



## ADAPTIVE GOVERNANCE IN PARATRANSIT FORMALIZATION: INTEGRATING RIDE-HAILING AND URBAN MINIBUSES IN BOGOR

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### Abstract :

*This study examines the policy dynamics of paratransit transportation formalization in Bogor City through an Adaptive governance perspective, focusing on the implementation of Mayor Regulation Number 45 of 2023, which integrates ride-hailing (ojek online) and urban minibuses (angkutan kota) into the formal public transportation system. The research aims to analyze the local government's adaptive regulatory capacity, collaborative multi-actor governance mechanisms, and the dynamics of negotiation and bureaucratic learning in managing the transition from an informal to an integrated transportation system. A qualitative approach with an explanatory case study design and process tracing technique was employed, involving six key informants through semi-structured interviews, regulatory document analysis, and field observation. The findings reveal that Bogor City's adaptive regulatory capacity is at a developing stage, with uneven implementation outcomes: ride-hailing driver certification reached 68.2%, angkot-to-BRT feeder conversion 44.2%, and digital payment integration 37.5% of set targets. Multi-actor collaboration mechanisms have been established and produced substantive policy compromises, yet the resulting legitimacy remains partial. The study concludes that Bogor City exhibits a governance in transition profile that requires strengthened institutional capacity, standardized monitoring-evaluation systems, and more carefully calibrated incentive mechanisms for all stakeholders.*

**Keywords :** Adaptive Governance; Public Policy; Ride-Hailing

### INTRODUCTION

Rapid urban population growth has become a structural challenge for transportation infrastructure development in developing countries. In 2023, more than 56% of the world population lived in urban areas, and this proportion is projected to increase to 68% by 2050 (United Nations, 2023). This growth places substantial pressure on existing public transportation systems, particularly in developing countries where infrastructure capacity has not kept pace with urbanization. One consequence is the emergence of various informal transportation modes, commonly known as paratransit, as an adaptive community response to limitations in formal transportation services.

Paratransit is a semi-formal or informal transportation system that operates outside the government's official regulatory framework but provides essential mobility services for urban communities (Putri & Putrawan, 2025). In developing countries, paratransit takes many forms, including minibuses, pedicabs, motorcycle taxis, urban minibuses, and tuk-tuks, which collectively fill



gaps left by conventional public transportation. This phenomenon is not merely a technical mobility issue. It also reflects gaps in state capacity to provide adequate public services and demonstrates the informal adaptive capacity of communities to meet basic mobility needs. Herijanto et al. (2019) note the ambiguous role of paratransit: on one hand, it fills service gaps left by formal systems; on the other hand, it can generate negative externalities such as congestion, air pollution, and uncertainty regarding passenger safety standards.

In Indonesia, the complexity of paratransit has changed significantly with the penetration of digital technology and the rise of ride-hailing services. Digital platforms such as Gojek and Grab have transformed motorcycle taxis from informal services based on local trust and social networks into application-based systems with millions of registered drivers. Data from the Ministry of Transportation of the Republic of Indonesia (2023) recorded more than 4 million ride-hailing motorcycle drivers operating across Indonesia, making them one of the country's largest informal-sector workforces. The rapid expansion of ride-hailing has taken place within a regulatory grey area, creating structural tensions among digital platforms, government authorities, and conventional public transport operators. As shown by Warty et al. (2022), the unclear legal status of ride-hailing has repeatedly triggered horizontal conflict between ride-hailing drivers and conventional public transport drivers in major Indonesian cities. This situation also reflects the government's regulatory difficulty in responding to technological innovation that moves much faster than bureaucratic adaptive capacity.

The central government responded to this phenomenon through a series of gradual regulations, including Minister of Transportation Regulation No. PM 108 of 2017 on the Provision of Passenger Transport Using Public Motor Vehicles Outside Fixed Routes, which was later refined through Minister of Transportation Regulation No. PM 12 of 2019 concerning upper and lower fare limits for ride-hailing services. However, these regulations remain partial and do not fully address intermodal integration. Sinaga and Ramadhan (2023) argue that one-dimensional regulatory approaches with limited stakeholder participation tend to produce policies that face resistance during implementation. Therefore, paratransit formalization is not simply a matter of producing regulations. It also concerns how policies are formulated, negotiated, and implemented adaptively at the local level.

Within the Greater Jakarta metropolitan area, Bogor City holds a strategic position as a satellite city with very high commuter movement. According to Statistics Indonesia, Bogor City (2023), the city has approximately 1.1 million residents and significant daily mobility toward Jakarta and surrounding cities. This condition creates dual pressure on the city government. It must meet residents' mobility needs while also managing the complexity of integrating formal transport operators, particularly Trans Pakuan, conventional route-based urban minibuses, and ride-hailing operators. These three components operate in parallel without a single structured coordination mechanism, resulting in service inefficiencies, overlapping routes, and unhealthy competition that disadvantages

both drivers and passengers.

The Bogor City Government responded by issuing Mayor Regulation No. 45 of 2023 on Public Transportation Services and Urban Transport Mode Integration. This regulation became Bogor's first formalization policy instrument to explicitly incorporate ride-hailing into the formal public transportation ecosystem. The policy includes three main schemes: (1) converting part of the urban minibus fleet into Bus Rapid Transit (BRT) Trans Pakuan feeders; (2) certifying ride-hailing drivers as official partners of the Bogor City Transportation Agency; and (3) integrating intermodal digital payments into a unified platform. Although the regulation represents a significant policy breakthrough, implementation has faced complex structural challenges, including resistance from urban minibus driver associations concerned about losing routes and income, limited technical and budgetary capacity within the Transportation Agency, and coordination challenges with digital platforms operating under private technology company structures.

These conditions reflect a deeper issue than regulatory design alone. They concern the government's governance capacity to manage the transition from informal transport toward an integrated transportation system. Alfiah et al. (2024) show that failures in urban transport integration policies in Indonesia more often stem from weak institutional coordination mechanisms and limited stakeholder participation during policy formulation than from the technical design of the regulations themselves. This finding highlights the need for adaptive and collaborative governance approaches rather than relying solely on top-down regulatory solutions.

This problem directs academic attention toward an analytical framework capable of capturing complex policy dynamics involving multiple actors, diverse interests, and high uncertainty. Adaptive governance provides a relevant theoretical framework for this context. Herijanto et al. (2019) define adaptive governance as a governance system capable of adjusting to changing conditions, learning collectively from implementation experience, and establishing multi-actor participation mechanisms to produce legitimate and sustainable decisions. In public policy and public administration, Ansell and Gash (2008) emphasize that successful collaborative governance depends on the quality of facilitation, trust-building among parties, shared commitment to agreed goals, and government capacity to initiate and mediate the policy process. Applying this framework to paratransit formalization enables analysis beyond technical and regulatory dimensions and supports a more complete understanding of policy negotiation among local government, driver associations, digital platforms, and transport users.

Although studies on ride-hailing and urban minibuses in Indonesia continue to expand, research that specifically applies an adaptive governance framework to analyze paratransit transportation formalization at the city-government level remains limited. Existing studies largely focus on labor economics and driver welfare (Rahardjo et al., 2022) or technical evaluations of service performance (Joewono et al., 2021), but they have not examined in depth

the adaptive governance processes that shape the legitimacy and sustainability of integration policies. This gap provides the basis for the present study. By positioning Bogor City as a policy laboratory representative of metropolitan satellite cities in Indonesia, this study seeks to contribute analytically to the adaptive governance literature in urban transportation policy and to formulate practical recommendations for strengthening local government regulatory capacity in managing sustainable paratransit formalization.

### **Adaptive Governance**

Adaptive governance is a governance framework designed to address uncertainty and complexity through collective learning, institutional flexibility, and multi-actor participation. Alfiah et al. (2024) explain that such a system proactively adjusts and renews strategies based on stakeholder feedback. Brunner and Steelman (2005) add that adaptive governance requires a balance between legal certainty and procedural flexibility, particularly when governments confront new socio-economic phenomena that develop faster than conventional regulation. This view aligns with the learning organization concept at the governmental level, in which Herijanto et al. (2019) emphasize that adaptive governments can identify early signals of change and respond proportionately. Ansell and Gash (2008), Huitema et al. (2009), and Folke et al. (2005) identify four central dimensions: adaptive regulatory capacity, collaborative multi-actor governance, bureaucratic learning and adaptation, and policy legitimacy and sustainability. These dimensions distinguish adaptive governance from rigid, one-size-fits-all regulatory models.

### **Public Policy**

Public policy, defined by Anderson (2003) as a series of authoritative government decisions concerning problems that affect the public interest, is expanded by Situmorang (2020) in the Indonesian context as a socio-political process involving interest dynamics, group pressure, and bureaucratic capacity to translate decisions into concrete action. Subianto (2020) further argues that policy effectiveness requires coherence among formulation, implementation instruments, and adequate institutional capacity throughout the policy cycle, including problem identification, formulation, adoption, implementation, and evaluation. At the implementation stage, which often becomes the point of failure between ideal policy design and field realities, Van Meter and Van Horn (1975) identify six determinants of success: policy standards and objectives, resources, inter-organizational communication, characteristics of implementing agencies, socio-economic and political conditions, and implementer disposition. Fitri Meutia (2017) adds the context of implementation, which includes power, interests, actor strategies, regime characteristics, and the compliance level of target groups. These dimensions are highly relevant to ride-hailing formalization in Bogor City, which involves driver associations, digital platforms, and a bureaucracy with limited capacity.

## **RESEARCH METHOD**

This study uses a qualitative approach to understand the implementation

dynamics of paratransit formalization policy in Bogor City (Creswell, 2014; Yin, 2018; Moleong, 2017). The research was conducted over five months at the Bogor City Transportation Agency, route-integration points designated under Mayor Regulation No. 45 of 2023, and driver association offices. Primary data were collected through interviews with selected informants, field observations, and analysis of regulatory documents, while secondary data came from official documents and relevant academic references (Sugiyono, 2019). Informants included Transportation Agency officials, ride-hailing driver associations, ORGANDA, digital platform representatives, and academics. Data analysis followed the interactive model of Miles, Huberman, and Saldaña (2014), including data display, conclusion drawing, and verification. Data validity was ensured through triangulation and systematic documentation of the research process.

## **FINDINGS AND DISCUSSION**

### **1. General Overview of the Study**

Bogor City is one of the satellite cities within the Greater Jakarta metropolitan area and occupies a strategic geographic and functional position. With an area of 118.5 km<sup>2</sup> and a population of approximately 1.1 million according to Statistics Indonesia, Bogor City (2023), the city faces very high mobility pressure. More than 400,000 commuter movements are estimated to occur daily between Bogor and Jakarta, making reliable public transportation a critical need for residents and the local government. Bogor's formal transportation system is supported by the Trans Pakuan Bus Rapid Transit (BRT), which has operated since 2009 with seven active corridors. However, its service capacity remains insufficient to meet the city's total mobility demand. Consequently, paratransit in the form of urban minibuses and ride-hailing continues to serve as a major component of daily mobility for many residents.

Bogor City has experienced significant paratransit dynamics over the past five years. The number of urban minibuses has consistently declined due to competition from ride-hailing and changing public preferences, while the number of registered ride-hailing drivers has increased sharply. This imbalance creates dual pressure on the Bogor City Government. On one side, the sustainability of urban minibuses as a long-standing public transport mode is threatened. On the other side, uncontrolled ride-hailing growth creates a regulatory gap that may trigger intermodal conflict, inefficient road-space use, and uncertainty for drivers. These conditions prompted the Bogor City Government to issue Mayor Regulation No. 45 of 2023 as a comprehensive formalization initiative and the city's first explicit policy of this kind.

### **2. Adaptive Regulatory Capacity of the Bogor City Government in Paratransit Formalization**

The first adaptive governance dimension analyzed in this study is adaptive regulatory capacity, defined as the Bogor City Government's ability to design and respond to paratransit dynamics through regulatory instruments that remain flexible while providing legal certainty. The analysis begins by mapping

the factual condition of Bogor's paratransit fleet during 2020-2024, which provides the empirical context for the formalization policy established through Mayor Regulation No. 45 of 2023.

**Table 1: Development of the Paratransit Fleet in Bogor City, 2020-2024**

| Year | Urban Minibus Fleet (units) | Registered Ride-Hailing Drivers (persons) | Ride-Hailing : Urban Minibus Ratio |
|------|-----------------------------|-------------------------------------------|------------------------------------|
| 2020 | 3,847                       | 32,450                                    | 8.4:1                              |
| 2021 | 3,654                       | 38,920                                    | 10.6:1                             |
| 2022 | 3,201                       | 45,670                                    | 14.3:1                             |
| 2023 | 2,987                       | 51,340                                    | 17.2:1                             |
| 2024 | 2,654                       | 54,780                                    | 20.6:1                             |

Source: Bogor City Transportation Agency (2024)

Table 1 shows a significant trend. Over five years, from 2020 to 2024, the urban minibus fleet decreased by 31.0%, from 3,847 units to 2,654 units, while the number of registered ride-hailing drivers increased by 68.8%, from 32,450 to 54,780. The ride-hailing-to-urban-minibus ratio rose from 8.4:1 in 2020 to 20.6:1 in 2024. This shift reflects a rapid structural change in Bogor's paratransit ecosystem that the existing regulatory framework had not fully anticipated. The condition created substantial pressure on local transport authorities to respond promptly with adaptive and comprehensive policy instruments, which were later embodied in Mayor Regulation No. 45 of 2023.

Regarding the Bogor City Government's capacity to respond to these dynamics through regulation, the Head of the Public Transportation Division of the Bogor City Transportation Agency stated:

*"Mayor Regulation No. 45 of 2023 was not created overnight. The process was long. We needed more than a year to draft it because we had to ensure that all parties, from ride-hailing drivers to urban minibus operators, could accept its substance. The most difficult part was not writing the regulation, but building trust that this policy would not harm anyone. We learned from the failure of similar regulations in other cities that were immediately rejected because drivers had not been involved from the beginning." Interview with the Head of the Public Transportation Division, Bogor City Transportation Agency*

The informant's statement indicates that the formulation of Mayor Regulation No. 45 of 2023 reflects the Bogor City Transportation Agency's awareness of the importance of substantive legitimacy, rather than procedural legitimacy alone, in regulatory design. The statement by Drs. Ahmad Fauzi emphasizes that the local government actively learned from failed implementation experiences in other cities, which provides a clear indication of adaptive regulatory capacity as conceptualized by Folke et al. (2005). The more than one-year drafting process and its consultative approach also align with Rahardjo et al. (2022), who argue that platform-based transportation policies developed without inclusive consultation tend to face substantial implementation resistance.

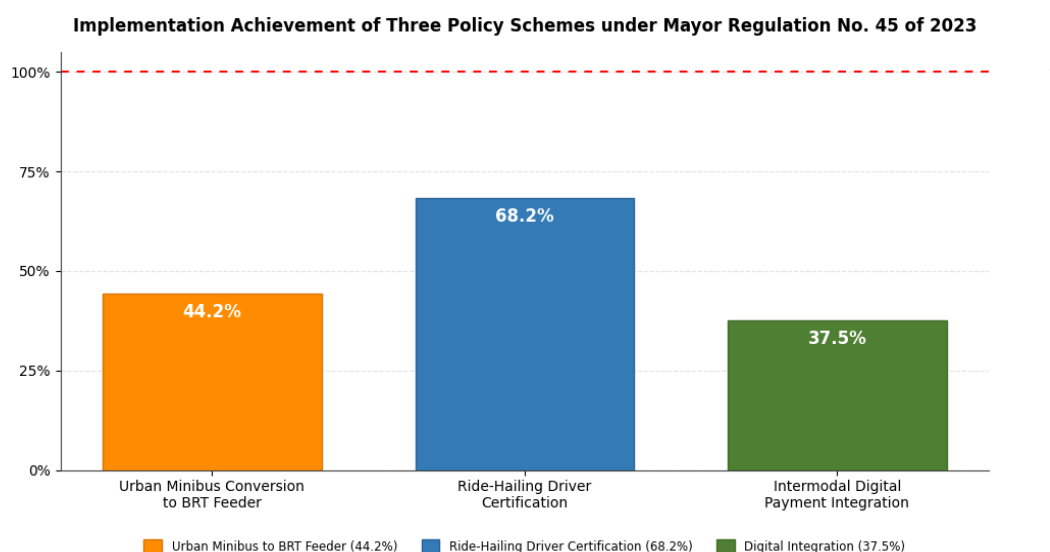
An academic perspective provides a more balanced critical assessment of this adaptive regulatory capacity:

*"Mayor Regulation No. 45 is interesting because it shows Bogor City's effort to develop a more adaptive regulation rather than simply following a national template. However, the technical and budgetary capacity of the Bogor City Transportation Agency remains limited for implementing three schemes simultaneously. Ideally, each scheme should first be piloted and evaluated using measurable indicators before proceeding to the next. Without such an approach, partial failure could undermine public trust in the entire policy."* Lecturer and Transportation Observer, Pakuan University, Bogor

This response provides an important critical perspective on the Bogor City Government's adaptive regulatory capacity. Although the innovative regulatory orientation of Mayor Regulation No. 45 of 2023 deserves recognition, Dr. Bambang identifies a gap between policy ambition and actual implementation capacity as a structural risk that requires attention. This finding is consistent with Mahsun (2022), who warns that regulatory innovation without adequate institutional capacity can create an implementation gap that weakens policy legitimacy. The evidence suggests that Bogor's adaptive regulatory capacity remains at a developing stage. The government has demonstrated a willingness to change but still requires systematic strengthening of technical capacity and evidence-based evaluation mechanisms.

### 3. Collaborative Governance Mechanisms

The second adaptive governance dimension examined is collaborative governance, which concerns the extent to which the paratransit formalization process in Bogor City has integrated multiple stakeholders into a participatory decision-making arena. To assess this condition empirically, the study examines implementation outcomes for the three policy schemes contained in Mayor Regulation No. 45 of 2023, as presented in Figure 1.



**Figure 1: Implementation Achievement of the Three Policy Schemes under**

### Mayor Regulation No. 45 of 2023

Figure 1 shows uneven implementation outcomes across the three policy schemes. Ride-hailing driver certification recorded the highest achievement at 68.2%, indicating relatively stronger acceptance among the target group than the other two schemes. Digital payment integration recorded the lowest achievement at 37.5%, mainly due to infrastructure budget limitations and technical coordination complexity between the Transportation Agency and technology service providers. Conversion of urban minibuses into BRT feeders reached 44.2%. Although this placed it in the middle, the scheme faced the most complex barriers because it directly affected the livelihoods of thousands of urban minibus drivers who had long depended on the conventional route system.

Regarding the collaborative governance mechanism implemented by the Bogor City Transportation Agency, the Head of the Public Transportation Division explained the process that had been developed:

*"We formed a cross-actor coordination team in 2022, well before the Mayor Regulation was enacted. Representatives from ride-hailing associations, ORGANDA, and platform companies were invited to every technical meeting. Not every meeting went smoothly. Several forums became heated because of debates over subsidy amounts and route allocation. But that is the essence of the collaborative process we are trying to build. We would actually be concerned if every meeting always ended in agreement, because that could indicate that some parties were not genuinely expressing their interests." Interview with the Head of the Public Transportation Division, Bogor City Transportation Agency*

The informant's statement indicates that the Bogor City Transportation Agency established cross-actor coordination mechanisms at an early stage, even before the formal regulation was issued, as part of a proactive collaboration strategy. Drs. Ahmad Fauzi's acknowledgment of debate within the coordination forum reflects a mature understanding of genuine participation in collaborative governance, where productive disagreement is a healthy indicator of authentic collaboration (Ansell & Gash, 2008). This approach differs from ceremonial collaboration often found in local government institutions, where consultation forums merely provide formal legitimacy for decisions that have effectively been determined unilaterally by the bureaucracy.

The perspective of the ride-hailing driver association illustrates how the target group experienced and responded to the collaborative mechanism:

*"At first, many drivers were skeptical about this certification program. They thought it was only a way for the government to restrict us or even impose additional fees. But after we participated in several discussion forums facilitated by the Transportation Agency and saw that the promised incentives were real, including work-accident protection, access to integration-stop zones, and official recognition as transport partners, many began to change their minds and register. The most influential factor was testimony from fellow drivers who had been certified earlier and had experienced the benefits." Interview with Ridwan Santoso, Chair of the Bogor City Ride-Hailing Drivers Community*

Ridwan Santoso's response reveals an important dynamic in the adoption

of formalization policy among drivers. Initial skepticism gradually shifted toward acceptance through peer influence and direct experience. This finding aligns with Rogers' (2003) diffusion of innovations theory, which emphasizes that innovation adoption is strongly influenced by observing early adopters who provide tangible evidence of the promised benefits. In the context of adaptive governance, the changing perceptions within the ride-hailing driver community indicate that the collaborative mechanism developed by the Transportation Agency, although gradual, successfully shifted actors from opposition toward active participation.

The urban minibus association provides a more critical perspective that reflects deeper tensions within the collaborative process:

*"To be frank, we disagreed with the urban minibus conversion plan from the beginning of the negotiations. For urban minibus drivers, a route is not merely a job. It has been their source of livelihood for years, and for some, for decades. When they were suddenly asked to become Trans Pakuan feeders under a different revenue-deposit system with uncertain income, strong resistance was understandable. The government eventually listened and revised the compensation scheme three times before we reached an agreement that our members could accept." Interview with H. Sugiarto, Chair of ORGANDA Bogor City*

H. Sugiarto's response reveals the most critical dimension of collaborative governance in this formalization policy, namely the tension between the short-term economic interests of urban minibus drivers and the government's long-term vision of transportation integration. The fact that the conversion compensation scheme was revised three times before an agreement was reached provides strong empirical evidence that the collaboration mechanism was not merely procedural. It produced substantive changes in policy design. This finding is consistent with Grindle's (1980) view that successful policy implementation depends heavily on the extent to which target-group interests are substantively accommodated in policy content, not only in consultation procedures.

#### **4. Policy Negotiation and the Development of Policy Legitimacy**

The third dimension analyzed is policy negotiation and the development of legitimacy, specifically how conflicting interests were successfully or unsuccessfully managed within a shared policy arena to produce a regulation recognized as legitimate by the parties involved. In the case of Mayor Regulation No. 45 of 2023, negotiations continued for almost eight months before the regulation was formally enacted. The process involved a series of bilateral and multilateral meetings between the Transportation Agency and various operator associations. The Chair of ORGANDA Bogor City described the negotiation dynamics in greater detail:

*"Our negotiations with the Transportation Agency continued for almost eight months before the Mayor Regulation was officially signed. We had three main demands. First, priority-route guarantees for urban minibuses that chose not to convert. Second, an adequate operational subsidy for those choosing conversion to feeder services. Third, a transparent joint-monitoring mechanism to prevent*

*irregularities in the field. Two of the three demands were eventually accommodated in the Mayor Regulation, although the amounts did not fully meet our initial expectations. We considered this a compromise that we could accept." Interview with H. Sugiarto, Chair of ORGANDA Bogor City*

The informant's statement indicates that negotiations between ORGANDA and the Bogor City Transportation Agency involved genuine bargaining rather than symbolic consultation, as demonstrated by substantive compromises from both parties. Two of ORGANDA's three major demands were incorporated into the final regulation, indicating negotiated legitimacy rather than legitimacy imposed unilaterally. This phenomenon is consistent with Ansell and Gash (2008), who argue that the legitimacy of collaborative policy within adaptive governance depends strongly on how fairly the parties perceive the negotiation process, regardless of whether every demand is fully accepted.

The digital platform perspective provides a different dimension of the policy negotiation process:

*"From the platform side, we actually support this certification program because it also benefits our operations. Certified drivers have lower risk profiles, fewer passenger complaints, and higher order-conversion rates. Our main recommendation to the Transportation Agency is that the certification process should be integrated directly into our application system, so drivers do not need to visit the Transportation Agency office physically. We proposed this in the coordination forum, and the Agency responded positively and agreed to discuss it in the next revision of the technical regulation." Interview with the Regional Operations Manager of Gojek for the Greater Jakarta Area*

Budi Prasetyo's response shows that digital platforms, which are often positioned as actors whose interests conflict with regulation, can instead hold interests that converge with the goals of the certification policy, particularly improved service quality and reliability. More importantly, his statement indicates that the platform used the policy coordination forum to submit constructive technical input, which the Transportation Agency welcomed for consideration in a future regulatory revision. This condition demonstrates that the adaptive governance mechanism successfully shifted the platform's position from a regulatory object to an active partner in iterative policy improvement, consistent with Huitema et al.'s (2009) concept of inclusive and responsive polycentric governance.

## **5. Bureaucratic Adaptation in Policy Implementation**

The fourth adaptive governance dimension analyzed is bureaucratic learning and adaptation capacity, defined as the extent to which the Bogor City Transportation Agency, as the main implementing institution, can identify implementation barriers early, respond through strategic adjustments, and develop a systematic feedback loop to improve policy effectiveness over time. An academic and transportation observer from Pakuan University provided a critical but constructive assessment of the Agency's learning capacity:

*"What is interesting about the implementation of Mayor Regulation No. 45, and this is uncommon in many other regions, is that the Bogor City Transportation*

*Agency has shown a willingness to revise policy based on actual field evaluation. The urban minibus conversion subsidy scheme has already been changed twice based on structured input from ORGANDA and field-monitoring results. This indicates that genuine policy learning is taking place. However, one weakness that still requires improvement is the evaluation-documentation system. Field input is often informal and not properly archived, making it difficult to use objectively as a basis for subsequent policy decisions." Interview with a Lecturer and Transportation Observer, Pakuan University, Bogor*

The informant's response indicates that the bureaucratic learning capacity of the Bogor City Transportation Agency remains mixed. On one hand, there is clear evidence of willingness to revise and adjust policy based on field feedback, as reflected in two revisions to the subsidy scheme. On the other hand, the learning mechanism still depends heavily on informal processes that are neither structured nor well documented. This condition suggests that the Agency has implicitly applied learning organization principles (Senge, 1990) but has not yet institutionalized them through standardized monitoring and evaluation procedures. The finding is consistent with Termeer et al. (2017), who argue that transformation toward adaptive governance is gradual and requires continuous institutional capacity development.

The transport-user perspective provides an important dimension regarding how policy change and bureaucratic adaptation are directly experienced by the public:

*"I have used Trans Pakuan for a long time and previously also used urban minibuses regularly. Since this integration program began, I have seen real changes in the field. At the Baranangsiang Terminal stop, for example, there is now a designated ride-hailing zone, so drivers cannot wait anywhere they want. Ride-hailing drivers no longer crowd the front of the stop and disrupt Trans Pakuan passenger flows. What I am still waiting for is a single ticket that can be used across all modes. That has not been realized yet, and I think it would provide the most direct benefit for passengers like me." Interview with Sari Wulandari, Transport User, Bogor City*

Sari Wulandari's response provides a valuable end-user perspective from those who directly experience the effects of transportation integration policy. Her statement confirms that formalization has produced visible physical changes in the field, particularly more orderly ride-hailing waiting zones around Trans Pakuan stops. This is a positive indication that the policy has begun to function. However, her expectation for an integrated payment system that has not yet materialized highlights an important gap between the government's perception of implementation progress and public expectations, which should represent the policy's ultimate objective. From an adaptive governance perspective, user feedback such as this should become an integral part of the policy feedback loop. Folke et al. (2005) emphasize that policy legitimacy and sustainability are ultimately measured by the extent to which intended communities experience tangible benefits.

## **6. Supporting and Inhibiting Factors in Paratransit Formalization Policy**

## Implementation

### 6.1 Supporting Factors

The partial success of Mayor Regulation No. 45 of 2023, although implementation has not fully reached its targets, cannot be separated from several supporting factors that structurally and contextually provide momentum for paratransit formalization in Bogor City. These factors operate at several levels, ranging from political support within government and the availability of existing infrastructure to the collective capacity of driver associations that enables structured negotiation. Identifying these supporting factors is important within adaptive governance because they reveal resources and conditions that local government can optimize to accelerate and deepen formalization over time. The supporting factors identified in this study are presented systematically in Table 2.

**Table 2: Supporting Factors for Paratransit Formalization Policy Implementation in Bogor City**

| Supporting Factor                                                                                  | Category                | Relevance to Adaptive Governance                                                            |
|----------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------|
| Political commitment and full support from the Mayor of Bogor for the transport integration agenda | Political-Institutional | Strengthens adaptive regulatory capacity and provides political legitimacy for the policy   |
| Supportive national regulations (PM 108/2017 and PM 12/2019) as the legal framework                | Regulatory              | Provides legal certainty and policy space for local regulatory innovation                   |
| Active support from digital platforms (Gojek/Grab) for the driver certification program            | Technological-Economic  | Strengthens multi-actor collaboration and expands program reach                             |
| High penetration of digital technology among ride-hailing drivers                                  | Technological           | Accelerates adoption of certification mechanisms and facilitates digital system integration |

Among the four supporting factors, active support from digital platforms is the most distinctive and strategic. The Regional Operations Manager of Gojek for the Greater Jakarta Area stated:

*"We did not simply wait for the regulation to be issued and then adjust. From the beginning of the drafting process, we were actively involved in technical forums with the Transportation Agency. For the platform, certified drivers are assets because they have more measurable service standards and higher passenger trust. Therefore, we voluntarily promoted the certification program through in-app notifications to all driver partners in Bogor City, and this had a substantial effect on registration numbers during the early months of the program."* Interview with the Regional Operations Manager of Gojek for the Greater Jakarta Area

This response indicates that digital platform support in Bogor City is not merely passive and adaptive, but proactive and strategic. Gojek independently used its application ecosystem as a channel to communicate government policy,

effectively reaching thousands of drivers without requiring additional outreach expenditure from the Transportation Agency. This condition provides a concrete example of polycentric governance as described by Huitema et al. (2009), where non-government actors voluntarily take an active role in public policy implementation because they identify genuine synergy between their interests and the government's agenda.

## 6.2 Inhibiting Factors

In addition to supporting factors, several inhibiting factors directly affect the implementation outcomes of paratransit formalization in Bogor City and explain why the three schemes under Mayor Regulation No. 45 of 2023 have not achieved their established targets. Within the adaptive governance framework, understanding these barriers is as important as identifying supporting factors because they reveal critical points where adaptive governance capacity must be strengthened to make formalization more effective and inclusive. The inhibiting factors identified through in-depth interviews and document analysis are presented in Table 3.

**Table 3: Inhibiting Factors in Paratransit Formalization Policy Implementation in Bogor City**

| Inhibiting Factor                                                                                                     | Category       | Impact on Implementation                                                                           |
|-----------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------|
| Urban minibuses driver resistance to the conversion scheme due to the risk of losing route-based income               | Socio-Economic | Urban minibuses conversion reached only 44.2% of the target (53 of 120 units)                      |
| Limited Transportation Agency budget for intermodal digital infrastructure development                                | Financial      | Digital payment integration reached only 37.5% (3 of 8 targeted stops)                             |
| Technical coordination complexity between the Transportation Agency system and digital platform technology ecosystems | Technical      | Certification remains manual and is not yet integrated with ride-hailing applications              |
| Many informal ride-hailing drivers remain outside the formalization program                                           | Regulatory     | The certification target may not reflect the actual total number of drivers operating in the field |

Among the four inhibiting factors, urban minibuses driver resistance to the conversion scheme is the most complex and multidimensional barrier because it simultaneously involves economic, psychological, and cultural dimensions. The Chair of ORGANDA Bogor City explained the underlying problem in greater detail:

*"The biggest problem is not that drivers refuse to change. They understand that the transportation ecosystem has changed and that urban minibuses cannot continue operating in the same way forever. What they need is certainty that if they join the conversion program, their income will not fall sharply during the first few months. The subsidy scheme initially proposed by the Transportation Agency was too small and lasted for too short a period. Most urban minibuses drivers are between 40 and 50 years old and support families. They cannot take major risks."*

*After we renegotiated and the subsidy period was extended from three months to six months, some drivers finally began registering for conversion." Interview with H. Sugiarto, Chair of ORGANDA Bogor City*

The response indicates that driver resistance to urban minibus conversion does not represent a principled rejection of formalization policy. Instead, it is a rational expression of economic uncertainty among a vulnerable group that depends on the conventional route system. H. Sugiarto's statement reveals an important point: the initial compensation design, which was too short and inadequate, represented a technical failure in policy planning rather than a political failure. This problem was later corrected through adaptive negotiation. This finding aligns with Van Meter and Van Horn's (1975) argument that inadequate policy resources, including poorly calibrated incentive and disincentive schemes, are among the most decisive variables in implementation failure. It also reinforces the relevance of adaptive governance to paratransit formalization. Governments need sufficiently flexible mechanisms to respond to signals of failure from the field and make rapid, substantive policy corrections rather than waiting for lengthy formal evaluation cycles.

Beyond driver resistance, observers also identified the Transportation Agency's limited institutional capacity to manage three schemes simultaneously as a serious constraint. As Dr. Ir. Bambang Susanto emphasized in an earlier interview, the absence of a piloting mechanism for each scheme forces the Agency to carry an excessive coordination burden at the same time that available human resources and budgets remain disproportionate to the complexity of implementation. This condition represents one of the deepest structural challenges of adaptive governance at the local-government level in Indonesia. Policy innovation often moves beyond the institutional capacity available to implement it. Careful prioritization and systematic capacity support from the central government and partner institutions are therefore required (Mahsun, 2022).

## CONCLUSION

This study concludes that the Bogor City Government's adaptive regulatory capacity remains at a developing stage, as reflected in uneven implementation outcomes: ride-hailing driver certification reached 68.2%, conversion of urban minibuses into BRT feeders reached 44.2%, and digital payment integration reached only 37.5%. Nevertheless, the formulation of Mayor Regulation No. 45 of 2023 demonstrated a progressive consultative initiative through multi-actor collaboration forums that produced substantive policy compromises. The adaptive governance framework is relevant for explaining these dynamics. Bogor City shows a bureaucratic profile that is willing to learn and adjust, although its technical and institutional capacity still requires strengthening. This condition aligns with Brunner and Steelman's (2005) argument that adaptive governance develops along a continuum. Based on these findings, the Bogor City Transportation Agency should establish a digital data-based monitoring system and implement each policy scheme in stages. Driver

associations should strengthen their role as constructive negotiation partners. Digital platforms should technically integrate certification systems and share mobility data. Future researchers should conduct comparative studies across satellite cities in the Greater Jakarta area and longitudinal research to develop a more comprehensive understanding of adaptive governance effectiveness in paratransit transportation formalization.

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