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Analysis of Obstacles Faced by Shipping Companies Due to Mining Business License Certification Policies for Coal Transport

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Abstrak: Indonesia sebagai negara kepulauan sangat bergantung pada transportasi laut, termasuk untuk distribusi batu bara. Namun, penerapan Izin Usaha Jasa Pertambangan (IUJP) dalam pengangkutan batu bara menimbulkan persoalan lintas sektor yang belum banyak dikaji dari perspektif perusahaan pelayaran, khususnya terkait kepastian hukum, efisiensi operasional, profitabilitas, dan daya saing. Penelitian ini bertujuan menganalisis hambatan dan dampak penerapan kebijakan IUJP terhadap kegiatan usaha pelayaran. Penelitian menggunakan pendekatan kualitatif deskriptif, Informan dipilih secara purposif, meliputi manajer operasional, staf perizinan, legal dan dokumentasi, instansi pemerintah terkait, serta investor atau pemangku kepentingan. Data dikumpulkan melalui wawancara mendalam, diskusi kelompok terpusat, observasi, dan dokumentasi, kemudian dianalisis menggunakan pengodean MAXQDA serta diuji melalui triangulasi sumber, teknik, dan waktu. Hasil penelitian menunjukkan bahwa persinggungan kewenangan Kementerian Energi dan Sumber Daya Mineral dan Kementerian Perhubungan menimbulkan perbedaan interpretasi, ketidakpastian operasional, proses administrasi yang panjang, peningkatan waktu tunggu dan biaya, penurunan utilisasi armada, serta tekanan terhadap profitabilitas dan daya saing. Kebaruan penelitian terletak pada pemetaan hubungan antara disharmoni regulasi IUJP dan kinerja usaha pelayaran. Harmonisasi regulasi, kejelasan kewenangan, standarisasi persyaratan, dan integrasi perizinan lintas sektor diperlukan untuk meningkatkan kepastian dan efisiensi usaha.

Kata Kunci: Izin Usaha Jasa Pertambangan (IUJP), pelayaran, pengangkutan batubara, regulasi, kebijakan publik

Abstract: As an archipelagic country, Indonesia relies heavily on maritime transportation, including coal distribution. However, the implementation of the Mining Services Business License (IUJP) for coal transportation has created cross-sectoral challenges that remain underexplored from the perspective of shipping companies, particularly regarding legal certainty, operational efficiency, profitability, and competitiveness. This study examines the

constraints and impacts of IUJP implementation on shipping businesses. A descriptive qualitative approach was applied, Informants were selected purposively and included operational managers, licensing, legal, and documentation staff, government representatives, investors, and other stakeholders. Data were collected through in-depth interviews, focus group discussions, observations, and documentation. The data were analyzed using MAXQDA-assisted coding and validated through source, technique, and time triangulation. The findings reveal that overlapping authority between the Ministry of Energy and Mineral Resources and the Ministry of Transportation causes differing interpretations, operational uncertainty, lengthy administrative procedures, higher waiting times and costs, lower fleet utilization, and reduced profitability and competitiveness. The study's novelty lies in mapping the relationship between IUJP regulatory disharmony and shipping business performance. Regulatory harmonization, clear authority, standardized requirements, and integrated cross-sectoral licensing are required to improve business certainty and operational efficiency.

Keywords: Mining Services Business License (IUJP), shipping, coal transportation, regulation, public policy

INTRODUCTION

As an archipelagic country, Indonesia depends heavily on maritime transportation to connect production centres, ports, and markets. Maritime transport is particularly important for moving large volumes of cargo, including coal, from mining areas to ports and onward to domestic and international destinations (Fitriyanti, 2016). As both a strategic commodity and a non-renewable resource, coal must be managed in an orderly, efficient, and environmentally responsible manner to generate economic benefits for the state and society (Maharani et al., 2024).

Coal transportation is governed by two regulatory domains: mining and shipping. In addition to complying with maritime transportation requirements under Law of the Republic of Indonesia Number 17 of 2008 concerning Shipping, shipping companies may also be required to obtain a Mining Services Business Licence (*Izin Usaha Jasa Pertambangan-IUJP*), depending on the type and scope of their activities. The mining licensing framework refers to Law Number 3 of 2020, Government Regulation Number 96 of 2021, and Presidential Regulation Number 55 of 2022. The interaction between these regulatory domains requires a clear division of authority and effective coordination among the Ministry of Energy and Mineral Resources, the Ministry of Transportation, regional governments, and business actors.

In practice, differing interpretations of the activities subject to IUJP requirements, licensing procedures, and supervisory mechanisms may create legal uncertainty and administrative burdens. Obtaining the licence requires documents, time, personnel, and additional expenditure that may affect vessel readiness, loading schedules, contract performance, and operating costs. These conditions may subsequently reduce operational efficiency, profitability, fleet flexibility, and the competitiveness of shipping companies. Nevertheless, such effects must be examined empirically through the experiences of companies and stakeholders directly involved in implementing the policy.

Previous studies have generally examined the strategic role of shipping and maritime transportation (Hendrialdi et al., 2021), the transportation of mining products from a legal perspective (Putra et al., 2023), and coal management as an economic resource (Maharani et al., 2024). Although relevant, these studies have not specifically integrated the implementation of IUJP requirements for shipping companies with legal certainty, operational efficiency, profitability, and competitiveness. This limitation reveals an empirical and policy research gap concerning the discrepancy between the design of mining licensing regulations and their implementation in coal maritime transportation operations.

The novelty and state of the art of this study lie in its cross-sectoral approach, which positions shipping companies at the intersection of mining, shipping, and port governance. Rather than merely identifying the administrative constraints associated with IUJP requirements, the study traces their implications for operational processes, costs, profitability, and the strategic responses adopted by companies to maintain competitiveness. This approach is expected to provide an empirical basis for developing a more integrated regulatory framework that reflects the operational characteristics of the shipping industry.

Accordingly, this study aims to analyse the barriers experienced by shipping companies following the implementation of IUJP requirements in coal transportation.

METHOD

This study adopts a qualitative descriptive research design to examine the barriers faced by shipping companies due to the implementation of the Mining Services Business License (*Izin Usaha Jasa Pertambangan*—IUJP) policy in coal transportation. The research object is the implementation of the IUJP policy and its implications for shipping operations, particularly licensing procedures, regulatory overlap, operational efficiency, legal certainty, operating costs, business competitiveness, and the investment climate. The research population comprises individuals and stakeholders involved in coal transportation operations and IUJP implementation. The research sample, referred to as informants in this qualitative study, was selected through purposive sampling based on relevant knowledge, experience, authority, and direct involvement. The informants consisted of shipping operations managers, licensing or legal and documentation staff, operational personnel or port captains, representatives of relevant government institutions, and investors or other stakeholders.

The researcher served as the primary research instrument, supported by semi-structured interview guidelines, FGD guidelines, observation notes, and document-review forms. Primary data were collected through in-depth interviews, direct observation, and FGD, while secondary data were obtained from company records, licensing documents, government regulations, and other relevant documents. The data were analysed using the Miles and Huberman interactive qualitative analysis model, comprising data reduction, data display, and conclusion drawing or verification. MAXQDA software was used to support data management and analysis through transcript organization, systematic coding, code-frequency calculation, categorization, and thematic visualization. The analysis focused on identifying patterns and themes concerning licensing complexity, bureaucratic constraints, vessel schedules, waiting time, additional operating costs, interagency coordination, legal uncertainty, operational efficiency, and business competitiveness. The credibility and consistency of the findings were strengthened through source, technique, and time triangulation by comparing data obtained from different informants, collection methods, and periods. The overall trustworthiness of the research was further evaluated through credibility, transferability, dependability, and confirmability.

RESULT AND DISCUSSION

1. Impact of Policy Overlap between the Ministry of Energy and Mineral Resources and the Ministry of Transportation on Legal Certainty for Shipping Companies

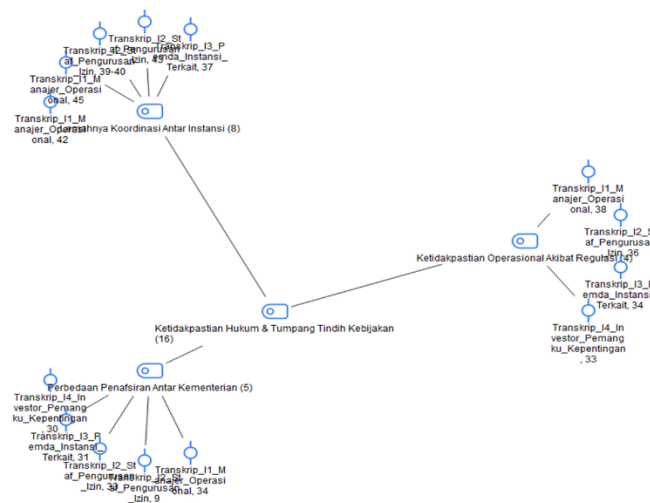
The findings show that the overlap between policies administered by the Ministry of Energy and Mineral Resources and the Ministry of Transportation creates legal and procedural uncertainty for shipping companies engaged in coal transportation. Although a company may have fulfilled maritime requirements concerning vessel readiness and shipping documentation, it may still be unable to commence transportation because additional mining-sector requirements have not been confirmed or completed. This condition makes it difficult for companies to determine a definitive compliance threshold before dispatching a vessel

Table 1. Coding Results for Legal Uncertainty and Overlapping Policies

Code	Subtheme	Coded segments	Coding cues
A1	Different interpretations between ministries	4	different requirements; interpretation; ESDM; Ministry of Transportation
A2	Operational uncertainty caused by regulation	4	vessel held; awaiting certainty; departure; vessel operations
A3	Weak inter-agency coordination	8	coordination; final decision; synchronisation; common standard

Source: Authors' analysis of interview data using MAXQDA (2026).

The MAXQDA analysis of legal uncertainty and policy overlap indicates that weak interagency coordination was the most prominent subcategory, with eight coding frequencies, followed by differing interpretations between the Ministry of Energy and Mineral Resources and the Ministry of Transportation and regulatory-induced operational uncertainty, each with four. These findings suggest that the main challenge arises not merely from the coexistence of two regulatory frameworks, but also from inconsistent interpretations, requirements, and implementation across institutions. Such inconsistencies require shipping companies to repeatedly verify compliance and may delay vessels that are technically ready to operate. Therefore, regulatory harmonization and an integrated interagency coordination mechanism are essential to provide clear and consistent requirements for coal transportation activities. The results of the code mapping using MAXQDA are presented in Figure 1



Source: Processed by the author (2026)

Figure 1. Mapping results of legal uncertainty and policy overlap codes using MAXQDA

These findings extend the bureaucratic perspective used in this study. A rational-legal administrative system requires authority, responsibility, and procedures to be defined and applied consistently (Rahman, 2018). In the present case, formal rules exist, but their intersection creates uncertainty at the implementation level. The results also support Fuqoha et al., (2023) who argue that regulatory harmonisation becomes necessary when overlapping rules restrict legal subjects or generate disharmony. Harmonisation in this context should not eliminate the authority of either ministry. It should align requirements, clarify institutional boundaries, standardise interpretations, and establish a coordinated decision mechanism. Legal

certainty is therefore produced not only by written regulation but also by predictable and consistent implementation.

2. Complexity and Duration of the Permit Application Process and Their Impact on the Operational Efficiency of Coal Transport

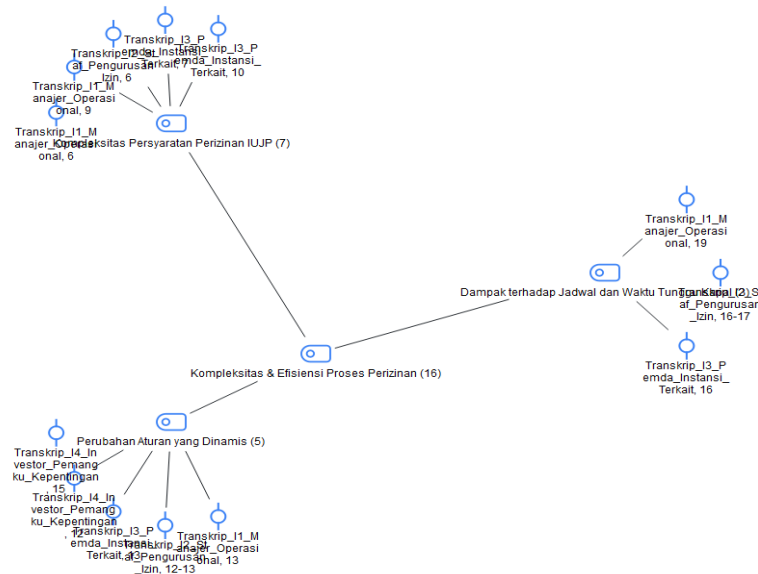
The licensing process was perceived as complex because compliance extends beyond vessel and shipping documents to include requirements associated with mining activities. Some of the required documents are controlled by cargo owners or mining companies rather than by the shipping company. The shipping company therefore remains operationally responsible for vessel deployment while lacking full control over the completion time of all supporting documentation. Changes in requirements, additional document requests, and repeated verification further reduce the predictability of the process.

Table 2. Coding Results for Licensing Complexity and Process Efficiency

Code	Subtheme	Coded segments	Coding cues
B1	Complexity of IUJP licensing requirements	8	requirements; IUJP; documents; mining company; responsibility
B2	Dynamic regulatory changes	4	changing rules; additional documents; adjustment; dissemination
B3	Impact on schedules and vessel waiting time	4	vessel waiting; delay; schedule; departure; administration

Source: Authors' analysis of interview data using MAXQDA (2026).

The MAXQDA analysis of licensing-process complexity and efficiency indicates that the complexity of IUJP licensing requirements was the most prominent subcategory, with eight coding frequencies, followed by dynamic regulatory changes and their impact on vessel schedules and waiting times, each with four. These findings demonstrate that IUJP licensing expands shipping companies' administrative responsibilities beyond vessel and shipping documents to include mining-related requirements that are not entirely under their control. Frequent procedural changes and inconsistent implementation also require repeated document adjustments and verification, making completion times difficult to predict. Consequently, unresolved administrative requirements may prolong vessel waiting times and disrupt coal transportation schedules, thereby reducing operational efficiency. The results of the code mapping using MAXQDA are presented in Figure 2



Source: Processed by the author (2026)

Figure 2. Mapping Results of Licensing Process Complexity and Efficiency Codes Using MAXQDA

The findings indicate that IUJP licensing is perceived as administratively complex because it involves not only vessel and maritime documents but also mining-sector requirements, some of which are controlled by cargo owners or mining companies. Changes in requirements, additional documentation, repeated verification, and coordination among multiple stakeholders further prolong the process and make completion times difficult to predict. Consequently, technically ready vessels may remain idle, disrupting subsequent voyages and reducing asset utilization. This finding aligns with Rochmah, (2022) operational management perspective, which emphasizes the effective and efficient transformation of resources into valuable outputs; vessel waiting time represents an unproductive use of company resources. Moreover, companies continue to incur crew, vessel operating, port, administrative personnel, and potential demurrage costs during delays. These impacts may extend beyond internal operations to customer contracts, cargo-receipt schedules, and broader logistics costs. Therefore, licensing complexity reduces operational efficiency by increasing waiting times, disrupting interconnected schedules, and generating additional costs throughout the coal transportation supply chain.

3. Additional Costs for Obtaining the IUJP and Their Impact on the Profitability Management Strategy of Shipping Companies

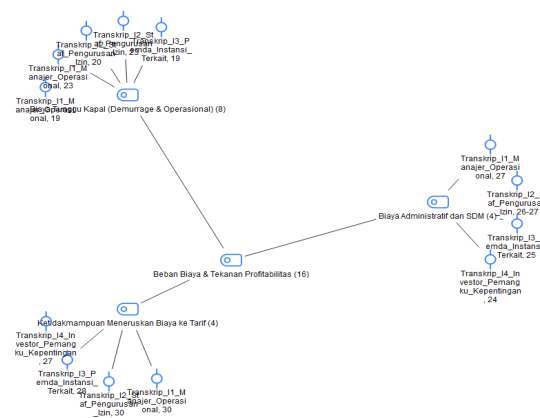
Respondents did not interpret the cost of IUJP compliance solely as the formal cost of processing a license. They described a layered financial burden comprising document preparation, communication and coordination, specialized administrative labour, port expenses, and vessel operating costs incurred during waiting periods. In certain circumstances, delays may also generate demurrage. The economic effect of regulation therefore includes both direct compliance expenditure and indirect opportunity costs arising from unproductive vessel time.

Table 3. Coding Results for Cost Burden and Profitability Pressure

Code	Subtheme	Coded segments	Coding cues
C1	Vessel waiting costs (demurrage and operations)	8	waiting costs; demurrage; crew; port charges; vessel held
C2	Administrative and human-resource costs	4	specialist staff; administration; documents; coordination
C3	Inability to pass additional costs into freight rates	4	rates; competition; margin; customers; additional costs

Source: Authors' analysis of interview data using MAXQDA (2026).

The MAXQDA analysis of cost burden and profitability pressure indicates that vessel waiting costs, including demurrage and operational expenses, were the most prominent subcategory, with eight coding frequencies, followed by administrative and human-resource costs and the inability to pass additional costs on through freight rates, each with four. These findings show that IUJP-related delays create multiple financial burdens, as companies must continue covering crew, vessel operating, port, and potential demurrage costs while vessels remain unproductive. Licensing complexity also requires dedicated personnel for regulatory compliance, document processing, and stakeholder coordination. However, competitive pressure limits companies' ability to transfer these additional expenses to customers, forcing them to absorb part of the costs and potentially reducing profit margins. Thus, the financial impact of IUJP licensing extends beyond direct administrative fees to include substantial indirect costs incurred throughout the licensing process. The results of the code mapping using MAXQDA are presented in Figure 3



Source: Processed by the author (2026)

Figure 3. Mapping Results of Cost Burden Codes and Profitability Pressures Using MAXQDA

The findings indicate that the financial impact of IUJP licensing extends beyond formal administrative fees to include document processing, communication and coordination, administrative personnel, vessel operating expenses during waiting periods, port charges, and potential demurrage. Regulatory compliance time also has economic value because companies continue using human and operational resources without generating productive transportation services, creating inefficiencies from an operational management perspective. This burden becomes more significant when shipping companies cannot fully pass additional costs on to customers due to competitive pressure, forcing them to absorb the expenses and reduce costs elsewhere. Consequently, rising compliance costs without corresponding revenue growth directly compress profit margins and may weaken companies' capacity to invest, renew vessels,

and expand their businesses. Moreover, unpredictable delays and costs represent business risks that require effective risk management through better administrative planning, interparty coordination, cost control, and operational efficiency.

4. The Impact of Regulatory Burdens on the Competitiveness of Indonesian Shipping Companies Compared to Companies from Other Countries

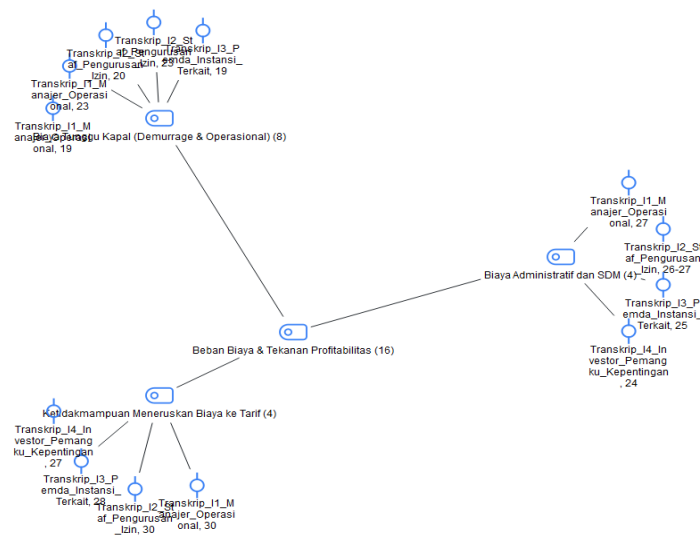
The cumulative regulatory burden was perceived to weaken the competitiveness of Indonesian shipping companies through higher costs, longer administrative lead times, additional staffing requirements, and reduced service flexibility. Competitiveness in this setting is shaped not only by vessel capability and freight rates but also by the institutional environment in which the company operates. When more resources are diverted to compliance and coordination, fewer resources remain available for productive activities and service improvement.

Table 4. Coding Results for Competitiveness and the Investment Climate

Code	Subtheme	Coded segments	Coding cues
D1	Declining competitiveness relative to competitors	4	competitiveness; costs; long process; rates; foreign companies
D2	Unequal impact on large and small companies	4	large firms; small firms; financial capacity; human resources
D3	Impact on investment interest	4	investors; regulatory certainty; business risk; investment

Source: Authors' analysis of interview data using MAXQDA (2026).

The MAXQDA analysis of competitiveness and the investment climate shows that all three subcategories—declining competitiveness relative to competitors, unequal impacts on large and small companies, and effects on investment interest each recorded four coding frequencies. These balanced findings indicate that competitiveness is shaped by interconnected regulatory, financial, and investment-related factors. Complex administrative procedures and additional costs may reduce service efficiency and profit margins, while smaller companies face greater pressure because of their limited financial and administrative resources. Moreover, regulatory uncertainty, changing requirements, and unpredictable compliance costs increase business risks and may discourage investment. Therefore, IJUP-related regulatory burdens may weaken the competitiveness of national shipping companies, disproportionately affect smaller operators, and reduce the attractiveness of the shipping sector to potential investors. The results of the code mapping using MAXQDA are presented in Figure 4



Source: Processed by the author (2026)

Figure 4. Mapping Results of Competitiveness and Investment Climate Codes Using MAXQDA

The findings indicate that regulatory burdens associated with coal transportation may weaken the competitiveness of national shipping companies by increasing costs, administrative time, resource requirements, and constraints on delivering timely and efficient services. Consistent with operational management theory, resources devoted to regulatory compliance reduce the flexibility to support productivity and service performance, particularly regarding cost efficiency, punctuality, and schedule reliability. The impacts are also unevenly distributed: large companies are generally better able to assign specialized personnel and absorb additional expenses, whereas small and medium-sized companies face greater financial and administrative pressure, potentially creating barriers to market entry and business continuity. From an international perspective, informants perceived national companies as potentially disadvantaged relative to competitors operating under simpler regulatory systems, although this study did not directly compare licensing systems or costs across countries. In the long term, compressed margins and regulatory uncertainty may also limit fleet renewal, business expansion, and investment interest, thereby further weakening industry competitiveness.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study concludes that the overlap between the regulatory authority of the Ministry of Energy and Mineral Resources and the Ministry of Transportation in coal transportation creates legal and procedural uncertainty for shipping companies. The complexity and changing requirements of IUJP licensing, including documents outside the direct control of shipping companies, prolong vessel waiting times, disrupt schedules, and reduce asset utilisation. These conditions generate direct administrative expenses and indirect operational costs, including crew expenses, port charges, and potential demurrage, which cannot always be transferred to customers. Consequently, IUJP-related regulatory burdens compress profit margins, disproportionately affect small and medium-sized operators, weaken the competitiveness of national shipping companies, and may discourage investment in the shipping sector.

Limitations

This study is limited by its qualitative design, restricted number of informants, and focus on selected Indonesian shipping companies involved in coal transportation; therefore, the findings may not represent the experience of the entire national shipping industry. The study

also relied primarily on stakeholder perceptions and qualitative coding rather than quantitative measurements of licensing duration, compliance costs, profitability changes, or vessel waiting time. Furthermore, the comparison between Indonesian and foreign shipping companies was based on informants' perspectives and was not supported by a direct cross-country comparison of regulatory systems, licensing costs, or operational performance.

Recommendations

The government should harmonise IUJP and maritime regulations by clarifying institutional authority, standardising requirements and interpretations, and establishing an integrated coordination and licensing mechanism between the Ministry of Energy and Mineral Resources and the Ministry of Transportation. A transparent digital system with clear service standards, document responsibilities, processing timelines, and regulatory-change notifications should be developed to reduce repeated verification and administrative delays. Shipping companies should also strengthen regulatory monitoring, interparty coordination, compliance planning, and cost-control mechanisms, while future research should employ broader samples, quantitative operational and financial data, and direct international comparisons to assess the magnitude of regulatory impacts more comprehensively.

Author Contributions

The author was responsible for the conceptualization and design of the study, literature review, development of the research methodology and instruments, selection and coordination of informants, data collection through interviews, focus group discussions, observation, and documentation, as well as data coding and qualitative analysis using MAXQDA. The author also interpreted the findings, prepared the original manuscript, revised the article, and approved the final version for publication.

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