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Implementation of the Customs Digital Transformation Policy Using the Ceisa 4.0 System to Improve Customs and Excise Services

Notika Rahmi[1], Pebriana Arimbhi[2], Dartono[3]
[12]Institut Ilmu Sosial dan Manajemen STIAMI, Indonesia
[3]Institut Teknologi dan Bisnis Swadharma, Indonesia
Correspondent: notika.rahmi@gmail.com[1]

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ABSTRACT: The Directorate General of Customs and Excise is evolving the information technology system. Since the introduction of the Customs Fast Release System (CFRS), the CEISA 4.0 application has been used. The CEISA 4.0 application continues to be developed to improve customs and excise services. This means that internal and external policymakers must continue adapting to changes in existing applications. This makes us research to analyse the implementation, obstacles, and efforts involved in implementing the CEISA 4.0 system. The research method used is qualitative analytical descriptive with data collection techniques of observation, interviews and documentation. Interviews were conducted with 20 informants: Customs, Platform Providers and Service Users. The research results show that the implementation of CEISA 4.0 is still under development and is not fully running perfectly because there are still business processes that are not/have not been touched by the CEISA 4.0 program. In some cases, bugs are still encountered and/or system stability has not been properly maintained. However, it has been running efficiently where customs and excise obligations are fulfilled paperless; it can be done anytime and anywhere. The HR capabilities of DJBC and service users still require training in operating CEISA 4.0 because several tools are not yet familiar regarding the standards, policy targets and characteristics of the implementing organisation, namely that the implementation of the rules has gone well using a clear legal basis and rules.

Keywords: Policy Implementation, Digital Transformation, CEISA 4.0, Customs and Excise Services, Directorate General of Customs and Excise

INTRODUCTION

Since 1990, the Directorate General of Customs and Excise has evolved the information technology system to support the service system. The Customs Fast Release System (CFRS) was introduced in 1995, and the Diskette-Based Goods Import Notification was implemented. Continuing with the Import Goods Notification system Electronic Data Interchange (EDI) in

collaboration with PT. Elektronik Data Indonesia in 1997, the renewal of Electronic Data Notification (PDE) phase II in 2003, as well as major changes in 2007 where the Portal Indonesia National Single Window (INSW) bridges and facilitates the exchange of documents in the world of trade, especially exports and imports. Next, the application system began implementing Costums-Excise Information System and Automation (CEISA) in 2012. The CEISA application is an integration system for all Directorate General of Customs and Excise services to all service users and the public. Service users and Stakeholders can access anytime and anywhere via the CEISA Application (Sudarmadi, Primadista, & Dartono, 2022) and (Pradipta, Pradnyana, & Raharjo, 2020).

The presence of CEISA is in line with the Vision and Mission of the Directorate General of Customs and Excise, where one of the stated missions is to facilitate trade and industry. DJBC's main function is to create a conducive business and investment climate by streamlining import and export logistics and simplifying customs and excise procedures (Singgih, Anisa, & Permatasari, 2022; Wulandari, Teron, Agustina, & Rofiyanti, 2022). Gradually, the CEISA application began to be developed as a web form application-based information technology system, which from 2018 until now was named CEISA 4.0 (Pratiwi, Fridyatama, & Taryo, 2024). It is hoped that the CEISA 4.0 application will facilitate the integration and collaboration process between G2G (Government to Government), B2G (Business to Government) and B2B (Business to Business). In November 2023, the old module changed to web-based CEISA 4.0. Socialisation efforts have been made, including the Main Service Office (KPU) of Tanjung Priok Port Customs and Excise and the Indonesian Logistics and Fowardship Association (ALFI) providing technology training to Customs Services Management Companies (PPJK) members of the DKI Jakarta DPW ALFI (Irma Latifah Sihite Edy Sutrisno, 2024; Widaningsih, Natision, Ungkari, & Muharam, 2023).

The CEISA 4.0 application has had a positive impact on the efficiency of the customs process since its implementation. (Putri & Syamsuddin, 2021), (Rahman & Harianto, 2023) and (Murti & Vikaliana, 2021). Speed of submission of Means of Transport Arrival Plan (RKSP) inward manifest so that routing can be felt through the CEISA 4.0 application. Apart from that, CEISA 4.0 also offers speedy completion of customs processes before the arrival of goods (Pre-Arrival Declaration); even users of customs services who have a good reputation can apply and obtain approval for the release of goods before submission of Inward Manifest (Pre-Notification). Behind the positive things felt during the process, there were obstacles to using CEISA up to CEISA 4.0. Based on the survey results by DJBC as outlined in Service Memorandum No. ND-774/BC.073/2023 for old CEISA and CEISA 4.0 service users. The level of satisfaction of users of the old CEISA service in 2021-2023 has increased, while the level of interest has decreased in 2022 and will increase again in 2023, as in Figure 1 below:

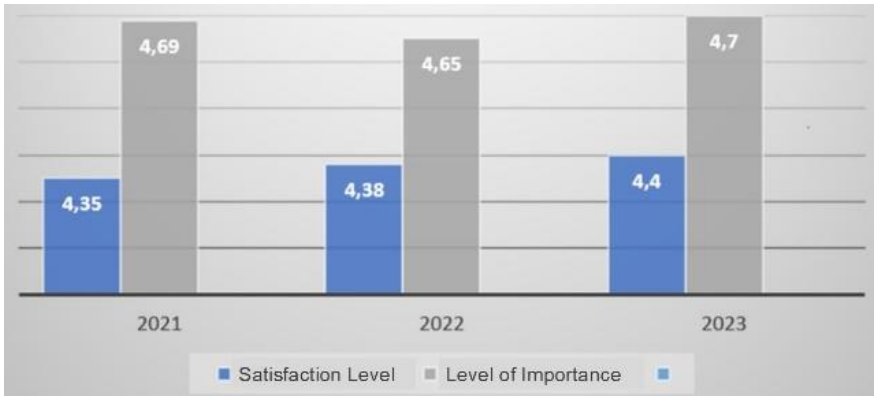

Figure 1. Survey of Old CEISA Users 2021-2023
Source: Service Memorandum ND-774/BC.073/2023

Furthermore, the level of satisfaction of CEISA 4.0 service users in 2022-2023 decreased by 4.13%, while the level of interest increased by 1.28%, as stated in Figure 2 below:

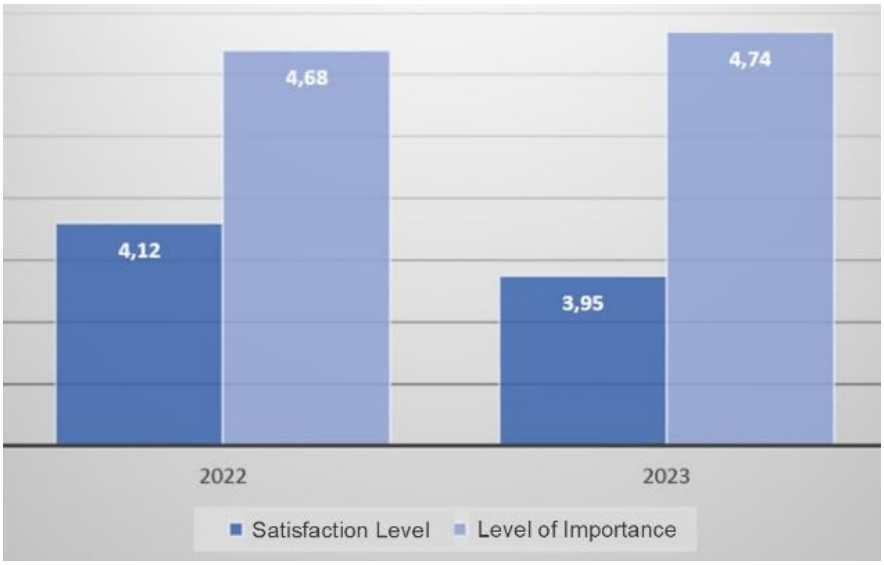

Figure 2. CEISA 4.0 User Survey 2022-2023
Source: Service Memorandum ND-774/BC.073/2023

It can be said that the satisfaction felt has not been able to balance the interest in using the CEISA and CEISA 4.0 applications. Also included in the Service Note are complaints submitted by service users, such as the application not being accessed, the menu not being used, the data displayed being incomplete, the time idle being too short, and so on. Measuring the level of satisfaction is also carried out by (Zahratul, Fuada, & Hasugian, 2023) and (Purnomo & Riyadi, 2022)This research analysed the implementation of customs digital transformation policies with the CEISA 4.0 system to improve customs and excise services.

In contrast to previous research, in this research, the implementation process is discussed using implementation theory according to Van Meter dan Van Horn (Nugroho, 2018) Six things are available that influence each other in policy implementation: policy standards and targets,

resources, characteristics of implementing organisations, communication between organisations, attitudes of implementers, and the social, economic, and political environment. Policy standards and targets will measure the success of realistic policy measures and objectives. Policy performance assesses the achievement of standards and targets in the CEISA 4.0 system. The assessment of resources is seen from the organisation's ability to utilise available human resources, financial resources, facilities, and infrastructure in the CEISA 4.0 system. The characteristics of the implementing organisation explain the standard work procedures (SOP) used in implementing the CEISA 4.0 system. Inter-organizational communication analyses are related to clarity, consistency, and uniformity of standards used by CEISA 4.0 system service users. The attitude of the implementers analyses the readiness of internal and external policymakers to implement the CEISA 4.0 system. The reactions of various parties are also important, whether in the form of acceptance or rejection of the CEISA 4.0 application. Finally, it will be related to the social, economic, and political environment, discussing the commitment between Customs, Platform Providers, and service users to implement the CEISA 4.0 system. Matters regarding strengths, weaknesses, opportunities and challenges are included as a systematic identification of factors based on theory (David, 2006) Which will have a big impact (Astuti & Ratnawati, 2020). The concept of digital transformation is also discussed using the theory (Mergel, Haug, & Edelmann, 2019) Which includes input, process and output.

This research is important to carry out to analyze the implementation of CEISA 4.0 because of the updates that continue to be carried out by the Directorate General of Customs and Excise during its implementation, the new features that appear in the CEISA 4.0 application and the implementation which is carried out in stages through several mandatory stages to reach the use of the system CEISA 4.0 throughout Indonesia. CEISA has been implemented in stages since 2019 with a measured approach and focus on optimizing services. By 2024, this implementation has reached the 14th stage, which covers various main services such as imports, exports, TPB (Bonded Stockpiling Place), shipped goods, treasury and excise.

At first, CEISA is implemented in offices with smaller transaction volumes. This is done to ensure system stability and identify areas of improvement before applying to offices with a larger transaction load. This approach allows for an in-depth evaluation of system functionality and the implementation of necessary updates. In the 4th quarter of 2024, all main CEISA 4.0 services are targeted to have been implemented nationally, although several challenges will be encountered.

Old features that previously existed often experienced problems during implementation, so they need to be reviewed more deeply regarding readiness to implement the CEISA 4.0 system. The CEISA 4.0 system is not new, but the gradual development is the main highlight of this research. Problems still frequently found in the CEISA 4.0 system range from minor ones, such as uploading documents that often get stuck in the system, to major ones, such as tax application service downtime, which also affects the CEISA 4.0 system. If it continues repeatedly, it will disrupt business processes in the customs sector and reduce the service quality. carried out by the Directorate General of Customs and Excise. The obstacles encountered and the efforts made are also important things discussed in this research. So that in the end, this research will provide a general overview of the implementation of CEISA 4.0 in the field as a consideration for

policymakers in meeting current and future technological needs. This research contributes information to DJBC to improve customs and excise services.

METHOD

The research method used is qualitative and descriptive approach analyst. Qualitative research is a method for exploring and understanding the meaning that comes from social or humanitarian problems (Cresswell, 2014). Meanwhile, descriptive research provides an overview of the facts and relationships between the phenomena studied (Silaen & Widiyono, 2013)The author compared the old CEISA policy with the new one to understand the similarities and differences and then related them to the current implementation. Later, this research will contribute information to the government, especially the Directorate General of Customs and Excise, regarding implementing the CEISA 4.0 system. It is hoped that the government, especially DJBC, can take the right steps to improve the CEISA 4.0 system.

This research uses several data collection techniques: observation, interviews and documentation. Observations were conducted directly at the Directorate General of Customs and Excise Customs and Excise Supervision and Services Office and the location of service users and platform providers. Observations were also conducted by visiting and interacting directly and continued online with CEISA 4.0 application users to obtain more accurate information. Interviews were conducted with the authorities at the Directorate General of Customs and Excise with a total of 4 informants, CEISA 4.0 System Users with a total of 9 informants, CEISA 4.0 Platform Providers with a total of 4 informants and Academics with as many as three informants with the technique of determining informants using the Purposive Sampling technique. The criteria for deciding informants are selecting informants who master and understand and are directly related to the CEISA 4.0 system. Documentation is carried out by collecting secondary data related to the CEISA 4.0 System. Secondary data analyzed is the results of surveys of Old CEISA and CEISA 4.0 users, data on service modules contained in CEISA 4.0, data on the movement of the number of old CEISA and CEISA 4.0 documents, and data on the number of times for completing CEISA 4.0 complaint tickets. This data provides an overview of the implementation of the CEISA 4.0 system, which is currently underway.

RESULT AND DISCUSSION

Digital transformation in customs is very important to meet the demands of the times in various parts of the world (Jonathan & Marshall, 2006), (Chebotareva, Kazantseva, Vologdina, Grigorian, & Sukhanova, 2021), (Vovchenko, Ivanova, Khapilin, & Khapilin, 2019) and (Kafando, 2020). In the DJBC business process, digital transformation is one of the demands of service users who adopt the latest technology in increasingly complex government services to become faster, safer, more effective and efficient which is implemented in regulatory products (Novikova, Sidorov, & Goncharuk, 2020). Digital transformation of Customs and Excise services is carried out in stages, adjusted to the needs and developments in Information Technology at that time (Jaleta, 2024), (Yereshko, Khoma, & Pyslytsia, 2024) and (Jaloliddin, 2023). Starting from diskette media and

electronic data exchange (PDE) to the CEISA 4.0 application. Every customs and excise regulation issued also accommodates the digital transformation policies that the leadership has established. Starting from making customs forms electronic while still including hardcopy, until now, the majority have gone hardcopy again. This can significantly help increase compliance in fulfilling customs obligations safely and efficiently (Shope, 2022) and (Yaren, 2020) which will also have an impact on state revenues (Jaleta & Tulu, 2023). And by utilizing digital technology it can help supervision carried out by Customs and Excise (Tanjung, Anriani, & Rofii, 2023).

The background to the development of the CEISA 4.0 application is to overcome problems in the previous system, such as outdated technology, silo systems (separate systems), difficulty to manage, and lack of collaboration. CEISA 4.0 aims to improve interoperability (automatic and secure data exchange) with external systems, providing a reliable infrastructure, high availability, and utilising the latest technologies such as big data and AI (Artificial Intelligence). The legal basis for CEISA is attached to every regulation that regulates each business process. CEISA, in rules, is usually called SKP (Service Computer System). Each implementation of the application system uses the Mandatory KEP legal basis in stages, starting from the Decree of the Director General of Customs and Excise Number KEP-98/BC/2021 concerning the Full Implementation (Mandatory) of CEISA 4.0 First Stage up to the Decree of the Director General of Customs and Excise Number KEP- 60/BC/2024 concerning Full Implementation (Mandatory) of CEISA 4.0 Phase Eight.

CEISA 4.0 was formulated by the Directorate General of Customs and Excise (DJBC) in 2018 to support digital transformation and increase the efficiency and security of customs and excise services. The creation of CEISA 4.0 was carried out by the IT development team from DJBC, which involved various information technology and business process experts. In its implementation, CEISA 4.0 involves multiple parties from head office and verticals, business process owners (probis), users and IT experts. A Monev (Monitoring and Evaluation) team was also formed to ensure implementation went as expected. Maintenance The CEISA 4.0 system is carried out by the IT team from DJBC who is responsible for maintaining system reliability and security and carrying out necessary repairs and updates. DJBC employees and customs service users, such as importer and exporter companies can utilize the CEISA 4.0 system. It can be connected to various related systems via a web portal and API host-to-host.

The CEISA 4.0 application policy aims to increase service efficiency, speed up business procedures, reduce process redundancy, and provide fast and accurate data. Apart from that, CEISA 4.0 also provides benefits in terms of system integration, both internal and external, as well as improving user experience with a unified approach. It is customer-centric. The main target of the CEISA 4.0 application is customs service users, involving more than 20,000 service users as well as all Customs and Excise employees connected to CEISA.

CEISA 4.0 functions to manage all customs and excise processes online. Its main functions include creating and submitting import and export documents, monitoring customs processes in real-time, and providing information related to customs regulations and processes for service users. The benefits of CEISA 4.0 are better system integration, CEISA 4.0 integrates various applications and databases and mapping the WCO Data Model in one efficient portal. Service users do not need to manage many modules or perform repetitive data entry. Improve Interoperability: Improve

interoperability with external systems through APIs, enabling real-time data exchange with various institutions and companies. Efficiency and Speed of Service: Speed up the customs and excise process by re-engineering and simplifying business procedures. This system allows fast service without delays and minimizes additional costs. More Effective Surveillance: Utilize the latest technology, such as IoT, big data, and AI, for direct real-time monitoring of goods and movements. Application of biometric and drone technology for border area surveillance. Information Security: Increasing information security through comprehensive tracking and handling of intrusions. Detected and responded to more than 8 million cyberattacks since 2021. Ease of Access and Use: The web-based service user portal makes it easy to create and track customs documents online. Reduces the need to install special applications on user devices. Improved Services and Collaboration: Facilitates integration and collaboration between both inside and outside Customs application systems. Opening new opportunities for platforms with value-added services through API connections host-to-host. Support for Decision Making: Strategic use of data to support organisational decision-making. Providing in-depth data analysis to generate valuable insights.

Modern customs systems, such as CEISA 4.0, have also been implemented in various countries. Countries that have used Asycuda include Africa, the Caribbean, Nigeria, Cambodia and Haiti. Another system called Crismon Logic, based in Singapore, is also used by Southeast Asia and the Middle East countries. Furthermore, the Atos application is used in France, Germany and England. Other countries such as Greece, Belgium, and South Africa also use a similar application called Intrasoft. This shows that the global customs system adapts its functionality based on each country's economic needs, level of trade and technological infrastructure. The following table compares the features of several customs systems that have been implemented in various countries, listed in table 1:

Table 1. Comparison of Features of Several Customs Systems

Feature	CEISA 4.0	Asycuda	Crimson Logic	Atos	Intrasoft
Declaration	√	√	√	√	√
Validation	√	N/A	√	N/A	√
Tariff	√	√	√	√	√
Billing	√	√	√	N/A	√
Guarantee	√	N/A	N/A	N/A	√
Risk Assessment	√	√	√	√	√
Channeling	√	√	√	√	√
Customs Warehouse	√	√	√	N/A	N/A
Physical Inspection	√	√	N/A	N/A	N/A
Reporting	√	N/A	√	N/A	√

Source: Directorate General of Customs and Excise, 2024

In Indonesia, the standards used in the CEISA 4.0 application are designed to meet modern standards in public services, including the principles of SMART Customs (Secure, Measurable,

Automated, Risk Management-based, and Technology-driven). This system is also expected to be able to produce descriptive reports that can predict future policy decision-making. The following are the Service Modules in CEISA 4.0, which are listed in Figure 3:

Service				
Manifest		Laboratory	VhDs (Vehicle Declaration)	Online Excise
TPS Online		SKPKB	PKBSI	Licensing
Impor		Silfiana	Settlement Excise	Treasury
Ekspor		Vooruitslag	Monev Excise	Notice of Appeal
TPB		Vessel Declaration System (VDS)	Production Excise	Content Management System (CMS)
KITE		CARNET	Trade Excise	Sapabankum
FTZ		In-house IMEI Registration	Refund Excise	Mobile Customs
Passenger Goods		Determination of Import Classification (PKSI)	Facilities Excise	HKI
Delivery Goods		BTD BDN BMMN	Analysis Excise	National Block
Moving Goods		Voluntary Declaration	Administrative Excise	Service User Portal
Facility				
USDFS	Sofast	Temporary Import	Release Facility	Rush Handling
Supervision				
Per 17		CITAC	Container Profile	HS Runaway
PPBT		Audit - Smart PCC	Company Profile	Browse Items
Database Narcotics		CNTC	People Profile	Price Range / DBNP
KLN		National Dashboard	Browse Commodities	Monum TPB
Marine Patrol		Trantib	Browse Lartas	ROSA (Record of Ship Assessment)
PRM		Company Valuation	E-Seal	
PNR dan PAU		Carrier Profile	HS Suggestion	
Support				
Legal Aid Efforts		Secretariat	Monitoring Impl. WTO TFA	MyCEISA
Download Data		MFA	Sipuma	CEISA Lite
Apps Manager		CEISA Care	SKI	CEISA Premium
Reference Data Update		SKA	IKC Service Survey	
Monitoring Probs		Premium	HI Connect	
Data Analytics				
Browse Histori HS	CEISA Search	Risk Management SKA (MARISKA)	Risk Engine	HS Suggestion

Figure 3. Service Module in CEISA 4.0
Source: Directorate General of Customs and Excise, 2024

Figure 3 explains the service module in CEISA 4.0, which consists of services, facilities, supervision, support, and data analysis. The customs and excise service process begins with a manual customs and excise notification service. Changes are made using a diskette system and then an Electronic Data Processing (PDE) system with a provider from PT EDI. Then, the Ceisa system is developed until finally switching to CEISA 4.0. The differences between the previous customs service system and CEISA 4.0 are listed in Table 2 below:

Table 2. Differences in Service Systems Before and After CEISA 4.0

No	Before Ceisa 4.0	Ceisa 4.0
1	Stand-alone application, difficult to maintain (consists of various separate applications with each database)	Bringing together various applications and databases (single core)
2	Access is limited to service users (modules) and is not flexible because it must be installed on the desktop/laptop by each person	Flexible because it can be accessed on websites or hosted by company systems or service users
3	Repetitive processes in various problems, inefficient, not yet integrated in terms of validating and sending documents seamlessly	It's integrated, so it's easy to integrity and traceability data
4	There has not been optimal supervision of export, import and excise activities	Wider supervision with CEISA 4.0 in terms of the PRM system (Passenger Risk Manager)

Source: Processed by the Author, 2024

In interviews conducted with informants namely service users, the resistance factors in changes to the digital transformation system of customs services are: Adaptation is needed from customs and excise service users regarding the application of CEISA 4.0, Host to host system development for which there are still few references, Lack of IT resources on the part of service users, Because the implementation of CEISA 4.0 is still gradual, it often takes a long and repetitive process to create it wasting time.

The expected achievement with digital transformation in the Customs and Excise business process is that the services provided can be more effective, efficient, fast, and transparent, ultimately improving the image of DJBC. The general convenience of CEISA 4.0 for Customs and Excise is that it can facilitate the implementation of tasks and functions. For leadership elements, the speed of providing data and information presented can help decision-making (manager summary). The convenience of CEISA 4.0 for service users is that it can be accessed from anywhere, there is direct data exchange, and data processing is more effective and efficient.

The long-term plan prepared through CEISA is CEISA Next-Gen, which seeks to provide "paperless, seamless and faceless" services with deep integration between business processes, digital infrastructure and data security. The main target is to provide a better service experience to service users by using a user-centric approach, increasing operational efficiency and accuracy through a system that can be accessed in real-time and achieving national strategic goals including increasing state revenue and protecting against security risks. This long-term plan aligns with the national economic development vision 2025-2029.

According to the Directorate General and Customs, as the system's creator, CEISA 4.0 is currently under development and is not yet fully effective because there are still business processes that are not/have not been touched by the CEISA 4.0 program. Apart from that, in some cases, bugs are still found and/or the stability of the CEISA 4.0 system is not well maintained. However, it has been running efficiently where service users' fulfilment of customs and excise obligations is carried out paperless. It can be done anytime and anywhere by minimizing face-to-face contact with Customs officers.

Human resource capabilities in implementing CEISA 4.0 at DJBC and Customs and Excise Service Users still require training in operating CEISA 4.0 because several tools are unfamiliar. However, outreach has been provided to service users in the form of direct assistance, especially to company employees who are service user portal operators.

DJBC has surveyed to measure the satisfaction and interest of users of CEISA 4.0 services for 2022-2023 as stated in Service Memorandum Number ND-774/BC.073/2023. As a result, the level of satisfaction decreased because in that year, CEISA 4.0 had become mandatory in several large offices (survey respondents increased), and several bugs had not been resolved, thereby reducing the level of satisfaction. Meanwhile, the importance level increases along with the use of CEISA 4.0. The following are the results of the evaluation of information and communication technology (ICT) services for August 2024 regarding the movement in the number of CEISA 4.0 and Old CEISA documents as listed in Table 3:

Table 3. Movement in the Number of Old CEISA and CEISA 4.0 Documents

Period	Old CEISA Document	CEISA 4.0 Document	% Document on CEISA 4.0
Jan-24	496.567	485.170	49%
Feb-24	414.738	467.702	53%
Mar-24	331.621	613.208	65%
Apr-24	160.244	586.252	79%
May-24	146.032	862.376	86%
Jun-24	58.795	891.299	94%
Jul-24	31.463	1.072.852	97%
Aug-24	19.803	1.060.926	98%

Source: Directorate General of Customs and Excise, 2024

The documents in CEISA 4.0 are getting bigger along with improvements to existing services and the interests of service users. In its implementation there were problems, one of which was the problem received through BCare. BCare is an application for problem reports, service requests, data requests, system proposals and inquiry reports. The following are the number and time for resolving CEISA 4.0 complaint tickets in Table 4:

Table 4. Number and Time of Completion of CEISA 4.0 Complaint Tickets

No.	Period	Amount	Finished		Not Finished Yet	
			< 1 hour	> 1 hour	Layer 3	Not Finished Yet (non-SLA)
1	**August**	13520	12214	1147	49	110
	Percentage		90.34%	8.48%	0.36%	0.81%
			98.82%		**0.36%**	**0.81%**

Source: Directorate General of Customs and Excise, 2024

In Table 4, it is explained that in August 2024, there were 13,250 complaint tickets, which could be resolved in less than 1 hour, reaching 90.34%. completion above 1 hour is 0.36%, unresolved at layer 3 is 0.36%, and non-SLA is only 0.81%. As many as 30 officers will help handle incoming complaints within 24 hours. The following are the constraints and efforts in implementing CEISA 4.0 faced by Customs based on interviews that have been conducted in table 5:

Table 5. Constraints and Efforts by the Customs Department in the Implementation of CEISA 4.0

No	Constraint	Effort
1	Requires a strong and stable internet network	Increase the bandwidth quota in each service office
2	Requires hardware with qualified specifications	Procurement of hardware devices according to specifications
3	There are still BC officers who are not yet proficient in computer systems.	Intense CEISA 4.0 training and socialization

Source: Processed by the Author, 2024

From interviews conducted with service users, the following are the constraints and efforts in implementing CEISA 4.0 faced by Service Users in Table 6:

Table 6. Constraints and Efforts of Service Users in Implementing CEISA 4.0

No	Constraint	Effort
1	Minimal references, but after assistance with IKC, development host to host can be finished.	Routine assistance has been provided, including visits to companies and associations
2	Document reject. Portal access is sometimes slow.	System improvements have been made by forming a problem management team tasked with overseeing the optimization of CEISA 4.0
3	Application performance is still relatively slow.	
4	Idle time is too short, oftenlogout.	
5	Manual book for new users who use CEISA 4.0	Application guidelines have been created that can be used by vertical units to operate the CEISA 4.0 application

Source: Processed by the Author, 2024

The CEISA 4.0 system provides benefits for various parties, especially service users. Just like the findings in previous research conducted by (Murti & Vikaliana, 2021), there are still obstacles that need to be improved behind the perceived benefits. The current implementation of the CEISA 4.0 system has improved compared to before. System improvements and services continue to be improved even though they have not yet reached perfection. Follow-up has been carried out on several complaints, suggestions and input submitted by employees and service users, including, Virtual socialization and assistance was carried out for all DJBC vertical units and face-to-face assistance to several DJBC vertical units in the process of implementing CEISA 4.0 Import Services, Export Services, TPB Services and other Customs Services during 2023. Regularly monitoring applications, networks, servers and databases that could cause a decrease in the performance of the Existing CEISA and CEISA 4.0 systems as well as in-depth evaluation of the Customs and Excise information system. Customs authorities must optimize and perfect the CEISA 4.0 system quickly and precisely.

CONCLUSION

From the discussion that has been carried out, it can be concluded that the implementation of CEISA 4.0 is still under development and is not yet fully effective because there are still business processes that are not/have not been touched by the CEISA 4.0 program. However, it has been running efficiently where service users' fulfillment of customs and excise obligations is paperless. Human resource capabilities in implementing CEISA 4.0 at DJBC and Customs and Excise Service Users still require training in operating CEISA 4.0. However, outreach has been provided to

service users in the form of direct assistance. Before CEISA 4.0, the applications used were still separate from their respective databases, access was limited to service users, lacked flexibility, required repetitive business processes, was not yet integrated and in terms of supervision was not optimal. CEISA 4.0 has facilitated business processes that are faster, more accurate, integrated and more flexible. This provides significant benefits for customs service users and DJBC employees.

Obstacles encountered include the need for service users to adapt, the need for gradual system development, and improvements to devices and networks. In overcoming these obstacles, DJBC has made various efforts, including improving infrastructure, training employees, and assisting service users. CEISA 4.0 is expected to improve DJBC's image by providing more effective, efficient, and transparent services.

In contrast to research that had been carried out previously when this research was conducted, the CEISA 4.0 system was increasingly refined and had undergone several changes to both existing features and services. The CEISA 4.0 system has also now been implemented nationally or comprehensively. The findings of implementation problems in this research need to be taken into special consideration by the Directorate General of Customs and Excise as a policy maker to be able to immediately make improvements in various aspects starting from maximizing existing resources by providing training to officers who handle CEISA 4.0 problems, communicating well with platform providers and service users and continuing to commit to making improvements, especially to system stability to achieve perfection in customs and excise services. Regarding the standards, policy targets, and characteristics of the implementing organization, the implementation of the SOP has gone well, namely that it has used a clear legal basis and SOP in implementing the policy.

Furthermore, suggestions that can be given are that the CEISA 4.0 system strives to maintain its quality and high availability, strengthen the system infrastructure so that the service process runs smoothly, provide a real-time online consultation feature to make it easier for service users and increase the competency of officers, especially in the IT field, to prevent recurring problems later. If necessary, you can collaborate with external parties to develop the system.

Research limitations lie in the time and research funds required to reach all regions in Indonesia that use the CEISA 4.0 system. However, researchers have tried to take samples in several areas that can represent the research results. With the transition from the old CEISA to the new CEISA, The strength of the CEISA 4.0 system is also not yet visible, so this is a suggestion for further research. It is hoped that further research will discuss the effectiveness of the CEISA 4.0 system so that this can be considered for policy-making and evaluation for the Directorate General of Customs and Excise.

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