence of online transportation is used as the right momentum to steal the government's attention to discuss it on the policy agenda. The role of policy actors is a critical element in the process of forming innovation policies to disrupt the transportation sector. Multi-policy actors, such as governments, citizens, entrepreneurs, and investors, can jointly influence the development of innovation policies that disrupt the transportation sector (Han, 2022). It will be interesting to analyze the role of policy actors in online transportation problems using the multiple stream analysis approach. This study aims to identify the direction policy actors' play in policy-making by the desired orientation. This research method uses qualitative analysis. Following the multiple streams framework (MSF) flow, we use content analysis to support qualitative analysis. NVivo 12 Plus application support also plays a vital role in collecting data from reputable electronic news media. This study finds that the direction of online transportation policy has not fully fulfilled the interests of online transportation company actors and conventional transportation. The tug of war interests makes policies constantly change. Policies that regulate online transportation are still adjusting to the state of the domestic transportation market. Although this research has answered the research objectives, our paper can still not fully explain the problem of online transportation at the district and city levels. Based on these limitations, we recommend that further research can identify issues at the district and city levels.

**Keywords:** Disruptive Innovation, Public Policy, Online Transportation

**Authors' individual contribution:** Conceptualization — P.A. and A.N.; Methodology — P.A.; Formal Analysis — P.A.; — Writing — Original Draft — P.A.; Writing — Review & Editing — A.N. and D.M.; Supervision — A.N.; Project Administration — P.A. and A.N.

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## 1. INTRODUCTION

Sourced from various online news media, Gojek and Grab companies have entered Indonesia by providing an online platform as a forum for meeting offers and ordering online transportation services (Russell, 2015). This study mentions such types of

services with online transportation networks. The presence of an online transportation company network has created a polemic in the transportation sector (Wahyuningtyas, 2016). Polemics in Indonesia include various problems regarding its existence, while issues arising from licensing, passenger safety, and taxation to unhealthy competition with

established taxi companies (Desyani & Riza, 2014). Negative comments have sprung up, alluding to the status of Gojek and Grab being part of the same market as conventional taxi companies. Thus, the debate began to be hotly discussed in public regarding innovations that were considered disruptive to the existing market.

The culture of walking on a motorbike is still high in Indonesia for various reasons such as speed and being able to break through traffic jams. The demand for motorbike rides can beat the interest in car rides. The emergence of online transportation networks has the potential to threaten conventional motorcycles. At the same time, it has threatened the traditional taxi business that has been in power for a long time.

Various problems that occur will affect the running of online transportation successfully in contrast to several cities, such as Jakarta, which require a transportation system because the existing vehicle cannot meet the population's needs, such as inadequate facilities and high costs.

The problem of competition and licensing is not the only problem that must be faced. Policy and regulatory sector barriers are also part of online transportation's most significant problem (Organisation for Economic Co-operation and Development [OECD], 2014). Policies that limit the space for the online vehicle are also one of the problems in the policy sector because some policies are considered to protect the interests of small-scale markets (Wahyuningtyas & Nugroho, 2015). Online transportation networks take advantage of the legal vacuum that has not regulated their legality so that they can steal the attention of policymakers to include online transportation problems on the policy agenda.

The technological innovation of the transportation sector, as described above, triggers the emergence of problems in the field of competition law. The presence of such disruptive innovations disrupts a long-standing market. Business strategies complemented by political and technological interests will influence the regulatory framework for disruptive technologies (Goyal, Howlett, & Taeihagh, 2021). The government must prepare an established policy to address the issue of online transportation policy. The problem of online transportation policy cannot be overcome with the same legal approach as conventional because online transportation has a different business model (Fajar, Mutiarin, & Setianingrum, 2019). The current regulations governing online transportation use traditional transportation policies (Wahyuningtyas, 2016).

Several policy issues concerning transportation technology innovation have been resolved in several cities, such as policies equipped with price and quantity instruments to support transportation technology and renewable energy (Gupta, De, Gautam, Dhar, & Pandey, 2018). Several studies provide technological innovation in the transportation sector by creating a policy framework governing safety that is integrated with local (government) resources to be implemented and guided (McLeod & Curtis, 2022). Subsequent research examines the evaluation of sustainable transportation policies, finding that the government should use a holistic approach to implementing procedures to reduce the adverse effects of these policies (Chirieleison & Scucca, 2017). In the study of the sharing economy,

it is emphasized that there are still gaps in implementing poor economic innovation policies (Goudin, 2016). Further analysis of the policy narrative of the entry of online transportation in big American cities states that there is a relationship between policy actors who narrate online transportation problems in the policy formulation process, especially regarding the policy solutions offered (Dupuis, 2019).

Some kinds of literature on policy issues described in the previous paragraph, this study fills the void of literacy in online transportation policy issues in the policy-making process sector, which is viewed from the political dimension from the perspective of multiple streams. First, this paper describes the background of the problem of online transportation policy as a general introduction to the dynamics of technology innovation policy in the transportation sector. The second part discusses setting the issue of online transportation as a policy agenda that policymakers will discuss. The final section outlines the decisions made as a common thread for resolving online transportation issues. The fourth section addresses the execution of the policies that resulted. The fifth section highlights the most recent advancements in online transportation.

The structure of this research is as follows. Section 2 of this study discusses the use of a multi-stream framework for disruptive innovation policies in the transportation sector. Section 3 describes the methodology we used in this study. Section 4 presents the findings of the research. Section 5 describes the development of disruptive innovation policies using MSF elements and the influence of employers in determining online transportation policies and the limitations of employers in overseeing the policy formulation process. Finally, Section 6 concludes from our research that the role of each policy actor plays a central role, from agenda setting to policy formulation.

## 2. LITERATURE REVIEW

### 2.1. Disruptive innovation policy transformation

The development of technology-based transportation services is driven by public attention to these developments and is also supported by supporting regulations (Chakrabarti, Henneberg, & Ivens, 2020). Changes in technology system-based services are referred to as transformational changes based on a cultural approach to the structure and lifestyle of the community (Loorbach, Frantzeskaki, & Avelino, 2017). Such transformations have also been supported by the multidisciplinary concept and model literature (Köhler et al., 2019; Loorbach et al., 2017). Loorbach et al.'s (2017) study analyzes transition management developed by the government with an approach to empowering institutions and increasing resource capacity to develop new types of services to become shared and sustainable services.

The transformation of innovation is being challenged by political actors so that inequality occurs between innovation and policy (Alkemade, Hekkert, & Negro, 2011). Innovation becomes meaningless if it does not receive support from the policy sector (Avelino, Grin, Pel, & Jhagroe, 2016; Pel, 2016). To convince policymakers and the public, it is necessary to educate the people and

the government that innovation does not cost much (Rogers, Singhal, & Quinlan, 2014).

Discussing innovation, we can see innovation in three dimensions (Walker-Munro, 2019). In the eyes of consumers, the first innovation is a change in a product that leads to a better product or service quality. In the eyes of entrepreneurs, both innovations are sustainable growth and development and generate greater profits than ever before. In the eyes of workers, the three innovations are a new activity that is more interesting and requires a lot of soft skills, so it influences receiving high wages as well. In the context of the global economy, innovation is part of a more excellent representation of productivity and prosperity for all. Innovation in the economic sector requires the government to define for the public that innovation is a new product or method that can make it easier for people to face global developments.

Research on transformative policy innovations needs to explore the socio-institutional and market contexts and how governments and markets can adapt to technological innovations in the transportation sector. The government needs governance management for online transportation to solve any problems (Alkemaded et al., 2011; Kivimaa & Kern, 2016; Schot & Kanger, 2018). Due to several previous studies, such as strategic niche management (Raven, 2007; Schot & Geels, 2008), technological innovation systems (Bergek et al., 2008; Suurs, 2009), transformative innovation policies (Schot & Steinmueller, 2016; Diercks, Larsen, & Steward, 2019) found that the government lacks understanding in addressing solutions to market dynamics.

The dynamics of online transportation policies must receive special attention from the government with an approach to policy formulation through multi-actor assistance. Because to overcome the problem of innovation in the technology sector, it is necessary to solve the problem to a basic level (Grin, Rotmans, & Schot, 2010; Moore & Westley, 2011). Technological innovation can be challenging because it can change the system and structure of the social environment (Avelino & Wittmayer, 2019; Haxeltine et al., 2017). So, to avoid the negative impact of innovation, innovation must be genuinely inclusive and accessible to the broader community (Pel, 2016).

The current reality is that innovation has lost its novelty due to its inability to promote itself and positively impact the social environment. If creation is not accompanied by a good response from the social environment, it will potentially become a complicated problem (Blok & Lemmens, 2015).

Several previous studies have examined policy innovations related to more systemic, historical, institutional, and political transformations, such as empirical studies of various social innovation initiatives and networks with explicit transformation ambitions (Westley, McGowan, & Tjörnbo, 2017; Avelino et al., 2019; Moulart, Mehmood, Leubolt, & MacCallum, 2017; Haxeltine et al., 2017). Research on social innovation from a political and critical perspective relates to the overlap between transition and transformative sustainability (Loorbach et al., 2017; Köhler et al., 2019). Technological innovation policy processes are often incremental and tend to emerge with potential for improvement in any planning and implementation (Loorbach, 2010; Grin et al., 2010).

In its dynamics, online transportation companies utilize various resources to achieve their goals, such as the skills sector and finance. Not only that, but online transportation companies also depend on government institutions (Fagerberg, 2018). As stated, (Schot & Steinmueller, 2016), a policy framework is needed with the support of government agencies to support changes in technological innovation.

Research (Edler & Fagerberg, 2017) emphasizes that transformative innovation policies are often not contextual. One reason is that institutional aspects are essential for the success of a transformative innovation policy (Breznitz, Ornston, & Samford, 2018). So, in the case of transformative innovation policy, it is necessary to take an institutional approach and influence the authorized organization to support its effectiveness (Borrás & Edquist, 2013). To avoid huge losses, technological innovation companies must have strong policy support above the general standard (Chicot & Matt, 2018; Kuhlmann & Rip, 2018).

## 2.2. Disruptive innovation policy using multiple streams framework

Research on online transportation policies is still relatively small that uses the multiple streams framework (MSF) approach. The interest of this research is to use the MSF because this approach is a decisive step toward understanding the policy process; the MSF provides research items such as establishing online transportation problems into the policy agenda through a problem, policy, and political procedures (Knaggård, 2015). In addition, MSF strongly recommends qualitative research (Jones et al., 2016) as planned in this study.

The MSF suggests that in the policy process through policy institutions, it is necessary to highlight the critical role of political actors and policy experts in promoting policies (Herweg, Huß, & Zohnhöfer, 2015). The importance of actors other than government actors is also mentioned in research (Imai & Yamamoto, 2010) that sets the agenda for policy issues are less shaped by government actors.

In the MSF, it is essential to emphasize that institutional aspects are applied comparatively, such as political institutions. The MSF also explains that the idea of innovation policy formulation requires strong actors to influence policy direction (Béland, 2005) systematically. So that the process of formulating online transportation policies requires special strengthening from elements of government agencies; moreover, it also requires political support from party actors. Institutions play an important role in temporary political policies and flows (Béland, 2005).

Kingdon initially developed the MSF in 1984 to explain ambiguous policy changes (Kingdon, 1984). The ambiguity in question is multiple interpretations of the condition of the same phenomenon (policy) (Feldman, 1989). The MSF can easily map policy issues and understand different policy responses from different public responses (Herweg, 2017). The online transportation policy process is essential to find out what problems are developing due to the presence of this new type of transportation sector service. It will also be easy to map policy actors directly involved in the policy formulation.

The MSF has proven successful in dealing with policy change in a chaotic environment and is accustomed to dealing with unstructured problems (Herweg et al., 2015; Jones et al., 2016). Liner, this study aims to analyze the direction of policies that policy actors lead in formulating online transportation policies. Concerns about the disorientation of online transportation policies need to be controlled. Because the manipulative political potential of disruptive companies is very high by investing in return for profits (Gironés, van Est, & Verbong, 2020). In the end, the MS framework suggests that in decision-making, there will be a difficult position where policymakers tend to be influenced by actors who sell their interests.

The MSF recommends that in the policy formulation process, it is necessary to pay attention to three streams: problems (problem stream), solutions (policy stream), and options (political stream). Policy changes occur when several of these streams unite; issues emerge on the policy agenda, solutions are available, and political support for implementation. However, the flow above sometimes does not appear simultaneously. Usually, innovation companies have several coalitions, such as non-governmental organizations (NGOs), local entrepreneurs, and policymakers/public officials.

Initially, the MSF only developed a framework such as an agenda-setting. However, in writings of Herweg et al. (2015) and Howlett, McConnell, and Perl (2017), it has been developed in the policy process stage. This study analyzes three locations: agenda-setting, decision-making, and implementation.

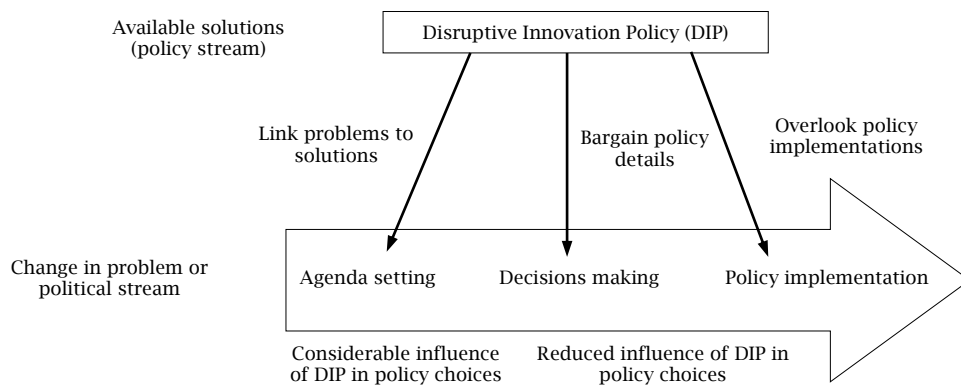
What is meant by agenda-setting is the stage where policy problems are recognized (Jann & Wegrich, 2007). In the process of online transportation problems being included in the discussion agenda, attention is focused on policy issues, and attention is also concentrated on available solutions so that policymakers can turn resolutions into policies (Cairney & Jones, 2016). In this phase, policy instruments are also prepared to achieve the expected policy objectives (Howlett et al., 2017).

During the policy formulation process, entrepreneurs will frame the problem in their way. The pain is accompanied by the solutions offered and the hope that the policy can adopt the entrepreneur's resolution. So, they must ensure that the policy implementation aligns with their views and interests (Herweg, 2017).

The MSF contributes systemically by adopting all separate decisions by merging the system. Multiple streams correlate with policy formulation, sometimes ambiguous due to multiple interpretations of the same situation or phenomenon. Due to the increasing ambiguity in global flows, the MSF is suitable for analyzing the policy process (Herweg, Zahariadis, & Zohlhöfer, 2018). The difference between multiple streams and other approaches lies in the logic of thinking that uses rationality or persuasion. The rationality of thinking is an individual who maximizes utility (Zahariadis, 2019).

Below is the policy of the MSF used in analyzing the online transportation policy process with three elements (policy, politics, and problems), online transportation entrepreneurs, and politics.

Figure 1. Multiple streams framework



- The flow of problems is a collection of issues that need to steal the attention of policymakers due to limited time and resources in policy formulation so that only a few points will be accommodated to be the main policy agenda (Cairney & Jones, 2016). Issues will become policy issues if policymakers are willing to discuss policies on these issues (Knaggård, 2015).

- The policy stream will require solution ideas developed by a community of experts or experts such as scientists, NGOs, and political institutions (Nowlin, 2011). The solution will be contained in the policy if the interests of each policy actor are accommodated (Jones et al., 2016). Solutions also require meaning that is easy to implement, has a positive impact on policy objectives, is readily accepted by the community, and is financially feasible (Herweg et al., 2018).

- The political stream is a stream that leads to the broader institutions and politics in which the decision is made. Related to factors such as the traditional atmosphere, more expansive societal views such as partisan ideology, political orientation, and balance of interests (Jones et al., 2016; Howlett et al., 2017).

- The policy window is an opportunity space for the three streams above to unite. The policy window is relatively short (Gironés et al., 2020). So, policymakers will fight against time, significantly when the problem worsens.

- Disruptive innovation policies are actors who struggle to invest resources in the policy process with the hope that in the future, they will get feedback in the long term (Herweg et al., 2018). Several factors, such as academics, entrepreneurs, and interest groups, can convince policymakers to adopt the policy solutions they offer, and these

actors provide guarantees in their implementation (Gironés et al., 2020). Sometimes these actors carry out political manipulation efforts by changing the views of policymakers with the facts of the problem that they have framed before (Ackrill, Kay, & Zahariadis, 2013). In the end, the success of these efforts is influenced by their access to the policy formulation process (Jones et al., 2016).

### 3. METHODOLOGY AND CASE STUDIES

In developing the question of how and by whom the direction of innovation policy is created, this study uses qualitative analysis using the MSF. This research uses an in-depth case study of technological innovation in the transportation sector. The selection of the MSF is expected to reveal the causes of problems in specific geographic and institutional contexts (Köhler et al., 2019).

We selected the issue of online transportation policy as our case study. Online transportation is a new type of ride-hailing service using internet-based applications. The issue of online transportation is an innovation policy agenda that aims to be transformative because it contributes to affordability, increased community mobility, easy access, and safety. Online transportation is an autonomous vehicle with a low-cost offer and a relatively short waiting time suitable for people who do not have a car but have high mobility (Levin, Li, Boyles, & Kockelman, 2016). Online transportation not only provides benefits to users or passengers but also provides benefits to drivers who get part-time jobs. Flexible time and relatively high wages motivate prospective drivers to join online transportation network companies (Hall & Krueger, 2018; Baiyere & Salmela, 2015).

**Table 1.** Type of document

Document type	Total
News online	100
Minister of Transportation Regulations	2
Decree of the Minister of Transportation	1

This research uses the content analysis method, data obtained from searching online transportation problems on reputable news media electronically. The keywords used are “online transportation problems”, specifically for Indonesia. Capture tools also assist this research from the NVivo 12 Plus software. The narration of online transportation problems one by one in coding is then grouped into research indicators. As reinforcement in data collection in this study, we also provide an alternative method suitable for our research, namely, a netnography approach. Such an approach can facilitate the collection of secondary data from online news media sources and provide a linear approach to qualitative analysis.

### 4. FINDINGS

In this section, we examine online transportation activities using the MSF since the beginning of the entry of online transportation network companies (2016-2022). In this section, we divide the findings into four phases: agenda setting, decision-making, and implementation of online transportation policies.

Historically, we have observed the development of setting an online transportation agenda to be included in government discussions since 2016. Various social issues have started to emerge, such as congestion issues, the issue of low fares creating intense competition for conventional transportation, and the issue of the legality of online vehicles. Then the decision-making phase occurred in 2017, and the government took steps by implementing regulations from the minister of transportation that regulates online transit. The regulation implementation phase started in 2017, although the rules governing online transportation continued to change yearly until 2019. In 2019 also, policy actors started to get young to discuss online transportation policies on the policy agenda. We present the following in the form of a table which is an overview of the findings of the online transportation policy study.

**Table 2.** Findings over four phases of online transportation (Part 1)

Phase	Problem stream	Political stream	Policy stream	Policy entrepreneurs	Outcomes and impact on policy direction
Agenda setting (2016-2019)	Potential problems related to accessibility and affordability of the Indonesian people, such as increased traffic congestion, and excessive quotas can affect conventional transportation revenues.	The dynamics are followed by two groups between the pros of online transportation and the pros of conventional transportation. Policy changes for online transportation are at the top of the list.	An innovation that disrupts the transportation sector called online transportation is ready to be tested in the public sphere.	Mapping online transportation capabilities to support citizen mobility. So online transportation is used as a solution to improve the mobility of urban residents.	Online transportation policy agenda with the aim of solving social problems in the transportation sector. Policy solutions that appear parallel to the interests of policymakers.
Decision-making phase (2017)	This phase has the same flow of problems as the previous phase, only there are a few additions such as the risks that result from online transportation.	Still consistent with the previous phase.	Online transportation is still feasible as transportation that supports the mobility of residents who do not have private vehicles.	Entrepreneurs take advantage of the development of online transportation in various countries as a focus for prioritizing the urban transportation agenda. This entrepreneur also designs online transportation as an economical type of transportation.	Online transportation is the main priority of the ministry of transportation, the political commitment of the Ministry of Transportation to realize Indonesia as a country that is in great demand by foreign tourists.

Table 2. Findings over four phases of online transportation (Part 2)

Phase	Problem stream	Political stream	Policy stream	Policy entrepreneurs	Outcomes and impact on policy direction
Policy implementation (2017-2019)	In this phase, the problems that arise are related to the administration that has issued online transportation drivers.	The Ministry of Transportation is still consistent with its political commitment to address the problems generated by online transportation.	The development of online transportation is always changing rapidly, affecting online transportation in the short term.	Entrepreneurs actively participate in experiments and decision-making processes. In this phase, we can see the positive effect of this policy on entrepreneurs and can see the government's capacity to influence policymakers, proof of concept, and partnerships.	In this implementation phase, efforts have indirectly shaped the direction of online transportation policies. The government's position aims to make policies that can overcome urban transportation problems. Including disputes between online and conventional taxi drivers.
Recent developments (2018-2019)	During the 7 years of the development of online transportation, the transportation agenda has not been able to solve the problem.	The lack of proximity of entrepreneurs to policymakers is an obstacle to the development of online transportation policies	Online transportation never takes off resulting in a solution orientation.	Entrepreneurs still consistently maintain their support for fighting for online transportation policies.	Policies that are always changing (revised) produce an optimal balance in the online transportation sector.

## 5. DISCUSSION

The discussion in this discussion section is based on the main objective of this research, which is to understand the role of policy actors in determining the direction of online transportation policies in Indonesia so that the issue of online transportation is included in the big agenda of policymakers. Our analysis follows guiding questions such as what is the role played by policy entrepreneurs in having online transportation issues in the discussion of the policy agenda, and how policy entrepreneurs facilitate policymakers in adopting online transportation into the policy agenda. We use four phases in mapping policy actors' online transportation policy formulation process. First, entrepreneurs play an active role in directing online transportation into the policy agenda by taking advantage of problems in the field. Both policy companies facilitate the implementation by using policy strategies. All three entrepreneurs gained knowledge they did not know about the impact of online transportation and received policy support.

In this section, we find that policy actors (online transportation companies) are central in fighting for online transportation to be included in the policy agenda. The image formed that online transportation can be alternative transportation for citizens to support their daily activities in a cost-effective and easily accessible way. We also find that policymakers have the same expectation as entrepreneurs, namely the existence of legal certainty to support online transportation. Policymakers and online transportation entrepreneurs' work together to fight for online transportation to be included in the policy discussion agenda.

Online transportation entrepreneurs facilitating online transportation must be included in the agenda by showing that online vehicles can overcome social, economic, and congestion problems. Another strategy is that entrepreneurs struggle to introduce online transportation to

support the economy and the tourism sector. Sponsored by polemics between online transportation drivers, entrepreneurs can make online transportation problems a priority agenda.

We observe the limitations of entrepreneurs in determining the desired policy direction. First, online transportation companies do not yet consider drivers' partners, such as setting tariffs and health and safety insurance. Such a commitment will affect the length of the policy dispute process.

Our study shows that online transportation entrepreneurs continue to approach the government to gain legitimacy and legal recognition. The online transportation policy process will be included in the government's agenda from 2016 to 2019. The polemic between online and conventional transportation drivers is used as a moment to sympathize with the Indonesian government to include online transportation in the priority policy agenda.

Furthermore, we point out that the government at the provincial level in Indonesia has not evenly made regional regulations on regional-based online transportation arrangements. Local-level governments need to create regional-level arrangements to regulate online transportation in a balanced way (Gavin, 2017; Bolton, 2015; Li & Chen, 2016; Edelman & Geradin, 2015). The urgency of regulation at the provincial level by considering each region's geographical conditions and economic growth determines the number of tariffs on the use of online transportation.

Finally, we also found that transportation entrepreneurs have difficulty in determining the direction of online transportation policies precisely according to their wishes because online transportation arrangements constantly undergo policy changes in a relatively short time. Policy changes adjust to the conditions of public demands for each impact produced by each policy change. Finally, we find that online transport policy discussions stop when the attention of policy-making actors fades.

### 5.1. Setting the agenda (2015–2022): Online transportation is the main agenda

The origins of the entry of online transportation in Indonesia in 2015; at that time, several issues emerged from various sources, including people in business, observers including political streams. The online transportation agenda is included in the people’s representative council discussion through political channels. The debate was carried out in a joint meeting with the ministry of transportation, the leading sector dealing with transportation issues. The argument is carried out to overcome the negative impacts of online transportation.

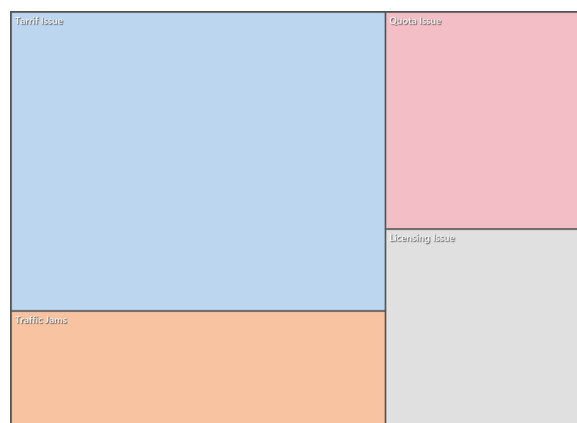
The above step is the goal of the Indonesian Ministry of Transportation to find the best solution to deal with disruptive innovations. Discussions were carried out with the legislature to find answers to accommodate the interests of consumers, online and conventional transportation. Online transportation has become a hot topic for policymakers because its services are about picking up passengers, goods, and food (literature grab for the food sector).

Online transportation has become a national-level social phenomenon and even an international issue (Istianto & Maulamin, 2018). Even the case of the online vehicle has been included in the Indonesian government’s policy agenda (Wardhana, 2019). The refusal to operate online transportation emerged in Indonesia from 2016 to 2017 (Yahya et al., 2018).

The data above is obtained from searching for several issues in electronic news media using the N capture tool and then processed using the NVivo 12 Plus application. Online transportation raises four problems. Hierarchically, the most significant problem is the unclear legality issue of

online transportation arrangements. The second problem is that road congestion is created because unscrupulous online transportation drivers do not understand road signs prohibiting stopping, raising, and lowering passengers. The third problem is quotas the government has not regulated for online transportation companies. The excess number of online vehicles hurts the load factor that is not balanced between the number of cars and urban passengers. The fourth problem is that the tariff no longer favors the driver’s income. Fare control is carried out unilaterally by the online transportation company.

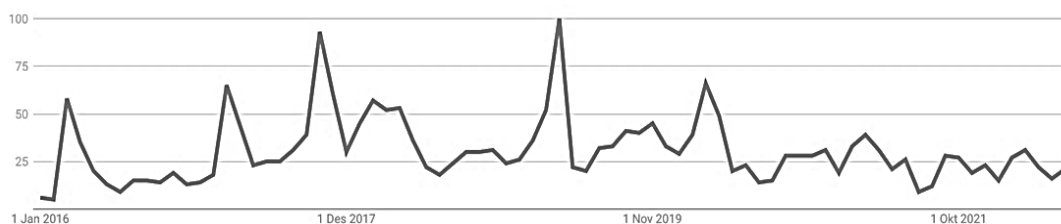
Figure 2. Hierarchy of online transportation problems in electronic news media



Source: NVivo 12 Plus data processing results.

Figure 3 below shows trending online transportation problems from 2016 to 2021. It shows that internet transportation was once a popular topic in an Indonesian electronic magazine.

Figure 3. Trend of online transportation issues from 2016 to 2021 in electronic news media



Source: Google Trend.com

The data above is obtained from Google Trends with the keyword “online transportation” for the Indonesian region. Data taken from 2016 to 2021 is still a very hotly discussed issue. The year of 2016 was the beginning of several problems that emerged and were narrated in the local news media. The figure about online transportation problems continued to rise until 2018, proving that the problem is a vital government agenda to discuss solutions to these problems. The government began discussing the issue of online transportation in 2016 in the legal realm, and several policy actors emerged to provide policy solutions. Government actors,

namely the president, the minister of transport, the House of Representatives, governors, mayors, and regents, also discussed solutions to problems caused by online transportation.

Political paths were taken in 2016 to put online transportation issues into the online transportation policy agenda. Electronic news media monitoring shows groups of conventional taxi drivers carrying out legal demonstrations. The response of political actors to the action will promise to discuss the issue of online transportation to the discussion of drafting regulations.

## **5.2. Decision-making (2015–2022): Online transportation is included in the urban transportation agenda**

Technological innovations that transportation is conceptually like conventional taxis. Meeting the needs of service standards that ensure efficiency, safety and security also need to be regulated. The online vehicle is only under the auspices of application companies that do not yet have technical regulations. In 2016 policymakers and entrepreneurs considered online transportation an innovation that received support from the public (users or passengers). For this reason, entrepreneurs do not think about regulatory policy issues. However, in 2016 a significant rejection reaction came from the defender, an established transportation company.

The dynamics of the development of online transportation policies began in 2016. After the reaction of conventional drivers' rejection of legality, the government started to take quick steps to discuss the problems caused by online transportation on the policy agenda. The transportation ministry got severe work from the president to deal with online transportation policy issues. Conventional taxi drivers receive facilitation support from the legislative council to convey these aspirations to the realm of central and city land transportation.

The influence of political actors in the policy-making process has been taken, and the narrative of the political elite in the legislative body also provides online transportation policy solutions. Legislative members offer discussion space for groups who object to the presence of online transportation to have a dialogue to find the best solution in fair competition.

Several actors provide narration of online transportation policy solutions in electronic news media. The Minister of Transportation Regulation No. 32 of 2016 about the organization of the transportation of people with public motorized vehicles not on the route addressed the first issue concerning the legality of online transportation. The actor who plays a full role in the issuance of this regulation is Budi Karya, who serves as the minister of transport. However, this policy has not been able to overcome the problem because there are still some irregularities in the articles, such as requiring drivers to change the license plate of a private vehicle to a yellow-plated type of public transport vehicle. The regulations regulating online transportation have not yet been completed, so the following solution appears to give birth to the Minister of Transportation Regulation No. 26 of 2017 regulating online transit. The actor in the regulation of the Minister of Transportation is Budi Karya as the minister of transport, by revising several articles in it to overcome the shortcomings of the previous ministerial decree. Furthermore, the Minister of Transportation Regulation No. 108 of 2017 concerning the implementation of online vehicles, this regulation can slightly minimize problems or gaps between online and conventional carriers.

The solution to the tariff problem that has become a polemic between drivers and online

transportation companies, namely, the government's response to the problem of online transportation rates, is to provide a lower and upper limit mechanism. The central government regulates online transportation companies to adjust the lower limit per kilometer set in the regulations, with the aim that the government can control the tariffs imposed by the company. In the following solution, the government offers a mechanism based on Zone I covering Sumatra and Java, except Jabodetabek, with an income range of 1,850–2,300. Zone II of the Jabodetabek area has a revenue pool of 2,250–2,650 per kilometer. Zone III covers the areas of Kalimantan, Sulawesi, Nusa Tenggara, Maluku, and Papua, the tariff is set to range from 2,100–2,600 per kilometer. This policy was motivated by the policy actor of the Minister of Transportation, Budi Karya. The basis for determining these figures is influenced by the economic growth conditions of each region.

The solution to the congestion problem is also an influential agenda for the government to provide a way out — the solutions offered by the government and other stakeholders. The government responds to the problem of congestion caused by online transportation drivers who are increasingly dense by implementing an odd-even system, where motorized vehicles are regulated based on the last digit on the motorized vehicle plate. Ahmad Riza Patria carried out this policy as the deputy governor of DKI Jakarta. The following solution is to carry out raids on unscrupulous online transportation drivers who violate signs prohibiting stopping on the shoulder of the road or in certain places. This policy was pioneered by Syafrin Litopo (DKI Jakarta Transportation Service and Fadli Amri Kasatlantas Polres Bogor). The last policy requires companies to cooperate with the government to provide special shelters for online transportation at every public facility.

The solution to the last problem is the problem of income, and online vehicles affect the payment of fellow online and conventional transportation drivers. There are three solutions to overcome the problem of excessive online transportation quotas, namely, by setting quota permits by the government for online transportation companies who want to open an online transportation sector business. Furthermore, the solutions contained in the Minister of Transportation Regulation No. 108 of 2017 concerning the determination of the number of quotas for each company to maintain the ratio between conventional and online companies. The final solution is the mechanism for determining the number of quotas which is given the authority to the provincial government in the form of a decree to regulate the quota in each respective region.

## **5.3. Policy implementation (2017–2022): Experiment and consideration of space for transportation**

Throughout the dynamics of online transportation policy, this section presents a collection of regulations and decisions from the central to provincial-level decisions. The following is a series of rules from 2016 to 2019.



**Table 3.** The order of regulations governing online transportation in Indonesia

<i>Year</i>	<i>Policy</i>
2016	1. Minister of Transportation Regulations No. 32 of 2016 about the organization of the transportation of people with public motorized vehicles not on the route (April 1, 2016).
2017	1. Minister of Transportation Regulation No. 26 of 2017 concerning the implementation of taxi transportation and special rental transportation using information technology-based applications. 2. Minister of Transportation Regulation No. 108 of 2017 concerning the implementation of online vehicles.
2018	1. Minister of Transportation Regulation No. 118 of 2018 concerning the implementation of special rental transportation.
2019	1. Minister of Transportation Regulation No 12 of 2019 concerning the Protection of the safety of motorcycle users used for the interest of the community. 2. Minister of Transportation Regulation No. 17 of 2019 concerning the implementation of special rental transportation. 3. Minister of Transportation Regulation No 348 of 2019 concerning guidelines for calculating the cost of motorbikes used for the benefit of the community which is carried out by the application.

Source: Regulatory Document Archive (<https://jdih.go.id/>).

The minister of transportation, on April 1, 2016, issued Regulation No. 32 of 2016 concerning the operation of people transportation with public motorized vehicles not on the route. Essentially, the minister of transportation regulates types of online transportation to cooperate with legal companies with legal entities that have permits. The next essence regulates application companies not to apply their tariffs and recruit drivers. The regulation faced challenges from the online transportation driver association's implementation, so the government took corrective steps by revising it.

From the revision results, the minister of transportation again issued Regulation No. 26 of 2017 concerning the implementation of taxi transportation and special rental transportation using information technology-based applications. The regulation essentially regulates technically, including regulating the upper and lower fare meter, setting quotas to maintain the ratio between online and conventional taxis, rules requiring a minimum of five fleets for each registered business entity, proof of vehicle ownership, motor vehicle number sign domicile to ensure that there are no operating outside the area of vehicles, arrangement of type test registration certificates, the role of applicators, unique transportation stickers as a logo that distinguishes passenger transport from privately owned cars, obligations to include life and vehicle insurance, provisions on applicator obligations and sanctions, arrangements that require transportation companies online to assure public safety and security.

Furthermore, the Minister of Transportation Regulation No. 108 of 2017 governs several aspects, including taxi meters, operating zones, quotas, requirements for a minimum of five vehicles for business entities, proof of vehicle ownership, motor vehicle number sign domicile, type test certificate, applicator role, unique rental transportation stickers, insurance obligations, applicator obligations, and sanctions. Other essences also mean guaranteeing public safety and security, implementing equality, business continuity, and protecting consumers and national interests. The minister of transportation issuance background is based on considerations to accommodate public accessibility, create orderly, safe, and comfortable transportation services, and stimulate national economic growth. However, the Association of Online Transportation Drivers responded negatively because several points in the previous ministerial regulation that had been revoked were rewritten in the Minister of Transportation Regulation No. 108 of 2017. These problems include the obligation to install a sticker

of 15 cm on the vehicle body, and sticker installation is considered to eliminate the privilege of online transportation as a private vehicle that can be rented. Furthermore, the SIRUT problem can burden the driver with the cost and processing time, forcing the driver to spend personal funds to apply for the permit. The last problem with the minister of transportation regulation is that the government sets the tariff unilaterally without involving online transportation drivers in determining the fare.

In 2018 the government again issued the Minister of Transportation Regulation No. 118 of 2018 regarding the implementation of special leases. Specifically regulating the criteria for online vehicles, several articles emphasize rules related to service criteria, provisions for operating areas, and planning for public transportation, further regulating the business of special rental transportation, determining tariffs, and using technology-based applications. Most importantly, this regulation adds rules on supervision, community protection, community participation, and provisions for administrative sanctions. The Minister of Transportation Regulation No. 118 of 2018 received a negative response from the online transportation driver association. The enactment of the Minister of Transportation Regulation No. 118 is considered to make it difficult for drivers to be officially registered, the requirements set out in the minister of transportation regulations can be burdensome for drivers, and a special rental transportation permit is issued at a cost that must be paid by the driver personally.

The Ministry of Transportation continues to assess the success of earlier rules, adding to the Minister of Transportation Regulation No. 12 of 2019 addressing the protection of motorcycle riders' safety when utilized for the benefit of the community. Essentially, the regulation regulates the mechanism of online and conventional motorcycle taxi drivers in driving on the streets, such as using additional tools in GPS and other accessories. The next point concerns the penalties imposed on drivers who breach the minister of transportation regulation articles. As the basis for the issuance of the minister of transportation, several cases have shown that the dangers of using additional accessories in driving can threaten safety. The regulation was rejected by the organization of online motorcycle taxi drivers, who saw the limitation on using GPS as a technical setback because the GPS feature might lead the vehicle promptly to the location by suggesting alternate routes during peak traffic hours.

Following up on Regulation No. 12 of 2019, article 11, paragraph 5 regarding the protection of the safety of motorcycle users used for the benefit of the community, the ministry of transportation then issued decision number KP 348 regarding guidelines for calculating the cost of motorcycle user services used for the benefit of the community that is carried out by the application. Essentially, the decision stipulates guidelines for calculating the upper and lower limits of service fees based on zoning. The driver's response to the ministerial decision regarding the fare fixing sparked protests because the increase was considered too high. The increase could affect consumer demand for the application-based shuttle service.

The online transportation policy has not run optimally from the elements of the online transportation company itself (Faaza, 2018). Several vital points in the policy are still being violated by online transportation companies, such as testing of motor vehicles and installing unique stickers on vehicles. Further obstacles were also found related to the requirements for a general driving license while existing drivers only had a personal vehicle driving license (Putri, 2018). The subsequent weakness of the online transportation policy is the lack of coordination of the supervisory sector to act against individuals who do not comply with the established rules (Rusli, 2019).

#### **5.4. Recent developments (2017–2019): Fading focus on online transportation**

In the implementation phase of online transportation policies, online transportation network companies in Indonesia gained momentum in 2016-2017. Discussions and conflicts took place that year, so they got much attention from multi-stakeholders. The concerns of various sectors are manifested in the form of policy solutions for the sustainability of online transportation, and other considerations are also focused on the fate of conventional transportation drivers. In the end, the online transportation problem was included in the policy agenda, and an online transportation policy was successfully formed. Significant events in 2016-2019 were the formation of online transportation policies that cannot be separated from the influence of policy-making actors, such as academics, political parties, ground transportation organizations, and government organizations.

After all, policies are made one by one until they are published. The impact of online transportation policy issues is that they are no longer a significant concern in the eyes of the public. The respective interests of online and conventional transportation companies have been adequately accommodated into existing regulations.

We believe that the policy direction that transportation entrepreneurs lead still has limitations. The company successfully directed the policy but did not provide a concrete commitment. Regulations governing online transportation are incremental. There are always changes according to the demands of the aggrieved party. Even more surprising is that rules in the short term continue to be revised. This proves that the policies directed have not fully addressed the problem of online transportation. Such as

the number of quotas that have not been properly and openly inventoried, which in the end will cause problems of high competition among online transportation types.

In this part of the paragraph, acknowledge that this research is more concerned with the policy process, which is directed by policy actors only. For more details, we have not been able to identify the problems that occur at the regional level. This unique incident about the dynamics of implementing online transportation policies in urban areas seems interesting for further research. Analysis of the influence of online transportation policies can be seen from the perspective of policy actors' behavior and culture's influence in the region.

## **6. CONCLUSION**

This paper looks at the role of multiple actors such as entrepreneurs, academics, and politicians in formulating online transportation policies. Through the MSF as the analytical tool for this research, we continue to observe the narrative of actors in influencing policy during the agenda-setting process to the policy formulation process. In this study, we find that the role of each actor plays a central role from setting the policy agenda to the policy formulation process. The policy direction follows the orientation of online transportation entrepreneurs that disruptive innovation has succeeded in taking policymakers' time to discuss online transportation until the formation of policies.

Continuing to focus on the contribution of the MSF in the empirical analysis of our research, the case in our study identifies conditions of ambiguity in the policy-making process. The resulting policy always gets a poor response from policy users. Criticism and rejection of the resulting policy always come from online and conventional transportation drivers. In this case, the community does not get legal certainty in using transportation services. Public comfort and safety are always neglected due to uncertain regulations. The orderliness of the social environment becomes uncomfortable if the chaos between conventional and online drivers continues to occur.

In addition, the MSF shows that overcoming the problem of online transportation policy requires a standard solution without ignoring the interests of one actor. Then this case study also shows that online transportation regulations can change according to the needs and demands of the community for transportation. This right implies that online transportation policies will depend on the environmental conditions of public markets for these transportation services.

This final paragraph includes the limitations of this research, which still cannot observe policy solutions at the local government level. The policy solutions offered by regional or city-level actors have not been identified in depth. This study recommends further research to analyze the role of local actors in guiding city-level policies to technically regulate the implementation of online transportation policies because the dynamics at the central and regional levels are different and must be taken into account. They are taken into account in the application of online transportation policies.

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