

HIGH COST OF LOGISTICS AND SOLUTIONS

Fausta Ari Barata¹

University of 17 August 1945 Surabaya, Indonesia.

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ABSTRACT

The efficiency logistic system and good performance is a key factor from economic sustainable development because there is a positive influence between the Logistics Performance Index (LPI) and PDB. The countries with low PDB per capita are disposed of low logistic performance and need improvement on establishment logistic performance in LPI. The purpose of this paper is to know and see the cause of high logistics cost in Indonesia, how is the action of overcoming soften logistic cost. The study is used to qualitative research done by library research method, through searching seconder information that can access via books; journal and website investigate via the internet. The result found that the logistic cost is expensive caused by many factors: 1) the infrastructure is not supported, 2) The logistic system is not well caused by human resources; 3) the number of supply things is distributed evenly because there is no logistic commodity; 4) The regulation is not supported and overlapping; 5) The human resources are inadequate; 6) Innovation technology is comprehension yet. The concrete action can be done by government to press logistic cost above is infrastructure improvement, especially anchorage and railway, than build the commodity based on logistic, regulation improvement to support logistic activities and give facility Paket Kebijakan Ekonomi (PKE) or policy economy package in logistic aspect, than increasing human resources in logistic aspect and build technology innovation to make logistic system more efficient.

Keywords: Logistic, Logistic Cost, Logistic National Problem.

INTRODUCTION

Globalization is a fact from a change wave that cannot be dammed by all people. Nowadays the change wave has begun and will continue to happen, and the world is changing. The technology sophistication is more ease human life and the era is known with disruption era. The concept of disruption is a competitive response on a condition where “old market” changes with the industry and technology, produce an effective spread innovation. It has a deductive and creative characteristic (Kasali, 2015).

The disruption era is shaking all parts, include economic like a retail business and online transportation, make a shopping center decrease because increasing online purchase, also conventional taxi companies must protest with raising application taxi. The media industries especially print media come into old media with increasing online media. The salary has a sharp decline while online media is given replacement income yet. The revolution industry 4.0is puss

¹Correspondence to: Dr. Capt. Fausta Ari Barata, MM., University of 17 August 1945 Surabaya, Indonesia, E-mail: fausta.untagsby@fab-enterprises.com, fausta@untag-sby.ac.id

Barata

disruption era in many parts, and it is giving challenging and opportunities, includes logistic industry. *Indonesia Supply Chain* is said the logistic expertise must change the model of business to survival in the disruption era. Even the industry logistic, transportation, and supply chain in Indonesia demand to face of revolution industry era 4.0 so it can solve the effect of technology disruption.

On a small scale, complexity logistic system is limit on how to create a balance between *supply* thinks and *demand*. While a big scale, there is a complexity system complicated binding many factors of the national logistics system is not effective. While, the meaning of logistic when related with world industry with big scale, Gattorna and Walters on their book said "*Managing Supply Chain: A Strategic Perspective*", "Logistic is all aspect strategic management to response acquisition, actuating, and save raw material, semi-finished material, stock finish material, and information in an organization and all marketing to fulfill customer expectation so can reach expertise profit income (Mulyadi, 2011).

The base of the primary purpose logistic is fulfilling thinks suitable with need and accurate place, time accurate and suitable with a condition, so give an advantage to expertise. But the problem is the high logistics cost in Indonesia. The logistics cost in Indonesia is high compared with developed countries in ASEAN. The Indonesia logistic cost reached 27% of total PDB Indonesia (Schreiben, 2018). Another, research institute and economy development or *Lembaga Pengkajian Penelitian dan Pengembangan Ekonomi* (LP3EI) Kadin, it number is higher achieve Rp 1.820 Triliun include saving cost is Rp 546 Triliun, transportation cost is Rp 1.092 Triliun, and administration cost is Rp 182 Triliun (Diakases tanggal, 2019).

The efficiency logistic system and good performance is a key factor of suitable economic development. The research of Popescu dan Sipos (2014) analysis the relationship between logistic performant with PDB in 28 countries uni Europe, this study analysis used two indicators are *Logistics Performance Index* (LPI) of 2007-2014 with data PDB per capita in those years. The result of an analysis with the econometric model is showed that there is a strong relationship between LPI and PDB per capita in Europe countries. The country with low PDB per capita tends has low logistic performant and need improvement on the logistic performant aspect in LPI (Nasution, 2017).

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 lighten up logistic costs? The purpose of this paper is to know and see the cause of higher logistics cost in Indonesia, and the action of lightening up logistic cost.

METHOD

The study is used qualitative research which done with library research method, through searching seconder information can be access via books, journal and website investigate via internet.

DISCUSSION

Logistic cost

The strong country economic is relationship with efficiency and efficient from logistic and is not doubt nowadays all industry activities increased and digital era 4.0 also tight relationship with logistic activity. Every things or product is resulted need logistic

activities inside it, beginning from factory until last customer. While, the high logistic cost in Indonesia influence on import activities and export activities and the last logistic cost is high make Indonesia cannot be able to face dimensional change and fast movement, if the government is not taken fast step.

The obvious cause is absence continuity in supply chain logistic. The supply chain too long and convoluted is made logistic inefficient and ineffective. The action must be taken shorten the supply chain, and logistics cost will adaptation, or decrease. We can image that logistics cost in Indonesia, especially at harbor till reached 17% of all operational cost effort. this cost is higher compared with countries in an area, such as Malaysia just needs 8%, Philippine 7% dan Singapore 6% from operational cost. Compare with other, unload container process and go down from ship at *stack* at harbor CY terminal Pelabuhan Tanjung Priok until exit gate harbor, need 4-9 days, America needs just 1.2 days, Belanda 1.1 days and Singapore 1.0 day (Kennedy, 2019). From **Table 1**, means that Indonesia must press logistic cost, and to need modern breakthroughs with the integrated logistics system, so it can press cost, ensure on-time, increasing transaction speed, caring product and service quality. All must be integrated with involving all interested parties with these conditions.

Table 1. Indonesian logistics costs compared to developed countries.

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%*	

*Research center logistic and supply chain ITB

In logistic activities, there are current movements of things, like current information and current finance. Every activity is need infrastructure and facilities supported, like harbor, highways, warehouse, railway, transportation tools, material handling equipment, etc. the development, information technology is very needed, like *transport management system* (TMS), *warehouse management system* (WMS), *fleet management system* (FMS), *order management system* (OMS), etc. Another logistic activity is involving much labor, like a driver, operator, supervisor, and managerial (Zaroni, 2017).

Generally, the logistic cost is grouped into three classifications includes 1). Transportation cost for Moda transportation; 2). Save product cost for warehousing activities; 3). Administration cost following application cost and integrated system information and communication (ICT), logistic management system cost, and the cost of lack of stock out the product. All components, Indonesia is still numbered 26,4% presented from 2013. From those logistic costs, the component cost of transportation is given contribution (12.04 % from PDB), and component cost of administration gives low contribution (4.52 % from PDB) and cost contribution of

Barata

stock in the middle (9.47 % from PDB). The transportation cost is dominated by land transportation (72.21 %); train transportation (only 0.51 %) gives the lowest contribution, and stock cost dominated by storage/holding cost (49.37 %).

The problem of logistic cost expensive like a figure of number is caused by many factors: 1) Unsupported infrastructures, 2). Logistic system is not well yet because of miss human resources; 3) the number of stock product unevenly distributed yet because there is no logistic commodity so occurs different logistic cost. 4) Unsupported regulation and inadequate. The two-way system is always happening, the ship brings back the charge from those are in other that more efficient (Schreiben, 2013). Another, infrastructure and human resources unsupported, so *dwelling time* is higher. There is technology innovation yet to ease all the problems and complicated regulations (Schreiben, 2018).

The solution of high logistic cost

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 performant. LPI is an index logistic performance from 160 countries with realized by *World Bank* every two years. LPI consist of 6 components is customs and excises, infrastructure, *international shipments*, *logistics quality and competence*, *tracking and tracing*, and *timelines* (World Bank, 2019). The logistic ranking of Indonesia increasing, from position 63 in 2016 become 46 in 2018 (**Table 2**).

Table 2. Indonesia Global Rankings 2018.

Country	Year	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
Indonesia	2018	46	3.15	2.67	2.89	3.23	3.10	3.30	3.67

Sumber: LPI Global Rankings 2018

From many components LPI, the customs aspect has the lowest value, lower than in 2016. It means 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 the value component of LPI is present positive impact resulted from infrastructure development and transportation. The is a problem increasing ranking and accompany decrease logistic cost. So, the concrete action is done by government and all concert on logistic industry to press higher cost are: 1). Infrastructure improvement. unconscious Indonesia has developed infrastructure with a high cost to logistic activities land and air. For sea infrastructure and a train, it is 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 logistic cost cheap 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 transportation multimode product can run well in all Indonesia, part of problem-related scarcity, high cost and import can resolve. 2). Build a commodity-based on logistic. It means the management of commodities like implemented in Belanda and Thailand. The example of build logistic center of

vegetables and fruits has a large 30 hectares until 300 hectares. In this area collected fruits and vegetables with facilities like a factory for the packing process, and the important thing is building a distribution system in all area. The logistic system, the government has prepared with integration. In Thailand, there is a management model agro product like vegetables and fruits and prepare infrastructure pattern since plantation until export.

One of made higher logistics cost in Indonesia is commodity distribution in Indonesia, not integration. Whereas the function of *supply chain management* is taught distribution of product integrated, so minimalist distribution cost in every *phase*. 3). Regulation improvement, practically regulation in Indonesia is very *overlapping*, includes implementation of the regulation. The contradictive between law with other laws in other governments, it is means unsupported regulation, then regulation between ministry one with other out of sync. So, it needs equalized platform and government paradigm in the center and province and all involve the logistics sector. The logistical actor needs certainly long term because the invitation in this sector can be changed every 5 years. The government also needs a moratorium to all tariff relationships with logistic directly. One implementation is made by the government by giving packet economy policy or *Kebijakan Ekonomi* (PKE) in a logistic term. It cannot be separated from direction policy national logistic, to reduce high national logistics costs. There seven base principles must decide policy direction are (Cetak Biri Pengembangan Sistem Logistik Nasional, 2012): interest priority on national in law 1945; Achieve vision of Indonesia economic 2025; push Indonesia surprised as a maritime country; Push breakthrough and acceleration falling behind in global competition; increasing the role of Pemda and Sinergy center-region; Encouraging Fair Competition; Push world participation in the business world and opportunity to business. 4), Increasing human resources in logistic terms. An example, nowadays there is much expertise engaged in the logistic, but not focus on asset ownership or warehouse. It's a figure of human resources in logistic is very determine in other that all product created and can be reached in consumer with economist cost and affordable. One action to create human resources especially in the logistic part is to build a logistic commodity itself, so the expertise can be a focus on management bossiness. The opportunities are as bases of development the business logistic in Indonesia (Fausta Ari Barata, et al., 2018). 5) The innovation technology made the logistics system more efficient. The governments can commit to supporting development industry national logistic, give facility to actor business through an online system integrated and deregulation role to ease business and improvement service system and harbor performance. the other action can push raising modern innovation, because global economic development to push increasing business innovation like company provided supporting service production, like logistic expertise. The company provided logistic service bases related to need and asset owners for logistic operation, but raising innovation business, assume that more increase and move to logistic business model namely *logistik pihak keempat* (4PL). *Logistik pihak keempat* (4PL) is provider logistic service integration. The function of providing supply chain stock member based on mobilization coordination and resources logistic from other company. According to Gattorna & Walters aid on Fausta Ari Barata, et al., that this model is defined as "*Supply Chain Integrator*" which handle and manage resources, ability, and technology their organization with a complete service facility (Fausta Ari Barata, et al., 2018).

The primary character of a company engaged in the logistic industry at position 4PL is no focus on asset owner or warehouse but focus on the solution,

Barata

system, and software. The character attached to business FAB, that is an expertise focus on logistic service, commerce, supply chain, and consultant, runs the business with character and unique governance. With business scale big and large, the company is controlled by 4-member human resources. but, the business FAB can facilitation requests for logistic, commerce, service and conductance supply chain from international companies and national companies.

CONCLUSION

Based on the explanation above can be concluded that the expensive logistic cost caused by many factors: 1) Unsupported infrastructures, 2). The logistic system is not well yet because of miss human resources; 3) the number of stock products unevenly distributed yet because there is no logistic commodity so occur different logistic costs. 4) Unsupported regulation and inadequate and government regulation with giving facility Paket Kebijakan Ekonomi (PKE) in the logistic part. 4). Adequate human resources. 5). There is technology innovation comprehensive. The concrete action is done by the government to push logistic cost is infrastructure improvement, especially harbor and railway, that build commodity based on logistic, regulation improvement is supported logistic activities, increasing human resources management in logistic part logistic and build technology innovation to make logistic system in other that more efficient.

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