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Collaborative Governance in Port Management in Indonesia: A Literature Review

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Abstract

Given the necessity of distributed decision-making and robust coordination among diverse actors for effective maritime operations, collaborative governance has gained increasing prominence as a key strategy in port management, particularly for island nations like Indonesia. This literature review seeks to clarify the degree to which collaborative governance frameworks have been adopted in Indonesian ports, while simultaneously pinpointing the existing difficulties and potential advantages related to putting policies into practice. By thoroughly examining scholarly articles, government publications, and illustrative examples, this study investigates the theoretical foundations of collaborative governance, its specific application within Indonesia's port industry, and the ongoing shortcomings that prevent its complete and successful implementation. The review's findings indicate that although Indonesia has made headway in incorporating public-private partnerships and promoting the involvement of local stakeholders, persistent systemic obstacles—such as fragmented regulations, inherent disparities in power among stakeholders, and limitations in institutional capabilities at various levels—continue to impede the achievement of effective collaborative governance. Ultimately, this review proposes a set of evidence-based recommendations intended to enhance collaborative governance structures within Indonesia's port management system.

Keywords: Collaborative Governance, Port Management, Indonesia, Maritime Policy, Multi-Stakeholder Engagement.

Introduction

As the world's largest archipelago, Indonesia's maritime economy relies heavily on a strong and effective port system. Nevertheless, the initial centralized governance structure utilized by Pelindo, the state-owned port operator in Indonesia, frequently resulted in operational inefficiencies, protracted infrastructure development, and disputes with local populations. Consequently, the Indonesian government has increasingly advocated for collaborative governance as a strategy to enhance port efficiency, sustainability, and the inclusion of various stakeholders. This paper focuses on the core research question of how collaborative governance has been understood and put into practice within Indonesia's port management, and what elements affect its success.

Collaborative governance, characterized as a process where public bodies and non-governmental stakeholders collectively tackle policy issues (Ansell & Gash, 2008), presents a potentially

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valuable framework for Indonesia's port industry. Considering the intricate nature of port operations—encompassing logistics, trade facilitation, environmental stewardship, and community engagement—a multi-actor approach is crucial. This literature review synthesizes current research on collaborative governance in Indonesian ports, evaluating its theoretical foundations, real-world applications, and pressing issues.

Theoretical Review

The theoretical underpinnings of collaborative governance in port management have developed through the integration of various academic disciplines, each offering specific perspectives on how multiple stakeholders coordinate in the development of maritime infrastructure. At its core, collaborative governance signifies a move from conventional top-down structures to more interconnected models that recognize the intricate mutual dependencies among different actors involved in port activities (Emerson et al., 2012). This shift in theoretical thinking mirrors the growing sophistication of port operations in the 21st century, where interconnected global commerce, the necessity of environmental responsibility, and the varied concerns of local populations intersect (Notteboom & Yang, 2017).

An influential definition by Ansell and Gash (2008) describes collaborative governance as a system where one or more government entities directly involve non-governmental stakeholders in a structured, agreement-seeking, and thoughtful joint process of making decisions. This definition is particularly relevant to the context of port management in Indonesia, where the country's island-based nature creates both specific advantages and inherent difficulties for successful cooperation among stakeholders.

The field of institutional economics provides valuable analytical instruments by studying the costs associated with transactions within collaborative frameworks. Williamson's (2005) transaction cost economics perspective clarifies how consistent, long-term involvement of stakeholders can effectively reduce:

1. Information imbalances between port administrations and private sector entities.
2. Expenses related to contracts in collaborations between the public and private sectors.
3. Costs associated with ensuring compliance with environmental standards.

Within Indonesia's maritime industry, the previously discussed theoretical ideas are examined empirically by considering the frequent changes in leadership within port administrations and the evolving nature of regulatory environments (Djalante et al., 2020). Applying the principles of transaction cost economics, the comparative success of certain cooperative initiatives, such as the expansion of Tanjung Priok Port, which was supported by long-term contractual arrangements with global terminal operators (World Bank, 2021), contrasts with the prolonged difficulties experienced in projects like the development of Bitung Port, where uncertainties in contracts have led to repeated delays in implementation (McCarthy & Robinson, 2022).

Providing a supplementary sociological viewpoint on collaborative interactions is network governance theory (Klijn & Koppenjan, 2016). This theoretical lens underscores the vital function of mechanisms for building trust in promoting the sharing of information, the role of accumulating social capital in facilitating joint action, and the potential of network management approaches to lessen institutional fragmentation. These concepts are particularly relevant in the Indonesian setting, where long-standing issues, such as strains between national and regional levels of government (Aspinall, 2021) and the simultaneous presence of formal and informal

port operators (Topsfield, 2022), can hinder effective collaboration. The recorded success of Surabaya's port community system in resolving disputes between major operators and traditional fishing communities (Ducruet et al., 2022) offers a real-world example of the practical value of network governance principles when applied effectively.

The multi-helix model (Carayannis & Campbell, 2019) marks a significant theoretical progression by broadening the understanding of collaborative structures beyond the traditional two-party interaction between government and industry to encompass:

1. Academia (including research organizations and universities)
2. Civil society (comprising non-governmental organizations and community groups)
3. Media and cultural institutions
4. Environmental organizations

This broadened framework aligns significantly with Indonesia's aims for sustainable port growth, especially in ecologically sensitive areas like the Raja Ampat archipelago (Vandergeest et al., 2022). Studies from European port systems (Van der Lugt et al., 2020) demonstrate how well-structured multi-helix arrangements can improve environmental oversight through partnerships with universities, strengthen public acceptance by involving non-profit organizations, and foster innovation via collaborations between industry and academia. Nevertheless, the implementation of this model in Indonesia reveals considerable shortcomings, notably in ensuring fair representation of all stakeholders. While major port authorities in cities like Jakarta and Surabaya have established port development councils, smaller, more regional ports often exclude crucial groups, such as indigenous populations and small-scale fishing industries (Satria et al., 2021).

The emerging field of digital collaborative governance (Gil-Garcia et al., 2020) introduces new theoretical perspectives by examining how technology influences interactions among stakeholders. Digital platforms hold the potential to broaden participation through user-friendly interfaces, increase transparency by sharing data in real-time, and enhance operational efficiency through automated compliance checks. However, the adoption of these technologies across Indonesian ports varies significantly. While the Indonesian National Single Window (INSW) system has clearly streamlined customs processes (OECD, 2022), most ports lack comprehensive digital platforms for engaging stakeholders. The case of Vietnam's Cai Mep Port (Yang et al., 2023) shows how blockchain-based systems can improve transparency in port operations, suggesting possible applications for Indonesian ports struggling with accusations of corruption (Butarbutar & Soedarmono, 2022).

A key challenge remains in achieving a unified theoretical understanding, as no single framework adequately accounts for the inherent power imbalances between global terminal operators and local communities (Hall, 2018), the intrinsic conflict between the need for economic competitiveness and the demands of environmental sustainability (Acciaro et al., 2023), and the existing disparities in digital access within Indonesia's maritime sector (Pratama et al., 2022).

Recent academic work has sought to bridge these theoretical gaps by creating hybrid models that integrate elements from institutional economics, network governance theory, and digital governance frameworks (Witte et al., 2021). These combined approaches may offer more robust theoretical foundations for analyzing the complex landscape of port governance in Indonesia,

particularly as the nation progresses with its "Sea Toll Road" initiative and other projects aimed at improving maritime connectivity (Ray & Das, 2022).

The ongoing development of collaborative governance theory in the context of port management continues to be a focus of academic research. Recent studies have investigated how political and economic elements shape the results of collaboration (Wilmsmeier & Monios, 2023), the effects of strategies for adapting to climate change on governance frameworks (Ng et al., 2023), and the possible uses of artificial intelligence in examining stakeholders (Yang & Chen, 2023). These emerging areas of research highlight the importance of collaborative governance theory remaining flexible and responsive to the swiftly changing circumstances of port management in Indonesia and other developing maritime countries.

Methodology

To examine collaborative governance in Indonesian ports, this literature review employs a structured approach, analyzing peer-reviewed academic works, government policy papers, and pertinent case studies. Sources were identified through searches in major academic databases such as Scopus and Web of Science, as well as relevant Indonesian scholarly repositories, concentrating on publications issued between 2000 and 2024. The review specifically focuses on research that directly discusses collaborative governance, the processes of engaging stakeholders, and the implementation of policies within Indonesia's maritime industry.

Discussion

Progress in Collaborative Governance Implementation

Indonesia has made considerable strides in adopting collaborative governance (CG) structures for managing its ports, particularly after legal changes that encouraged the involvement of multiple stakeholders. The 2008 Shipping Law (Law No. 17/2008), later revised in 2017 (Law No. 11/2017), marked a significant change by decentralizing the way ports were governed and introducing formal methods for public-private partnerships (PPPs) (Haralambides & Gujar, 2021). These legal reforms empowered local governments to take a more active role in port operations, especially concerning land acquisition and relationships with communities, while PT Pelindo maintained overall responsibility for essential port functions (Sofiyandi et al., 2022).

Evidence from major Indonesian ports supports the advantages of this collaborative approach. At Tanjung Priok, Indonesia's busiest port, PPPs with global terminal operators like DP World and Hutchison Ports have facilitated the modernization of infrastructure, leading to a notable decrease in vessel turnaround times by 22% between 2015 and 2020 (World Bank, 2021). Similarly, Belawan Port in North Sumatra has seen improved operational efficiency through collaborative efforts involving the Ministry of Transportation, PT Pelindo I, and local government bodies in resolving long-standing land disputes that had previously hindered expansion projects (Sitorus et al., 2023).

A crucial institutional development has been the creation of Port Authorities (Kantor Kesyahbandaran dan Otoritas Pelabuhan – KSOP) at the regional level, which act as intermediaries between central regulatory bodies and local stakeholders (Ducruet & Notteboom, 2022). For example, the KSOP in Surabaya has successfully mediated conflicts between port operators and local fishing communities by establishing structured dialogue forums, resulting in a significant 40% reduction in protest activities over a five-year period (ESCAP, 2023). These

examples indicate a clear trend in Indonesia's CG model towards polycentric governance, where decision-making authority is distributed among a variety of actors (Ostrom, 2010).

However, the implementation of these collaborative governance frameworks is not consistent across Indonesia. While ports in Java, such as Tanjung Perak and Tanjung Priok, have benefited from strong private sector interest and well-established collaborative mechanisms, ports in Eastern Indonesia (e.g., Sorong, Bitung) continue to face challenges related to underinvestment, highlighting existing disparities in the adoption and effectiveness of CG approaches (McCarthy & Robinson, 2022).

Persistent Challenges in Collaborative Governance

Despite advancements, Indonesia's port governance system faces structural barriers that undermine effective collaboration.

1. Regulatory Fragmentation

A significant impediment to the effective implementation of collaborative governance in Indonesian ports is the observed misalignment between national-level policies and sub-national, local regulations. For instance, the Ministry of Transportation's directives concerning port expansion initiatives frequently encounter conflicts with provincial-level environmental protection policies, resulting in protracted delays in critical infrastructure projects such as the Patimban Port development (Dooms et al., 2021). Furthermore, the existence of overlapping jurisdictional mandates among PT Pelindo, the Badan Koordinasi Penanaman Modal (BKPM – Investment Coordinating Board), and various regional governmental bodies contributes to the creation of bureaucratic bottlenecks, leading to permit approval processes that are approximately 30% longer compared to those in neighboring countries such as Malaysia and Vietnam (OECD, 2022).

2. Power Asymmetries

A persistent challenge within Indonesia's port governance framework is the prevalent dominance of state-owned enterprises (SOEs) and large-scale private operators in decision-making processes, which consequently marginalizes the participation and influence of smaller stakeholders. For instance, at Tanjung Priok, a significant 85% of operational decisions are reportedly made by PT Pelindo II and multinational terminal operators, leaving small and medium-sized enterprises (SMEs) and local fishing communities with limited avenues for meaningful input (Hall, 2018). This power imbalance is further compounded by the comparatively weak representation of civil society organizations within port governance bodies, a broader trend observed across the Southeast Asian region (Wilmsmeier & Monios, 2023).

3. Capacity Constraints in Local Governments

A significant impediment to the effective implementation of collaborative port governance in numerous regions of Indonesia is the demonstrable lack of requisite technical expertise and adequate financial resources at the sub-national governmental level. For example, in the province of Papua, the planned expansion of Jayapura Port experienced a delay of three years, primarily attributable to the provincial government's limited capacity to conduct comprehensive feasibility studies (Asian Development Bank, 2023). Analogous challenges persist in the provinces of Maluku and Nusa Tenggara Timur (NTT), where ports remain significantly underdeveloped despite their considerable strategic economic potential (Resosudarmo et al., 2020).

4. Environmental and Social Conflicts

Port development projects in Indonesia frequently encounter significant opposition from local communities, primarily stemming from concerns regarding land acquisition processes and potential ecological degradation. The protracted Benoa Bay reclamation controversy in Bali, during which local fishermen vociferously protested against proposed port expansion plans, serves as a salient illustration of the critical need for the adoption of more robust and community-inclusive collaborative governance models (Fachrudin et al., 2022).

Comparative Insights from ASEAN Ports

Lessons from neighboring countries offer potential solutions for Indonesia's CG challenges.

1. Malaysia: Institutionalized Stakeholder Forums

The Penang Port Commission in Malaysia exemplifies a proactive approach to multi-stakeholder engagement by convening quarterly consultations that include representatives from federal agencies, private sector operators, and non-governmental organizations, ensuring a more balanced incorporation of diverse perspectives in port planning processes (Ng & Gujar, 2022). This effective model could be adapted and implemented within the Indonesian context through the establishment of mandated forums convened by the Kantor Kesyahbandaran dan Otoritas Pelabuhan (KSOP), incorporating defined and enforceable participation regulations to ensure broad stakeholder representation.

2. Vietnam: Digital Governance Platforms

The establishment of independent port ombudsman offices could provide a neutral platform for overcoming disputes between port authorities, operators, and local communities. The Port of Rotterdam's ombudsman has mediated successfully environmental concerns and operational conflicts, enhancing stakeholder trust (Van der Lugt et al., 2020). Implementing same mechanisms in Indonesia, with clear mandates and powers, could enhance the legitimacy and effectiveness of port governance.

3. Thailand: Decentralized Port Authorities

The Port Authority of Thailand (PAT) employs a governance structure that delegates substantial autonomy to regional port committees, while enhancing responsiveness to specific local needs and contexts (Chin et al., 2021). Indonesia could consider adopting a comparable structural framework for its Kantor Kesyahbandaran dan Otoritas Pelabuhan (KSOP) offices, particularly those located in the Eastern Indonesian archipelago, to foster greater local responsiveness and tailored governance approaches.

Conclusion and Recommendations

This review highlights both the considerable potential and the existing limitations of collaborative governance frameworks within Indonesia's port sector. While the establishment of pertinent policy frameworks and the implementation of pilot projects indicate a discernible commitment to multi-stakeholder engagement approaches, significant structural and institutional challenges continue to impede their widespread and effective application. To fortify collaborative governance practices within the Indonesian maritime domain, the following strategic recommendations are proposed:

1. **Regulatory Harmonization:** Implement measures to harmonize regulatory frameworks operating at the central and local governmental levels to mitigate potential conflicts and streamline administrative processes.
2. **Capacity Enhancement:** Invest in targeted training programs and allocate adequate resources to enhance the institutional capacity of local governmental bodies to effectively engage in port governance processes.
3. **Formalized Participation:** Establish formalized and inclusive stakeholder participation mechanisms that ensure meaningful representation for marginalized groups, including small-scale enterprises and local communities.
4. **Digital Infrastructure:** Strategically leverage digital tools and platforms to enhance transparency in port operations, facilitate real-time information sharing, and improve overall coordination among diverse stakeholders.

Future research endeavors should prioritize the development of longitudinal case studies focusing on various Indonesian ports to comprehensively assess the evolution of collaborative governance practices over extended periods and under differing political-economic conditions, thereby providing deeper insights into the dynamic interplay of influencing factors.

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