

# High Cost of Logistics and Solutions

F.Ari Barata

*University of 17 Agustus 1945, Surabaya, Indonesia*

**ABSTRACT:** The logistic efficiency system and excellent performance is a critical factor from sustainable economic development because there is a positive influence between the Logistics Performance Index (LPI) and PDB. The purpose of this paper is to know and see the cause of high logistics cost in Indonesia and how to overcome the high logistics cost. The study used qualitative research done by library research method, The results found that the logistic cost is expensive due to many factors: 1) Unsupported infrastructure, 2) The logistics system is not good; 3) the number of supply product is distributed evenly; 4) Unsupported and overlapping regulations; 5) Inadequate human resources; and 6) Innovation technology is not comprehensive yet. The concrete action that can be done by the government to overcome the high logistics cost is infrastructure improvement to build the commodity based on logistics, regulation improvement, and provide the facility of Economic Packet Policy (PKE).

*Keywords:* Logistics, logistics cost, logistics national problem.

## 1 INTRODUCTION

Globalization is a reality that cannot be avoided by all people. Nowadays, the change wave has begun and will continue to happen as the world is changing. The technology advancement eases human life, and the era is known with disruption era (Dedi 2011). The concept of disruption is an aggressive response on a condition where “old market” changes with the industry and technology, produce an effective spread innovation. The disruption has a deductive and creative characteristic (Fausta et al. 2018).

The disruption era is shaking all parties, including retail business and online transportation, a shopping center that is experiencing a decrease because of online purchases; also, conventional taxi companies were protesting due to the raising of taxi application (Gattorna & Walters 1996). The media industries, especially print media, collide with conventional media with increasing online media (Fausta et al. 2018). The online media decreases the revenue of conventional media. The revolution industry 4.0 triggers the disruption era in many fields, which leads to opportunities and challenges, including the logistics industry (Kasali 2015). The logistics experts say that *Indonesia Supply Chain* must change

the business model to survive in the disruption era. All industries, such as logistics, transportation, and supply chain in Indonesia, need to face the revolution industry 4.0 (Marihot 2017).

On a small scale, the complexity of the logistics system is limited on how to create a balance between supply and demand (Posma 2019).

While in a bigger scale, there is a complex system that binds many factors of the ineffective national logistics system. According to Gattorna & Walters (1996) on their book “*Managing Supply Chain: A Strategic Perspective*”, “Logistics is all strategic management aspects to response acquisition, actuating, and save raw material, semi-finished material, stock finish material, and information in an organization in order to reac profit income.

Furthermore, the logistics cost in Indonesia is high compared with other countries in ASEAN. The Indonesia logistics cost reached 27% of total PDB Indonesia. Furthermore, the Insttue for Economic Study, Research, and Development (LP3EI) Kadin shows a higher achievement of Rp. 1.820 Triliun, including saving cost, is Rp. 546 trillion, the transportation cost is Rp. 1.092 trillion, and administration cost is Rp. 182 trillion.

**Table 1. PDB**

Countries	% Logistic cost on PDB	% Logistic cost on sales cost
America	9,9%	9,4%
Japan	10,6%	5,9%
South Korea	16,3%	12,5%
Indonesia	27%*)	

\*)ITB research center of logistics and supply chain

The efficiency of the logistics system and good performance are key factors of suitable economic development (Zaroni 2017). The research of Posma (2019) analyzed the relationship between logistics performance with PDB in 28 European Union countries. The study used two indicators of *the Logistics Performance Index (LPI)* in 2007-2014 and PDB data per capita in those years. The results of an analysis with the econometric model showed that there is a strong relationship between LPI and PDB per capita in European countries. The country with low PDB per capita tends to have low logistic performance and need improvement on the logistic performance aspect in LPI.

Based on the problem explained above, there are many questions, such as why does logistics cost in Indonesia still higher and what are actions used to lower logistics costs? The purpose of this paper is to know and see the cause of high logistics costs in Indonesia and the action of lowering logistics costs.

## 2 RESEARCH METHODS

The study used qualitative research, done with library research method, through searching secondary information from books, journals, and websites.

## 3 RESULTS AND DISCUSSIONS

The stable country economic is related to efficiency and efficient from logistics and nowadays, all industry activities are related to a logistics activity. Every product needs logistics activities, starting from supplier to end-users. While the high logistics cost in Indonesia influence import and export activities and the high logistics cost makes Indonesia cannot face dimensional change and fast movement if the government does not provide any support.

The obvious cause is long supply chain logistics that makes logistic inefficient and ineffective. The action must be taken to shorten the supply chain in order to reduce logistics costs. It can be imagined that the logistics cost in Indonesia, especially at the harbor, reaches 17% of the total operational cost. This

cost is higher compared to other countries in South East Asia, such as Malaysia needs 8%, Philippine 7%, and Singapore 6% of the total operational cost. Compared with other, loading and unloading process on Tanjung Priok harbor needs 4-9 days, while the USA only needs 1,2 days, the Netherlands 1,1 days, and Singapore 1,0 days.<sup>6</sup> The figure above shows that Indonesia must decrease logistics cost and need modern breakthroughs with the integrated logistics system, so it can lower cost, ensure on-time, increase transaction speed, and care for product and service quality. All must be integrated by involving all interested parties with these conditions.

In logistics activities, there are current movements of things, like information and finance. Every activity needs infrastructure and facilities, like harbor, highways, warehouse, railway, transportation tools, and material handling equipment. Another logistic activity involves labor, like a driver, operator, supervisor, and manager.

Generally, the logistics cost is grouped into three classifications namely 1) Transportation cost for transportation mode; 2) Storage cost for warehousing activities; and 3) Administration cost that consists of application cost and integrated system information and communication (ICT), logistics management system and the lack of stock. All components, Indonesia is still numbered 26.4% presented from 2013. From those logistic costs, the component cost of transportation contributes 12.04 % from PDB; administration cost contributes 4.52 % from PDB, and storage cost contributes 9.47 % from PDB. The transportation cost is dominated by land transportation (72.21 %); train transportation (only 0.51 %) gives the lowest contribution, and the stock cost is dominated by storage/holding cost (49.37 %).

The problem of expensive logistics cost expensive like a figure of number is caused by many factors: 1) Unsupported infrastructures, 2) Logistics system is not good because of lack of human resources; 3) the number of stock product unevenly distributed yet because there is no logistics commodity thus different logistic cost occurs; and 4) Unsupported and inadequate regulations. The two-way system is always happening, the ship brings back the charge from those who are in other that more efficient (Reiy 2018). Additionally, unsupported infrastructure and human resources makes dwelling time is longer. Yet, there is technology innovation to ease all the problems and complicated regulations.

The terminology of the Logistics Performance Index (LPI) is a guide to see a logistic performance in a country presented with an index. LPI measures efficiency on-the-ground supply chain commerce or logistic performance. LPI is an index logistic per-

formance from 160 countries with realized by World Bank every two years. LPI consists of 6 components namely customs and excises, infrastructure, international shipments, logistics quality and competence, tracking and tracing, and timelines.<sup>10</sup>

The logistics ranking of Indonesia increasing, from 63<sup>rd</sup> position in 2016 to 46th in 2018

Table 2. The logistics ranking of Indonesia

Cou ntry	Y ea r	L PI R an k	L PI Sc or e	Cus tom s	Infras tructu re	Intern ation al Ship ments	Logi stics comp etenc e	Tra cki ng & tra cing	Tim eline ss
Indo nesi a	2 0 1 8	46	3. 15	2.6 7	2.89	3.23	3.20	3.3 0	3.67

Source: LPI Global Rankings 2018

From many LP components, the customs aspect has the lowest value, lower than in 2016, meaning the process of customs Indonesia logistic is better. The highest reached by *timelines* component. The improving of ranking is supported by the increasing component international value of *shipments* and infrastructure significantly. The increasing value component of LPI has a positive impact that resulted from infrastructure development and transportation. Thus, the concrete action done by the government to lower the high cost is: 1) Infrastructure improvement, Indonesia has developed infrastructure with a high cost for land and air logistics activities. While sea and train infrastructures are very minimal compared with both infrastructures. There are many cases, the access to train and harbor is closed. Indonesia geographic has a maritime characteristic, where the government more focuses on the development of maritime-based logistic. Because the low logistic cost is water transportation, train transportation, land transportation, and the expensive cost is air transportation. If the harbor infrastructure and railway are developed, the gap in the cost will be reduced. When the connectivity among transportation modes can be increased, problem-related scarcity, high cost, and import can be resolved, 2). Build a commodity-based logistic like the one that the Netherlands and Thailand have. There, they have a logistic center for vegetables and fruits that stand on 30 until 300 hectares of land. In this area, there are several fruit and vegetable factories for the packing process that are integrated with a sound distribution system. In Thailand, the area has infrastructure patterns starting from since plantation until export.

One thing that makes high logistics cost in Indonesia is the infrastructures are not integrated; 3)

Regulation improvement, practically regulation in Indonesia, is very overlapping, including implementation of the regulation. Thus, it needs an integrated platform and government paradigm in the center and province to involve all the logistics sector. The logistics actors certainly need the long term because the invitation in this sector can be changed every five years. The government also needs a moratorium to all tariff relationships with logistics. One implementation made by the government is by giving Economic Packet Policy or *Kebijakan Ekonomi* (PKE) for the logistics industry. Interest priority on the 1945 Constitution of the Republic of Indonesia; Achieve vision of Indonesia economic 2025; push Indonesia to be a maritime country; Push breakthrough and acceleration falling behind in global competition; increase the role of provincial government and Synergy center- region; Encourage Fair Competition; Push world participation in the business world and opportunity to business. 4) Increase human resources in logistic terms. An example, nowadays there are many experts engaged in the logistic, but not focus on asset ownership or warehouse. It is a figure of resources in logistics are very determined in other that all products created and can be reached by consumers with economist cost and affordable. One action to create human resources, especially in the logistics part, is to build a logistics commodity itself so that the expertise can be a focus on management bossiness. The opportunities are as a basis of development of the logistics business in Indonesia. 5) The technology advancement made the logistics system more efficient. The governments can commit to supporting the development of the national logistics industry; give facility to business actors through an integrated online system and deregulation role to ease business and improvement service system and harbor performance. The other action by encouraging modern innovation because global economic development pushes business innovation like the company by providing service production support, like logistics expertise. The company provided logistics service related to need and asset owners for logistic operation, but raising innovation business, assume that more increase and move to the logistic business model, namely 4th-party logistics (4PL). The 4PL is a provider of logistic service integration — the function of providing supply chain stock members based on mobilization coordination and resource logistic from other companies. According to Gattorna & Walters (1996), Fausta (2018) that this model is defined as "*Supply Chain Integrator*" which handles and manages resources, ability, and technology their organization with a complete service facility.

## 4 CONCLUSION

Based on the explanation above, it can be concluded that the expensive logistics cost are caused by many factors: 1) Unsupported infrastructures, 2) Logistics system is bad because of lack of human resources, 3) The number of stock product unevenly distributed yet because there is no logistics commodity thus different logistic cost occurs.

## REFERENCES

- Dedi, M. 2011. Pengembangan sistem logistik yang efisien dan efektif dengan pendekatan *Journal of supplychain management* V(3): 275-282
- Fausta, A.B. Ujianto, H. Susanti, N. 2018. The Trust Forming Process in Business Relationship Model between National and International Companies: Historical Constructionist Studies in FAB Enterprises Company, Indonesia. *The International Journal Of Business & Management* 6(10).
- Gattorna, J.L. & Walters, D.W. 1996. *Managing The Supply Chain: A Strategic Perspective*. London: Macmillan Press
- Kasali, R. 2015. *Disruption*. Jakarta: Gramedia Pustaka Utama
- Marihot N. 2017. Kinerja Logistik Indonesia Hingga Kini. *Buletin APBN* 21(II).
- Posma, S.J.K. 2019. Analisis Tingginya Biaya Logistik Di Indonesia Ditinjau Dari Dwelling Time. *Economic Resources* 1(2).
- Reiy S. 2018. Tingginya Biaya Logistik Dan Solusi Untuk Menekan Biaya Logistik di Indonesia. Jakarta: Asosiasi Logistik.
- Zaroni. 2017. *Panduan Eksekusi Strategi Logistics & Supply Chain Konsep Dasar Logistik Kontemporer-Praktik Terbaik*. Jakarta: Prasetya Mulya Publishing.