Analysing the Impact of Third-Party Involvement on Smooth Distribution in Supply Chain in Indonesia

Darmiono
Akademi Ketatalaksanaan Pelayaran Niaga Bahtera, Indonesia
Correspondent: darmiono1@gmail.com

ABSTRACT: Businesses must ensure that commodities are distributed smoothly throughout supply chains in order to effectively satisfy client needs. It is quite difficult to provide smooth distribution in Indonesia due to its diversified topography and infrastructure issues. A crucial element impacting the effectiveness of distribution is the participation of other parties, like logistics suppliers and middlemen. The purpose of this study is to examine how third parties' involvement affects Indonesian supply chains' ability to distribute commodities efficiently. A quantitative approach is used to collect and analyze data, with the use of surveys and statistical techniques. A strong positive association between the degree of third-party involvement and distribution efficiency is seen in the findings, highlighting the significance of forming strategic alliances with third-party logistics providers. The report offers suggestions for improving distribution efficiency as well as insights into Indonesian supply chain dynamics.

Keywords: Supply Chain Management, Third-Party Logistics, Distribution Efficiency, Indonesia

INTRODUCTION

Industry, tourism, and agriculture have all contributed to Indonesia's economic growth (Lesmana et al., 2022; Robbany et al., n.d.; Subagiana et al., 2022), which has increased demand for effective supply chain management. The nation's distinct topography, with more than 17,000 islands, poses considerable logistical obstacles (HARSONO, 2023; Mulia Pamadi, 2022; Niode, 2023). Indonesia's supply chain involves skillful navigation through a variety of terrains, from populated cities to isolated islands. Trade expansion in various Indonesian cities is hampered by a number of challenges, including inadequate logistical performance, trade regulations, infrastructure limitations, connectivity concerns, transportation costs, and geographic restrictions. In order to enhance supply chain efficiency throughout Indonesia's diverse landscapes, stakeholders must concentrate on expanding infrastructure, boosting connectivity, streamlining transportation, and harmonizing with trade regulations in order to overcome these difficulties.

The distribution process is greatly impacted by issues in the field of supply chain management, such as crowded transportation networks, limited infrastructure, and complex regulations (Harsono, 2023; Hmamed & Anass, 2022; MANIATIS, 2023). Innovative solutions are needed to handle these complexity, and third parties are frequently crucial in boosting operational effectiveness and filling in logistical gaps (Hamidi, 2022; Sutono et al., 2023). Eco-friendly last-mile delivery options, such drones, cargo bikes, and electric cars, have become practical ways to reduce environmental impact and boost last-mile delivery efficiency (DARMAWAN et al., 2023; Freichel et al., 2022). Furthermore, it is impossible to overestimate the significance of supply chain visibility (SCV) in distribution logistics since it empowers stakeholders to make decisions based on precise and timely knowledge about the movement of commodities (Paul et al., 2023). These observations highlight the vital role that creativity and teamwork play in resolving supply chain management distribution issues.

Given its diversified terrain and infrastructure challenges, firms in Indonesia must ensure efficient transit of goods through supply chains (Judijanto et al., 2023; Novi & Pontoh, 2022). A key factor in guaranteeing businesses' profitability and competitiveness is the transportation and distribution industry (Suryana & Patra, 2023). The center of gravity methodology is one strategy used to determine the best warehouse locations to handle distribution challenges (Subagiana et al., 2022). A variety of stakeholders, from farmers to purchasers, are involved in the supply chain of agricultural products like porang, which emphasizes the flow of resources, information, and money across the chain (Anggoro et al., 2022). In addition, the Indonesian banking industry is urged to submit sustainability reports and concentrate on sustainability, with foreign ownership having a big impact on these disclosures (Marsintauli et al., 2023). The necessity for effective and sustainable supply chain procedures in Indonesia's intricate business environment is in line with this focus on sustainability.

Third-party businesses, like intermediaries and logistics providers, have a substantial impact on Indonesia's distribution environment. These entities are essential in improving the flow of commodities (Marsintauli et al., 2023; Sitompul, 2022). Due to the influence of these third parties on distribution efficiency, this topic is both practically and intellectually vital for companies functioning in Indonesia's intricate supply chain environment (Lim et al., 2023). Understanding third-party involvement in distribution processes is crucial because, in the case of package delivery services, factors like customer trust, brand recall, and word-of-mouth strongly influence consumer decisions and loyalty towards specific service providers (Wisanggara et al., 2022). Furthermore, the banking industry's emphasis on sustainability highlights the necessity for businesses to take into account variables such as foreign ownership when determining sustainability report disclosures, demonstrating the wider effects of external engagement on corporate operations (Anggoro et al., 2022). Through a quantitative lens, this study attempts to explore the relationship between third-party engagement and seamless distribution throughout Indonesian supply chains. Through an examination of the degree and kind of third-party involvement and its impact on distribution effectiveness, this research aims to provide insights into methods for improving supply chain efficiency in Indonesia.

In light of this, the main goal of this study is to examine how third-party participation affects the efficient distribution of goods across Indonesian supply chains. This study has multiple goals in

mind. Its initial goal is to categorize the many kinds of third-party organizations that are a part of Indonesian supply chains. Its second objective is to evaluate the degree of involvement that these third-party businesses have in the distribution operations that take place within these supply chains. The study also aims to investigate the connection between distribution efficiency and third-party engagement. Lastly, the study attempts to offer suggestions for improving distribution efficiency within Indonesian supply chains based on the research findings.

Literature Review

Supply Chain Management in Indonesia

The enormous archipelago of Indonesia presents serious difficulties for supply chain management (Do. Bagus & Hanaoka, 2023; Machfudiyanto et al., 2023; Rizaldi et al., 2023). Due to the fragmented government structure and legislative complications, the nation's logistics infrastructure—which includes land, sea, and air routes—faces complexity, which causes logistical bottlenecks that obstruct the free movement of goods (Pertiwi & Saputro, 2023). Numerous studies draw attention to important concerns that affect Indonesia's supply chain operations, including conditional seaport risk factors, ineffective power supply procedures, and regional geopolitical dynamics, particularly in the South China Sea (Pribadi & Syafiq, 2022). To address these issues and guarantee sustainable supply chain operations in Indonesia, a thorough grasp of the interdependencies between various risk variables, infrastructure constraints, and legislative barriers is needed.

Third-Party Logistics (3PL) in Supply Chains

By providing specialized services including transportation, warehousing, and inventory management, third-party logistics (3PL) companies play a critical role in improving the efficiency of the supply chain (Rifai, 2023; Vlachos & Polichronidou, 2024). Research has indicated that third-party logistics (3PLs) can fulfill several functions in the supply chain hierarchy, including service developer, customer adaptor, and customer developer. This can be achieved by offering sophisticated services, tailored solutions, and growing client operations to match market demands (Hasibuan & Jaqin, 2022). In order to reduce their negative effects on the environment and increase overall sustainability, logistics organizations are also placing an increasing emphasis on implementing green supply chain strategies (Nawurunnage et al., 2023). It has been discovered that information sharing practices with 3PLs boost channel member collaboration, boost competitive advantage, and improve customer service (Valashiya & Luke, 2023). This emphasizes the significance of forming cooperative relationships and utilizing technology to manage supply chains efficiently.

Impact of Third-Party Involvement on Distribution Efficiency

The effectiveness of supply chain distribution can be greatly impacted by outsourcing logistical tasks to third-party logistics (3PL) companies. According to research, collaborating with 3PL suppliers can result in better visibility, streamlined inventory management, and improved supply chain management, all of which can increase supply chain performance (Dimitrov & Dimitrova, 2021). Furthermore, 3PL suppliers provide services including inventory management, warehousing, and transportation—all essential for effective distribution operations (Rifai, 2023). Furthermore, the use of autonomous cars by 3PL providers can improve supply chain distribution efficiency by bringing advantages including lower costs, increased safety, and less pollution

(Skender et al., 2022). Enhancing information sharing procedures with 3PL providers can also boost channel member cooperation, give them a competitive edge, and eventually improve customer service, underscoring the significance of strong alliances with 3PL providers in maximizing distribution efficiency (Valashiya & Luke, 2023).

METHOD

Research Design

In order to methodically gather and examine numerical data relevant to the study's goals, a quantitative research strategy is used. For investigating correlations between variables and producing results that are statistically significant, quantitative approaches are a good fit (Creswell & Creswell, 2017). This study attempts to collect quantitative data from a sample of Indonesian industry experts and supply chain professionals using a structured survey instrument.

Data Collection

Participants chosen from the target population are given a structured questionnaire as part of the data gathering process. The purpose of the questionnaire is to gather information on opinions on distribution efficiency as well as the kinds and degrees of third-party participation in supply chain distribution activities. A Likert scale with a range of 1 (Strongly Disagree) to 5 (Strongly Agree) is used to gauge the opinions and attitudes of respondents.

Sampling

The study's target group consists of those who work directly in supply chain management or logistics for Indonesian companies. The population is split into homogeneous subgroups (strata) depending on industry sector (manufacturing, retail, logistics) and geographic location (Java, Sumatra, Sulawesi) in order to guarantee a representative sample.

A random sample of respondents is chosen to take part in the survey from each strata. The formula for estimating proportions with a certain margin of error and confidence level is used to determine the sample size (Cochran, 1977). It is determined that a sample size of 100 respondents is adequate to produce results that are both practically feasible and statistically significant.

Data Analysis

The replies are entered into the Statistical Package for the Social Sciences (SPSS) version 26 for analysis once data collection is complete. Tools for data manipulation, descriptive statistics, and inferential analysis are provided by SPSS, a statistical analysis program that is often used (Field, 2013). Several statistical studies are performed on the gathered data sets. First, to provide an understanding of central tendency and dispersion, descriptive statistics like mean, median, standard deviation, and frequency distributions are generated to summarize the properties of the data. Second, correlation analysis is used to evaluate the strength and direction of links between variables, such as distribution efficiency and third-party involvement, by calculating Pearson's correlation coefficient. Finally, regression analysis is used to find distribution efficiency predictors and investigate the impact of third-party involvement on distribution results. Multiple regression

analysis may also be used to evaluate the combined effects of several independent variables on the dependent variable.

RESULT AND DISCUSSION

Demographic Profile of the Sample

An outline of the sample population's demographic features must be given before digging into the analysis of the study variables. The demographic profile includes details about the respondents' years of experience in logistics or supply chain management, as well as their industry sector and geographic location.

Table 1. Demographic Sample

Demographic Characteristic	Category	Frequency
Industry Sector	Manufacturing	45%
	Retail	30%
	Logistics	15%
	Others	10%
Geographic Region	Java	50%
	Sumatra	20%
	Sulawesi	15%
	Kalimantan	10%
	Others	5%
Years of Experience	Less than 5 years	20%
	5-10 years	35%
	10-15 years	25%
	More than 15 years	20%

Source: Results of data analysis (2024)

The sample population's demographics provide important information on the make-up of the study's respondents. Within the Indonesian supply chain, a variety of industry sectors are represented, with the majority (45%) coming from manufacturing, followed by 30% from retail, 15% from logistics, and 10% from other sectors. Manufacturing's pervasiveness indicates a strong focus on production-related activities, which may influence beliefs and behaviors about the effectiveness of distribution. Furthermore, participants from the retail and logistics domains emphasize the importance of both upstream and downstream operations within the supply chain ecosystem. Geographically, Java is home to half of the respondents (or 50%), which is indicative of the area's prominence as a significant economic center. Though to a lesser degree, Kalimantan, Sulawesi, and Sumatra each account for 20%, 15%, and 10% of the sample, with the remaining 5% coming from other locations. This distribution provides information about geographical differences and difficulties that exist in Indonesian supply chain management. The distribution of

experience levels in supply chain management or logistics is balanced, with 20% having less than five years, 35% having five to ten years, 25% having ten to fifteen years, and the remaining 20% having more than fifteen years. This diversity allows for the capturing of opinions from both seasoned specialists and early-career professionals, adding richness to the study findings with views from different phases of supply chain careers.

Descriptive Statistics

Descriptive statistics provide an overview of the respondents' characteristics and key variables measured in the survey. Table 1 presents the summary statistics for the variables of interest, including the extent of third-party involvement (measured on a Likert scale) and distribution efficiency perceptions.

Table 2. Summary Statistics

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Extent of Third-Party Involvement	3.75	4.00	0.85	2.00	5.00
Distribution Efficiency	4.20	4.50	0.70	3.00	5.00

Source: Results of data analysis (2024)

The descriptive statistics of the variables provide information about the degree of third-party participation and distribution effectiveness in Indonesian supply chains. With a minimum of 2.00 and a maximum of 5.00, the mean degree of third-party engagement is 3.75, with a median of 4.00 and a standard deviation of 0.85, signifying moderate to high levels of involvement. With a minimum of 3.00 and a maximum of 5.00, distribution efficiency, on the other hand, shows usually high levels of efficiency, with a slightly higher mean of 4.20, a median of 4.50, and a standard deviation of 0.70. The respondents' stated average levels of distribution efficiency and third-party involvement are shown by the descriptive analysis. Additional analysis of the response distribution reveals information on the sample's variability and distribution patterns.

Correlation Analysis

To investigate the connections between the degree of third-party participation and distribution effectiveness in Indonesian supply chains, correlation analysis is done. To evaluate the direction and strength of these relationships, the Pearson's correlation coefficient is calculated. The correlation analysis's findings show a statistically significant positive association ($r = 0.60$, $p < 0.01$) between distribution efficiency and third-party involvement. This result implies that supply chain professionals in Indonesia tend to perceive distribution efficiency as improving as third parties get more involved.

Regression Analysis

To further investigate the influence of third-party involvement on distribution efficiency, a multiple regression analysis is conducted.

Table 3. Regression Analysis

Variable	Coefficient (β)	Standard Error	t-value	p-value
Intercept	2.562	0.323	8.002	< 0.001
Third-Party Involvement	0.456	0.082	5.633	< 0.001

Source: Results of data analysis (2024)

Regression analysis results show that distribution efficiency is significantly predicted by third-party involvement ($\beta = 0.456$, $p < 0.001$). This result suggests that greater perceived efficiency in distribution operations within Indonesian supply chains is correlated with higher levels of third-party engagement.

The results of this study add factual support to the current discussion in Indonesia about supply chain management, especially with regard to the function of third parties in distribution procedures. Businesses functioning inside Indonesian supply chains may find real benefits from strategic relationships with third-party logistics providers, as seen by the positive correlation found between third-party involvement and distribution efficiency. The findings suggest that companies are better positioned to overcome logistical obstacles and improve distribution effectiveness when they make use of third-party experience and resources. Businesses can obtain economies of scale, gain access to cutting-edge technology, and enhance their responsiveness to client needs by contracting out non-core logistics operations to specialized providers. By utilizing their specialized knowledge and resources, third-party logistics providers (3PLs) may effectively handle logistics difficulties and increase distribution efficiency by taking on non-core logistics responsibilities (Khan et al., 2022; Korucuk et al., 2022; Pengman et al., 2022; Rifai, 2023; Vlachos & Polichronidou, 2024). These third-party logistics (3PLs) provide services including supplier management, warehousing, transportation, and shipping, freeing up businesses to concentrate on their core competencies while taking advantage of economies of scale, cutting-edge technology, and better customer response. In order to enhance supply chain performance overall, the study highlights the significance of elements like cooperation, integration, and coordination while making outsourcing decisions. Organizations can obtain a competitive edge, effectively handle international logistics, and raise the caliber of services provided across the supply chain by strategically utilizing 3PL assets and skills.

It is imperative to recognize the possible disadvantages of involving third parties, such as difficulties with coordination, loss of control, and dependence hazards. In order to mitigate these risks and guarantee that supply chain partners have aligned interests, it is essential to establish effective governance systems and foster collaborative relationships. Collaborative partnerships and efficient governance frameworks are essential for reducing the risks connected to third parties' engagement in supply chains (Wermke et al., 2023). Digital governance and intermediaries can be crucial in facilitating multi-level group action to address major supply chain challenges (Van der Walt et al., 2021). Information exchange between supply chain participants is necessary for better resilience and in-the-moment decision-making (Al-Shboul, 2023). Furthermore, establishing trustworthy and dependable connections with suppliers has a good effect on supply chain efficiency and risk reduction (Rosca et al., 2022). Businesses that use open source components

ought to be aware of security issues and take steps to improve the security and well-being of the software ecosystem as a whole (Kotlars et al., 2022). Businesses can manage coordination issues, keep control, and reduce dependency hazards related to third-party participation in supply chains by attending to these factors.

Implications for Practice

Based on the research findings, several implications for practice emerge:

Organizations should consider strategically outsourcing logistics functions to reputable third-party providers to enhance distribution efficiency and focus on core business activities.

Building collaborative partnerships with third-party logistics providers and establishing clear communication channels are crucial for fostering trust and alignment of objectives.

Implementing performance metrics and Key Performance Indicators (KPIs) to monitor distribution effectiveness and supplier performance can help identify areas for improvement and drive continuous optimization efforts.

Investing in technology-enabled solutions, such as transportation management systems and real-time tracking tools, can enhance visibility and coordination across the supply chain.

Limitations and Future Research Directions

It is critical to recognize the study's limitations, which include respondent bias and the use of self-reported data. Future studies may examine other variables including supply chain resilience, environmental sustainability, and regulatory compliance that affect distribution efficiency. Notwithstanding these drawbacks, the study's conclusions offer insightful information about how third-party participation affects efficient distribution inside Indonesian supply chains. Enterprises may enhance their supply chain operations and promote sustainable growth in the Indonesian market by making well-informed decisions based on their comprehension of the dynamics of third-party interactions and their consequences for distribution efficiency.

CONCLUSION

To sum up, this study adds to our knowledge of the dynamics of Indonesian supply chains, especially as it relates to the influence of outside parties on distribution effectiveness. The results show that strengthening distribution efficacy within Indonesian supply chains requires strategic alliances with outside logistics companies. Businesses can improve customer satisfaction and streamline their distribution processes by utilizing the skills and expertise of outside parties. This study has significance for supply chain practitioners and industry stakeholders, emphasizing the value of cooperation, strategic outsourcing, and ongoing supply chain operations improvement. In order to successfully traverse the intricacies of the changing business landscape, companies in Indonesia should place a high priority on developing strong partnerships, making investments in technology-enabled solutions, and encouraging adaptation.

REFERENCE

Al-Shboul, M. A. (2023). Investigating the quality of the relationship, supply risk mitigation on medium and large-sized manufacturing firms' supply chain performance in the developing countries: the moderating effect of supplier involvement. *The TQM Journal*.

Anggoro, Y., Rahmawati, D., Afgani, K. F., Afrianto, M. A., Permana, R., Andariesta, D. T., Kosasih, L. E., & Rahadi, R. A. (2022). Indonesian Logistics Preferences during COVID-19 Pandemic. *International Journal of Finance, Economics and Business*, *1*(4), 265–274.

Cochran, W. G. (1977). *Sampling techniques*. john wiley & sons.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

DARMAWAN, I., SAHRI, S., HARSONO, I., & IRWAN, M. (2023). Analisis Pengaruh Pertumbuhan Ekonomi Dan Inflasi Terhadap Penerimaan Pajak Pertambahan Nilai Di Provinsi Nusa Tenggara Barat. *Ganec Swara*, *17*(3), 1054–1067.

Dimitrov, I., & Dimitrova, A. (2021). Impact of Using Third-Party Logistics Provider on Organizational Performance in the Bulgarian Context. *2021 IV International Conference on High Technology for Sustainable Development (HiTech)*, 1–4.

Do. Bagus, M. R., & Hanaoka, S. (2023). Interdependency patterns of potential seaport risk factors in relation to supply chain disruption in Indonesia. *Journal of Shipping and Trade*, *8*(1), 6.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.

Freichel, S. L. K., Rütten, P., & Wörtge, J. K. (2022). Challenges of supply chain visibility in distribution logistics–a literature review. *Ekonomski Vjesnik: Review of Contemporary Entrepreneurship, Business, and Economic Issues*, *35*(2), 453–466.

Hamidi, L. S. (2022). Supply Chain Risks in Transportation and Distribution. In *Handbook of Research on Supply Chain Resiliency, Efficiency, and Visibility in the Post-Pandemic Era* (pp. 505–531). IGI Global.

Harsono, I. (2023). Determinants of Economic Growth, Poverty, and Unemployment: A Path Analysis Study. *Jurnal Ilmu Sosial Dan Humaniora*, *12*(2), 359–366.

HARSONO, I. (2023). The Impact Of E-Money On Inflation In Indonesia. *Ganec Swara*, *17*(3), 1160–1164.

Hasibuan, S., & Jaqin, C. (2022). *Seleksi dan Penentuan Third Party Logistik Transportasi Produk Pelumas Menggunakan Metode TOPSIS dan PROMETHE*.

Hmamed, H., & Anass, C. (2022). *The Current Association between Machine learning Techniques and Digital Smart Supply Chain 4.0 in Managing Transportation Distribution Risk*. https://doi.org/10.46254/AN12.20220131

Judijanto, L., Harsono, I., & Putra, A. S. B. (2023). Bibliometric Analysis of Human Resource Development: Trends, Research Focuses, and Recent Developments. *West Science Journal Economic and Entrepreneurship*, *1*(11), 329–338.

Khan, S. A., Alkhatib, S., Ammar, Z., Moktadir, M. A., & Kumar, A. (2022). Benchmarking the outsourcing factors of third-party logistics services selection: analysing influential strength and building a sustainable decision model. *Benchmarking: An International Journal*, *29*(6), 1797–1825.

Korucuk, S., Aytekin, A., & Karamaşa, Ç. (2022). An analysis for outsourcing based risks and problems in logistics enterprises. *Journal of Process Management and New Technologies*, *10*(3–4), 106–120.

Kotlars, A., Jurgelane-Kaldava, I., & Skribans, V. (2022). Contemporary approach for development of third-party logistics service procurement process. *ECONOMIC SCIENCE FOR RURAL DEVELOPMENT 2022*, 125.

Lesmana, H., Sugiarto, S., Yosevina, C., & Widjojo, H. (2022). A Competitive Advantage Model for Indonesia's Sustainable Tourism Destinations from Supply and Demand Side Perspectives. *Sustainability*, *14*(24), 16398.

Lim, B., Satrianny, I. P., & Linda, T. (2023). The Impact of Distribution Channel Towards Sales Volume at PT. Domas Intiglass Perdana Tanjung Morawa. *International Journal of Health, Economics, and Social Sciences (IJHESS)*, *5*(1), 42–46.

Machfudiyanto, R. A., Humang, W. P., Wahjuningsih, N., Kamil, I., & Putra, Y. Y. A. (2023). Probability of risk factors affecting small-scale LNG supply chain activities in the Indonesian archipelago. *Infrastructures*, *8*(4), 74.

MANIATIS, P. (2023). *Exploring the Viability of Last-Mile Delivery Solutions for Sustainable Supply Chains*.

Marsintauli, F., Novianti, E., & Situmorang, R. P. (2023). Exploring The Determinants of Supply Chain Social Sustainability Disclosure for Indonesian Banking. *JOIV: International Journal on Informatics Visualization*, *7*(1), 146–152.

Mulia Pamadi, Y. A. S. (2022). *Challenges of Developing a Logistics Hub Case Study: Batu Ampar Port*.

Nawurunnage, K. R., Prasadika, A., & Wijayanayake, A. N. (2023). TQM and Green Supply Chain Management Practices on Supply Chain Performance of Third-Party Logistics Services in Sri Lanka: A Systematic Review of Literature. *2023 3rd International Conference on Advanced Research in Computing (ICARC)*, 274–279.

Niode, A. K. (2023). Challenging Consumer Culinary Expectations. In *Contemporary Advances in Food Tourism Management and Marketing* (pp. 49–63). Routledge.

Novi, S. B., & Pontoh, W. (2022). Market efficiency and global issues: A case of Indonesia. *Investment Management & Financial Innovations*, *19*(4), 1.

Paul, S. K., Chowdhury, P., Chowdhury, M. T., Chakrabortty, R. K., & Moktadir, M. A. (2023). Operational challenges during a pandemic: an investigation in the electronics industry. *The International Journal of Logistics Management*, *34*(2), 336–362.

Pengman, H., Melan, M., & Hanan, S. A. (2022). A review on the role of logistics service providers in global supply chain towards competitive advantage. *AIP Conference Proceedings*, *2644*(1).

Pertiwi, A., & Saputro, G. E. (2023). Indonesia's Economic Strategy in Facing the Complexity of the South China Sea. *JETISH: Journal of Education Technology Information Social Sciences and Health*, *2*(1), 522–532.

Pribadi, R., & Syafiq, H. F. (2022). PENEGAKAN HUKUM BAGI KAPAL PENANGKAP IKAN ILEGAL DI PERAIRAN PANTAI PANGANDARAN PROVINSI JAWA BARAT. *Journal Presumption of Law*, *4*(2), 129–140.

Rifai, F. (2023). Improving Performance through Third-Party Logistics (3PL) Providers: an Empirical Investigation of Jordanian Trading Companies. *Logistics and Transport*, *57*.

Rizaldi, A., Muzwardi, A., Santoso, E., Iffan, M., & Fera, M. (2023). The strategic development of maritime connectivity in the border area in Indonesia. *Journal of Eastern European and Central Asian Research (JEECAR)*, *10*(4), 701–711.

Robbany, I., Suhariadi, F., & Budihardjo, A. (n.d.). *Determinants of port performance: an evaluation and measurement of port services in Indonesia.*

Rosca, E., Tate, W. L., Bals, L., Huang, F., & Ciulli, F. (2022). Coordinating multi-level collective action: how intermediaries and digital governance can help supply chains tackle grand challenges. *International Journal of Operations & Production Management*, *42*(12), 1937–1968.

Sitompul, R. M. K. (2022). Analysis And Formulation of Marketing Strategies in Third Party Logistics (3pl) to Increase Sales. *AMAR (Andalas Management Review)*, *6*(2), 43–58.

Skender, H. P., Ribarić, E., & Zaninović, P. A. (2022). Intelligent Solutions in the Supply Chains: Challenges for 3PL Providers. In *Sustainable Logistics* (pp. 139–156). Productivity Press.

Subagiana, I. G. M., Suryaniadhi, S. M., Wijayati, N. L. M., & Sarjana, I. M. (2022). Kajian Supply Chain Porang Sebagai Komoditi Ekspor Unggulan Desa Mundeh, Belatungan dan Batungsel Kabupaten Tabanan Propinsi Bali. *Jurnal Bisnis Dan Kewirausahaan*, *18*(3), 283–288.

Suryana, H., & Patra, O. (2023). Analisis Perencanaan Lokasi Gudang untuk Meminimasi Biaya Distribusi. *Jurnal Media Teknik Dan Sistem Industri*, *7*(1), 56–66.

Sutono, S., Harsono, I., Nasruddin, N., & Judijanto, L. (2023). The Influence of Regulatory Policy, Technology Infrastructure, and Human Resource Quality on Economic Growth in Surabaya City. *West Science Journal Economic and Entrepreneurship*, *1*(11), 547–556.

Valashiya, M. C., & Luke, R. (2023). Enhancing supply chain information sharing with third party logistics service providers. *The International Journal of Logistics Management*, *34*(6), 1523–1542.

Van der Walt, M., Niemann, W., & Meyer, A. (2021). The role of personal relationships in supply chain risk information sharing: Perspectives from buyers and suppliers of logistics services. *South African Journal of Economic and Management Sciences*, *24*(1), 1–15.

Vlachos, I., & Polichronidou, V. (2024). Multi-demand supply chain triads and the role of Third-Party Logistics Providers. *The International Journal of Logistics Management*, *35*(1), 136–157.

Wermke, D., Klemmer, J. H., Wöhler, N., Schmüser, J., Ramulu, H. S., Acar, Y., & Fahl, S. (2023). " Always Contribute Back": A Qualitative Study on Security Challenges of the Open Source Supply Chain. *2023 IEEE Symposium on Security and Privacy (SP)*, 1545–1560.

Wisanggara, R., Rama, A. S., & Adif, R. M. (2022). Identifikasi Prilaku Konsumen dalam Pengambilan Keputusan Penggunaan Jasa Pengiriman Barang. *Jurnal Informatika Ekonomi Bisnis*, 203–208.