



Balancing Trade Facilitation and Customs Control in Supporting State Revenue: The Mediating Role of Customs Compliance (A Study in Southeast Sulawesi)

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ABSTRACT

This study aims to analyze the balance between Trade Facilitation and Customs Control in supporting State Revenue, mediated by Customs Compliance in Southeast Sulawesi. This research employs a quantitative approach using a survey method through the distribution of questionnaires to 52 respondents involved in customs activities and related administrative management. Data analysis was conducted using Partial Least Square (PLS-SEM) to examine both direct and indirect effects among variables. The results indicate that Trade Facilitation and Customs Control have a positive and significant effect on Customs Compliance. Furthermore, Customs Compliance has a positive and significant effect on State Revenue. Directly, Customs Control significantly affects State Revenue, while the effect of Trade Facilitation on State Revenue becomes stronger through the mediating role of Customs Compliance. Mediation testing shows that Customs Compliance fully mediates the relationship between Trade Facilitation and State Revenue, and partially mediates the relationship between Customs Control and State Revenue. These findings demonstrate that a balance between trade facilitation services and effective customs control is an important factor in improving compliance and optimizing state revenue. Therefore, policies that proportionally integrate Trade Facilitation and Customs Control need to be continuously strengthened in order to enhance Customs Compliance and support sustainable state revenue generation.

Keywords: *Customs Control, Customs Compliance, State Revenue, Southeast Sulawesi, Trade Facilitation*

I. INTRODUCTION

International trade is one of the main drivers of national economic growth and a significant source of state revenue through the customs and excise sector. In the era of globalization and digitalized commerce, cross-border flows of goods continue to increase, requiring a customs system capable of delivering fast services while maintaining effective control. In modern customs administration, two core functions must operate in balance: trade facilitation and customs control.

Trade facilitation refers to efforts to simplify trade procedures, accelerate the movement of goods, and reduce transaction costs through administrative modernization and digitalization of services. The World Trade Organization (WTO) defines trade facilitation as measures aimed at expediting the movement, release, and clearance of goods across borders through transparency and procedural simplification. Grainger (2014) explains that trade facilitation is grounded in the theory of administrative efficiency, which emphasizes reducing bureaucratic barriers to enhance economic competitiveness. Likewise, the Organisation for Economic Co-operation and Development (OECD, 2024) highlights that trade facilitation policies significantly reduce trade costs and stimulate economic activity.

On the other hand, customs control constitutes a fundamental pillar in safeguarding trade security and protecting state revenue. The World Customs Organization (WCO) states that customs control aims to ensure compliance with customs regulations, prevent smuggling, and protect fiscal interests. This function is rooted in compliance theory, which underscores the importance of monitoring and enforcement mechanisms to minimize the risk of violations in international trade.

From a risk management perspective, trade facilitation and customs control should not be viewed as contradictory functions but as complementary components within a risk-based supervision framework. Risk management enables expedited services for compliant traders while focusing stricter supervision on high-risk activities. However, in practice, achieving this balance is challenging due to the inherent tension between service efficiency and enforcement effectiveness.

This phenomenon is also evident at the regional level, including in Southeast Sulawesi Province, Indonesia. Trade activities through the main ports in this region contribute significantly to state revenue. In 2025, customs and excise revenue in Southeast Sulawesi was targeted at IDR 225,980,861,000, but the actual realization reached IDR 279,220,403,000, comprising Import Duty of IDR 276,143,003,000, Export Duty of IDR 843,542,000, and Excise Penalties (UR) of IDR 2,233,858,000, resulting in a percentage achievement of 123.56% of the target. These figures demonstrate a continued improvement in customs performance in the region. In the context of this study, this situation highlights the importance of balancing Trade Facilitation and Customs Control as key factors influencing Customs Compliance. Strong compliance, in turn, acts as a mediator in enhancing State Revenue, indicating that a proportional integration of trade facilitation services and effective customs control is essential to ensure sustainable state revenue generation in Southeast Sulawesi.

Operationally, the Customs and Excise Supervision and Service Office (KPPBC TMP C Kendari) represent this dual function at the regional level. The institution is responsible not only for facilitating trade but also for optimizing state revenue and protecting national borders from illegal trade. In practice, service acceleration through digitalization and procedural simplification enhances efficiency in goods movement. However, it simultaneously requires higher levels of trader compliance to prevent potential revenue losses arising from customs violations.

Empirical observations suggest that successful trade facilitation does not automatically guarantee increased state revenue unless accompanied by a high level of customs compliance. Customs compliance reflects the extent to which importers and exporters adhere to customs regulations, including accurate declaration of goods value, proper tariff classification, and timely payment of duties. According to fiscal compliance theory, compliance levels are influenced by service quality, regulatory transparency, and the intensity of supervision. In this context, trade facilitation may enhance compliance by improving service quality and reducing administrative burdens, whereas customs control promotes compliance through monitoring and enforcement mechanisms.

Previous studies have demonstrated that trade facilitation positively affects trade efficiency and economic performance, while customs control contributes to higher compliance and fiscal stability. Wang and Sua (2025) found that trade reform and logistics efficiency significantly improve economic and trade performance. Similarly, Fontagné et al. (2024) emphasize that trade liberalization must be accompanied by adequate monitoring mechanisms to safeguard fiscal outcomes. Nevertheless, most prior research examines trade facilitation and customs control separately and rarely incorporates customs compliance as a mediating variable explaining how these policies influence state revenue, particularly at the regional level such as Southeast Sulawesi.

A gap remains between theoretical expectations and practical implementation. In theory, a risk management approach enables an optimal balance between service and control. In reality, however, implementation faces challenges such as limited data integration, varying levels of trader compliance, and dynamic regional trade patterns. These conditions suggest that the effectiveness of customs policy is determined not merely by trade facilitation or customs control independently, but by the degree of trader compliance as the connecting mechanism that ultimately affects state revenue.

Based on the regional context of Southeast Sulawesi, the development of theoretical perspectives, and previous empirical findings, examining the balance between trade facilitation and customs control in supporting state revenue, mediated by customs compliance, becomes highly relevant. This study aims to provide a scientific understanding of how trader compliance functions as a key mechanism linking service-oriented and control-oriented customs policies, thereby enabling the sustainable optimization of state revenue.

II. LITERATURE REVIEW

2.1 Trade Facilitation

Trade Facilitation is a concept in modern international trade aimed at simplifying and accelerating the cross-border movement of goods through the simplification, modernization, and harmonization of export–import procedures. According to the World Trade Organization (2017), trade facilitation focuses on expediting the movement, release, and clearance of goods by simplifying customs procedures. Andrew Grainger (2014) emphasizes that trade facilitation consists of administrative policies designed to reduce bureaucratic barriers and enhance trade efficiency, while Michael Engman (2009) defines it as a policy approach aimed at lowering trade transaction costs through greater regulatory transparency and improved logistical efficiency. Furthermore, the Organisation for Economic Co-operation and Development (2024) highlights that trade facilitation also encompasses the digitalization of customs systems, inter-agency coordination, and the application of risk management in trade supervision.

Substantively, trade facilitation seeks to create an efficient, transparent, and competitive trading system that enhances national competitiveness and supports economic growth. In this study, the indicators of Trade Facilitation include the availability of trade information, simplification of documentation, automation and digitalization of customs services, efficiency of border processes, and inter-agency coordination in supporting the smooth flow of goods.

2.2 Customs Control

Customs Control is one of the core functions of customs administration aimed at ensuring compliance with international trade regulations and protecting national economic interests. According to the World Customs Organization (2017), customs control refers to a series of actions undertaken by customs authorities to ensure that the cross-border movement of goods complies with applicable legal provisions, including supervision, verification, inspection, and enforcement of customs regulations. David Widdowson (2007) defines customs control as a monitoring mechanism used by customs authorities to manage trade risks while ensuring user compliance with customs regulations.

Meanwhile, Thomas Cantens (2015) explains that modern customs control extends beyond physical inspections to include data analysis, customs audits, and risk-based control approaches. Furthermore, Luc De Wulf and José B. Sokol (2005) emphasize that customs control plays an essential role in modern trade governance by safeguarding national security, protecting society from harmful goods, and securing state revenue through supervision of import and export activities.

In essence, customs control can be understood as a systematic supervision process conducted by customs administrations to ensure compliance, trade security, and protection of national fiscal interests. In this study, the indicators of Customs Control include documentary control, physical inspection of goods, verification of customs value and tariff classification, post-clearance audit, and enforcement actions against customs violations.

2.3 State Revenue

State Revenue refers to all income received by the government to finance public administration and national development. According to the Kementerian Keuangan Republik Indonesia (2023), state revenue includes all funds collected and deposited into the state treasury originating from taxation, customs and excise, as well as non-tax state revenue, which serve as sources of financing for the State Budget (APBN). Richard A. Musgrave and Peggy B. Musgrave (1989) explain that state revenue is the primary fiscal instrument used by governments to perform allocation, distribution, and stabilization functions within the economy. Meanwhile, Mardiasmo (2018) defines state revenue as the government's recognized right that increases net national wealth, obtained through legally regulated collection mechanisms.

In the customs context, state revenue is derived from import duties, export duties, excise taxes, and import-related taxes collected by customs authorities. This indicates that trade policies and customs supervision systems are directly linked to the level of state revenue. Fundamentally, state revenue aims to ensure fiscal sustainability, support economic and social development, and maintain macroeconomic stability. Theoretically, it serves allocation, distribution, and stabilization functions, and in the customs sector, it also performs fiscal and economic regulatory functions by controlling trade flows through tariff instruments and customs levies.

In this study, the indicators of State Revenue include the effectiveness of revenue collection, the level of taxpayer or payer compliance, and the contribution of each sector to total state revenue.

2.4 Customs Compliance

Customs Compliance refers to the level of compliance of customs service users in fulfilling all obligations and regulations established by customs authorities. According to the World Customs Organization (2018), customs compliance describes the behavior of importers, exporters, and other trade actors in adhering to customs regulations related to tariff classification, customs valuation, duty payments, and accurate document reporting. David Widdowson (2007) defines customs compliance as the willingness of business actors to meet customs obligations voluntarily (voluntary compliance) without relying solely on enforcement actions. Meanwhile, Erich Kirchler (2007) explains that compliance is shaped by a combination of service quality, trust in authorities, and effective supervision. In addition, the Organisation for Economic Co-operation and Development (2019) emphasizes that customs compliance is a key element in modern customs systems because higher compliance levels reduce enforcement costs while improving trade efficiency.

In essence, customs compliance reflects orderly, accurate, and responsible behavior in fulfilling customs obligations, which supports both trade facilitation and effective customs control. In this study, the indicators of Customs Compliance include the level of voluntary compliance, the accuracy of information provided by service users, and the consistency of business actors in fulfilling customs administrative obligations without violations.

2.5 Conceptual Framework and Research Hypotheses

The conceptual framework examines the relationships among Trade Facilitation, Customs Control, Customs Compliance, and State Revenue. It is grounded in the view that a modern customs system requires a balance between facilitating trade and enforcing supervision to achieve fiscal objectives. Trade Facilitation and Customs Control are positioned as independent variables influencing State Revenue both directly and indirectly. Customs Compliance serves as a mediating variable, explaining how facilitation and effective supervision improve traders' compliance, which in turn increases accurate duty payments and optimizes state revenue.

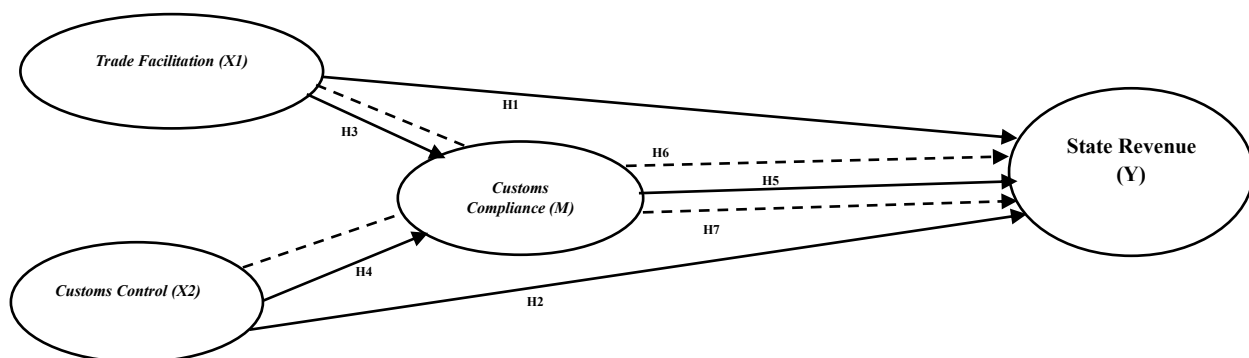


Figure 2.1. Conceptual Framework for the Research

2.6 Research Hypothesis

- H1: Trade Facilitation has a positive and significant effect on State Revenue in Southeast Sulawesi.
 H2: Customs Control has a positive and significant effect on State Revenue in Southeast Sulawesi.
 H3: Trade Facilitation has a positive and significant effect on Customs Compliance in Southeast Sulawesi.
 H4: Customs Control has a positive and significant effect on Customs Compliance in Southeast Sulawesi.
 H5: Customs Compliance has a positive and significant effect on State Revenue in Southeast Sulawesi.
 H6: Trade Facilitation has a positive and significant effect on State Revenue through the mediation of Customs Compliance in Southeast Sulawesi.
 H7: Customs Control has a positive and significant effect on State Revenue through the mediation of Customs Compliance in Southeast Sulawesi.

III. RESEARCH METHOD

This study was conducted in Southeast Sulawesi to examine the relationships among Trade Facilitation, Customs Control, Customs Compliance, and State Revenue within the customs sector. The research used a quantitative approach and was carried out over approximately six months. The population consisted of 52 customs employees involved in customs services and supervision, and all were selected as respondents using a total sampling technique.

The study includes two independent variables (Trade Facilitation and Customs Control), one mediating variable (Customs Compliance), and one dependent variable (State Revenue). Data were collected through questionnaires using a Likert scale (1–5), supported by observation and secondary data such as institutional reports and relevant regulations.

Data analysis employed descriptive and inferential statistics using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS software. The analysis evaluated both the measurement model (outer model) and structural model (inner model), including direct and indirect effects among variables. Model quality was assessed through R-square and Q-square values, while hypothesis testing was conducted using bootstrapping with a significance level of 5 percent to determine the relationships among variables and the mediating role of Customs Compliance.

IV. RESEARCH RESULT AND DISCUSSION

4.1 Research Result

Table 4.1. Direct Effect

Relationship Between Variables	Path Coefficient (β)	T-Statistic	P-Value	Description
Trade Facilitation → State Revenue	0,768	8,50	0,000	Significant
Customs Control → State Revenue	0,879	9,20	0,001	Significant
Trade Facilitation → Customs Compliance	0,629	4,80	0,000	Significant
Customs Control → Customs Compliance	0,645	5,90	0,000	Significant
Customs Compliance → State Revenue	0,705	14,50	0,003	Significant

Table 4.1 presents the results of the direct effect analysis among the research variables. The findings indicate that Trade Facilitation has a positive and significant effect on State Revenue with a path coefficient (β) of 0.768, a t-statistic of 8.50, and a p-value of 0.000. This suggests that improvements in trade facilitation contribute significantly to increasing state revenue. Similarly, Customs Control shows a positive and significant effect on State Revenue, with a path coefficient of 0.879, a t-statistic of 9.20, and a p-value of 0.001, indicating that effective customs supervision plays an important role in supporting state revenue.

The results also show that Trade Facilitation has a positive and significant effect on Customs Compliance, as reflected by a path coefficient of 0.629, a t-statistic of 4.80, and a p-value of 0.000. This implies that better facilitation measures encourage higher compliance among customs service users. In addition, Customs Control significantly influences Customs Compliance, with a path coefficient of 0.645, a t-statistic of 5.90, and a p-value of 0.000, demonstrating that stronger supervisory practices improve compliance behavior.

Finally, Customs Compliance has a positive and significant effect on State Revenue, indicated by a path coefficient of 0.705, a t-statistic of 14.50, and a p-value of 0.003. This result confirms that higher compliance levels contribute to increased state revenue. Overall, the direct effect analysis shows that all proposed relationships in the model are positive and statistically significant.

Table 4.2. Indirect Effect

Construct	Indirect Effect	P-Value	Direct Effect	Mediation Effect	Type of Mediation
Trade Facilitation → Customs Compliance → State Revenue	0,482	0,001	0,768	3,85	Full Mediation
Customs Control → Customs Compliance → State Revenue	0,455	0,002	0,879	3,9	Partial Mediation

Table 4.2 presents the results of the indirect effect analysis to examine the mediating role of Customs Compliance in the relationship between the independent variables and State Revenue. The results show that Trade Facilitation has an indirect effect on State Revenue through Customs Compliance, with an indirect effect value of 0.482 and a p-value of 0.001, indicating a statistically significant mediation effect. Although the direct effect of Trade Facilitation on State Revenue is 0.768, the mediation analysis suggests that Customs Compliance fully mediates this relationship, meaning that the influence of Trade Facilitation on State Revenue operates primarily through improvements in Customs Compliance.

Similarly, Customs Control also demonstrates a significant indirect effect on State Revenue through Customs Compliance, with an indirect effect value of 0.455 and a p-value of 0.002. The direct effect of Customs Control on State Revenue is 0.879. The results indicate a partial mediation effect, which implies that Customs Control influences State Revenue both directly and indirectly through Customs Compliance.

Overall, these findings confirm that Customs Compliance plays an important mediating role in explaining how Trade Facilitation and Customs Control contribute to the enhancement of State Revenue.

4.2 Discussion

The findings indicate that Trade Facilitation has a positive relationship with State Revenue, although its impact is not fully optimal across all revenue indicators. This suggests that while trade facilitation theoretically improves customs efficiency and supports trade flows, its effectiveness depends on supporting factors such as digital infrastructure, human resource capability, and internal coordination.

Customs Control shows a positive and significant effect on State Revenue, both directly and through Customs Compliance. Effective supervision, risk-based inspections, and clear procedures encourage compliance and help secure fiscal revenue. However, control measures need to be balanced with efficient procedures to avoid creating trade barriers.

The study also confirms that Trade Facilitation positively and significantly influences Customs Compliance, indicating that simplified procedures, faster services, and transparent systems encourage voluntary compliance among traders. Similarly, Customs Control has a positive and significant effect on Customs Compliance, showing that consistent monitoring and enforcement strengthen compliance behavior.

Furthermore, Customs Compliance significantly increases State Revenue, highlighting that higher levels of compliance reduce revenue leakage and enhance fiscal performance. Compliance therefore acts as a key mechanism linking customs policies to revenue outcomes.

Mediation analysis reveals that Customs Compliance plays an important intermediary role. The effect of Trade Facilitation on State Revenue is fully mediated by Customs Compliance, meaning that facilitation policies increase revenue mainly through improved compliance. Meanwhile, the effect of Customs Control on State Revenue is partially mediated by Customs Compliance, indicating that customs control influences revenue both directly and indirectly through compliance. Overall, the results emphasize that balancing trade facilitation and effective customs control is essential for improving compliance and optimizing state revenue.

V. CONCLUSION AND SUGGESTIONS

5.1 Conclusion

Based on the results and discussion, the study concludes that Trade Facilitation has a positive relationship with State Revenue, although its direct effect is not fully optimal across all indicators and depends on internal system readiness and stakeholder compliance. Customs Control has a positive and significant impact on State Revenue, indicating that effective supervision and risk-based control contribute directly to revenue improvement.

The findings also show that both Trade Facilitation and Customs Control positively and significantly influence Customs Compliance, meaning that simplified procedures and effective supervision encourage higher compliance among business actors. In turn, Customs Compliance significantly increases State Revenue, highlighting its role as a key foundation for fiscal effectiveness.

Mediation analysis reveals that Customs Compliance fully mediates the relationship between Trade Facilitation and State Revenue, indicating that facilitation policies mainly improve revenue through enhanced compliance. Meanwhile, Customs Compliance partially mediates the relationship between Customs Control and State Revenue, showing that customs control affects revenue both directly and indirectly through compliance.

5.2 Suggestions

The study recommends strengthening the implementation of Trade Facilitation through simplified procedures, faster document processing, and improved service accessibility to optimize its contribution to state revenue. Customs Control should be enhanced through systematic and risk-based supervision to maintain compliance and ensure a significant direct impact on revenue. Since Customs Compliance serves as a key mediating factor, customs policies should prioritize compliance improvement through education, regulatory socialization, and compliance incentives.

In addition, effective outcomes require strong synergy between trade facilitation and customs control, supported by digital infrastructure development, automation of customs systems, and continuous capacity building for customs personnel. Regular monitoring and evaluation are also necessary to ensure policy effectiveness and adapt to changing trade dynamics.

Future studies are encouraged to include larger and more diverse samples across different regions to improve generalizability. Researchers may also incorporate additional variables such as digital transformation, institutional capacity, or organizational culture to better explain compliance and revenue performance. Longitudinal and mixed-

method approaches are recommended to examine long-term policy impacts and provide deeper insights into behavioral and institutional factors affecting customs administration.

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