Evaluation of the Raw Material Import Process Using the Authorized Economic Operator Application

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ABSTRACT

Transportation is an essential component in the supply chain and contributes significantly to the total logistics costs. However, due to the pandemic, many companies, especially PT. XYZ, a cigarette and FMCG company in East Java, Indonesia, has been affected by the time and costs required for shipping goods. The lockdown system during the pandemic resulted in many cigarettes and FMCG companies experiencing delays in importing raw materials and increasing logistics costs during the Covid-19 pandemic. This study aims to design and analyze an optimization model for the distribution pattern of imports of raw materials by applying AEO (Authorized Economic Operator) certification. This study uses secondary data from company history documentation in January-June 2022 using a quantitative descriptive method and a case study approach. Based on comparison with the study from the Director General of Customs and Excise proved that as many as five other companies received Authorized Economic Operator (AEO) certificates from the Directorate General of Customs and Excise (DJBC) and got the same benefits in reducing import costs by implementing AEO and get convenience facilities in export-import transactions between companies in other countries. The comparison method for applying AEO in this study is also obtaining a supply pattern with minimum import costs. So, the conclusion of this study shows that the customs clearance process with AEO can provide an alternative import during the Covid-19 pandemic for other cigarette and FMCG companies because AEO can significantly reduce import costs by using FCL and LCL modes of transportation.

Keywords: Raw Material Import, Cigarette, FMCG (Fast Moving Consumer Goods), AEO (Authorized Economic Operator).

1. INTRODUCTION

The world trade ecosystem is rapidly increasing with the emergence of international

organizations such as the World Trade Organization (WTO), expanding FTAs (Free Trade Agreements) globally. Liberalization of the global trade environment can provide new challenges and opportunities for companies with international competitiveness in borderless trade. However, companies without international competitiveness may face significant risks and threats in domestic and foreign markets. When FTAs (Free Trade Agreements) are finalized between countries, tariffs are lowered, and global boundaries disappear. Therefore, the world economy has become more prominent in the world market (이은숙and Kwangkuen Lee, 2013). Nonetheless, the World Customs Organization (WCO) retains the task of ensuring faster security and customs authorization in a rapidly changing trading environment due to the emergence of trade liberalization and the increasing threat of cargo (Kim, Sang-Hyun, 2014).

To reduce non-tariff barriers and ensure safer and more accessible business export and import supply chains, several countries have used methods to recognize each other's customs procedures safely and more quickly (Sang-Hyun, 2014). This method is called the Authorized Economic Operator (hereinafter referred to as AEO). It is a unique system to reduce customs barriers to overcome non-tariff barriers related to trade security issues (Son *et al.*, 2014). In 2020 business associations have faced significant challenges due to the spell of extraordinary conditions in recent decades. The level of challenge faced by these agencies depends primarily on the severity of the outbreak in question. General public health incidents such as epidemics or pandemics can have a significant negative effect on a business and supply chain, including reducing their efficiency and performance (Guan *et al.*, 2020) and spreading disruption throughout the supply chain, understood as a wave effect, affecting their strength and sustainability (Ivanov and Dolgui, 2021). Many countries closed many factories, and exports and imports were cut because of the outbreak (Ji and Zhang, 2022). As a result, on the supply side, business sectors that are heavy in contact have been affected by the lockdown policy and global supply chains have also been disrupted (Victoria Tibon, 2022). A statement published by Fortune magazine on 21 February 2020, before WHO reclassified the COVID-19 outbreak as a pandemic on 11 March 2020, indicated that due to the COVID-19 pandemic, 94% of Fortune 1000 businesses experienced difficulties in their supply chain (Luck, 2020). Also, unlike the previous spell, this pandemic is affecting all supply chain partners and links in the supply chain simultaneously (Paul and Chowdhury, 2021); therefore, supply chain outpouring has been substantially disrupted.

On the other hand, transportation, manufacturing, and supply face many challenges that reduce capacity. These include perimeter closures, lockdowns in supply markets, disruption to the movement of international freight and business, labour shortages, and physical distancing in manufacturing structures (Paul and Chowdhury, 2021). Due to multidimensional influences on the supply chain, along with further challenges in finance and economics (Dontoh *et al.*, 2021). This pandemic may have a severe impact on international trade. For example, the WTO reports that global trade could fall by 13–32% in 2020 due to COVID-19 difficulties. Given the hard hit the COVID-19 pandemic has had on supply chains, academia is focusing massively. Then, since 2020 there have been many descriptions and publications about the COVID-19 pandemic in the supply chain discipline. As the issue evolves to an increasing need for investigators, it may be worthwhile to report on the current state of publication and summarize future studies. The opportunity in this early scene was to support the scholars in avoiding overdoing the exams in this place. Periodic literature reviews can be helpful in summarizing what we

understand, how we learned it, and what we can do to make the supply chain better market with the rubble of this pandemic. We therefore synthesize the results from published papers and develop a detailed agenda that can contribute to the current body of knowledge in this area to provide practitioners and policy makers with more practical insights in dealing with the impact of the COVID-19 pandemic (Paul and Chowdhury, 2021).

The scarcity of containers in the world, which is still happening today, started with the Covid-19 pandemic for about two years. The consequence is the behaviour of logistics companies due to enormous changes in the industrial sector, where trade to and from America greatly affects global shipping. Meanwhile, intra-Asia transportation is assumed to be underdeveloped or shallow margins, so that the attractiveness of freight transport is to America, Europe, and then Intra-Asia due to the decline in global trade, including American export activities, which no longer follow the conditions of imports, causing delays used imported containers, which has an impact on the deficit of international containers. Therefore, the global shipping industry justifies expenses that delay loading or unloading. This situation also has an impact on trade activities to and from Indonesia via international routes because import and export trade in Indonesia can operate 20-foot containers for imports, while exports use 40-foot containers. As a result, these conditions exacerbated shortages and resulted in extraordinary growth in shipping prices on several global avenues. It is known from 2008 – 2019, global economic disruption came from financial, trade and energy aspects. This concern does not weigh on the supply and demand sides. Covid-19, which originates from the health aspect, has stunned the economy because it has stopped implementing supply and demand. This situation is exacerbated because the global economy is inexperienced in dealing with Covid-19 which is still having an impact today (Coordinating Ministry for Economic Affairs, 2021).

This study took a case study from a company (PT.XYZ) that already has 24 branches of cigarette factories and 48,000 employees nationwide until 2022. This company sells cigarettes, with 70% of its raw materials imported from Europe, America, and Asia. During the Covid-19 pandemic there were many delays in handling ships at ports or ship schedules which had an impact on delays in goods reaching the owners of goods (importers). On the other hand, document processing takes time, document processing must take longer due to this pandemic, and all import activities must be guided by health protocols that must be implemented so that the speed and accuracy of import clearance must be increased to be able to distribute cargo to companies quickly and reduce storage costs. in port. Seeing the problems experienced by PT. XYZ as cigarette firm during the pandemic, it is necessary to plan and schedule the distribution of imported raw materials to meet demand so that companies can achieve optimal targets. In imports there are several supply chains, namely shipping cargo by sea/air to ports, customs, and trucking from ports to importers/companies. From the importer's point of view, only two supply chains can be controlled: customs and trucking activities. Meanwhile, the ship or ship delay schedule cannot be carried out due to market demand and containers during the pandemic era. There are several supply chains, namely shipping cargo by sea/air to ports, customs, and trucking from ports to importers/companies. From the importer's point of view, only two supply chains can be controlled: customs and trucking activities. Meanwhile, the ship or ship delay schedule cannot be carried out due to market demand and containers during the pandemic era. There are several supply chains, namely shipping cargo by sea/air to ports, customs, and trucking from ports to importers/companies. From the importer's point of view, only two supply chains can be controlled: customs and

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Customs Clearance can be interpreted as managing and completing various administrative documents, tax fees, and other related matters for export or import goods until the issuance of an approval letter for the release of goods. Customs Clearance in its free translation is defined as fulfilment of customs obligations in the field of export and import. The average time needed for customs clearance is 9-12 days. Meanwhile, the actual customs/customs handling data is one day at the fastest and 21 days at the longest. Forcustomsclearance within 1 day, is cargo with payment of import tax with the approval of the Director of Finance so that the cargo payment process is faster and import shipments can be issued more quickly. However, permits are limited and only for important or urgent import cargo. Meanwhile, the longest customs extension is 21 days due to the need for import documents from exporters, thus delaying the customs process (Law of the Republic of Indonesia Number 17 of 2006, 2006). Not to mention the total machine downtime of 889 hours due to delays in raw material imports is very much an issue for cigarette companies and FMCG companies. Seeing the old problems, a simplification process is needed to speed up the delivery of imported cargo, the company's management is conducting a feasibility study for Authorized Economic Operator (AEO) certification, one of the benefits is the method of releasing goods with a minimum paper and material assessment, so that it is expected to reduce certificate logistics costs. An AEO is an economic operator engaged in the routing of goods in international supply chains in any role that has been recognized by or on behalf of national customs management for meeting World Customs Organization (WCO) supply chain benchmarks or safety standards (World Customs Organization, 2006).

Table 1. Customs Cost Data for January-June 2022

No	Month	Qty. Import	Storage	Handling	Reimbursement	Biaya Customs Clearance
1	January	18	IDR 261,923,074	IDR 118,713,500	IDR 162,879,909	IDR 543,516,483
2	February	20	IDR 228,595,930	IDR 165,266,858	IDR 113,745,145	IDR 507,607,933
3	March	27	IDR 677,044,924	IDR 310,398,644	IDR 142,801,333	IDR 1,130,244,901
4	April	25	IDR 436,678,698	IDR 265,962,175	IDR 211,879,308	IDR 914,520,181
5	May	23	IDR 525,322,204	IDR 208,436,386	IDR 147,425,502	IDR 881,184,092
6	June	30	IDR 1,180,744,414	IDR 544,319,418	IDR 146,610,644	IDR 1,871,674,476
		143	**IDR 3,310,309,244**	**IDR 1,613,096,981**	**IDR 925,341,841**	**IDR 5,848,748,066**

Meanwhile AEO is a business actor who has received recognition from the Directorate General of Customs and Excise so that he gets certain customs treatment (Regulation of the Minister of Finance of the Republic of Indonesia Number 227/PMK.04/2014, 2014). For economic actors, expediting the procedure for stopping goods with a minimum of paper analysis and physical inspection will reduce logistics costs. AEO's business will be identified worldwide as a safe and secure company and a compliant and compliant international trading partner. For DJBC (Directorate General of

Customs and Excise), increase the importance of supervision, service, and efficiency of resource distribution. This nation is recognized as a reliable homeland in global business because it has positively executed securing and protecting the logistics supply chain from national economic impacts (AEO Customs & Excise Indonesia, 2015).

Table 1 shows 143 materials with a total customs fee of IDR 5,487,214,118. The storage fee of IDR 3,310,309,244 represents the cost of stacking cargo at the port or airport from 143 imports. Handling Fee IDR 21,613,096,981 is the cost of trucking/transportation from the Port to the company. Meanwhile, the replacement fee of IDR 925,341,841 consists of PPJK (Customs Service Management Company) service fees, PIB (Notification of Import Goods) admin fees, THC (Terminal Handling Charge) fees, Depo off fees & agency fees. The amount of storage fee depends on the length of the customs clearance process. Of the total costs, the author will compare the differences in the customs process & import costs before and after the implementation of the AEO (Authorized Economic Operator) certification. Research is needed on the back issue to evaluate the process of importing raw materials with the application of AEO (Authorized Economic Operator) to overcome the occurrence of several delays in the delivery of imported raw materials due to the pandemic and overcome the high customs costs of the process of clearance, storage & handling of import customs due to the long process. Therefore, this research is expected to provide several import alternatives with AEO procedures during the Covid-19 pandemic for cigarette and FMCG companies. handling the import customs process due to the long process. Therefore, this research is expected to provide several import alternatives with AEO procedures during the Covid-19 pandemic for cigarette and FMCG companies. handling the import customs process due to the long process.

2. LITERATURE REVIEW

Authorized Economic Operator (AEO)

Implementation of AEO internationally has become a vital discussion agenda in international meeting forums (APEC, WTO, WCO, ICAO, ASEAN), and Indonesia, as conveyed by the President on several occasions at the international meeting forum, has committed to implementing AEO in Indonesia. AEO (Authorized Economic Operator) definition is an economic operator concerned with the actions of goods in a global supply chain in any role that has been recognized by or on behalf of federal customs management as meeting WCO standards or supply chain safety standards. Economic actors who join AEO can be producers, importers, exporters, PPJK, carriers, consolidators, intermediaries, port authorities, terminal managers, warehousing entrepreneurs, and distributors (AEO Customs & Excise Indonesia, 2015).

Several researchers have written many studies on AEO. Research (Tegneman and Tryggvason, 2015) stated that the AEO program had an impact on Swedish companies' supply chain security and customs procedures. Due to the paucity of prior academic literature on AEOs, the focus has been on investigating and interpreting how AEO certificate's function and affect various actors in the international business environment. In study (Raffaele, 2017), researchers tried to measure the contribution of AEO to supply chain security in the Netherlands. The quantitative research is based on data from an external survey among all AEO holders, the Dutch Customs internal database, which contains information on some Customs violations and all AEO audits. In the newspapers

(Parks and Gardens, 2018)The purpose of this paper is to examine the impact of Financial Investment (FI) in Authorized Economic Operator (AEO) certification on the performance of Korean logistics companies through public and private partnerships (PPP) and trade facilitation (TF). Journal (Jażdżewska-Gutta, Grottel and Wach, 2020) *Authorized Economic Operator* (AEO) certification in the supply chain. While in research by (Melin and Trumpeter, 2016) assessed the advantages of AEO-C and AEO-S certification over Swedish NORMA. To achieve a comprehensive result, the benefits, and barriers to AEO certification for Swedish NORMA are analyzed in the context of corporate strategies and drivers of AEO implementation. another study (Kim, Chung, and Joo, 2019) explores the influence of the Authorized Economic Operator Mutual Recognition Arrangement (AEO-MRA) on the performance of Korean exporters and importers.

On the other hand, further research is still needed regarding the application of AEO in Indonesia, particularly for cigarette product companies and FMCG companies. The research that researchers have found related to the application of AEO is by(Primary and Everett, 2017),which describes the performance of AEO in an environment where supply chain security initiatives are relatively new. It focuses on a policy development perspective where the Indonesian case study can be a challenge for other countries. In addition, this paper only begins by developing various international supply chain security programs that AEO considers prominent. This is followed by a discussion on the implementation of AEO Indonesia, in which the challenges and processes of policy development are explored.

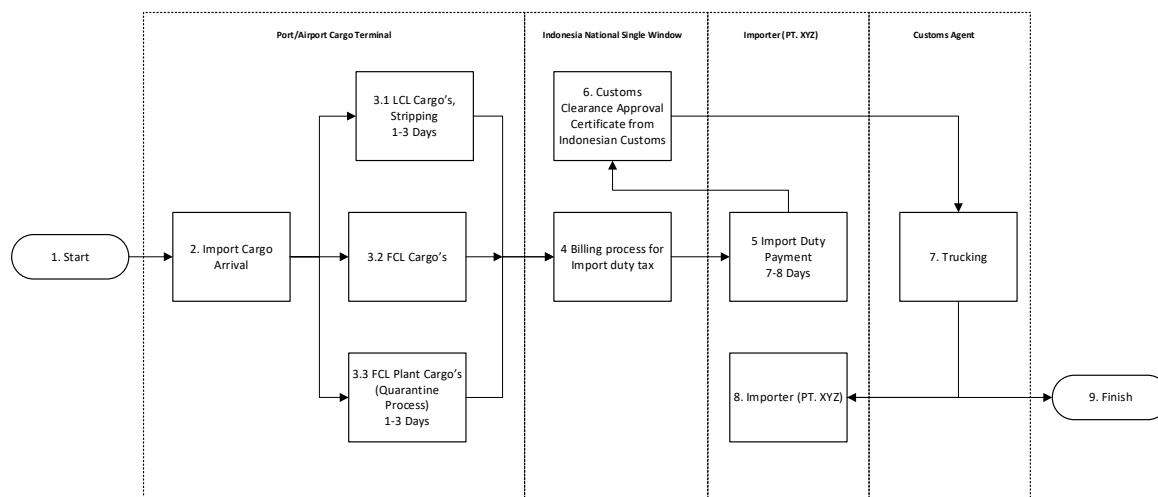**Differences in the Customs Clearance Process with AEO and without AEO**

Figure 1. Existing Customs Clearance Flowchart

The process of releasing imported goods carried out by tobacco companies or FMCG is currently usually based on Standard Operational Procedures for Submission of Customs Declarations in the Context of Import (BC 2.0) Through Electronic Data Exchange (PDE): (1) Starting with the arrival of imported cargo at the port or airport; (2) Based on the type of cargo, the customs process for obtaining an import manifest or BC1.1 is also different. LCL (Less Container Load) cargo requires stripping or removal of the cargo from the container. For plant cargo, a quarantine process is required for the customs process. As for FCL (Full Container Load) cargo, the manifest process can be

immediately reconciled with the Customs & Excise system; (3) After obtaining the import manifest, the importer or PPJK fills out a complete PIB (Notification of Import of Goods) using the PIB application program based on data and information from customs complementary documents. The importer/PPJK sends PIB data electronically to the INSW (Indonesia) National Single Windows portal). Then carry out the PDRI billing process (Tax in the Context of Import) on the service user portal; (4) Processing of PDRI (Tax in Order) payments by PT. XYZ takes 7-8 days; (5) After payment, SKP will issue a response number and date of registration, then trace if a green line is printed: SPPB (Approval Letter for the Release of Goods) is issued, meaning that cargo can be removed directly from TPS Port. Whereas if the goods get the red line: SPJM (red line notification letter), then the goods will be physically inspected & documented by Customs & Excise; (6) After receiving the SPPB (Approval Letter for the Release of Goods) from Customs and Excise to pick up the goods at the TPS, we need the services of a trucking company to collect the goods from the TPS. To pick up cargo, you must fulfil several documents submitted to the truck driver, including a Letter of Approval for the Release of Goods (SPPB), photocopy of Delivery Order (DO), Proof of payment when stacking or Proof of transfer. After the documents are complete, the PPJK operational party will give them to the trucking party to collect the cargo at the TPS. The trucking party will submit the document to TPS to collect the cargo; after that, the cargo will be transported by the trucking party, and the trucking party will deliver the cargo to the company. the PPJK operational party will hand it over to the trucking party to pick up the load at the TPS. The trucking party will submit the document to TPS to collect the cargo; after that, the cargo will be transported by the trucking party, and the trucking party will deliver the cargo to the company. The PPJK operational party will hand it over to the trucking party to pick up the load at the TPS. The trucking party will submit the document to TPS to collect the cargo; after that, the cargo will be transported by the trucking party, and the trucking party will deliver the cargo to the company.

Meanwhile, suppose AEO spends imported goods. In this case the importer should carry out the following activities: (1) In the context of utilizing the periodic payment facility, AEO makes import duty, excise and PDRI payments using the billing code issued by the SKP (Service Computer System); (2) In the event that AEO does not submit the number and date of BC 1.1, postal or subheading number before obtaining the SPPB, AEO submits the number and date of BC 1.1, postal or subheading number no later than 7 (seven) days from the issuance of the goods. SKP (Computer Service System) conducts research on data 1) if the research results are correct, SKP closes the post with the number and date of PIB registration; 2) if the results of the examination are not in accordance, the manifest manager shall conduct a conformity examination between the PIB and the BC 1.1 heading; 3) if the research results show that the PIB data is substantively intended for BC 1.1 post, the official managing the manifest stated that it was appropriate. SKP closes the post with the PIB number and registration date; 4) if the results of the research show that the PIB data is substantively not intended for the intended BC 1.1 post, the official in charge of the manifest shall convey the discrepancy of said data to the AEO; 5) AEO submits number and date of BC 1.1, postal number or subheading; 6) Conformity of SKP research between PIB data and BC 1.1 headings (see Figure 2).

3. ANALYSIS DATA AND METHODOLOGY

The data studied includes raw material import data from a case study at a PT. XYZ as cigarette company for the period January to June 2022. In this study, the data will be grouped for testing based on the type of cargo and shipment. LCL (Less Container Load), FCL (Full Container Load) cargo data, types of air shipments.

Table 2. Import data from January to June 2022

Supplier	Import	Storage	Handling	Return
AT1	8	IDR 54,406,762	IDR 27,778,300	IDR 43,119,198
BD1	1	IDR 11,448,833	IDR 2,823,300	IDR 1,228,025
CH1	1	IDR 14,027,600	IDR 8,300,000	IDR 5,777,000
CH2	3	IDR 215,910,689	IDR 55,931,400	IDR 4,578,930
CH3	3	IDR 17,453,200	IDR 20,500,000	IDR 55,408,661
CN1	4	IDR 22,563,677	IDR 16,484,200	IDR 5,387,308
CN2	2	IDR 3,301,400	IDR 6,000,000	IDR 5,425,440
CN3	3	IDR 4,547,900	IDR 8,775,000	IDR 14,443,034
DE1	2	IDR 4,152,400	IDR 5,050,000	IDR 13,758,735
DE2	1	IDR 1,040,000	IDR 1,900,000	IDR 6,228,000
DE3	1	IDR 8,760,000	IDR 4,275,000	IDR 11,664,000
DE4	2	IDR 6,002,800	IDR 6,000,000	IDR 23,663,862
DE6	1	IDR 6,102,327	IDR 1,510,050	IDR 1,185,500
DE7	1	IDR 1,604,121	IDR 1,307,850	IDR 0
DE8	1	IDR 1,774,800	IDR 3,000,000	IDR 3,956,250
GD	1	IDR 3,378,908	IDR 1,308,300	IDR 1,170,000
IT1	1	IDR 38,361,800	IDR 28,900,000	IDR 17,725,830
ITC	1	IDR 1,151,000	IDR 1,900,000	IDR 6,174,000
JP1	8	IDR 22,951,561	IDR 47,344,580	IDR 9,839,553
LT1	8	IDR 318,171,619	IDR 55,463,250	IDR 48,150,760
LU1	2	IDR 7,269,500	IDR 6,750,000	IDR 28,307,900
MY1	4	IDR 12,075,500	IDR 9,200,000	IDR 15,489,568
MY2	5	IDR 10,974,500	IDR 11,825,000	IDR 42,507,351
MY3	9	IDR 31,860,200	IDR 39,600,000	IDR 48,229,503
MY4	2	IDR 4,207,500	IDR 4,900,000	IDR 9,121,348
MY5	1	IDR 98,925	IDR 450,000	IDR 0
PH1	35	IDR 2,126,160,226	IDR 1,062,726,811	IDR 151,610,530
PH2	11	IDR 137,751,174	IDR 45,408,600	IDR 89,284,925
PLP2	1	IDR 2,897,000	IDR 2,875,000	IDR 4,554,150
Q1	1	IDR 3,672,400	IDR 7,385,340	IDR 5,319,625
VN1	12	IDR 197,981,472	IDR 96,200,000	IDR 219,807,355
VN2	6	IDR 15,366,950	IDR 18,450,000	IDR 24,904,700
VN3	1	IDR 2,882,500	IDR 2,775,000	IDR 7,320,800
Total	**143**	**IDR 3,310,309,244**	**IDR 1,613,096,981**	**IDR 925,341,841**

Table 2 shows 143 imports with a total customs fee of IDR 5,487,214,118. The storage fee of IDR 3,310,309,244 represents the cost of stacking cargo at the port or airport from 143 imports. The Rp 1,613,096,981 handling fee is for trucking/transportation, trucking, and document processing. Meanwhile, the replacement cost of IDR 925,341,841 consists of PPJK (Customs Service Management Company) service fees, PIB (Notification of Goods Import) admin fees, THC (Terminal Handling

Charge) fees, Depo fees, lift off & agency fees.

With the benefits of the AEO Periodic Payment/Differed Payment Facility and delivery of the number and date of BC 1.1 within seven days after the release of the goods. SKP (Computer Service System) provides the PIB registration number and date and issues the SPPB. Importers can release imported goods from the customs area when the container gets off the ship. With the application of the two benefits of Periodic Payments and the submission of the number and date of BC 1.1, the customs flow in Figure 2 and the customs clearance time in Table 3 are obtained.
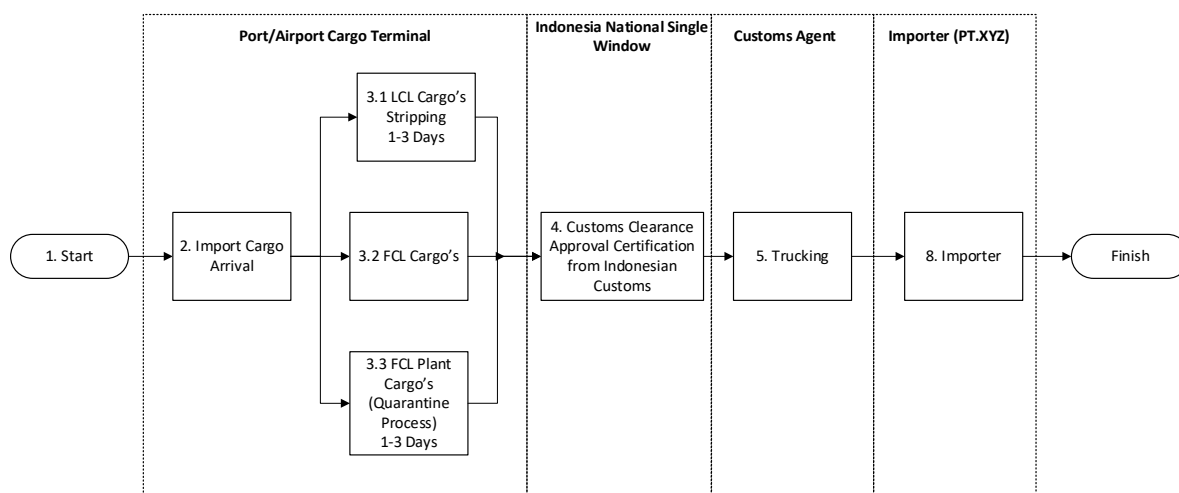

Figure 2. Customs Clearance Flowchart using AEO.

Table 3. Customs Time by Implementing AEO

NO	Packaging	Cargo Type	Through	Stripping (days)	Quarantine (days)	Total (days)
1	FCL	*Ordinary Cargo*	*Sea*			1
2	FCL	*Cargo with Quarantine*	*Sea*		3	3
3	LCL	*Ordinary Cargo*	*Sea*	3		3
4	Boxes/Pallets	*Ordinary Cargo*	*Air*			1

FCL Import Descriptive Statistics Before and After AEO Implementation

Descriptive statistics are statistical analyzes that provide public explanations about the attributes per inspection variable obtained from the average (mean), maximum, and minimum bids processed with SPSS version 25. In this study, the data used on 143 imports from January to June 2022 includes storage, handling & replacement fees. They are obtained by applying AEO, which affects the time of customs clearance, only storage costs. So, the discussion regarding descriptive statistical analysis is carried out for storage cost data before & after the implementation of AEO.

Table 4. FCL cargo storage costs before and after the implementation of AEO

Supplier	Import	Storage	Storage AEO
AT1	**2**	**IDR 1,591,200.00**	**IDR 612,000**
without Quarantine	2	IDR 1,591,200.00	IDR 612,000
CH1	**1**	**IDR 14,027,600.00**	**IDR 7,173,200**
Quarantine	1	IDR 14,027,600.00	IDR 7,173,200
CH3	**3**	**IDR 17,453,200.00**	**IDR 7,171,600**
Quarantine	3	IDR 17,453,200.00	IDR 7,171,600
CN1	**2**	**IDR 4,272,800.00**	**IDR 1,172,000**
without Quarantine	2	IDR 4,272,800.00	IDR 1,172,000
CN2	**2**	**IDR 3,301,400.00**	**IDR 2,601,600**
without Quarantine	2	IDR 3,301,400.00	IDR 2,601,600
CN3	**2**	**IDR 2,530,400.00**	**IDR 735,200**
without Quarantine	2	IDR 2,530,400.00	IDR 735,200
DE4	**2**	**IDR 6,002,800.00**	**IDR 3,618,400**
without Quarantine	2	IDR 6,002,800.00	IDR 3,618,400
DE8	**1**	**IDR 1,774,800.00**	**IDR 306,000**
without Quarantine	1	IDR 1,774,800.00	IDR 306,000
IT1	**1**	**IDR 38,361,800.00**	**IDR 3,881,000**
without Quarantine	1	IDR 38,361,800.00	IDR 3,881,000
JP1	**6**	**IDR 20,446,000.00**	**IDR 3,554,800**
without Quarantine	6	IDR 20,446,000.00	IDR 3,554,800
LT1	**5**	**IDR 59,459,000.00**	**IDR 33,736,700**
without Quarantine	5	IDR 59,459,000.00	IDR 33,736,700
MY3	**9**	**IDR 31,860,200.00**	**IDR 10,073,000**
without Quarantine	9	IDR 31,860,200.00	IDR 10,073,000
MY4	**1**	**IDR 2,790,000.00**	**IDR 2,400,000**
without Quarantine	1	IDR 2,790,000.00	IDR 2,400,000
PH1	**24**	**IDR 379,581,800.00**	**IDR 139,992,800**
without Quarantine	11	IDR 86,810,600.00	IDR 49,528,000
Quarantine	13	IDR 292,771,200.00	IDR 90,464,800
PH2	**2**	**IDR 3,978,400.00**	**IDR 1,775,200**
without Quarantine	2	IDR 3,978,400.00	IDR 1,775,200
Q1	**1**	**IDR 3,672,400.00**	**IDR 1,958,800**
without Quarantine	1	IDR 3,672,400.00	IDR 1,958,800
VN1	**12**	**IDR 197,981,472.00**	**IDR 58,066,272**
without Quarantine	12	IDR 197,981,472.00	IDR 58,066,272
VN2	**6**	**IDR 15,366,950.00**	**IDR 6,472,550**
without Quarantine	6	IDR 15,366,950.00	IDR 6,472,550
PL2	**1**	**IDR 2,897,000.00**	**IDR 449,000**
without Quarantine	1	IDR 2,897,000.00	IDR 449,000
Total	**83**	**IDR 807,349,222.00**	**IDR 285,750,122**

Storage prior to implementing AEO is a minimum of IDR 1,591,200 with supplier AT1. The maximum deposit value is IDR 379,581,800 with PH1 suppliers, the average

deposit value is IDR 42,492,064, and the standard deviation value is IDR 93,176,499. Meanwhile, the storage value after implementing AEO is at least IDR 306,000 with DE8 suppliers. The maximum deposit value is IDR 139,992,800 with PH1 suppliers, the average deposit value is IDR 15,039,480, and the standard deviation value is IDR 33,432,723.

LCL Import Descriptive Statistics Before and After AEO Implementation

Table 5. Table of LCL Storage Costs Before and After AEO

Supplier	Import	Storage	AEO storage
AT1	3	IDR 8,870,000.00	IDR 8,635,000
CN3	1	IDR 2,017,500.00	IDR 1,905,000
DE1	2	IDR 4,152,400.00	IDR 4,052,400
DE2	1	IDR 1,040,000.00	IDR 1,027,500
DE3	1	IDR 8,760,000.00	IDR 8,310,000
ITC	1	IDR 1,151,000.00	IDR 1,131,000
LU1	2	IDR 7,269,500.00	IDR 6,969,500
MY1	4	IDR 12,075,500.00	IDR 11,760,500
MY2	5	IDR 10,974,500.00	IDR 10,769,500
MY4	1	IDR 1,417,500.00	IDR 1,395,000
PH2	7	IDR 31,547,960.00	IDR 30,587,960
VN3	1	IDR 2,882,500.00	IDR 2,820,000
Total	**29**	**IDR 92,158,360.00**	**IDR 89,363,360**

Storage prior to implementing AEO is a minimum of IDR 1,040,000 with DE2 suppliers. The maximum storage value is IDR 31,547,960 with PH2 suppliers, the average storage value is IDR 7,679,863, and the standard deviation value is IDR 8,507,029. Meanwhile, the storage value after implementing AEO is at least IDR 1,027,500 with DE2 suppliers. The maximum deposit value is IDR 30,587,960 with PH1 suppliers, the average deposit value is IDR 7,446,947, and the standard deviation value is IDR 8,251,216.

Aviation Import Descriptive Statistics Using Before and After AEO

Table 6. Table of air cargo storage costs before and after AEO

Supplier	Import	Storage	Storage AEO
AT1	3	IDR 43,945,562.00	IDR 8,036,312
BD1	1	IDR 11,448,833.00	IDR 1,600,883
CH2	3	IDR 215,910,689.00	IDR 44,871,989
CN1	2	IDR 18,290,877.00	IDR 4,715,097
DE6	1	IDR 6,102,327.00	IDR 1,409,877
DE7	1	IDR 1,604,121.00	IDR 380,271
GD	1	IDR 3,378,908.00	IDR 608,858
JP1	2	IDR 2,505,561.00	IDR 1,810,311
LT1	3	IDR 258,712,619.00	IDR 64,071,459
MY5	1	IDR 98,925.00	IDR 85,425

PH1	11	IDR 1,746,578,426.00	IDR 1,317,752,826
PH2	2	IDR 102,224,814.00	IDR 25,879,174
Total	**31**	**IDR 2,410,801,662.00**	**IDR 1,471,222,482**

Storage before implementing AEO with a minimum value of IDR 98,925 with MY5 suppliers. The maximum deposit value is IDR 1,746,578,426 with PH1 suppliers, the average deposit value is IDR 200,900,193, and the standard deviation value is IDR 494,759,788. Meanwhile, the storage value after implementing AEO is at least IDR 85,425 with MY5 suppliers. The maximum deposit value is IDR 1,317,752,826 with PH1 suppliers, the average deposit value is IDR 122,601,874, and the standard deviation value is IDR 376,947,238.

Normality Check

Normality check is very important because one of the requirements for parametric testing is that the data must be normally distributed. In this breakdown the normality test uses the Kolmogorov-Smirnov investigation using SPSS 25 software. The application of the Kolmogorov-Smirnov test is that if the significance is <0.05, it means that the data to be tested has a significant contrast with the standard average data, meaning that the data is not normal. If the significance is > 0.05, then there is no significant difference between the data to be tested and the standard normal data, which means that the data can be said to be normal (Sarjono and Julianita, 2011). The hypothesis tested is as follows: H0: Data is normally distributed; H1: Data is not normally distributed; Test criteria: H0 is rejected if the p-value < α. The results of the calculation of the normality test obtained using SPSS are as follows:

Table 7. FCL Storage Normality Test Results

One Sample Kolmogorov-Smirnov Test		
		Nonstandard residue
N		19
Normal parameters, b	Means	0.0000000
	St. Deviation	14095268.10496880
The Most Extreme Difference	Absolute	0.272
	Positive	0.272
	Negative	-0.253
Statistic test		0.272
Asimp. Sig. (2-tails)		.001c

Table 7 above shows that the Kolmogorov-Smirnov test on FCL storage statistical values shows a Test Statistic value = 0.272 with a p-value (significance value) of 0.001. Obtained from the calculation results of the Normality test for FCL Storage data, a significance (p) of 0.001 is below 0.05. The results of the normality test of the regression model show that the FCL storage data is not normally distributed.

Table 8. Storage LCL Normality Test Results

One Sample Kolmogorov-Smirnov Test		
		Nonstandard residue
N		12
Normal parameters, b	Means	0.0000000
	St. Deviation	79453.97617297

The Most Extreme Difference	Absolute	0.253
	Positive	0.253
	Negative	-0.175
Statistic test		0.253
Asimp. Sig. (2-tails)		.032c

Table 8 above shows that the Kolmogorov-Smirnov test on the statistical value of LCL storage shows a Test Statistic value = 0.253 with a p-value (significance value) of 0.032. Obtained from the calculation results of the Normality test for FCL Storage data, a significance (p) of 0.032 is below 0.05. The results of the normality test of the regression model explain that the LCL storage data is not normally distributed.

Table 9. Flight Storage Normality Test Results

One Sample Kolmogorov-Smirnov Test		
		Nonstandard residue
N		12
Normal parameters, b	Means	0.0000000
	St. Deviation	61879528.40570070
The Most Extreme Difference	Absolute	0.300
	Positive	0.300
	Negative	-0.252
Statistic test		0.300
Asimp. Sig. (2-tails)		.004c

In Table 9 the statistical value of the Kolmogorov-Smirnov test for storage by air shows the Test Statistics value = 0.300 with a p-value (significance value) of 0.004. Obtained from the calculation results of the Normality test for FCL Storage data, the significance (p) is 0.004 below 0.05. The results of the normality test of the regression model show that the flight data storage is typically distributed.

Descriptive Hypothesis Testing of Import FCL Storage AEO

The Kolmogorov-Smirnov statistical normality for FCL storage data is distributed elsewhere. Thus, the Wilcoxon Signed Ranks are different as an alternative to the Paired Sample T-Test if the data used as samples in this study are declared not normally distributed based on the results of the Kolmogorov-Smirnov normality test or the Asymp value. Sig. (2-fish) less than 0.05. The Wilcoxon Signed Ranks difference test is used to evaluate certain treatments in two observations, before and after certain treatments. In this study, FCL storage costs will be tested before and after the implementation of AEO.

Table 10. Wilcoxon Signed FCL Storage Import Rating

Rating				
		N	Rating Means	Number of Ratings
AEO Storage - Storage Before AEO	Negative Rating	19a	10.00	190.00
	Positive Rating	0b	0.00	0.00
	Tie	0c		
	Total	19		

Opposing ratings or (negative) differences between FCL storage results before and

after AEO implementation. From the test results, there are 19 negative data (N) indicating that there are 19 suppliers who have experienced a decrease in storage costs. The average downgrade is 10; while the Sum Rank is 190. The positive ranking or (positive) contrast between the FCL storage results before and after AEO implementation is 0, both the N value and the average rank. 0 indicates that there was no improvement in FCL storage costs prior to AEO implementation. Ties is the similarity of FCL storage costs before and before the implementation of AEO is 0, so there is not the same value of FCL storage costs before and before the implementation of AEO.

Table 11. Wilcoxon Signed Rank Test Output FCL Storage Imports

Statistical Test	
	AEO Storage – Pre-AEO Storage
Z	-3.823b
Asimp. Sig. (2-tails)	0.000

From the results of statistical tests, Asymp. Sig. (2-tailed) has a value of 0. Because the value of 0 is not more than <0.05, the hypothesis is accepted, meaning that there is a difference between the cost of FCL storage before and after AEO implementation. So, there is also the effect of implementing AEO on FCL storage costs.

Descriptive Hypothesis Testing of Import LCL Storage AEO

Based on the normality of the Kolmogorov-Smirnov statistics, the LCL storage data is not normally distributed. Thus, the Wilcoxon Signed Ranks different test is an alternative to the Paired Sample T-Test if the data used as the sample in this study is declared not normally distributed based on the results of the Kolmogorov-Smirnov normality test or the Asymp value. Sig. (2-fish) less than 0.05. The Wilcoxon Signed Ranks difference test is used to evaluate certain treatments in two observations, before and after certain treatments. In this research, LCL storage costs will be tested before and after the implementation of AEO.

Table 12. Wilcoxon Signed Storage LCL Import Rating

Rating				
		N	Rating Means	Number of Ratings
Storage Before AEO LCL AEO LCL Storage	Negative Rating	12a	6.50	78.00
	Positive Rating	0b	0.00	0.00
	Tie	0c		
	Total	12		

Negative level or contrast (negative) between the results of LCL storage before and after AEO implementation. From the test results obtained 12 negative data (N) indicating that 12 suppliers experienced a decrease in storage costs. The average decrease in rank is 6.5, while the sum of the Sum Ranks is 78. The positive level or contrast (positive) between the results of LCL storage before and after the application of AEO is 0, both the N value and the average. rank. A value of 0 indicates no increase in LCL storage costs prior to implementation of AEO. Ties is the similarity of LCL storage costs before and before AEO implementation is 0, so there is no equivalent value between LCL storage costs before and before AEO implementation.

Table 13. Wilcoxon Signed Rank Test Output LCL Storage Imports

Statistical Test	
	AEO LCL Storage – Pre-AEO LCL Storage
Z	-3.059b
Asimp. Sig. (2-tails)	0.002

From the results of statistical tests, Asymp. Sig. (2-tailed) has a value of 0.002. Because the value of 0.002 is less than <0.05, the hypothesis is accepted, which means that there is a difference between the cost of LCL storage before and after AEO implementation. Therefore, there is also the influence of AEO implementation on LCL storage costs.

Descriptive Hypothesis Testing of Import Flight Storage AEO

Based on the normality of the Kolmogorov-Smirnov statistics, the LCL storage data is not normally distributed. Thus, the Wilcoxon Signed Ranks different check is operated as an option for the Paired Sample T-Test if the data used as the sample in this study is declared not normally distributed based on the results of the Kolmogorov-Smirnov normality test or the Asymp value. Sig. (2-fish) less than 0.05. The Wilcoxon Signed Ranks difference test is used to evaluate certain treatments in two observations, before and after certain treatments. In this study, the cost of storage via air will be tested before and after the implementation of AEO.

Table 14. Wilcoxon Signed Aviation Storage Import Rating

Rating		N	Rating Means	Number of Ratings
Storage Before AEO Water AEO Water Storage	Negative Rating	12a	6.50	78.00
	Positive Rating	0b	0.00	0.00
	Tie	0c		
	Total	12		

Negative level or contrast (negative) between the results of storage via air before and after the application of AEO. From the test results, 12 negative data (N) were obtained, so that 12 suppliers experienced a decrease in storage costs. The average decrease in rank is 6.5, and the Sum Rank is 78. The positive rank or (positive) contrast between the results of air storage before and after the application of AEO is 0, both the N value and the average. rank. A value of 0 indicates no expansion of air storage costs prior to AEO implementation. Ties is the similarity of airborne storage costs before and before AEO implementation is 0, so there is no matching value between airborne storage costs before and before AEO implementation.

Table 15. Wilcoxon Signed Rank Test Output Import Flight Storage

Statistical Test	
	AEO Water Storage – Pre-AEO Water Storage
Z	-3.059b
Asimp. Sig. (2-tails)	0.002

Based on the results of statistical tests, Asymp. Sig. (2-tailed) has a value of 0.002. Because the value of 0.002 is less than <0.05, the hypothesis is accepted, meaning that there is a difference between the cost of storage via air before and after implementing AEO. So, it can be concluded that there is an effect of implementing AEO on airborne storage costs.

Comparison of AEO Implementation with Other Companies in Indonesia

AEO is an economic operator certification that is recognized by and on behalf of the national customs administration. This indicates that the person concerned has complied with global trade security and facilitation standards. Meanwhile, these economic operators come from parties involved in the movement of international goods in various functions of the global supply chain. AEO can consist of importers, exporters, customs service administrators (PPJK), transporters, Temporary Storage Operators (TPS), Bonded Storage Operators (TPB) and other parties involved in the movement of goods and services (World Customs Organization, 2006). Referring to Article 1 of PMK 227/PMK.04/2014, economic operators are parties involved in the international movement of goods in the global supply chain function and Certified Economic Operators (Authorized Economic Operators), hereinafter referred to as AEO, are Economic Operators who has been approved by/on behalf of the customs authority because it meets WCO standards or global supply chain security standards which have received recognition by the Directorate General of Customs and Excise so as to obtain certain customs benefits/advantages. This AEO is a program that is recognized internationally and is given to business actors as a form of partnership (Peraturan Menteri Keuangan Republik Indonesia Nomor 227/PMK.04/2014, 2014).

Companies that have implemented AEO are Krakatau Posco. According to a study, Krakatau Posco officially obtained one of the facilities in the customs sector, namely becoming part of a company with a certified Authorized Economic Operator ("AEO"). As one of the responsibilities of an AEO company, Krakatoa Posco has submitted an Internal Audit Authorized Economic Operator (AEO) report to the Client Manager (CM) at each company's export and import service office, according to Article 10 letter (c) PMK 227/PMK.04/2014 which means that each department in Krakatoa Posco have carried out and carried out their work according to the Standard Operational Procedure (SOP) and AEO. It is the responsibility of all departments in the Company to maintain this condition and improve it (AEON Krakatau Posco Indonesia, 2021). There are also several benefits or advantages for Krakatau Posco as a company that has AEO certification. First, minimal inspection and research of documents. Second, the unloading of goods from ships can use the truck loss method (directly to the means of transport without hoarding them at TPS). Third, ease of payment for settlement of customs obligations in periodic form using corporate guarantees. Furthermore, for the customs process, you can only use soft copies of documents. Companies are also given priority to simplify customs procedures and obtain special services provided by Client Managers (AEON Krakatau Posco Indonesia, 2021).

However, based on research by (Santosa and Halim, 2019), he selected 18 companies by testing the influence of the implementation of AEO policies on the competitiveness of Indonesia's logistics performance, especially related to logistics costs and dwelling time of imported goods in Indonesia. The results of the study concluded that testing the effect

of implementing AEO policies on both logistics costs and dwelling time showed insignificant results. The insignificant effect of the implementation of AEO policies on both logistics costs and dwelling time is due to the large variation in data changes that occur in the research object, which significantly increases the potential for error. Therefore, the study suggests that in implementing AEO, companies need to conduct training on the use of AEO in the company and need to add procedures in the company's SOP so that the company can apply it to reduce logistics costs and dwelling time in its implementation.

Based on data from the Director General of Customs and Excise (2015) stated that as many as five companies received Authorized Economic Operator (AEO) certificates from the Directorate General of Customs and Excise (DJBC). The five companies will automatically get convenience facilities in export-import transactions between companies in other countries that also apply the AEO system. The five companies include PT LG Electronic Indonesia, PT Nestle Indonesia, PT Toyota Manufacturing Indonesia, PT Indah Kiat Pulp and Paper Tbk., and PT Unilever Indonesia Tbk. Companies that get AEO facilities will at least get five special treatments. First, speeding up the process of releasing goods by not carrying out document research and/or physical inspection. Second, shortening the transit time thereby reducing the cost of accumulation (dwelling time). Third, access to information relating to the activities of AEOs. Fourth, special services in the event of trade disruptions and increased threats. Fifth, prioritize the simplification of customs systems and procedures. Until the end of 2013, 78 countries had implemented the AEO facility. Some of them include developing countries (AEO Customs & Excise Indonesia, 2015).

4. DISCUSSION

The benefit of implementing AEO is that it speeds up the process of releasing imported goods with less paper research and physical & priority inspection to get simplified customs procedures to lower logistics costs. AEO's business will be identified through compliance and compliance in international trade. The benefit of implementing AEO is the ease of paying import duties from import duties in rare forms (Differed Payment). The time limit for granting credit is no longer than 30 days, with a deadline on the 10th of the following month or depending on the discretion of the local Director General of Customs and Excise.

The statistical value with the Kolmogorov-Smirnov analysis for FCL storage costs shows a significance value (p) of 0.001 below 0.05. The results of the normality analysis of the regression model show that the FCL storage data is not normally distributed. Statistical value with Kolmogorov-Smirnov analysis for LCL storage costs shows a significance value (p) of 0.032 below 0.05. The results of the normality analysis of the regression model show that the LCL data stores are not normally distributed. The statistical value of the Kolmogorov-Smirnov test for air storage costs shows a significance value (p) of 0.004 below 0.05. The results of the normality check of the regression model explain how the airborne storage data is not normally distributed.

Meanwhile, the data is not normally distributed on the cost of FCL storage. The Wilcoxon Signed Ranks test evaluates certain treatments in two observations, before and after certain treatments. The result of the positive level or contrast (positive) between the

results of FCL storage before and after the application of AEO is 0, both the N value, sum rank, and mean rank. A value of 0 indicates that there was no development of FCL storage costs before the implementation of AEO. The Wilcoxon Signed Ranks test on LCL storage costs obtained a positive level or contrast (positive) between the results of LCL storage before and after AEO implementation was 0; both in N grades, sum ratings, and average ratings. A value of 0 indicates no progress in LCL storage costs prior to implementation of AEO. The Wilcoxon Signed Ranks test for storage costs by air obtained a positive level, or the (positive) contrast between the results of storage via air before and after the implementation of AEO was 0, both the N value, rank sum, and mean rank. A value of 0 indicates no progress in air storage costs prior to implementing AEO.

Summary of import storage, handling & replacement costs from January to June 2022 companies with 143 imports. FCL import costs decreased by IDR 521,599,100 or a decrease in costs of 64.61%. LCL import costs decreased by IDR 2,795,000 or decreased by 3.03%. Import costs by water have a cost reduction of IDR 939,579,180 or 38.97%. The largest reduction in import costs with AEO is for imports with FCL, and a small reduction for LCL. Import data from January to June 2022 for companies with 143 imports, the total import cost is IDR 5,839,263,666, while the import cost after AEO is IDR 4,375,290,386, so it can be concluded that implementing AEO can reduce import costs by IDR 1,463,973,280 by 25.07%.

The data above corresponds to the benefits of the AEO facility when compared to other companies in Indonesia. Namely, PT LG Electronic Indonesia, PT Nestle Indonesia, PT Toyota Manufacturing Indonesia, PT Indah Kiat Pulp and Paper Tbk., PT Unilever Indonesia Tbk., and Krakatau Posco. Companies that get AEO facilities will at least get five special treatments. First, speeding up the process of releasing goods by not carrying out document research and/or physical inspection. Second, shortening the transit time thereby reducing the cost of accumulation (dwelling time). Third, access to information relating to the activities of AEOs. Fourth, special services in the event of trade disruptions and increased threats. Fifth, prioritize the simplification of customs systems and procedures.

5. CONCLUSION

With the advantages of implementing AEO, it is easy to pay import taxes from import duties in a rare form (Differed Payment). The maximum time limit for granting credit is 30 days. Research can be developed with the benefits of monthly cash flow obtained by PT. XYZ. Following are the managerial implications in this study, where the usefulness of implementing AEO concludes that the most significant reduction in import costs with AEO is for imports with FCL, and the smallest reduction is with LCL. It can be a reference for the management of cigarette companies in the future to choose the mode & type of cargo when implementing AEO to get the cheapest import costs. In addition, with the advantage of implementing AEO on import data from January to June, cigarette companies received a reduction in import costs of IDR 1,463,973,280. This value can be used as a reference for management as a consideration for the initial expenditure or capital costs of AEO certification. Based on data from the Director General of Customs and Excise (2015) stated that as many as five companies received Authorized Economic Operator (AEO) certificates from the Directorate General of Customs and Excise (DJBC), namely PT LG Electronic Indonesia, PT Nestle Indonesia, PT Toyota Manufacturing Indonesia, PT Indah Kiat Pulp and Paper Tbk., and PT Unilever Indonesia Tbk. Where

these five companies get the same benefits in reducing import costs by implementing AEO and get convenience facilities in export-import transactions between companies in other countries. Companies that get AEO facilities will at least get five special treatments. First, accelerate the process of releasing goods without carrying out document research and/or physical inspection. Second, shortening the transit time thereby reducing the cost of accumulation (dwelling time). Third, access to information relating to the activities of AEOs. Fourth, special services in the event of trade disruptions and increased threats. Fifth, prioritize simplification of customs systems and procedures. Overall, this research shows that the customs process with AEO can provide an alternative import during the Covid-19 pandemic for cigarette companies and FMCG because AEO can significantly reduce import costs using FCL and FMCG modes of transportation. LCL. access to information relating to the activities of AEOs. Fourth, special services in the event of trade disruptions and increased threats. Fifth, prioritize simplification of customs systems and procedures. Overall, this research shows that the customs process with AEO can provide an alternative import during the Covid-19 pandemic for cigarette companies and FMCG because AEO can significantly reduce import costs using FCL and FMCG modes of transportation. LCL. access to information relating to the activities of AEOs. Fourth, special services in the event of trade disruptions and increased threats. Fifth, prioritize simplification of customs systems and procedures. Overall, this research shows that the customs process with AEO can provide an alternative import during the Covid-19 pandemic for cigarette companies and FMCG because AEO can significantly reduce import costs using FCL and FMCG modes of transportation LCL.

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