



Improving Road Safety Governance through Public Service Innovation

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Abstract. This study explores how public service innovations in motor vehicle testing, based on Regional Public Service Agencies (BLUD), can improve road safety governance. In regions with rapidly growing motor vehicle populations, inadequate roadworthiness controls contribute to high traffic accident risks. While Indonesia has a regulatory framework for motor vehicle testing, service delivery remains largely administrative and lacks a strong focus on road safety. The study aims to assess how public service innovations can enhance road safety governance through local government-managed vehicle testing based on BLUD. Using a qualitative case study approach, data were collected through in-depth interviews, observations, and document analysis involving local government officials, testing technicians, and service users. Thematic and interpretive data analysis identified governance dimensions that influence service effectiveness. The study finds that road safety governance improvement relies on four main capacities: relational, structural, resource, and adaptive. Although BLUD-based management offers flexibility for service innovation, its implementation has not fully aligned with road safety goals. Challenges remain in public trust, cross-agency coordination, resource availability, and organizational learning. The study concludes that integrating public service innovation with institutional capacity building and safety-focused performance management is essential for strengthening road safety governance. These findings highlight the strategic importance of motor vehicle testing in enhancing road safety and public value at the regional level.

Keywords: Adaptive Capacity; BLUD; Motor Vehicle Testing; Public Service Innovation; Road Safety Governance

1. INTRODUCTION

Road safety governance is a strategic challenge in modern public administration, particularly in areas experiencing rapid growth in the number of motorized vehicles and public mobility. Road safety is no longer understood solely as a technical transportation issue, but rather as a public governance issue involving government institutional capacity, policy effectiveness, and the quality of public services. From a public administration perspective, failure to manage road safety reflects a weak integration between regulations, institutions, and service innovations oriented toward the public interest (Osborne, 2010; Denhardt & Denhardt, 2015).

Globally, road traffic accidents are a leading cause of death and serious injury, particularly in developing countries. The World Health Organization (WHO) confirms that the high number of road traffic accidents is closely related to the poor quality of road safety systems, including weak oversight of motor vehicle roadworthiness. Vehicles that do not meet technical and safety standards contribute significantly to the risk of accidents, environmental damage, and high social and economic burdens on communities and countries (WHO, 2018).

Road safety issues are also directly linked to the achievement of the Sustainable Development Goals (SDGs), particularly Goal 3 (Healthy and Well-Being Lives) and Goal 11 (Sustainable Cities and Human Settlements). Strengthening road safety systems, including effective and accountable motor vehicle testing, is a crucial prerequisite for reducing road

traffic fatalities and creating a safe, inclusive, and sustainable transportation system (United Nations, 2015).

In the Indonesian context, motor vehicle inspections fall under the authority of regional governments, as stipulated in Law Number 23 of 2014 concerning Regional Government. This service serves to ensure that vehicles operating on public roads meet technical requirements and are roadworthy. However, in practice, the management of motor vehicle inspections in many regions still faces various problems, such as limited facilities and infrastructure, low service quality, non-transparent service practices, and a service orientation that is still administrative and procedural (Dwiyanto, 2015).

As part of public service reform efforts, the government introduced the Regional Public Service Agency (BLUD) scheme, which provides flexibility in financial and operational management for public service units. The implementation of BLUD in the Motor Vehicle Testing Technical Implementation Unit is expected to improve efficiency, professionalism, and service quality. However, the reality on the ground shows that BLUD implementation has not been fully accompanied by public service innovations oriented towards improving road safety. Motor vehicle testing services are still often understood as an administrative obligation, rather than a strategic instrument in road safety governance.

The main problem faced is the suboptimal innovation of public services to support road safety governance. Although regulatory and institutional frameworks are in place, the integration between institutional reform of the Public Service Agency (BLUD), service innovation, and road safety objectives remains weak. This situation has resulted in the low effectiveness of motor vehicle inspections in preventing unroadworthy vehicles from operating in public spaces, as well as the limited contribution of public services to reducing the risk of traffic accidents.

Within the framework of public administration, strengthening road safety governance requires the institutional capacity of local governments to be adaptive, innovative, and oriented toward policy outcomes. Public service innovation is a key element in driving a paradigm shift in service delivery, from merely fulfilling procedures to creating public value. Therefore, analyzing how public service innovation can strengthen road safety governance through the management of motor vehicle testing based on the Public Service Agency (BLUD) is important both theoretically and practically.

This study aims to analyze improvements in road safety governance through public service innovation in the management of motor vehicle testing. The research focuses on how institutional reforms in the Public Service Agency (BLUD) can be leveraged to encourage

service innovation, improve governance quality, and strengthen the contribution of motor vehicle testing services to road user safety.

The novelty of this research lies in the integration of the concepts of road safety governance and public service innovation in the context of managing motor vehicle testing based on the Public Service Agency (BLUD). Previous studies generally discuss road safety, public service innovation, or BLUD separately, without comprehensively linking them within a single governance analysis framework. Thus, this research offers a new perspective in understanding the role of public services as a strategic instrument for road safety.

Theoretically, this research contributes to enriching public administration studies, particularly in the fields of governance studies and public service innovation, by positioning road safety as a public policy outcome. Practically, the research findings are expected to serve as a reference for local governments in formulating innovative strategies for motor vehicle testing services that are more effective, transparent, and oriented toward public safety. Thus, this research provides an important foundation for efforts to realize sustainable road safety governance that is centered on the interests of the community.

2. LITERATURE REVIEW

Road safety studies have developed extensively in the literature on public policy, transportation, and government administration. Road safety is understood as the result of a complex system, involving interactions between regulations, institutions, infrastructure, technology, and the quality of public services. The road safety governance approach emphasizes that traffic accidents are not solely an individual problem, but rather a governance failure that includes weak policy coordination, oversight, and implementation of public services (Wegman & Aarts, 2006; OECD, 2020).

In this context, motor vehicle testing is positioned as a crucial instrument in the road safety system. Numerous studies have shown that vehicles that do not meet technical and roadworthy standards significantly contribute to the increased risk of traffic accidents (Elvik et al., 2009). These studies generally use a technical and regulatory approach, focusing on testing standards, inspection procedures, and levels of regulatory compliance. Although research findings indicate that motor vehicle testing has a positive impact on road safety, most of these studies have not explicitly linked this to aspects of public service governance and local government institutional capacity.

In public administration literature, public service innovation is understood as a process of renewal in the design, methods, and mechanisms of service delivery to enhance public value.

Mulgan and Albury (2003) and Hartley (2005) emphasize that public service innovation is key to responding to the limitations of traditional bureaucracy, which tends to be rigid, procedural, and less adaptable to the dynamics of societal needs. Innovation encompasses not only the use of technology but also changes in organizational culture, work patterns, and the relationship between government and service users.

Numerous empirical studies have shown that public service innovation can improve efficiency, transparency, and public satisfaction when supported by adaptive and accountable governance (Osborne, 2010; Denhardt & Denhardt, 2015). However, studies of public service innovation are still dominated by the health, education, and licensing sectors. Literature specifically examining public service innovation in the transportation sector, particularly motor vehicle testing, is still relatively limited. This situation indicates a significant research opportunity to develop an understanding of the role of public service innovation in supporting road safety.

Studies on Regional Public Service Agencies (BLUD) generally position this model as an instrument for reforming public sector financial management and performance. BLUDs provide flexibility in budget, human resource, and operational management, enabling public service units to improve efficiency and service quality (Hood, 1991; Mardiasmo, 2018). From a New Public Management perspective, BLUDs are seen as capable of encouraging performance-oriented and professional public service institutions.

However, several studies have criticized the fact that BLUD implementation is often still oriented towards administrative efficiency and increasing service revenue, without explicitly linking it to the achievement of broader public policy outcomes (Savas, 2000). In the context of motor vehicle testing, studies on BLUD are still limited to institutional and financial aspects, while its role as an instrument of public service innovation to strengthen road safety governance has not been studied in depth.

Based on the literature review, several research gaps can be identified. First, road safety studies are still dominated by technical and regulatory approaches, with limited analysis from a public administration and service governance perspective. Second, research on public service innovation has not yet addressed the motor vehicle testing sector as part of the road safety system. Third, studies on public service providers (BLUD) tend to separate institutional reform from the achievement of policy outcomes, particularly public safety.

Therefore, this study fills a research gap by integrating three main areas of study: road safety governance, public service innovation, and BLUD-based institutional management. This study positions motor vehicle testing as a strategic arena for analyzing how public service

innovation can strengthen road safety governance at the local government level. With this integrative approach, this study is expected to provide theoretical contributions to the development of public administration studies as well as practical contributions to policy formulation and improving the quality of public services in the transportation sector.

3. METHODOLOGY

In this section, you need to describe the proposed method step by step. Explanations accompanied by equations and flow diagrams as illustrations will make it easier for readers to understand your research.

This research uses a qualitative approach with a case study design, which aims to understand in depth how public service innovation plays a role in improving road safety governance through the management of motor vehicle testing based on Regional Public Service Agencies (BLUD). The qualitative approach was chosen because it allows researchers to comprehensively explore institutional processes, service dynamics, and interactions between policies, actors, and public service practices that cannot be adequately explained through a quantitative approach. The case study design is used to capture the complexity of the policy context and implementation of road safety services at the local government level (Yin, 2018).

The case study in this research focuses on motor vehicle testing units managed by local governments through the Public Service Agency (BLUD) scheme. The research analysis unit includes the service provider organization, the service innovation mechanisms implemented, and governance practices that influence service quality and road safety. The selection of research locations was based on considerations of the characteristics of regions with high vehicle mobility and those that have implemented or are developing a BLUD-based motor vehicle testing management model.

The primary data sources for this study consisted of key informants, including local government officials, motor vehicle testing managers and implementers, and other relevant stakeholders, such as transportation supervisors and service users. Informants were selected using a purposive sampling technique, which intentionally selects informants based on their role, involvement, and knowledge of public service innovation and motor vehicle testing governance (Creswell, 2019). This approach allows researchers to gain diverse and in-depth perspectives on the implementation of road safety services.

Data collection techniques were conducted through in-depth interviews, non-participatory observation, and documentation studies. Semi-structured interviews were used to explore the views, experiences, and perceptions of informants regarding service innovation,

governance effectiveness, and obstacles encountered in motor vehicle testing. Observations were conducted at motor vehicle testing service locations to directly understand the service flow, interactions between officers and service users, and the implementation of innovations in daily service practices. Documentation studies included analysis of policy documents, regional regulations, standard operating procedures, performance reports, and other supporting documents relevant to BLUD management and road safety.

Data analysis was conducted using a thematic and interpretive approach, following the analytical stages proposed by Miles and Huberman (1994), namely data reduction, data presentation, and conclusion drawing and verification. The analysis process was directed at identifying key themes related to the dimensions of road safety governance and public service innovation, such as institutional capacity, managerial flexibility, service quality, accountability, and orientation toward safety outcomes. The analyzed data were then interpreted to understand how BLUD-based public service innovations contribute to improving road safety governance.

To ensure data validity, this study employed a credibility testing strategy through source and technique triangulation, comparing the results of interviews, observations, and documentation studies (Lincoln & Guba, 1985). Furthermore, member checking was conducted by confirming the preliminary findings with informants to ensure the researcher's interpretations aligned with the reality on the ground. Extended data collection time and diligent observation were also employed to gain a deeper and more comprehensive understanding of the dynamics of public services and road safety governance.

4. RESULTS AND DISCUSSION

The research findings indicate that improving road safety governance through public service innovation is highly dependent on the capacity of local governments to manage stakeholder relationships, build effective institutional structures, provide adequate resources, and adapt to the dynamics of service and road safety needs. Overall, the four dimensions of public service governance provide a comprehensive overview of the strengths and weaknesses of managing motor vehicle testing as a road safety instrument at the regional level.

Relational Capacity

The research results show that local governments have made various efforts to build communication and working relationships with stakeholders involved in the implementation of motor vehicle testing, such as law enforcement officers, relevant transportation agencies, and the public using the services. These efforts are reflected in interagency coordination and direct

interaction between testing officers and service users. However, public trust in motor vehicle testing services remains suboptimal.

Some service users still view motor vehicle inspections as merely an administrative procedure, rather than a road safety measure. Service communication, which is not yet fully transparent and participatory, has resulted in low awareness and compliance with vehicle safety standards. This situation indicates that relational capacity still needs strengthening, particularly in building public trust and two-way communication focused on road safety.

Structural Capacity

The structural capacity of local governments in managing motor vehicle testing demonstrates sufficient institutional support through regulations, standard operating procedures (SOPs), and the organizational structure of BLUD-based service management. This regulatory framework serves as a crucial foundation for the formal and measurable implementation of motor vehicle testing services.

However, the implementation of this structure has not been fully consistent in the field. Inter-agency coordination, particularly between motor vehicle inspection units, law enforcement agencies, and licensing agencies, continues to face challenges in the form of overlapping authority and limited joint evaluation mechanisms. The absence of a permanent coordination forum specifically addressing road safety has hampered the integration of policies and services. This situation hinders institutional synergy in realizing effective road safety governance.

Resource Capacity

The research results show that local government resource capacity to support public service innovation in motor vehicle testing remains relatively limited. These limitations are evident in human resources, technical testing infrastructure, and operational budget support. Although BLUD-based management provides financial flexibility, its utilization has not been fully directed towards strengthening road safety functions.

Limited technical competence of testing personnel and inadequate testing equipment impact the quality of service and the accuracy of vehicle testing results. Furthermore, budget constraints also impact the intensity of oversight and the development of service innovations. This situation demonstrates that strengthening human resource capacity is crucial in improving the effectiveness of motor vehicle testing as a road safety instrument.

Adaptive Capacity

The adaptive capacity of local governments in managing motor vehicle testing demonstrates efforts to reform services, such as improving service flows and increasing

procedural efficiency. However, these innovations remain partial and have not been integrated into long-term road safety governance strategies.

The organizational learning process has not been systematic and tends to be reactive to emerging issues, such as a surge in vehicle numbers or public complaints about services. Service performance evaluations have not been fully linked to road safety outcome indicators, resulting in underutilization of service innovation as a tool for policy improvement. This situation highlights the need to strengthen evaluation systems and continuous learning to make local governments more adaptive and responsive to road safety dynamics.

Overall, road safety governance through public service innovations in the management of motor vehicle testing is at a sufficient level, but still requires significant strengthening. Strengthening relational, structural, resource, and adaptive capacity is key to ensuring that public service innovations not only improve the quality of administrative services but also have a tangible impact on improving road user safety. Thus, motor vehicle testing can function optimally as a strategic instrument in a sustainable road safety system.

5. CONCLUSION

This study aims to analyze improvements in road safety governance through public service innovations in the management of motor vehicle testing based on Regional Public Service Agencies (BLUD). Based on the research results and discussion, it can be concluded that the effectiveness of road safety governance is greatly influenced by the capacity of local governments to manage public services in an innovative, adaptive, and policy outcome-oriented manner.

The research results show that the relational capacity of local governments has demonstrated efforts to build communication and interaction with stakeholders and service users. However, public trust in motor vehicle inspection services remains suboptimal, resulting in vehicle inspections being perceived as an administrative obligation rather than a road safety instrument. This situation underscores the importance of strengthening transparent and safety-oriented service communications.

In terms of structural capacity, this study found that the regulatory and institutional framework for managing motor vehicle testing is in place and relatively adequate. However, its implementation is not yet fully consistent in the field. Inter-agency coordination still faces obstacles due to overlapping authority and is not supported by a structured joint evaluation mechanism. This hampers the integration of policies and services to support effective road safety governance.

The resource capacity of local governments, including human resources, technical infrastructure, and budget support, remains a major challenge in driving innovation in public services. While the Public Service Agency (BLUD) scheme offers management flexibility, its utilization has not been fully directed towards strengthening road safety functions. This limitation impacts the quality of service and the effectiveness of motor vehicle testing as a tool for traffic accident prevention.

Meanwhile, the adaptive capacity of local governments demonstrates efforts to reform services, but these remain partial and reactive. Organizational learning processes and performance evaluations have not been systematically integrated with road safety outcome indicators. Consequently, public service innovation has not been optimally utilized as a tool for sustainable improvement of road safety policies and governance.

Overall, this study concludes that improving road safety governance through public service innovation requires integrated strengthening of the relational, structural, resource, and adaptive dimensions. Integrating public service innovation with road safety objectives is key to ensuring that motor vehicle testing not only improves the quality of administrative services but also has a tangible impact on road user safety. These findings provide theoretical contributions to the study of public administration and road safety governance, as well as practical contributions for local governments in designing more effective, innovative, and community-oriented public service strategies.

REFERENCES

- Creswell, J. W. (2019). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.
- Denhardt, J. V., & Denhardt, R. B. (2015). *The new public service: Serving, not steering*. Routledge.
- Dwiyanto, A. (2015). *Reformasi birokrasi publik di Indonesia*. Gadjah Mada University Press.
- Elvik, R., Høye, A., Vaa, T., & Sørensen, M. (2009). *The handbook of road safety measures*. Emerald Group Publishing.
- Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public Money & Management*, 25(1), 27–34. <https://doi.org/10.1111/j.1468-0327.2005.00454.x>
- Hood, C. (1991). A public management for all seasons? *Public Administration*, 69(1), 3–19. <https://doi.org/10.1111/j.1467-9299.1991.tb00779.x>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Mardiasmo. (2018). *Otonomi dan manajemen keuangan daerah*. Andi.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage Publications.
- Mulgan, G., & Albury, D. (2003). *Innovation in the public sector*. Strategy Unit, Cabinet Office.
- OECD. (2020). *Road safety annual report*. OECD Publishing. <https://doi.org/10.1787/9789264367880-en>
- Osborne, S. P. (2010). *The new public governance? Emerging perspectives on the theory and practice of public governance*. Routledge.
- Savas, E. S. (2000). *Privatization and public-private partnerships*. Chatham House Publishers.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations.
- World Health Organization. (2018). *Global status report on road safety 2018*. WHO Press.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage Publications.