GLOBALISATION IN LINER SHIPPING: IMPLICATIONS ON INDONESIAN CONTAINER PORT DEVELOPMENT STRATEGY *

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1. Introduction

Over the past two decades the container shipping market has become 'globalized'. Severe competition has forced owners to implement innovative, productivity-enhancing and cost- cutting strategies. Successively larger vessels have been employed on mainline trades. New service patterns have evolved, including 'Round-the-World' and 'Pendulum' and services. In their search for cost reduction and faster transit times, lines have reduced the number of port calls, leading to the growth of 'hubs' or 'load centres' and the evolution of feeder networks. Very large ('mega') carriers' are emerging and lines are entering into various types of strategic alliance.

Globalization in liner shipping has already had a significant impact on Indonesia container port development strategy. As the biggest archipelago country in the world with over 17,000 islands, the existence of sea transportation in Indonesia play important role as the engine of growth, trade and development. With the continuing growth in trade through Indonesia's ports, the increasing rate of containerisation, and anticipating globalization in liner shipping, there is a broad range of initiatives of port development strategy. This paper explores the effect of globalization in liner shipping over Indonesian container port. The paper consists of four sections. First, we discuss about globalization in liner shipping which indicated by increasing vessel size and alliances; second, we examine Indonesian container traffic and trade direction; third, we examine Indonesian container port network; and finally we discuss about port development strategy.

2. Globalisation in Liner Shipping

The intense competition in liner shipping trades forced shipping companies to adopt innovative, productivity-enhancing and cost cutting strategies. These includes: employing larger vessels, developing new services patterns, reducing number of port calls, performing strategic alliances and developing a network of feeder services linking hub and regional ports. Due to page limitation, this section will only discuss the globalization in liner shipping in terms of increasing vessel size and alliances.

(1) Increasing vessel size

Since 1995, the container shipping industry has entered a new phase where the emphasis has once again shifted technological advancement and the associated importance of reaping economics of scale in ship size[1]. Currently 4,000-6,000 TEU vessels already dominated main trade route as shown in Figure 1. The most significant point is that all of these new large vessels will be deployed to and from Asia: either on the transpacific, or on services between Northern Europe and Asia. This will place enormous demands on Asia ports. A size breakdown of the TEU capacity of the world's containership fleet is illustrated in Figure 2. In 1992, only 5.9% of container slots were in ships of over 3500 TEU, as of April 2002, 32.8% of existing slot capacity now rests in ships of over 3500 TEU. In consequence, not only has there been a significant shift towards larger ships in the past years, it is inevitable that it will continue into the future.

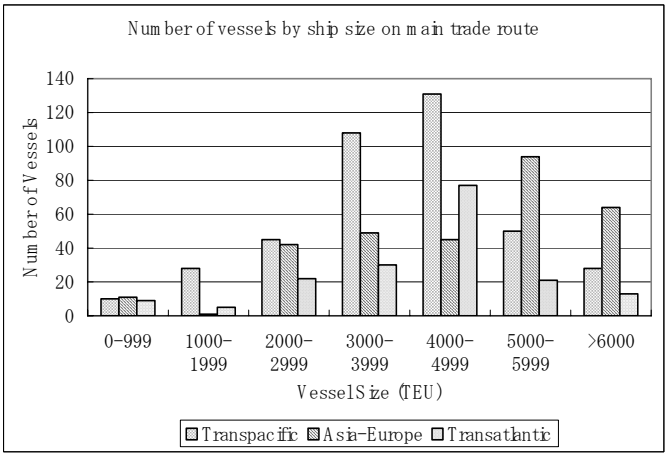

Figure 1: Number of vessel by ship size on main trade route 2002
Source: Compiled from Intl. Trans. Handbook 2003, Ocean Commerce[2]

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The implication of such increase in ship size will be an even greater focus on the hub and spoke system, in which the biggest ships will call at only a limited number of very efficient ports on the main routes, with other ports being linked by extended feeder networks. Through this approach, carriers will maximize the utilization of vessel capacity and reduce/port transit time.

As part of their response to the new challenges, shipping lines have also made greater demands on port facilities, in terms of both capacity and performance. The most obvious and frequently cited impact of the increase in vessel size is the need for greater channel depth. This is certainly a real issue. Ports and terminals that wished to be candidates for calls by large vessels have needed to acquire cranes that are taller with a longer outreach and of course more expensive.

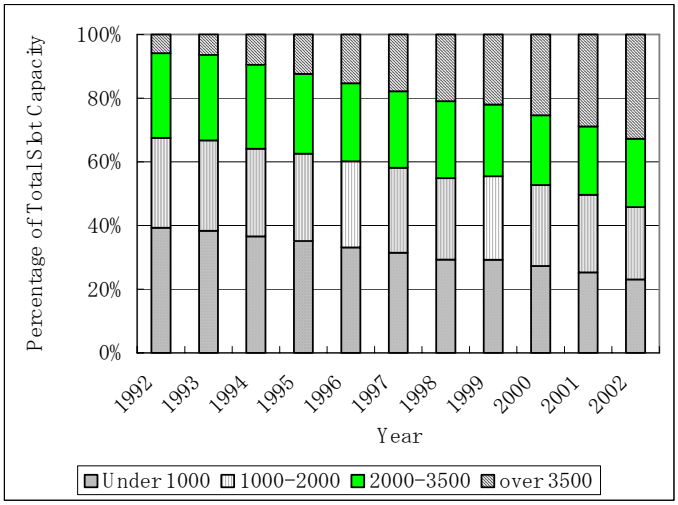

Figure 2: World container slot capacity by ship size 1992-2002
Source: Compiled from Cont. Intl. Yearbook, various years [3)]

(2) Alliances

Like many others industries, the global container shipping industry has been undergoing a period of restructuring and consolidation, reflected in both merger and acquisition activity and in the formation of global strategic alliances. The current alliances began on August of 1995 which four alliances had been announced (Brooks, 2000)[4)], (1) The Global alliance, comprised APL, MOL, OOCL and Nedlloyd, (2) The Grand alliance made up of Hapag-Llyod, Neptune Orient Line (NOL), Nippon Yusen Kaisha (NYK), and P&O, (3) Maersk and Sea-Land, and (4) The alliance of Hanjin, DSR-Senator and Cho Yang line. The pattern of mergers and alliances changed dramatically as shown in Table 1.

The market power represented by the alliances suggest that the new alliances will have exceptional ability to rationalize existing shipping services and links, and to integrate mainline and feeder networks as well as to extend the scale of feeder networks.

Table 1: Evolution of the major liner shipping alliances

Alliance	1995 members	1997 (December)	2001 (October)
Global alliance (New World Alliance)	APL MOL OOCL Nedlloyd	APL (NOL) Hyundai MOL	APL (NOL) Hyundai MOL
Grand Alliance	Hapag-Llyod NOL NYK P&O	Hapag Llyod MISC NYK P&O Nedllyod	Hapag Llyod MISC NYK P&O Nedllyod OOCL
Maersk/Sea-land	Maersk Sealand	Maersk Sea-Land	
Tricon/Hanjin (United Alliance)	Cho Yang DSR-Senator Hanjin	Cho Yang DSR-Senator Hanjin	
Cosco/K-Line/ Yang Ming		Cosco K-Line Yang Ming	CKYH Alliance: Hanjin/DSR Senator UASC K-Line Yang Ming COSCO

Source: Brooks (2000) [4)] *and Junior (2003)* [5)]

3. Indonesian Container Traffic and Trade Direction

According to the Ministry of Transport, approximately 90% of Indonesia's external trade is transported via sea. The growth in Container handled in main Indonesia ports is shown in Figure 3. Container handled in all Indonesian main ports increased five times from 923,663 in 1990 to 4,539,884 in 2002 with average annual growth of 14.7%. The figure also indicates that Tanjung Priok port plays dominant role in foreign trade and roughly half of that trade is through this port. Even in 2002, container throughput at Tanjung Priok port was 2,680,000 TEU, which has potentialities to call trunk line route. In the future this port can be developed as the hub port for the region.

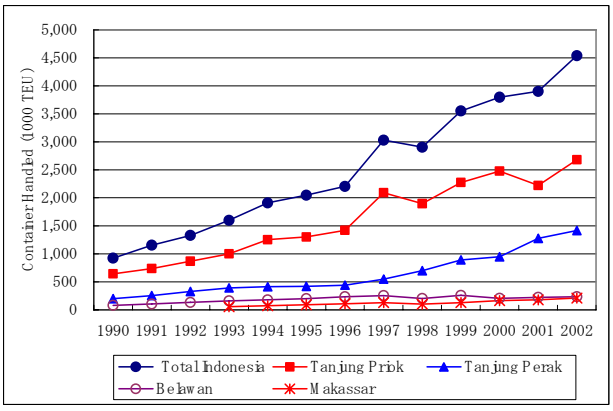

Figure 3: Container handled in main Indonesia Port, 1990-2002
Source: Compiled from Containerisation International Yearbook, various years

Related to foreign trade direction, the most important area for Indonesia in 2002 was Asia with share of 82.9 percent for export and 63.4 percent for import as shown in Figure 4 & 5. Europe area is also key area with share of 8.6 percent and 7.6 percent for export and import. Share of North America is 3.9 percent for export and 10.4 percent for import. This trade direction shows the intra-Asia trade dominates Indonesia foreign trade, and this condition determines liner shipping services which call Indonesian ports.

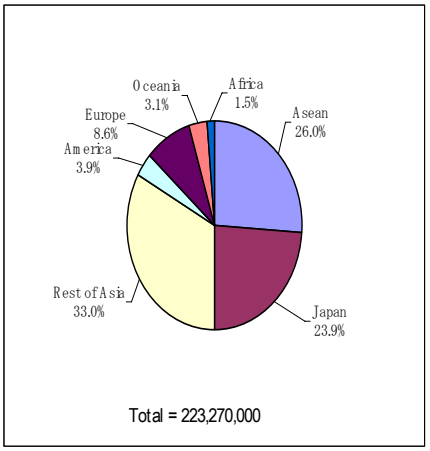

Figure 4: Share of Indonesian trade export, 2002
Source: Central Bureau of Statistics (BPS), Statistics Indonesia, 2003

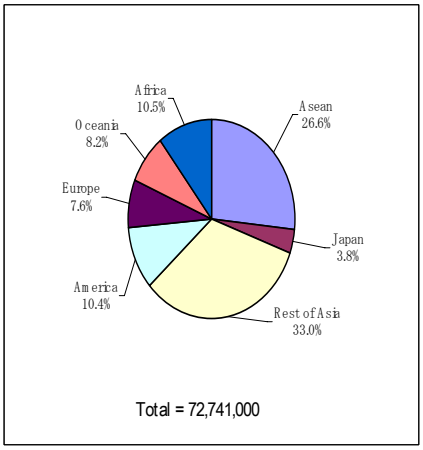

Figure 5: Share of Indonesian trade import, 2002
Source: Central Bureau of Statistics (BPS), Statistics Indonesia, 2003

4. Container port network

Figure 6 shows container port network in Indonesia in 2002. There are four main ports that usually used to export and import cargo, namely, Tanjung priok, Tanjung Perak, Belawan, and Mekasar port. Tanjung priok port is the largest port in the western part of Java where the demand for cargoes is the biggest in Indonesia. However, the capacity of port is restricted physically. For example the capacity of terminal is estimated to 3,000,000 TEU/year. Most Indonesian exports and imports moving by sea are shipped via the port of Singapore especially cargo from North Sumatera. As noted previously most of seaborne trade from/to Indonesia is form/to Asian countries, Intra-Asia services still dominate and play important role in structuring the liner shipping network. Figure 6 also indicates some liner shipping of Asia-Europe services (i.e. MISC, Hapag, and P&O Nedloyd) use Tanjung Priok port as direct call. But Transpacific services still use Singapore port as hub port and distribute by feeder services to Indonesian port.

The lack of transshipment port seems to be serious problem of Indonesian port. Therefore, development of an effective transshipment port understandably represents an important priority for the government's maritime policy.

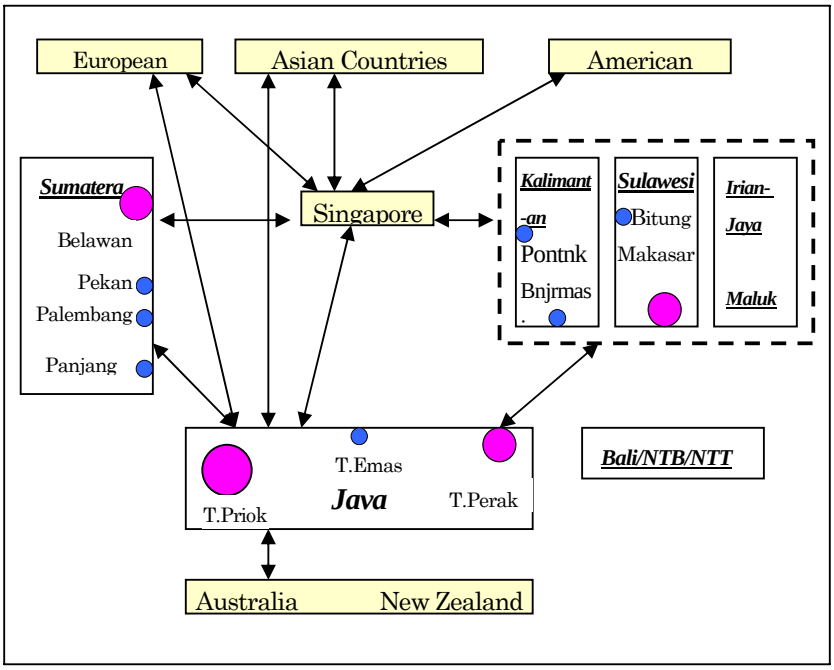

Figure 6: Container port network in Indonesia, 2002
Source: Compiled from International Transportation Handbook, Ocean Commerce, 2003

5. Port development strategy

(1) Developing the hub port

More than 80% of international cargo of Indonesia is transported through Singapore feeder service and transshipment cost in Singapore bring about the high cost of this transportation. In order to minimize transportation cost, a more efficient and effective container cargo transport system should be established in Indonesia, including direct call by intra-Asia long distance container service and international trunk line container services.

The port complex of Tanjung Priok/Bojonegara has the potential of becoming an international container "hub port," that would attract

direct calls of transoceanic liner shipping services. Such a development, together with further development of the Surabaya port of Tanjung Perak, could result in a significant reduction in Indonesia's shipping costs for exports and imports. A March 1999 study financed by the Japanese International Cooperation Agency (JICA)[7] estimates that realization of the potentials of Tanjung Priok/Bojonegara and accompanying development of Tanjung Perak could lower feeder shipping costs for Indonesia by nearly 40 percent, in comparison with continued reliance on Singapore for all transoceanic shipping service connections. This same development scenario is estimated to lower total shipping costs for trade between Indonesia and the west coast of the Americas by around 14 percent.

(2) Increasing Private Sector Participation

Earlier it was noted that the growth of container cargo is 14.7% annually and it will continue over the next decade, there is an urgent need to modernise the port system. As the government is no longer willing to provide budgetary funds for the development of Indonesia Port Corporation (IPC) ports, the only real option is to expand the role of the private sector in the ports system. Increasing private sector participation is necessary not only as a means to fund this modernisation program, but also as a means to introduce worlds best practice, technology and know-how. Moreover, if designed and implemented carefully, increasing private sector participation should result in the injection of much needed competition into the port sector, leading to better port services at lower prices.

Indonesian law prohibits the outright sale of ports to the private sector, but allows for the privatisation of operations and activities within ports, such as container terminals. In this regard a number of options are available ranging from management contracts (with little or no private sector investment) to leasing of existing infrastructure, joint operation, joint venture and BOT arrangements. Indonesia's first experiences with port privatization were initiated during and influenced by the economic crisis of 1997-1998. It was the privatization of terminals I and II of the main container facility in Tanjung Priok port, a new subsidiary Jakarta International Container Terminal (JICT) was established under IPC II in 1998. JICT was awarded a concession to manage and operate the Jakarta Container Terminal for a period of 20 years. Potential strategic investors for 51 percent ownership of JICT were solicited through a competitive bidding process. The successful bidders was Grosbeak (a subsidiary of Hutchison Port Holdings or HPH). Following the purchase of the 51 percent stake of JICT in April 1999, HPH subsequently secured a 48 percent stake in the adjacent Koja Terminal in September 2000[8)-9)].

Similar to the experience in Tanjung Priok, a new subsidiary company PT Terminal Petikemas Surabaya (PT. TPS) was established in April 1998 as a limited liability company by IPC-III to facilitate privatization of UTPK. All existing equipment and employees of UTPK were transferred to PT. TPS, while TPS paid lease payments for fixed assets. In May 1998, IPC-III commenced the privatization program for TPS. In April 1999 P& O Australia Ports Pty, Ltd was confirmed as the winning bidder with 49 percent ownership of TPS.

6. Conclusion

Globalization in liner shipping which indicated by increasing vessel size and performing alliances has already had a significant impact on Indonesia container port development strategy. As the biggest archipelago country in the world with over 17,000 islands, the existence of sea transportation in Indonesia play important role as the engine of growth, trade and development. With the continuing growth in trade through Indonesia's ports, the increasing rate of containerisation of that trade, and anticipating globalization in liner shipping, there is a broad range of initiatives of port development. Development of container hub port by strengthening the existing port and constructing the new port, and increasing private sector participation are the key factors for development of Indonesia container port.

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