The Impact of Internet Electronic Data Exchange Program (PDE) To Efficiency Cost

Ravina Suryani\textsuperscript{1*}, Annisa Khoiriyah\textsuperscript{2}, Suprihadi\textsuperscript{3}, Muhammad Rifni\textsuperscript{4}
\textsuperscript{1,2,3,4} Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia
\textsuperscript{*}Corresponding author: ravinasuryani26@gmail.com

Abstract. This research intends to analyze the Electronic Data Exchange (PDE) Internet Program to stakeholders to know whether this program is better than before and also if this program can save time, effort, and cost. Directorate General of Customs (DJBC) implement the PDE Internet Program a whole in all service office and customs control on January 1st, 2019. This research concludes this program can give customs service more effective, easier, faster, cheaper, and transparent for stakeholders. With the PDE Internet Program implements overall, the submission of customs documents no longer done via a provider. Therefore, the stakeholders expected to support this PDE Internet Program overall. And until nowadays PDE Internet Program still running smoothly.

Keywords: PDE internet, stakeholder, efficiency cost

1. Introduction

The development and progress of technology and information in Indonesia are very rapid, almost all companies and government agencies are competing to take advantage of the advances in information technology. One of them is the Directorate General of Customs (DJBC), a government agency under the Ministry of Finance.

Manifest Electronic Data Exchange (PDE) Internet system (goods cargo document) which continues to be refined by the customs directorate general through financial ministry regulations No.158/2017 will be able to improve Indonesia's logistics performance.

PMK 158/2017 regulates the submission of notification of the plan for the arrival of carrier means. Manifest of the arrival of the carrier means and manifest of departure of the carrier means. Service demands to be more effective and efficient in the processing business, optimization of Directorate General of Customs (DJBC) infrastructure utilization, State Budget (APBN) saving also background Directorate General of Customs (DJBC) to implement the Electronic Data Exchange Program (PDE) Internet program.

The PDE Internet is the latest delivery media that can be used by stakeholders (importers and exporters) to submit Customs Notices in the form of Import Declaration (PIB) and Exporters Declaration (PEB) to the Customs and Excise Supervision and Supervision Office (KPPBC) so that time and place not limited to sending data [1].

While cost efficiency is a measure of the success of an activity that is assessed based on the number of costs/resources used to achieve the desired results. In this PDE Internet Program, it aims to streamline costs such as saving the State Budget (APBN) and others. This PDE Internet is a program created by the Directorate General of Customs (DJBC) as a substitute for PDE (EDI module) made by PT. EDI Indonesia. Both programs have the same purpose and the same way of working but have different displays and servers [2].

The PDE (EDI module) is the process of transferring structured data, in an approved standard format, from one computer system to another, in electronic form. One example of the application of PDE (EDI module) in Indonesia can be seen in PT EDI Indonesia, which is an
PDE (EDI module) service provider company in Indonesia that provides technical and consulting services. PT Electronic Data Interchange Indonesia (EDII) was established on June 1, 1995, as a pioneer company in developing Electronic Data Interchange Services (PDE) in Indonesia which is a subsidiary of PT Pelabuhan Indonesia II (Persero) [3].

2. Methods

The approach of this research is qualitative to describe in depth how the application of the PDE Internet program to improve services to users of customs services or stakeholders in carrying out import and export activities and also in terms of suppressing the state expenditure side (APBN).

Data collection was done through a structured interview, semi-structured and in-depth interview, and focused group discussion. The data analysis techniques used in this study was an approach developed by Miles and Huberman that included (after data collection) data reduction, data separation from unfocused and too detailed one so that the data could reveal patterns or themes. Next was to display the data (data display) that served to help understand for advanced analysis of certain information or event. The last process was the conclusion of the analysis based on the pattern and theme. Withdrawal conclusion is done continuously and simultaneously with the data reduction and data display [4].

![Diagram](image)

**Figure 1: Data Processing Technique**
Source: Miles, Huberman, & Saldana (2014)

The source of the data in this paper are informants who have the ability and expertise of information that is appropriate to the needs of this study (purposive). Because this study aims to determine whether this program is easier than before and also whether this program can save time, effort, and costs. The informants in this study were: Mr. Eka Deny Chrisdianto as Head of the Customer Service Department at PT EDI Indonesia.

3. Discussion and result

History of technological developments in the delivery of customs documents from users of customs services such as importers, exporters and Customs Services Management Entrepreneurs (PPJK), namely initially delivering customs documents using paper sheets without using a computer device or commonly referred to as manual. The entrepreneur makes a Customs Notification document, prints, and brings it to KPPBC. Customs officers receive documents, carry out checks, and provide numbers (from bamboo books) directly. Data is not stored on Customs computers. With all the advantages and disadvantages of delivering customs documents, this lasted quite a long time [5].
With the development of technology, especially for data delivery technology, the discovery of data storage media, namely diskettes. Customs data is stored to the disk with the help of computer applications made following the rules and customs law. So that the customs department also developed data reading technology by developing computer applications for services called CFRS (Customs Fast Release System). This system allows services at Customs to use computers, but data is still inputted by Document Receiving officers. The importer keeps the data in his company, documents are submitted in the form of paper, and data is recorded by the officer.

Then the CFRS application was improved by making an importer module, namely a computer application program used by importers to make PIB documents, print and move their data to diskettes to be brought to KPPBC. In addition to the printed documents, the importer must also carry a diskette containing the PIB data. At KPPBC, Customs officers receive the printed documents and diskettes as a result of transfers from stakeholders. After examining the completeness of the documents, the data in the disk is loaded into the computer in the Customs office.

The main obstacle in delivering data using this diskette is the damage to data stored on diskettes because this media is very easily damaged due to electromagnetic proximity. And there are also disruptions due to viruses which at that time were also very disturbing so that not only data on diskettes could be damaged, even customs servers became vulnerable to contracting the virus due to reading the diskette.

Until 1997 customs had the initiative to develop data processing technology using faster electronic media, data network media. Finally, the new method has been implemented since 1998. Starting from sending data over the network that is using media or telephone communication lines that are assisted by a modem. At that time customs appointed PT EDI Indonesia as the provider of electronic data exchange services. Computer applications are also developing by technological advances in both computer operating systems, programming languages, and databases as a storage medium. Stakeholders must have a Company Module, Enabler Software, Modem, and Phone Line. For delivery with the PDE (EDI module) system, the Enabler Software functions to make changes to the data in the Edifact format and communicated using communication media (modem).

![EDI Schema](image)

**Figure 2. EDI Schema**
*Source: Edy Susanto (2015)*
The condition of submitting documents using the PDE (EDI module) results in the submission of documents using the service provider because the document is stored on the provider's server. As a result, costs arise for the government and the stakeholders and the translation of documents is done several times from the client so that for a lot of data it takes longer.

Customs EDI is an electronic document exchange system developed by DJBC to deliver customs documents electronically using EDI network, BiznisNET (http://www.edi-indonesia.co.id) Every BiznisNET customer will be given a mailbox that has a special identification called EDI number and password that function as the identity/address of the customer's network and ensure the security of document transactions. As described in the journal [6].

EDI is a mechanism for exchanging data for electronic business purposes. The existence of EDI can speed up business processes. The weakness of EDI is that the implementation is very specific and closed so it requires no small amount of money. With the existence of the Internet, EDI (over) the Internet began, and Open EDI was expected to reduce costs by using the Internet. As described in the journal [7].

Until finally, the method of data disputes using the data network developed using an internet path that has undergone several changes. Since using the data network method, the stakeholders do not need to come to the customs office to submit their customs documents, but it is enough from a computer that is used as a customs document maker.

Then in 2019, the PDE Internet Program will be implemented simultaneously, where the server is created and handled directly by the Customs itself, so as to send Customs Notifications in the form of Import Declaration (PIB) and Exporter Declaration (PEB) and Customs Services Management Entrepreneurs (PPJK) no longer need to use the services of PT EDI Indonesia. Will save the State Budget (APBN).

The PDE Internet program and the PDE (EDI module) system have the same purpose and work methods but have different views and servers. The method used by both is the same, which distinguishes only the appearance of each server. The purpose of the program is the same, but the only difference is the server if the PDE (EDI module) system is managed by PT. Edi Indonesia, while the PDE Internet Program is managed by customs itself.

Figure 3. PDE Internet plot
Source: Direktorat Informasi Kepabeanan dan Cukai (2018)
The influence of the PDE Internet Program on the stakeholders is that users respond positively to new programs that are more efficient in time, energy and costs. Before the PDE Internet program was held together, the stakeholders initially “wait and see” to find out what the new customs server created was like [8].

Implementation of the PDE Internet Import Export Document system, starting January 1, 2019. According to DJBC Heru Pambudi, the policy has been discussed since 2 years ago and has been implemented since 2016 but has not been evenly distributed in all Customs and Excise offices. This system has been implemented in stages in 70 supervisory and service offices to process PIB and PEB documents, while manifest documents have been implemented in 83 service offices.

In 2019, DJBC will continue to implement the PDE Internet program in 13 service offices. In preparation, DJBC has conducted socialization and training of installations to employees, service users including companies and associations, importers, exporters, and customs service management companies. The socialization and evaluation of the implementation of the PIB and PEB the PDE Internet program have also been carried out in 13 service offices and 5 supporting service offices. As of December 16, 2018, data on the management of PIB and PEB documents have reached 73.33% or there are still 36% who have not implemented them [9].

The conditions for submitting documents using the PDE (EDI Module) have developed to date. This condition resulted in the submission of documents online minimizing face to face between the stakeholders and officers to reduce the potential of KKN (Corruption, Collusion, and Nepotism) and provide ease of control on both sides. The PDE (EDI Module) also provides connections with other institutions/agencies related to Import-Export licensing. But on the other hand, the PDE (EDI Module) system results in the submission of documents with the provider and documents stored on the provider's server. This raises costs for the government and stakeholders. The PDE (EDI Module) system also results in the translation of documents several times (from the client), so that for a lot of data it takes longer.

The submission of documents using the PDE Internet program does not depend only on certain providers, namely Electronic Data Interchange (EDI) but only by utilizing an Internet connection. By using this program, the stakeholders also do not have to come to KPPBC, unless there are a physical examination and hardcopy submission. Besides, this program can save time, effort and costs because it does not need to wait long to queue and does not need employees to load documents and accelerate business processes and cost-efficiency. And also the stakeholders, importers/exporters can submit documents and print responses independently. The application of the PDE Internet program on DJBC also has an impact on saving the expenditure budget (APBN) reaching 100 billion Rupiah annually. As described in the journal [10].

![Gambaran Umum PDE Internet DJBC](image)

**Figure 4. General description of PDE Internet**

*Source: Direktorat Informasi Kepabeanan dan Cukai (2018)*
4. Conclusion

Indonesia which has high Import-Export activities. And in this digitalization era that concerns Information Technology (IT). DJBC created an PDE Internet program as a replacement for PDE (EDI module) made by PT. EDI Indonesia as the latest data delivery media that can be used by stakeholders (importers and exporters). The method used by both is the same, which distinguishes only the appearance of each server. The purpose of the program is the same, but the only difference is the server if the PDE (EDI module) is managed by PT. EDI Indonesia, while the PDE Internet Program is managed by customs itself.

Which is where PDE Internet is a solution in saving time, effort, and costs in sending Customs Notices in the form of Import Declaration (PIB) and Export Declaration (PEB) and Customs Services Management Entrepreneurs (PPJK) no need to use PT. EDI Indonesia again, so it can save the State Budget (APBN).

There are several supporting factors for the implementation of the PDE Internet program, such as no changes in procedures (procedures for filling out and operating application programs from company modules and inhouse applications for customs services).

In the PDE Internet program, PIB and PEB documents are integrated with the INSW (Indonesia National Single Windows) system that is connected to other institutions or agencies, similar to the PDE (EDI module). PIB and PEB shipments are possible to all Customs and Excise offices in Indonesia due to the Customs and Excise Information System and Automation (CEISA) system, namely the name of the information and automatic system in Customs are now centralized.

And there is also a standalone Tracking Feature on the Service User Portal. Submission of documents using the PDE Internet program does not depend only on certain providers, namely Electronic Data Exchange (PDE) but only by utilizing an Internet connection. This results in submitting documents online minimizing face to face between stakeholders and officers to reduce the potential of KKN (Collusion and Nepotism Corruption) and provide ease of control on both sides.

And it is very efficient and effective for Importers and Exporters because they have been connected with other institutions/agencies with the Customs Office that has implemented the PDE Internet program. And the impact of the Electronic Data Exchange (PDE) Internet program has proven to be cost-effective.

5. References


