

# Long-Term Value Creation Post-Merger: Case Study in Indonesian Ports (Pelindo)

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Port cooperation, collaboration and mergers have emerged as a topic which has been discussed in some depth in recent maritime economics literature. However, it is still questioned whether port collaboration/mergers create value in either the short or longer terms. In 2021, in Indonesia, four state-owned port operators merged into one organization; *Pelabuhan Indonesia*, known as “the Pelindo”. Unlike other global port players, Pelindo’s activities cover the entire nation which is large geographical area in a complex archipelagic setting, and they are required to manage a large number of ports of various sizes with disparate roles (as hubs, secondary hubs, and small feeder ports). In the first year following the merger, Pelindo standardized operations across its large container hub ports with the objective of improving them to enable the provision of world-class standardized services, with faster and more efficient operations. At the same time, the Pelindo also replicated standardization of operations across its secondary hubs and improved its smaller ports according to their size. Improvement in management and operational processes, in its secondary hubs and small-peripheral ports are unique in scale globally due to the size of the task. The task has been made more complex due to the requirement to keep investments to a minimum. This paper thus investigates the ongoing efforts by Pelindo to create a long-term value and promote change in the context of the existing literature on peripheral ports. Results show the challenges, strategy and lessons learned, which could be useful to other small-peripheral ports globally.

## 1. Introduction

Notteboom et al. (2018) identified that port co-operation, collaboration and mergers have been a recently emerging topic in maritime economics literature. Different motives explain why terminal operators collaborates with other terminal operators, or with liner companies (Notteboom et al., 2018, UNCTAD, 2019). Furthermore, ports aim to offer one-stop solutions, establish consolidation, and also gain more control over the supply chain, by implementing cross-border mergers and acquisitions and deploying end-to-end logistics (UNCTAD, 2022). Recent examples include:

- DP World purchased a North American and South African logistics companies in 2021. They also extend their business into the wider logistics through mergers and acquisitions, with an interest that spans across port terminals, warehouses, freight forwarding, air freight, e-commerce, other logistics services and IT businesses (UNCTAD, 2022).
- PSA International acquired an American supply chain company in 2021, hence, making them a full-service logistics provider (UNCTAD, 2022).
- The merger of Antwerp and Zeebrugge ports completed in 2022 creates the largest vehicle transshipment port in Europe (Zsofia, 2022).

A special edition volume of the journal *Research in Transportation Business and Management* (RTBM) in 2018 was dedicated to papers discussing port co-operation, port collaboration and mergers. It was developed to complement earlier edited volumes on port competition and port governance. In the guest editorial introduction, Notteboom et al. (2018) concludes that the special edition contributed to the literature, specifically focusing on port co-operation schemes, strategies and policies, the management of ports or port authorities as a unit of analysis. However, it is still questioned whether port collaboration/mergers create either short or long-term value.

In addition to port collaboration and mergers, there is also the need to acknowledge that shipping operation businesses often operate at a global or international scale. Besides the shipping industry, port or terminal operation businesses also operate internationally which enables port companies to have a multinational portfolio. Notteboom and Rodrigue (2012) mentioned this phenomenon as the “*emerging corporate geography*” of global container terminal operators. Notteboom and Rodrigue (2012) discussed issues such as the similarities/differences in characteristics between global terminal locations, expansion strategies, and how they interact in the global freight distribution system. They also explain how global terminal operators responded to the financial and economic crisis of 2008 to 2009. The trend in expanding corporate geography of port business is still relevant now, hence, ports or global terminal operator are expanding both geographically and in business diversification.

## 2. Objective

This paper aims to complement Notteboom and Rodrigue (2012) and the literature on port co-operation, port collaboration and mergers in the RTBM special edition by presenting a unique port merger case in one of the largest archipelago country in the world, Indonesia. This unique case occurred in 2021 when the Pelindo was created to establish consolidation and control over the supply chain of the nation, although it has not reached a global scope just yet. Unlike other global port players, Pelindo’s activities cover the entire nation which is large geographical area in a complex archipelagic setting, and they are required to manage a large number of ports of various sizes with disparate roles (as hubs, secondary hubs, and small feeder ports). Four state-owned port operators merged into one organization which is *Pelabuhan Indonesia*, known as “the Pelindo”. Wiradanti et al. (2023) describe the merger of port companies in Japan and in Indonesia (respectively). Furthermore, Wiradanti et al. (2023) explained how these merger

cases brings benefit for small-peripheral ports by enabling concentration/deconcentration of cargo and strengthens feeder services and contribute to regional development. Unlike other global port players, Pelindo's activities cover the entire nation which is large geographical area in a complex archipelagic setting, and they are required to manage a large number of ports of various sizes with disparate roles (as hubs, secondary hubs, and small feeder ports).

In the first year following the merger, Pelindo has developed standardization of operations across its large container hub ports with the objective of improving them to enable the provision of world-class standardized services, which will lead to faster and more efficient operations. At the same time, the Pelindo has also replicated standardization of operations across its secondary hubs and improved its smaller ports according to their size. Improvement in management, operational processes, digitalization, HSSE and labor practices in its secondary hubs and small-peripheral ports are unique in scale globally due to the size of the task. The task has been made more complex due to the requirement to keep investments to a minimum.

This paper thus investigates the ongoing efforts by Pelindo to create a long-term value and promote change in the context of the existing literature on peripheral ports. It also aims to highlight the distinctive strategy Pelindo took post-merger compared to huge global terminal operators in the world, where business expansion is conducted to secondary hubs and peripheral ports instead of large existing hub ports. This paper is structured as follows. The background is described in this introduction section, followed by review of the literature on port collaboration/mergers and efforts to create value, port business diversification and standardization of operations in ports, also the development of small-peripheral ports and port ecosystem. It is then followed by a consideration of methods used, findings and discussion on the topic, research implications and conclusion.

### **3. Literature Review**

#### **a. Port Collaboration/Mergers and Efforts to Create Value**

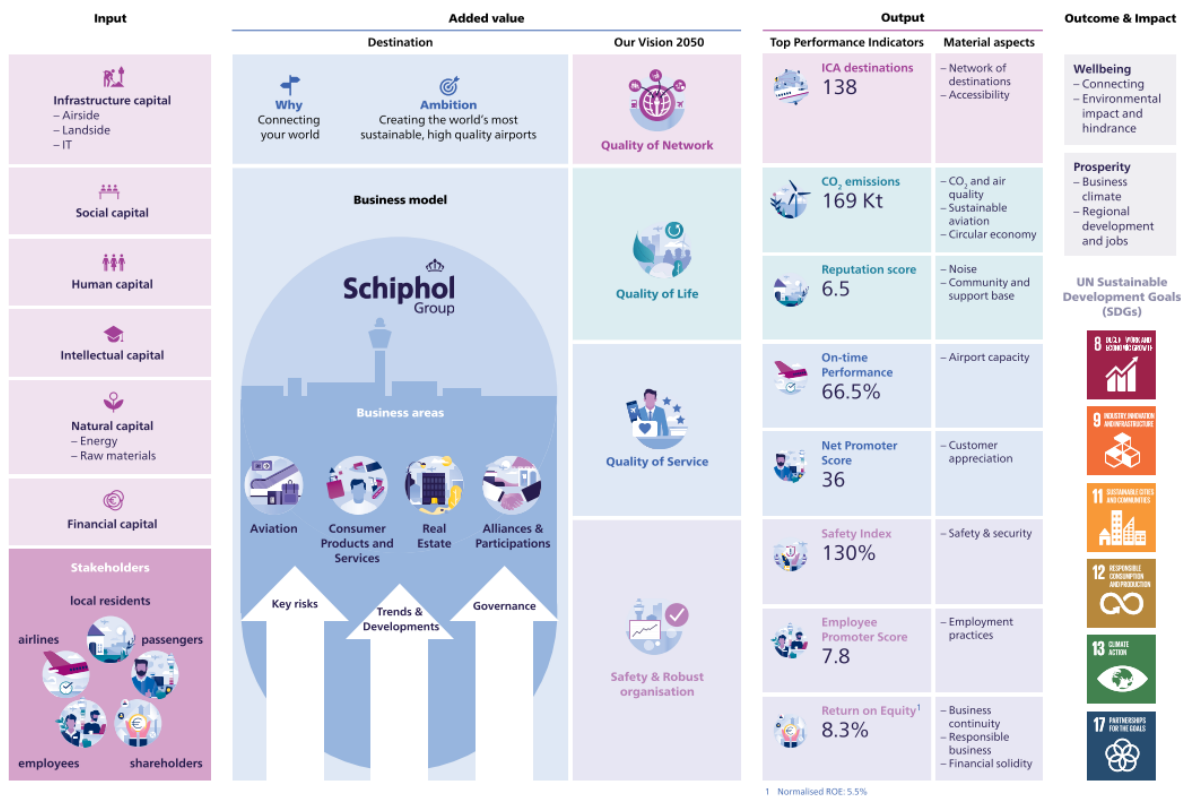
Ports collaborate/merge with various reasons such as because of political or government initiatives, pressure by the market (the emergence of global terminal networks or large vertically integrated carriers), or financial and efficiency reasons (Notteboom et al., 2018). Ports also want to expand and diversify their business to gain more control over the supply chain (UNCTAD, 2022), which will be explained in depth in the next section. However, it has been questioned whether port collaboration/mergers create value. Furthermore, could port companies' post-merger create long-term value?

Exploring the literature on Merger and Acquisitions (M&A), various cases shows that companies post-merger could create greater value, create less value or even fail to create value at all (Brage and Eckerstöm, 2010, Dyer et al., 2004, Marks and Mirvis, 2001). M&A in unrelated companies could create greater value because they complement each other, while in related companies the value creation effects could be less (Brage and Eckerstöm, 2010). According to Dyer et al. (2004), companies should consider 5 factors before deciding to ally or acquire. These factors are the types of synergies, the nature of resources, the extent of redundant

resources, the degree of market uncertainty, and the level of competition. For example, when a company estimates that a collaboration's outcome is highly uncertain, then it should consider entering into an alliance rather than completing an acquisition because it would limit the company's exposure, with investing less money and time than it would in the latter (Dyer et al., 2004, p.7). Meanwhile, Taylor (2019) mentions 10 measures of M&A success as follows: Number of clients, revenue, revenue per client, run rate savings, cross selling of services, cash flows, client complaints, quality of new clients, level of staff stress and staff turnover.

Furthermore, gaining long term value of M&As is another challenge. There are cases where a company plans and completes multiple acquisitions and strategic alliances to gain long-term growth and survival, as an example are companies in the healthcare industry where the market is volatile (Marks and Mirvis, 2001). According to IFAC (2020), with an input of resources, capitals and relationships, value is then created through the organization's purpose, strategy and business model in an integrated way. An illustration is given from The Royal Schiphol Management, where all added value activities are aligned with 8 top performance indicators across five key stakeholder groups (IFAC, 2020). The illustration can be seen in Figure-1 as follows.

Figure-1 The Royal Schiphol Management Business Model and Added Value Services



Source: Royal Schiphol Group Annual Report 2019 in IFAC (2020)

Siggelkow and Wibbens (2020) argue that various short-term measures (e.g. ROA, ROC, TSR, EBIT, EBITDA, etc.) and optimizing these short-term accounting measures/ratios often doesn't

maximize long-term value. Hence, they proposed using '*Long-term Investor Value Appropriation*' or LIVA. They calculate the LIVA by adding up the net present value of all the investments a firm has engaged in over a long period of time. It uses publicly available stock-market data and historical share-price data, which in the end shows whether the value a company has created or destroyed for its entire investor base over a long time period (Siggelkow and Wibbens, 2020). From their LIVA calculations, the global top 3 ranked companies are Apple, Amazon.com and Tencent Holdings.

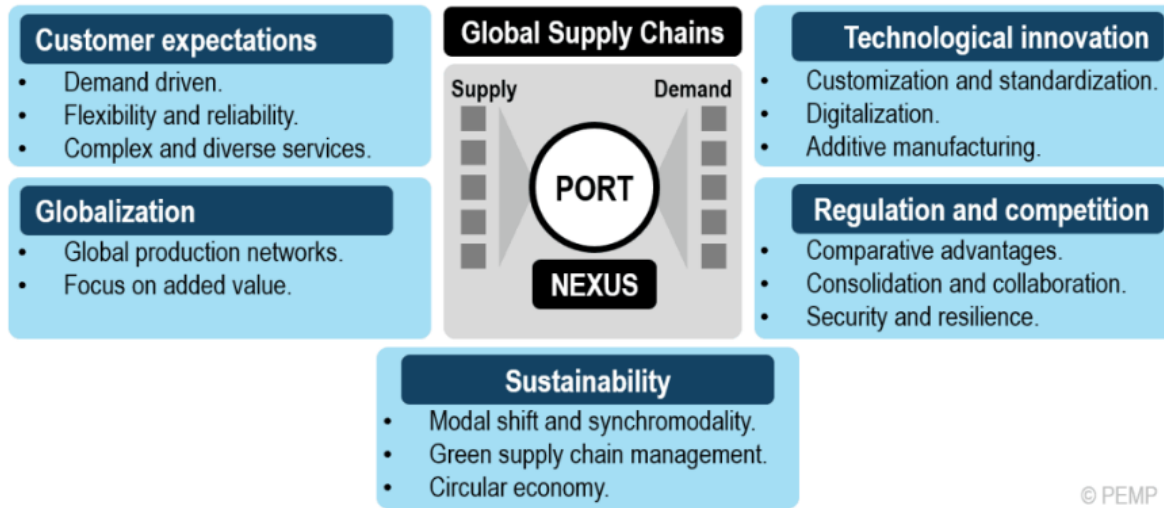
Another thing to consider in terms of long-term value creation in companies are the disruption that are threatening their business models such as from technological advancements and digitization, resource depletion, climate impacts or societal changes (IFAC, 2020). A company's long-term resilience and viability depends on the capacity of their business model to adapt to these changes. There are investments and development of strategic assets in the companies that should be considered beyond estimated financial returns to achieve long-term value such as talent, innovation, infrastructure, brand and intellectual assets (IFAC, 2020). All these are to be considered as well in port companies, especially port companies' post-merger.

#### b. Port Business Diversification as Expansion Strategy and Standardization of Operations in Ports

Port business are more diversified and integrated nowadays compared to in the development or evolution in the role of ports in the last decades. In the first half of the twentieth century, port are seen as 'gateway for a country's trade', with wider gate and smoother road meaning the greater 'trade-gain' for the country (Owen 1914 in Heaver, 2006). In the end of the twentieth century, ports were seen as a 'subset gateway' for regions, which has a great functional impact on that region even if the origin and destination are outside the gateway city (Bird, 1980). After containerization and the use of Post-Panamax vessels in the 1990s, the port's role became more complex ports since they become less labor intensive, having more private sector involvement, more automation, more concern on quality service and port management (Beresford et al., 2004). Then in the twenty first century, ports are seen as part of a 'value-chain', contributing value to the transport or logistic chain (Heaver et al., 2001, Mangan et al., 2008, Notteboom and Winkelmanns, 2001, Robinson, 2002). Especially container ports, it becomes a critical infrastructure and represent a nation's position in the political economy because it is at the intersection between globalization as international forces and labor-government policies as domestic forces (Hiney, 2014).

Today, ports are seen as nexus in the global supply chains, which means the central and most important point or place since they support the interaction between *global supply chains and regional production and consumption markets* (Notteboom et al., 2022). It is argued that a successful management of a supply chain is influenced by customer expectations, globalization, technological innovations, government regulation, competition, and sustainability concerns (Notteboom et al., 2022). Within technological innovation, customization and standardization is needed to provide shippers with operational excellence, which Notteboom et al. (2022) mentioned as a greater convergence between physical and data processes. The illustration of Ports as Nexus can be seen in Figure-2 as follows.

Figure-2 The Port as a Nexus in Global Supply Chains



Source: Notteboom et al. (2022)

In order to become a nexus (Notteboom et al., 2022) and gain more control over the supply chain in an end-to-end logistics (UNCTAD, 2022), ports take the inorganic growth strategy using M&As. Notteboom and Rodrigue (2012) assessed the corporate geography of leading global port companies such as Hutchison Port Holdings, Port of Singapore Authority, DP World, and APM Terminals, also operators that are more regionally focused, such as Ports America, Eurogate, SSA Marine, and ICTSI. In terms of geographic coverage, their behavior in gaining ownership, in whole or in part, shows their intention to gain access to regional freight distribution. Vertical and horizontal integration in the terminal and shipping industry, with support from financial investors to gain portfolio diversification, have contributed to the global expansion of port operators. Global terminals correspond to the underlying structure of global shipping networks and moreover, they comply with institutional and governance aspects in which they are regionally bound (Notteboom and Rodrigue, 2012). Based on the locations of terminal assets, DP World and APM Terminals have the most diversified portfolio of terminals in terms of geographical spread, hence, considered to be the most “global” of the global terminal operators (Notteboom and Rodrigue, 2012).

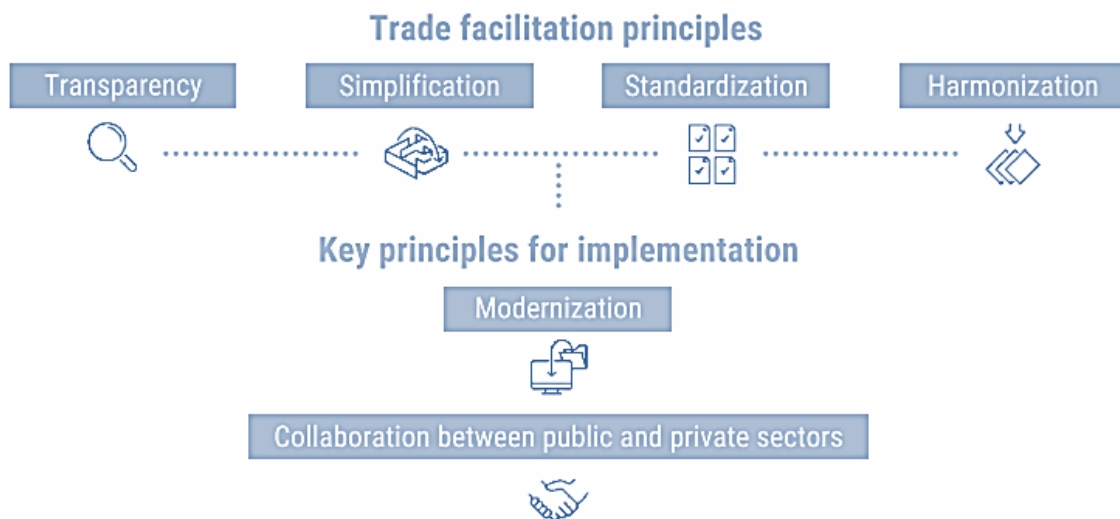
Notteboom and Rodrigue (2012) identified a common pattern in the global terminal operator’s process of acquisition. They begin by acquiring a stake in a local or regional operator, hence, integrating the terminals into the existing network which enables them to retain existing local expertise and customers while mitigating foreign control concerns (Notteboom and Rodrigue, 2012). Further impact of these transactions are terminal expansion projects and performance improvements to increase revenue. Another strategy is to have relationships between the terminal operation industry and global financial institutions to secure financing for capital investments. Both parties gain benefit since the port holding uses finance to leverage its capital investment opportunities, whereas financial institutions use the port holdings to leverage their rate of return as well as the book value of their assets (Notteboom and Rodrigue, 2012).

c. Standardization of Port Operations and Small-Peripheral Port Development

Ports that are acquired and become part of the global terminal operators certainly has the same standardized operations. As observed by Notteboom and Rodrigue (2012), corporate geography of container terminal operators leads to standardization of management practices among different port locations, which then creates multiplying effects to the functional and operational benefits brought by containerization. Inorganic growth through M&As brings replication of business model and terminal performance.

For ports which are not part of the global players, especially small-peripheral ports, standardized operations is one of the areas they struggle to improve. According to UNCTAD (2022), 'trade facilitation principles' are needed particularly in developing countries and low-income countries where ports have low handling capacities. Good trade facilitation operates on four fundamental principles: harmonization, standardization, simplification, and transparency, as shown in Figure-3 (UNCTAD, 2022). This situation is also proven after the COVID-19 pandemic when ports and intermodal transport systems were challenged by the surge in demand, various restrictions, and increased clearance times, causing delays and congestion. The pandemic highlighted the importance of electronic and digital solutions, including customs automation, greater trade transparency, also collaboration between public and private sector (UNCTAD, 2022).

Figure-3 Four Principles of Trade Facilitation

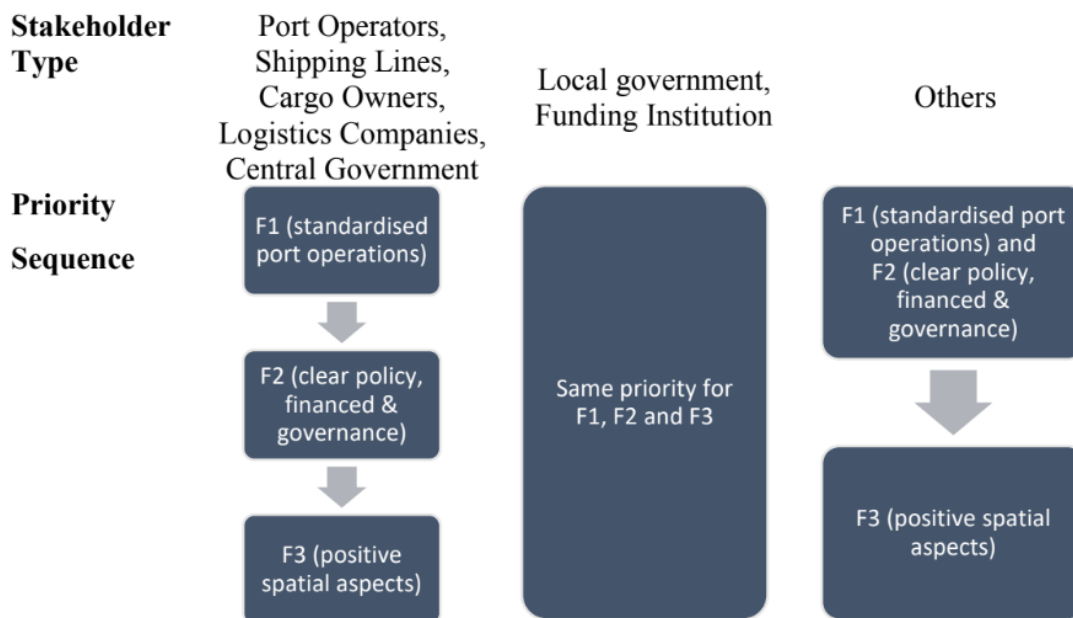


Source: UNCTAD (2022, p.120)

For peripheral ports that desire to become part of the global terminal, or take a bigger role as secondary hub ports, they need to consider that international port operators are unwilling to invest in peripheral locations, as their intended customers are large ships calling at hub ports with high volumes of cargo (Wiradanti et al., 2020). According to Wiradanti (2019), a potential peripheral port or a 'rising secondary hub', are ports that are able to attract shipping lines to make a direct service, able to make its surrounding feeder connections to 'shift' to them from

previous long term established dependent hub. Large cargo volumes needs to be generated and thus entice shipping lines to enter the region, either by empowerment of local government, local businesses or industries (Wiradanti et al., 2020). Through exhaustive questionnaire and investigation in the Indonesian maritime transport players, Wiradanti (2019) identified three critical factors for ports to become secondary hubs. These factors are: Standardized port operations, clear policy, finance and governance, and positive spatial aspects. The illustration of the three factors is shown in Figure-4 as follows. This study also show how standardization of port operations are critical.

Figure-4 Factors for Ports to Become Secondary Hubs and Prioritization from Different Stakeholders



Source: Wiradanti (2019, p.267)

Ongoing examples of peripheral ports development are conducted by the Japan International Cooperation Agency (JICA) at East Timor (Timor-Leste), *One Belt One Road* (OBOR) programme by the Chinese Government and development by the Asian Development Bank at Pacific Islands (Fiji and its surroundings). Here is information on each project.

1) Development of Port of Dili, East Timor, by Japan Internasional Cooperation Agency (JICA)

JICA is a Japanese institution who provides aid and assistance to countries around the world, so far reaching up to 150 countries (JICA, 2022a). JICA also offers technical assistance and collaboration by deploying Japanese experts and technologies in various development projects. Its operation scale reaches 175.1 Billion Yen, in which 22.6% is allocated to projects related to transportation, traffic, utility and public works (JICA, 2022a). The Port of Dili at East Timor, the country's only international port, had its existing ferry terminal relocated and expanded, which brought safer and more efficient marine transportation in Timor-Leste (JICA, 2022a). Furthermore, JICA and the Ports



Administration of Timor-Leste has signed an initiation document for the Project on Strategic Port Development Master Plan in Timor-Leste, a technical cooperation for development planning (JICA, 2022b).

The urgency of having national level Master Plan in Timor-Leste is because port development policy is needed and high priority ports needs to be identified (JICA, 2022b). Timor-Leste is dominated by mountain landscape, road network is under-developed, some existing ports are run down, and sea transport remains an important means of public transport. The project's long-term goal is to improve connectivity of the maritime network with neighbouring countries, efficiently and effectively with limited financial resources (JICA, 2022b)

- 2) *One Belt One Road* (OBOR) Programme by the Chinese Government  
The Chinese Government plans and executes the OBOR programme to establish economic cooperation with countries in the silk road trade, also to help increase economic growth of those countries by improving infrastructure, connectivity and increase trade and investments (Yu, 2016).

An increase in the volume of trade and cargo among the maritime silk road is reflected by the Maritime Silk Road Trade Index, OBOR Shipping Trade index and the Import and Export Trade Index, where there is seen a growth of China's trade since the OBOR initiative was put forward (Lin, 2021). Examples of ports involved in the One Belt One Road initiative are Chabahar Port in Iran, the Royal Port in Malaysia and the Piraeus Port in Greece which has great economic and political significance (Lin, 2021).

- 3) Development of Port Fiji Islands, at the Pacific by the Asian Development Bank (ADB)  
The ADB has supported the development of ports in Fiji, which are significant for the economy of the region (ADB, 2009). Two main ports in Fiji are Sufa and Lautoka, after development became the best in the region, comparable with ports in Australia and New Zealand. The development significantly enhanced productivity and capacity, hence, ships could enter and leave the ports faster, more organized, streamlined, also stronger to withstand earthquakes (ADB, 2009). After the wharves were upgraded, the government were able to invest in mobile cranes for loading and loading containers, which leads to even more productivity and made both ports four times more efficient (ADB, 2009).

#### **4. Methodology**

This paper takes a qualitative approach and case study approach, to understand how Pelindo post-merger expands its business through standardization of operations and makes efforts to gain value, both short term and long-term value. Data is collected and analyzed from company documents, annual report and press releases.

Prior to Pelindo merger, there were four companies namely PT Pelabuhan Indonesia I (Persero), PT Pelabuhan Indonesia II (Persero), PT Pelabuhan Indonesia III (Persero), and PT Pelabuhan Indonesia IV (Persero). They are non-listed state-owned enterprises whose shares are 100% owned by the Republic of Indonesia represented by the Ministry of State-Owned Enterprise (SOE) as their legal shareholders. On October 1, 2021, legally PT Pelabuhan Indonesia I (Persero), PT Pelabuhan Indonesia III (Persero), and PT Pelabuhan Indonesia IV (Persero) were merged into PT Pelabuhan Indonesia II (Persero) based on Republic of Indonesia's Government Regulation No. 101 of 2021, in which PT Pelabuhan Indonesia II (Persero) acts as the surviving entity. Afterward, by virtue of the Letter of the Minister of State-Owned Enterprises of the Republic of Indonesia No. S-756/ MBU/10/2021 dated October 1, 2021 regarding Approval of Change of Name, Change of Articles of Association and Logo of the Company, PT Pelabuhan Indonesia II (Persero) changed its name to PT Pelabuhan Indonesia (Persero) or abbreviated as Pelindo.

Pelindo merger is part of the government's strategic programs to improve trade connectivity that can contribute to lowering national logistics costs. The Ministry of SOE took the initiative to carry out the process of consolidating SOEs in Port Services, thus the arrangement is not based on region and able to provide maximum capacity in maritime connectivity and connectivity with related strategic areas throughout Indonesia. Thus, SOEs in port services can be more efficient in operations and investment, can create an optimal sea transportation network, and can provide excellent service supported by standard and adequate port infrastructure. The Implementation of the Pelindo Pre-Merger was executed over 7 (seven) months starting from the Kick-off in March 2021 until a legal merger became effective on October 1, 2021 and the President of the Republic of Indonesia officially launching the Pelindo Merger on October 14, 2021.

## **5. Findings**

### **a. Pelindo's Business Expansion Strategy Post-Merger with Standardization of Operations**

The motivation behind Pelindo merger, could be either top down as an initiative from the Ministry of State-Owned Enterprise, as well as bottom up as efforts from each separated Pelindo to gain more efficiency and consolidation of financial strength towards tougher competition. Moreover, because of this merger, Pelindo's financial strength is stronger than when it was separated, hence, it enables them to develop Indonesia's small-peripheral ports and generate more growth for the eastern part of Indonesia which is less developed compared to the west part (Java Island where the concentration of economic activity and population is located). This strategy could be seen as an 'inward expansion', where Pelindo enhances the country's potential peripheral ports or 'rising secondary hubs'. Standardization of operations are conducted and replicated in these particular ports. Similar to the standardization done by global terminal operators when they acquire and expand their business in regions across the world.

For more than a year post-merger, Pelindo has implemented various strategic initiatives, one of which are the standardization of operations. This initiative has actually increased port

productivity, such as performance increase in BSH (box/ship/hour) and decrease in port stay in units of days. Pelindo has also prepared a guidebook as a foundation for port operational standardization activities. This is Pelindo's strength which can be used as a basis for providing consulting services, assistance or assistance to small-peripheral ports that needs operational standardization and improvement.

Pelindo is expected to be able to apply the knowledge it has in operating standardization, for all its business lines, such as in handling container, handling non-container, marine-equipment-port services, as well as logistics and hinterland services. This knowledge could be transferred and carried out to small and peripheral ports, especially those which are rising secondary hub ports. Increased performance at secondary hub ports and with increased market/cargo volume is expected to also bring better connections with peripheral feeder ports. Pelindo with this expertise should be able to provide consultancy even with a relatively small income but will get benefits in the long term. As an example of performance improvement as a result of operational standardization that has been carried out at the Belawan Container Terminal, Makassar port and Makassar New Port, Ambon and Sorong.

Improvement in management, operational processes, digitalization, HSSE and labor in its secondary hubs and small-peripheral ports are unique in scale due to the size of the task. The task has been made more complex due to the requirement to keep investments to a minimum. Detail activities in the standardization initiative are as follows.

- Composing guidebook for standardization of services and its implementation, in container terminal handling, non-container terminal handling, and marine services.
- Profiling small feeder ports and secondary hub ports (sub-hubs).
- Sorting small-peripheral port lay-out, create zonation, traffic signs, etc.
- Establishing standard operating procedures in small-ports.
- Convey courses/trainings for port labour for port operation standardization, planning and control, etc.
- Implementing planning and control function in all aspects (planning, deployment, control, monitoring, reporting),
- Applying health safety, security and environment (HSSE) standards
- Establishing discipline culture, human resource development programmes on discipline and change management
- Establishing HSSE culture, human resource training programmes on HSSE and change management
- Provide consultancy for general issues in small-peripheral ports.
- Provide consultancy and become mediator for the development of Special Economic Zones to increase local cargo.
- Establishing MOUs to support small feeder ports collaborate with shipping lines or cargo owners.
- Conduct research on maritime economics and ports which contributes to raise cargo volume in small-peripheral ports, also to reduce logistic costs.
- Conduct collaboration research with universities in Indonesia and abroad which are experts in this field.
- Involving subholdings, subsidiaries and regional offices in efforts with minimum investments at small-peripheral ports.

#### b. Development of Sorong Port: Strengthening Potential Secondary Hubs

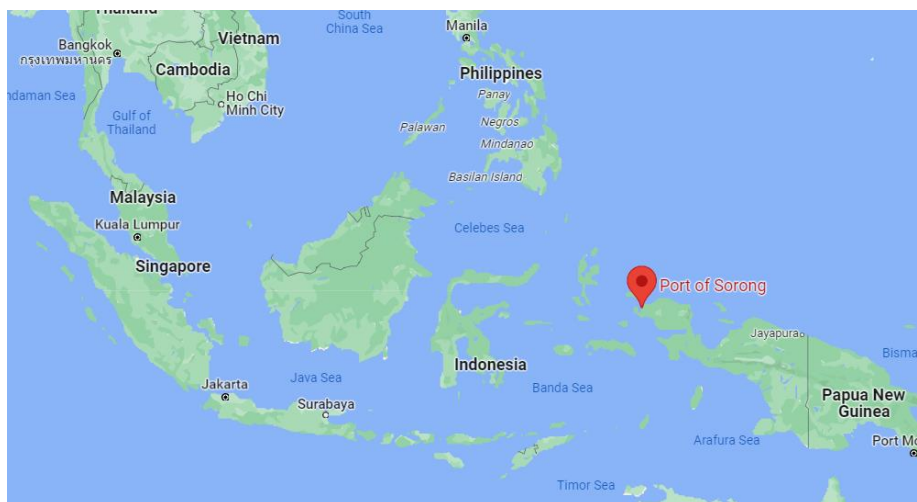
The phenomenon of cargo & trade imbalance between the western and eastern regions of Indonesia has resulted in an inefficiency of Indonesia's national logistics costs. This is due to two reasons. First, is that there is a mismatch in the use of inbound (consumer goods) and outbound (production) modes, resulting in low backhaul utilization. Second, is because of low backhaul utilization causes cost inefficiencies for service users and time inefficiencies for logistics service providers (if waiting for maximum capacity utilization). Thus, the consolidation of shipping routes in Eastern Indonesia with a hub & spoke pattern through Sorong Port is expected to be a solution to this issue. Sorong Port has the potential to be operated as a Sub-Hub in Eastern Indonesia based on the port's existing readiness.

The development of Sorong Port has actually been planned since 2014 (Wiradanti, 2019). However, due to limited company fundings and other development priorities, it has been postponed. Since Pelindo merger, the development of Sorong Port is back on priority for Pelindo and supported by the Indonesian government to enhance its infrastructure and capacity. Upgrades and expansions have been undertaken to accommodate larger vessels and increase the efficiency of cargo handling operations. These improvements aim to support economic growth, encourage investment, and strengthen transportation links in the region.

Sorong Port holds significant importance for various reasons:

##### ✓ Strategic Location

Sorong Port is strategically located in the western part of Papua, Indonesia. It serves as a crucial gateway to the Raja Ampat Islands, which are renowned for their natural beauty and rich marine biodiversity. The port's proximity to these popular tourist destinations makes it a vital hub for tourism activities. Figure-5 shows the location of Sorong Port.



Source: Google Map

##### ✓ Economic Impact

The port plays a crucial role in facilitating trade and commerce in the region. It serves as a key transportation hub for goods, supporting import and export activities. The port handles a

wide range of commodities, including agricultural products, timber, minerals, and marine products. The efficient operation of Sorong Port contributes to the economic development of not only Sorong but also the wider West Papua province.

✓ **Connectivity**

Sorong Port connects the remote region of West Papua to other parts of Indonesia and the world. It provides a vital transportation link for both domestic and international vessels, enabling the movement of goods, supplies, and people. The port's connectivity helps to integrate West Papua into the broader national and global trade networks.

✓ **Tourism and Hospitality**

Sorong Port serves as a gateway for visitors to explore the stunning natural beauty and unique marine ecosystems of the Raja Ampat Islands. It acts as a major embarkation and disembarkation point for tourists, providing access to dive sites, luxury resorts, and other tourist attractions. The growth of tourism in the region has a positive impact on the local economy, generating employment opportunities and boosting the hospitality industry.

✓ **Regional Development**

The development of Sorong Port is part of the Indonesian government's broader strategy to promote regional development and reduce disparities between different parts of the country. By enhancing the infrastructure and capacity of the port, it facilitates increased economic activity, attracts investment, and encourages the development of supporting industries and services in the region.

Pelindo has been actively involved in the development and modernization of ports in its jurisdiction to support economic growth, improve port efficiency, and enhance connectivity including Sorong Port. These include expanding the port's facilities, such as constructing additional berths, cargo handling terminals, warehouses, and other supporting infrastructure. The aim is to accommodate larger vessels, increase cargo throughput, and enhance the overall operational efficiency of the port. Moreover, Pelindo focuses on implementing advanced technology and digital solutions to optimize port operations, streamline logistics processes, and provide better services to port users and stakeholders.

Pelindo has taken four steps to achieve operational and commercial standardization at the Port of Sorong, namely developing organizational and human capabilities, planning and control-based operating business patterns, optimizing infrastructure and equipment including structuring port layouts, and building a culture of safety through increasing awareness of safety and standardization of safety protocols.

As a result, at the Sorong Container Terminal, the amount of loading and unloading has more than doubled from 10 boxes per ship per hour to 25 boxes per ship per hour. The loading and unloading speed reduced the docking time by a third, from 72 hours to only 24 hours. The shorter the ship's port stay in the container loading and unloading service, the greater the

number of ships that can be served at one time, thereby creating opportunities to increase revenue for Pelindo and contribute to optimizing goods logistics costs.

c. Pelindo's Alliances/ Collaboration with global terminal operators

Currently Pelindo has alliances or collaboration in the form of subsidiary companies with global terminal operators such as Hutchison Port Holdings, Port of Singapore Authority, DP World and more to come. Besides sharing revenue, Pelindo also gains benefits such as knowledge transfer and operational efficiency in its main hub ports. For the long-term, Pelindo also becomes part of their global network and market.

To gain trust and funding opportunities, Pelindo also works together with the Indonesia's Sovereign Wealth Fund (INA) to attract foreign investments for port development and port studies at Indonesia's main hub ports. These strategies complement the previous efforts in developing the small-peripheral feeder ports and sub-hub ports in a way that the whole nation's maritime transport is connected from the small ports to the large hubs. Hence, the movement of cargo goes smoothly and hopefully reduces logistic cost for the country.

d. Pelindo's Diversification of Port Business Segments with the Establishment of Subholdings

After the merger, Pelindo has a new corporate structure consisting of four main roles: Holding as Strategic Architect & Concession Owner, Regional Office as Regional Coordinator, Subholding as Business Owner, and Subsidiaries as Business Operator. Pelindo's Subholding, as Business Owner, has 3 (three) main tasks, namely determining port service policies according to its business lines that are aligned with Pelindo's strategic policies, carrying out the power and operational tasks of Pelindo, as well as being a revenue generator.

The objective of the merger of Pelindo is to improve connectivity and standardize port services, create integrated logistics services and build operational, commercial and financial excellence. There are currently 4 subholdings managing 62 subsidiaries in Pelindo Group. The objectives for each subholding are derived from the merger objectives of PT Pelabuhan Indonesia (Persero), namely as follows:

**Container Service Business Cluster**

A loading and unloading service for containerized goods from ships to delivery to the goods owners. *PT Pelindo Terminal Petikemas* is a subholding company of Pelindo that acts as the holding for a group of subsidiary companies that run the business of operating container terminal services. The objective of the Container Service Business Cluster is to encourage the realization of world-class operational and commercial performance, as well as expand the reach of ports at a global level. The scope of business includes Stevedoring, Haulage, Wharf Services, Receiving/Delivery, Stacking Services, and services that support activities at the port including quarantine inspections, customs inspections, and other service.

**Non-Container Service Business Cluster**

A loading and unloading service for non-container goods from ships to delivery to the goods owners. PT Pelindo Multi Terminal is a subholding company of Pelindo that acts as the holding of a group of subsidiary companies that run the business of operating non-container terminal services. The objective of the Non-Container Service Business Cluster is to increase market share through strategic partnerships and encourage operational & commercial excellence. The scope of business includes Liquid Bulk Terminal Services, Dry Bulk Terminal Services, Vehicle Terminal Services, Special Terminal Services, Multipurpose Terminal Services, and cooperation in terminal operational services for own interest.

#### **Logistics Services & Hinterland Business Cluster**

A support service related to logistics in port services. *PT Pelindo Solusi Logistik* is a subholding company of Pelindo that acts as the holding of a group of subsidiary companies that run the business of logistics support port services. The objective of the Logistics Services & Hinterland Business Cluster is to develop and integrate the port-hinterland value chain, as well as realize efficient trade flows. The scope of business includes Freight Services/Mean of Transportation, Expedition Services, Warehousing and Storage, Multimodal Transportation Services, Bonded Warehousing/Bonded Zone Services, Ship Agency Services and Marine Tourism Services.

#### **Marine and Equipment Services Business Cluster**

A ship operational services starting from entering to exiting the port. *PT Pelindo Jasa Maritim* is a subholding company of Pelindo that acts as the holding of a group of subsidiary companies that run the business of operating ship services, equipment services, and other port support services. The objective of the Marine and Equipment Services Business Cluster is to realize service excellence in the maritime value chain and commercialize services to increase value creation. The scope of business includes Ship Service (Tugboat Service, Pilot Service, Ship Transportation Services, Ship Management Services), Equipment Services, and Other Support Services (Dredging Services and Utilities & Energy Provision Services).

#### e. Future Challenges: Generating Growth of Cargo

By strengthening feeder and secondary hubs, improving hub-spoke connections, simultaneously alliances/collaboration with global terminal operators at Indonesia's main hubs, also simultaneously developing hinterland, generating cargo growth is possible. Besides having efficient small-peripheral ports, Indonesia and its small-peripheral ports could explore potential south-south trade to establish organic growth from feeder ports and its hinterland cargo. This should be the foundation for long-term growth. Pelindo's dream in becoming ecosystem player in Indonesia could be a model for other countries with small-peripheral ports to pursue. As explained by IFAC (2020), in order to create long-term value, companies should have their input of resources, capitals and relationships, which is then followed by a strong organization purpose, strategy and business model in an integrated way. The author believes that Pelindo has established this and it is on its way for

## 6. Implications

Findings of the research are summarized in Table-1. It shows the differences between Pelindo's strategy, and the strategy used by global terminal operators. These findings brings implications, such as challenges, strategy and lessons learned from Pelindo which could be useful to other small-peripheral ports globally.

Table-1 Differences Strategies Between Pelindo and Global Terminal Operators

<b>Findings</b>	<b>Pelindo</b>	<b>Global Terminal Operators</b>
Business expansion strategy	<ul style="list-style-type: none"> <li>Standardization of Operations for small-peripheral ports in Pelindo (Strengthening Feeder Ports)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Development of potential secondary hubs (e.g Sorong Port) and strengthening feeder-hub connections</li> <li>Alliances/collaboration with global terminal operators and Indonesia's Sovereign Wealth Fund (INA Investment) at Indonesia's main hub ports</li> </ul>	<ul style="list-style-type: none"> <li>Acquiring a stake in a local or regional operator which has been established in size</li> <li>Integrating the terminals into the existing network</li> <li>Have relationships with global financial institutions to secure financing for capital investments</li> </ul>
Geographical coverage	Small-peripheral ports and secondary hub ports	Established hub ports in the region
Diversification of port business segments	The establishment of subsidiaries enables Pelindo to cover diversified business segments ( <i>Container handling; Non-containerized cargo handling; Marine services, equipment and other port services; and Logistics and hinterland development</i> )	Gaining ownership, in whole or in part to gain access to regional freight distribution
Cargo Volume Growth	<ul style="list-style-type: none"> <li>Organic growth from feeder ports and its hinterland cargo, explore potential south-south trade (long-term growth)</li> <li>Alliances for immediate growth with global terminal operators to be part of their network</li> </ul>	Inorganic, terminal expansion projects and performance improvements to increase revenue as immediate growth (short-term growth)

Source: Authors

## 7. Conclusions

This paper investigates the ongoing efforts by Pelindo, a port company post-merger in Indonesia which provides port operating services, to create a long-term value and promote change in the context of the existing literature on peripheral ports. Findings show how Pelindo differs from Global Terminal Operators in terms of business expansion strategy, geographical coverage, diversification of port business segments and all-together eventually generates cargo volume growth. Results show the challenges and lessons learned, which could be useful to



other small-peripheral ports globally or other developing countries. The next big question is how long does it take to gain long-term value? More research is needed to quantify long-term value gained from standardization of operations. Future research opportunities could also be conducted by using simulations to quantify long-term value and growth that Pelindo could be created from small-peripheral ports and hub-spoke connections in maritime transport.

#### **Author contributions:**

All authors contribute to the research paper.

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