

DIGITAL CUSTOMS IN VIETNAM: SITUATION AND SOLUTIONS

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Abstract: Innovation and creativity play an important role in the country's digital transformation. Digital transformation is a globally inevitable development trend and Vietnam is one of the first countries to issue a national digital transformation program in the world. In our country, the Ministry of Finance is particularly interested in promoting digital transformation and the customs sector is a pioneer in this field. The digital transformation process in the customs field is divided into 6 stages including: e-customs launch, stub e-customs, integrated e-customs, specialized e-customs depth for each field, advanced customs and digital customs. Currently, Vietnam customs is considered to be in the advanced stage of customs. Vietnam's goal in the period of 2025 with a vision to 2030 is to successfully build the digital customs. To achieve the set goals, the customs sector needs to implement the following solutions: perfecting the legal framework, simplifying customs procedures, strengthening international cooperation, applying the achievements of the 4.0 revolution, etc.

Keywords: digital transformation, e-customs, digital customs, smart customs, information technology.

HẢI QUAN SỐ TẠI VIỆT NAM: THỰC TRẠNG VÀ GIẢI PHÁP

Tóm tắt: Đổi mới và sáng tạo đóng vai trò quan trọng trong quá trình chuyển đổi số của đất nước. Chuyển đổi số đang là xu hướng phát triển tất yếu trên toàn cầu và Việt Nam là một trong những quốc gia đầu tiên trên thế giới ban hành chương trình về chuyển đổi số quốc gia. Ở nước ta, Bộ tài chính đặc biệt quan tâm thúc đẩy chuyển đổi số và ngành hải quan là cơ quan đi tiên phong trong chuyển đổi số. Quá trình chuyển đổi số trong lĩnh vực hải quan được chia thành 6 giai đoạn bao gồm: khởi động hải quan điện tử, hải quan điện tử sơ khai, hải quan điện tử tích hợp, hải quan điện tử chuyên sâu đối với từng lĩnh vực hải quan điện tử tích hợp, hải quan điện tử tiên tiến và hải quan số. Hiện nay, hải quan Việt Nam được đánh giá là đang ở giai đoạn hải

quan điện tử tiên tiến. Mục tiêu của Việt Nam giai đoạn 2025 định hướng 2030 là xây dựng thành công hải quan số. Để đạt được mục tiêu đề ra ngành hải quan cần thực hiện một số giải pháp sau: hoàn thiện khung pháp lý, đơn giản hóa thủ tục hải quan, tăng cường hợp tác quốc tế, áp dụng các thành tựu của cuộc cách mạng 4.0,...

Từ khóa: Chuyển đổi số, hải quan điện tử, hải quan số, hải quan thông minh, công nghệ thông tin.

1. INTRODUCTION

Recently, the government has made efforts to promote the movement of innovative startups and creativity, resulting in many new products and services that contribute to enhancing productivity, quality, and competitiveness of the economy. Innovation and creativity play an important role in the country's digital transformation. Digital transformation has become an inevitable development trend globally and Vietnam is no exception. Vietnam is considered one of the first countries in the world to issue a national digital transformation program, making our country a country with digital transformation awareness alongside advanced countries in the world. In our country, the Ministry of Finance is particularly interested in promoting digital transformation and applying technology of the 4.0 Industrial Revolution; considering this a very important driving force in building, developing and protecting the country. In the field of state management of customs, promoting digital transformation is an objective requirement, the key and an extremely important basis for building

Digital Customs/Smart Customs. Reality has proven that the customs sector is a pioneer in digital transformation and has achieved certain achievements. To achieve the set goals, the customs industry needs to implement the following solutions: completing the legal framework, simplifying customs procedures, strengthening international cooperation, and applying the achievements of the 4.0 revolution,...

2. OVERVIEW OF DIGITAL CUSTOMS

Digital transformation is a term mentioned alongside concepts such as cloud computing, big data, blockchain, and is considered an inevitable trend in the era of the 4.0 digital revolution. There are many different definitions and understandings of digital transformation.

According to Gartner, digital transformation is the use of digital technologies to change business models, creating new opportunities, revenue, and value.[4]

According to Microsoft, digital transformation is a business innovation driven by the explosion of cloud computing, artificial intelligence (AI),

and the Internet of Things (IoT), providing new ways to understand, manage, and transform their business operations.[8]

Digital transformation can be understood as the application of advancements in digital technology such as cloud computing, big data, etc., into all activities of organizations and businesses to achieve high efficiency and drive revenue and brand development. Digital transformation is not simply about changing the way work is done from traditional manual methods (recording in books, face-to-face meetings, etc.) to using technology to reduce human effort. In fact, digital transformation plays a role in changing business mindsets, management methods, organizational culture, and more.

Digital transformation has a profound and comprehensive impact on all sectors and fields of the economy and society, changing management methods, production models, business practices, consumption, and daily life. At the national level, the digital transformation process will form a digital government, digital economy, and digital society - the three pillars of a digital nation. Among them, a digital government is a government that uses digital data to make decisions and considers data as a type of resource. It is a transformation in the way decision-making is conducted by government agencies based on quantified, analyzed, and synthesized

data from various sources and fields. The digital government is also a government that connects and shares data with citizens and the business community to provide services as well as management. The digital economy refers to the organizational models and operational methods of the economy based on the application of digital technology. The digital economy is based on a series of new technologies, such as artificial intelligence (AI), Big Data, IoT, Cloud, blockchain... As for the digital society, it is the transformation of the environment and social organization, from government and economy to citizens, based on the development of information in data exploitation and processing. The digital society includes digital citizens and digital culture. In which, digital citizens are the generation of citizens capable of accessing digital information sources, communicating in the digital environment, identifying and authenticating, personal data, and privacy in the digital environment; digital culture encompasses the behavioral rules and ethical standards of humans in the digital environment.

Digital transformation in the customs sector aims to develop a digital customs model, also known as a smart customs model or smart border.

The digital customs model is built with a high level of automation, applying new and modern scientific and technological achievements on a digital, paperless platform, ensuring

transparency, fairness, effectiveness, efficiency, with the ability to forecast, adapt to fluctuations in international trade and the management requirements of customs authorities, requiring sharing and connectivity with ministries and sectors, in line with international standards, serving the people and businesses.

The Digital Customs Model includes the following characteristics: Smart border management; chain and digital ecosystem management; optimal service provision; intelligent connection and processing; transparency, fairness, and consistency. The successful implementation of the Digital Customs System and the Smart Customs Model will bring immense benefits to state management of customs and the entire business community.

The Smart Customs model ensures the connection of all operational stages in the customs procedure process, ensuring continuity, with integrated data from the moment goods arrive at the border, during the storage period in warehouses, yards, and ports, until clearance, removal from the supervised area, and entry into production or use for the purpose registered with the Customs authority.

Notably, operational activities are fully automated, such as: analyzing key information, identifying risks, inspecting customs documents, transport vehicle documents, managing inspection lanes, making clearance decisions, determining the tax amount to be paid, managing and

monitoring the use of raw materials and supplies during production and processing... This is identified as the core operational requirement of the system.

In addition, the Smart Customs model also ensures the following objectives: facilitating trade by providing services anytime, anywhere, on any platform; digitizing documents and records, automatically receiving and returning files...; ready to integrate, connect, and share information with ministries, sectors, and businesses through the National Single Window mechanism and ready to exchange customs data with other countries.

On the other hand, the Smart Customs model ensures security and safety for the economy and the community by enhancing the management capacity of the Customs authority through the outstanding features of the new management system, such as automatic risk information analysis, priority identification, prevention of smuggling, trade fraud, illegal transshipment, and effective supply chain management in production and processing activities.

Implementing the Smart Customs model also contributes to streamlining the customs organizational structure at the grassroots levels, aiming to build a centralized Customs model that is suitable for the management area and job requirements, reducing intermediary steps, limiting overlaps, inconsistencies,

negativity, and harassment in the execution of customs officers' duties.

The World Customs Organization has proposed a digital customs development model consisting of 6 stages:

Launching Electronic Customs, Initial electronic customs, Electronic customs for each sector, Integrated electronic customs, Advanced electronic customs, Digital Customs.

Table 1. The stages of developing digital customs

<p>Stage 1. Launching Electronic Customs: implementing data collection for transactions; launching the website; publishing information; office automation.</p>	<p>Stage 2. Initial electronic customs: standardization of data; digitization of the declaration processing and clearance procedures; digitization of accompanying documents.</p>	<p>Stage 3. Electronic customs for each sector: implementing electronic information first; harmonizing data; processing information in advance; risk management system; post-clearance inspection.</p>	<p>Stage 4. Integrated electronic customs: integrated border management through electronic business integration (payments, declarations,...); interactive operations; risk management system, priority identification; general inspection management; mobile applications</p>	<p>Stage 5. Advanced electronic customs: e-commerce management; 24/7 clearance; information exchange with government agency partners; development of a single window mechanism; cross-border information exchange.</p>	<p>Stage 6. Digital Customs: developing global management blocks; mutual recognition; non-intrusive image collection interaction; implementing the Single Window mechanism; using modern technologies</p>
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(Source: WCO 2018)

It can be said that smart customs is an inevitable process of applying, utilizing, and implementing modern technology and data into operational

activities and customs procedures to fulfill the basic tasks of customs authorities, which are to facilitate trade, collect taxes, and ensure social security and safety.

3. THE SITUATION OF DIGITAL TRANSFORMATION IN CUSTOMS SECTOR IN VIETNAM

3.1. THE ROLE OF DIGITAL TRANSFORMATION IN THE FIELD OF CUSTOMS IN VIETNAM

For the Customs sector, digital transformation will fundamentally and comprehensively innovate, enhance the effectiveness of state management over customs, increase the productivity of officials and civil servants; improve the business environment, facilitate, and reduce costs for citizens and businesses during the customs clearance process.

Especially, digital transformation allows customs procedures to be carried out entirely in a digital environment, anytime, anywhere, and through any means via information technology systems and big data sources, with strong support from new technologies such as artificial intelligence (AI) and big data.

Customs operations are automatically managed in a digital environment both before, during, and after customs clearance, ensuring seamless management from the beginning to the end for export, import, and transit goods; and for vehicles departing, arriving, and transiting.

In addition, digital transformation brings significant benefits such as: more efficient customs management activities due to higher labor productivity for both

customs agencies and businesses; more effective use of resources; reduced costs for both customs agencies and trade partners through faster customs clearance; more timely and accurate information; better control capabilities; and reduced congestion at ports and airports.

Regularly processing information before goods actually enter or are about to leave customs territory allows the Customs authority to check the information and conduct a risk assessment on the goods. With the available information, the decision to release the goods can be made as soon as the goods arrive using electronic methods. When the information technology system is effectively used by both the Customs authorities, law enforcement agencies, and businesses, all parties involved in an export/import transaction can transfer data to a centralized processing system. Customs can send data as requested by the clearance units at border checkpoints, thereby creating a rapid "one-stop" clearance mechanism for the Customs sector.

The implementation of state management requirements for customs in a consistent manner, with all transactions processed uniformly, ensuring the consistent application of domestic legal regulations and equal treatment of all trade partners.

Accelerating digital transformation and automating the tax collection process

contributes to ensuring that taxes are collected and calculated in a timely manner; overdue or bad debts can be identified and handled quickly.

For import-export businesses, more accurate data analysis, timely and precise customs statistics, quick customs clearance, reduced costs for businesses, enhanced competitiveness, and facilitation of procedures for businesses are essential. This allows businesses to declare and carry out customs procedures anytime, anywhere, and on any platform. Businesses only need to declare goods information once to complete multiple administrative procedures through the national single-window system.

For ministries, sectors, and stakeholders, the digital transformation of the Customs sector contributes to enhancing management capacity, improving efficiency and transparency in the management of ministries and sectors, and promoting the formation of e-Government and digital Government in Vietnam. The ministries, sectors, and relevant parties are provided with information about export and import shipments through the system without having to request it from the Customs authority when it arises, contributing to the overall improvement of state management efficiency and serving as a foundation for the development of e-Government and digital Government in Vietnam. The ministries, sectors, and

relevant parties share information about export and import shipments through the system without having to request the Customs Authority to provide it when it arises, contributing to the overall improvement of state management efficiency, serving as a basis for developing e-Government and digital Government in Vietnam. At the same time, the ministries and sectors coordinate with the Customs Authority to enhance state management efficiency regarding export and import shipments during customs procedures, clearance, and post-clearance.

3.2. THE CURRENT STATE OF DIGITAL TRANSFORMATION IN THE CUSTOMS SECTOR IN VIETNAM

The electronic customs startup phase began in 2005 when the Prime Minister issued Decision No. 149/2005/QĐ-TTg to pilot the electronic customs procedures at two electronic customs branches under the Customs Department of Hai Phong City and Ho Chi Minh City. After more than a year of implementation, the pilot program of the electronic customs model in Ho Chi Minh City and Hai Phong initially achieved encouraging results, receiving support from businesses and participants in import-export activities. By the end of 2006, electronic customs procedures for business activities had been implemented

for 215 enterprises, with an average volume of 90 declarations per day (a 300% increase compared to October 2005). The total number of electronically cleared declarations reached nearly 21,000, with a total import-export turnover of 1734 million USD, accounting for nearly 7% of the total import-export turnover for business-type goods in 2006 by the Ho Chi Minh City Customs Department and the Hai Phong Customs Department. The total tax collected is 2.26 trillion VND. The average clearance time for green channel shipments is 5 - 10 minutes, for yellow channel shipments is 20 - 30 minutes, and for red channel shipments, it depends on the inspection time at the Sub-Department. The percentage of shipments assigned to the green, yellow, and red lanes is: 56%, 40%, 4% [3].

The pilot implementation of electronic customs procedures has initially achieved the set goals and is gradually reforming customs operations in line with modern customs practices; transitioning from traditional customs procedures to electronic customs procedures. Through this, the electronic customs procedures have been welcomed by the Government, the business community, and society, creating a momentum for reform and modernization of customs procedures.

Through the pilot implementation, the electronic customs procedures have significantly reduced clearance times, minimized paperwork, allowed businesses to take the initiative in declarations, and particularly reduced the interaction between businesses and customs officials, thereby contributing to the reduction of harassment, inconvenience, and corruption by customs.

The electronic customs procedures have initially transformed the customs management method from manual to modern management: from transaction management to enterprise management with risk management applied; from manual processing on paper to processing on computers; creating a civilized, modern working style and manner.

Through the pilot implementation of electronic customs procedures, many valuable lessons have been learned for the development and implementation of the amended and supplemented Customs Law and Export-Import Tax Law, as well as for the implementation of modernization projects in the Customs sector. The infrastructure, especially in terms of information technology, has been focused on for investment, upgrading, and greater synchronization (most evident at the two pilot Customs Departments).

In 2008, customs implemented a plan to reform, develop, and modernize the customs sector through the execution of four projects: Developing information

technology; Enhancing the capacity of customs control operations; Strengthening post-clearance inspections; and Strengthening the management of tax valuation. In 2009, the Prime Minister directed the transition from the pilot model of the Electronic Customs Sub-Department (only implementing electronic customs procedures) to the model of the Customs Sub-Department applying both electronic customs procedures and remote customs procedures simultaneously. By the end of 2009, remote customs declaration and electronic customs declaration reached a rate of 80% of the total import-export declarations nationwide. At this time, the Electronic Customs Declaration System has been implemented in 20 Customs Departments in provinces and cities nationwide. By the end of 2012, the Electronic Customs Declaration System had been implemented in all 34 Customs Departments of provinces and cities.

During this period, the customs sector has developed and implemented the cargo information reception and processing system (e-Manifest); launched the national single-window customs mechanism to exchange licensing information with relevant ministries and sectors (e-Permit); and exchanged and processed goods origin information to serve regional and international integration within the framework of free

trade agreements/multilateral/bilateral preferential tariffs under the national single-window mechanism (e-C/O).

It can be said that the initial phase of electronic customs began from 2008 to 2012. The next phase, from 2012 to 2016, customs procedures entered the next stage, which is the in-depth electronic customs phase for each specific field.

The year 2014 was a year of great success for the Customs sector in the task of administrative reform, shortening the time for customs clearance of import and export goods. The Customs sector has implemented the application of information technology in a synchronized and in-depth manner in customs procedures. One of the groundbreaking applications of information technology is the implementation of the VNACCS/VCIS automated customs clearance system, funded by the Japanese government, which reduces the customs clearance time for goods to just seconds. VNACCS/VCIS has brought many benefits to the business community, especially facilitating the declaration and clearance of goods, thereby helping to reduce time and costs for businesses... The VNACCS/VCIS system has helped the Vietnam Customs achieve the goal of building a centralized information technology system. The successful implementation of VNACCS/VCIS is the foundation for the Customs sector to carry

out digital transformation according to the development goals set by the Government and the Ministry of Finance. However, the information technology system has only been centralized at the local customs departments, making the management and implementation of information technology applications uniformly across the industry still face many difficulties. The customs agency continues to expand the electronic tax payment system with commercial banks (e-Payment); receiving and processing information to facilitate the clearance of export/import/transit goods (e-Clearance).

In 2015, the General Department of Customs made efforts to coordinate with relevant ministries and sectors so that Vietnam became one of the first four countries in the region to connect to ASW along with Indonesia, Malaysia, and Thailand.

In 2016, the customs sector covered VNACCS/VCIS at 100% of customs departments nationwide; 99.99% of enterprises, 99.99% of declarations, and 99.99% of import-export turnover were processed through the VNACCS/VCIS System [5].

Since establishing the foundation for data centralization through the VNACCS/VCIS System, integrating technology to reform and simplify administrative procedures, reduce clearance time, and enhance the

effectiveness and efficiency of state management in customs.

At this stage, digital transformation in the customs sector has been implemented, including the application of barcodes in customs supervision; coordinating tax collection and payment with commercial banks through electronic methods 24/7; implementing e-Manifests, and applying an automated customs management system.

The automated customs management system at seaports (VASSCM) is considered the biggest breakthrough in the application of information technology in the Customs sector since the implementation of VNACCS/VCIS. With the automated customs management system, the Customs authority automatically connects with the National Single Window (NSW) and the ASEAN Single Window (ASW) mechanisms to effectively utilize e-Manifests information; the VNACCS/VCIS, E-Customs (V5) system serves inspection and supervision tasks. At the same time, for port operating enterprises, the system helps provide complete and timely information about the customs clearance status (from the Customs authority) for each shipment and each container, to minimize risks in the delivery and receipt procedures compared to using paper documents; it

can implement management, statistical, and document retention modes for the delivery and receipt of goods, ensuring speed, accuracy, scientific rigor, and transparency; enhancing reputation, increasing the capacity to receive and exploit goods, improving business efficiency, and competitiveness.

In 2020, the Customs sector implemented 5 electronic systems: E-Declaration, E-payment, E-C/O, E-Permit, and E-Manifest. Among them, the basic steps of customs procedures for import and export goods, as well as for vehicles entering and leaving the country, such as declaration, submission of customs documents, inspection clearance, permit cancellation, and customs clearance of goods... are now being carried out through the electronic customs data processing system.

The supervision and management of goods in warehouses, port areas, border gates, and locations are all carried out automatically through the Customs Management and Supervision System, which has helped eliminate manual steps, reduce the use of paper documents in the processing of operations, decrease direct contact between customs officials and businesses, contributing to reduced clearance times and cost savings for import-export enterprises.

Simultaneously, the Customs agency has effectively organized and

operated the National Single Window and ASEAN Single Window portals. The national single-window mechanism has connected 13 ministries and sectors, with 250 administrative procedures and over 6.7 million dossiers from nearly 70,000 businesses processed.

The General Department of Customs has implemented connections to exchange electronic Certificate of Origin Form D information with all 9 ASEAN member countries; exchanged electronic C/O information between Vietnam and South Korea, and is coordinating with ASEAN countries to prepare for the official exchange of ASEAN customs declaration data as planned and to prepare for the trial connection of plant quarantine certificate exchange in 2024. Countries are also developing solutions and roadmaps for connecting and exchanging electronic documents between ASEAN and other partners such as Japan, China, and South Korea.

In addition, the General Department of Customs continues to invest in purchasing equipment to serve customs inspection and supervision tasks to replace human labor. Specifically, the General Department of Customs has equipped 27 container scanners at 12 provincial and city customs departments; 98 baggage scanners at international airport terminals, seaports, and land border checkpoints; 7,000 electronic seals for monitoring purposes; 125

surveillance camera systems at border checkpoints, customs clearance locations, warehouses, and inspection sites; 15 camera observation rooms at 15 provincial and city customs departments; and 28 vehicle weighing systems at customs sub-departments. In addition, the Customs agency has proactively and actively coordinated with specialized management ministries to promote the reform of specialized management and inspection of import and export goods to facilitate businesses and reduce customs clearance time.

With the achieved results, the Vietnamese customs sector has moved past stage 4 of integrated electronic customs and is currently in stage 5: advanced electronic customs. The goal set by the Government and the Ministry of Finance is for the customs sector to complete the advanced electronic customs phase by 2025.

Currently, customs has achieved the goal of 100% of customs procedures being digitized and conducted electronically; 95% of documents in customs files have been converted to digital data (5% belong to special files such as confidential documents, documents used when the system encounters issues, etc.); 100% of basic customs control operational records have been converted to electronic data, moving towards digitization and having completed the 5E goal (E-Declaration; E-payment; E-C/O; E-Permit; and E-

Manifest) regarding the application of information technology in state management of customs, building a centralized information technology system at the General Department to serve state management of customs, operating stably, smoothly, covering and supporting most key areas of customs management.[7]

The use of the E-Declaration application helps the average annual import-export turnover increase by 23%, the average annual import-export tax revenue increase by 9.2%, and the average annual number of import-export declarations increase by 22%. Meanwhile, the number of customs officers and officials has decreased by 1.5-1.7%. Accordingly, the declaration, receipt, processing of information, and customs clearance decision-making are carried out with a very high level of automation; the processing time for a customs dossier is only 1 to 3 seconds.[1]

The customs sector continues to enhance the quality and quantity of online public services for citizens and businesses, achieving groundbreaking results. Currently, the General Department of Customs has provided 215 out of 237 online public services at levels 3 and 4 (approximately 91% of the total administrative procedures carried out by the customs agency), of which 209 administrative procedures are provided as online public services at level 4 (achieving a rate of 88%), allowing

citizens and businesses to submit applications and receive results online through the Internet. Regarding the integration of providing online public services on the National Public Service Portal, the General Department of Customs has completed the integration of 98 level 4 online public services onto the National Public Service Portal [9].

3.3. DIFFICULTIES IN IMPLEMENTING DIGITAL TRANSFORMATION ACTIVITIES IN THE CUSTOMS FIELD IN VIETNAM

Digital transformation in the Customs sector is not merely an inevitable step in the 4.0 technology revolution but also an urgent requirement to enhance competitiveness and international integration. However, the transformation process is not without its challenges, ranging from a shortage of skilled human resources to financial pressures.

To achieve this, customs officials need a solid foundation in information technology, including knowledge of data analysis, cybersecurity, and system management. However, due to limited resources and the rapid development of technology, many customs officials are still operating in traditional environments and have not yet had the opportunity to access specialized training programs in information technology. This shortfall not only leads to difficulties in adopting new technologies but can also negatively impact the efficiency and reliability of

customs operations. Civil servants who are not adequately trained may have difficulty using electronic customs clearance systems, data management software, or advanced analytical tools, leading to errors in data entry and processing. This not only increases the clearance time but can also pose a risk to the country's trade security. Furthermore, the shortage of skilled human resources also creates a significant gap in improving the quality of services that the Customs sector provides to businesses and the public.

Implementing new technology not only requires a significant financial investment but also time for research, development, and application, as well as training personnel to meet these changes. In the context of limited state budgets and increasingly high demands for administrative reform, balancing financial needs has become a challenging task. Therefore, the Customs agency needs to clearly identify suitable funding sources and must have a detailed plan to manage and supervise these investments.

Moreover, considering investment costs should not only stop at the short-term aspect but should also be viewed from a long-term perspective. The initial investments may be high, but if implemented correctly, the benefits from improving work efficiency, minimizing errors, and enhancing transparency will help the Customs sector recover costs and create sustainable value in the future.

Improvements in business processes will not only increase the satisfaction of businesses and citizens but also contribute to enhancing the competitiveness of the economy in the context of globalization.

3.4. DIRECTIONS FOR IMPLEMENTING DIGITAL TRANSFORMATION ACTIVITIES IN THE FIELD OF CUSTOMS IN VIETNAM

The goal of the 2025-2030 period is to complete the Smart Customs model, aiming to transform the Vietnamese Customs into a modern customs organization, in line with international trends and standards, ensuring the application of technological achievements of the Fourth Industrial Revolution. Vietnam Customs strives to reach a level comparable to developed countries such as the EU, the United States, Japan, and China by 2025, meeting the requirements of smart governance, management of enterprises, import and export goods, transit, and comprehensive management of outbound, inbound, and transit transportation from start to finish... [10]. The Customs sector aims to complete digital customs, with the targets: 100% of customs procedures digitized and conducted electronically; 95% of customs documents are converted into digital data; 100% of records related to organizations and individuals involved in export and import activities; people, vehicles for export, import, and transit; export, import, and transit goods are

managed in digital data form; 100% of basic customs control operational records are converted into electronic data, moving towards digitization; 100% of administrative procedures with high usage demand are provided as level 4 online public services for citizens and businesses, and are implemented on various access platforms; 80% of customs inspection activities are conducted through the digital environment and the information technology system of the General Department of Customs; 100% of administrative procedures in the field of licensing and specialized inspection for export, import, and transit goods are carried out through the National Single Window mechanism...

To achieve the set goals, the customs sector needs to implement the following solutions:

First, complete the legal framework to meet the requirements of the smart customs model and digitize customs operations.

Secondly, simplify customs procedures, streamline the customs organizational structure, reduce intermediary steps, limit overlap, inconsistency, negativity, and harassment in the execution of customs officials' duties, and enhance training to improve the capacity of customs officers.

Third, strengthen international cooperation and coordinate information exchange to adopt the management models of some advanced countries.

Fourth, applying scientific advancements in the 4.0 industrial revolution such as the Internet of Things (IoT), big data, blockchain, artificial intelligence (AI), business intelligence (BI), cloud computing, mobility,...

Fifth, focus on building the information technology system for implementing digital customs to meet operational requirements in customs clearance. The General Department of Customs has mobilized resources from across the industry, with nearly 200 officials and civil servants who are experts in various fields, to conduct a comprehensive review and redesign of the business processes, develop technical and technological requirements, and procedures to complete the dossier for submission to the Ministry of Finance for approval of the project to build the information technology system for digital customs to meet the business requirements in customs clearance. It is expected that the General Department of Customs will officially put the new system into operation in 2025.

Sixth, improve the collection and processing of information, enhance information exchange through the ASEAN Single Window mechanism, electronic C/O exchange...; strengthen coordination and information exchange with ministries and sectors.

Seventh, the research proposes service customs models oriented towards socialization, enhancing customs-

business connectivity; it also suggests public-private partn

4. CONCLUSION

Digital transformation in the customs sector in Vietnam began when the government piloted electronic customs procedures at the Hai Phong Customs Department and the Ho Chi Minh City Customs Department. Since that time, with significant and groundbreaking achievements, the customs agency deserves to be a leader in reforming administrative procedures, applying information technology, and innovating management methods.management. Many of the achieved results have had a significant impact and widespread influence in society, facilitating the business community in import-export activities, contributing to enhancing national competitiveness; improving the effectiveness and efficiency of state management in customs.Customs. The benefits that digital transformation brings to the customs sector are: enhancing the effectiveness of state management in customs; speeding up customs clearance, reducing costs for businesses; improving efficiency and transparency in the management of ministries and sectors.In the near future, Vietnamese customs will be on par with the customs of developed countries around the world.

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