

# Preliminary information as an effective mechanism of customs control and customs security of State

*Ljudmila Ivashova*<sup>1</sup>, *Oleksandr Datsii*<sup>2</sup>, *Tatiana Totska*<sup>1</sup> and *Olena Kritenko*<sup>1</sup>

<sup>1</sup> University of Customs and Finance, Department of Public Administration and Customs Administration, 49000 Dnipro, Ukraine

<sup>2</sup> Interregional Academy of Personnel Management Head, Department of Finance, Banking and Insurance, 03039 Kyiv, Ukraine

**Abstract.** This paper highlights the main advantages and algorithm of using preliminary information in customs. The authors argue that preliminary information is an important component of customs security. The main advantages of customs information are the improvement of the quality of customs control through the use of risk management methods. The authors presented an algorithm for implementing the system of preliminary information in the practical activity of the customs authorities of Ukraine in the form of a structural and logical scheme. The authors reveal the experience of prior information in international practice and identify the main directions of its widespread implementation in Ukraine. The paper states that prior information is effective only if information technologies are used and an automated risk analysis and management system is used. The authors propose the use of a Passenger Information System (APIS), first developed and implemented in the United States, to address drug trafficking and national security threats. To implement the APIS system, it is proposed to introduce a digital version of the advance declaration for passengers within the concept of customs digitization.

## 1 Introduction

The customs service should facilitate the implementation of customs policy and the protection of the customs security of the state. World customs practice is based on the effective management of risks that arise in the course of customs activities. This requires a systematic and continuous application of mechanisms and procedures aimed at preventing and minimizing risks in customs control, in order to ensure national economic interests and customs security of the state.

The current stage of development of national customs systems should be based on global cooperation, information interaction and strategic partnership between customs authorities, FEA subjects, carriers, authorized economic operators and other entities of foreign economic activity [1]. This cooperation should cover a wide range of subject areas not only in technologies and objects of exchange, but also in the field of improving the structure of management, in the field of automation and information support of customs operations and management decisions, identification of controlled objects and training of specialists in the field of customs.

## **2 Data and Methods**

The methodology of scientific knowledge and systematic approach were used to substantiate the results and conclusions obtained. In particular, the following methods were used: content analysis to reveal the essence of basic terms and concepts; a comparative and legal analysis to compare domestic and foreign legislation on the implementation of customs and determine the main directions of its improvement; constructive-logical method for constructing a structural-logical scheme of preliminary information in customs; abstract-logical and generalization method for formulating conclusions and suggestions. In the course of the research, the current regulatory documents on customs regulation of scientific works of leading scientists for the period from 2014 to 2019 were used.

## **3 Results**

Article 6 of the Customs Code of Ukraine (hereinafter referred to as the CCU) defines that the Customs Security is a state of protection of the customs interests of Ukraine, the securing and realization of which is achieved through the implementation of customs affairs [2, Article 6], in particular, compliance with the procedure and conditions for the movement of goods through customs. border of Ukraine, their customs control and customs clearance [2, Article 7]. According to part 1 of article. 320 ICU forms and volumes of control sufficient to ensure compliance with the legislation on state customs and international treaties of Ukraine during customs clearance are selected by customs (customs posts) on the basis of the results of application of the risk management system. The category "risk" is used to form the basis for the introduction of a modern system of risk management in customs activities [3]. At the same time, under Article 361 of the CCU, the risk is the likelihood of non-compliance with the requirements of the legislation of Ukraine on matters of state customs. Customs authorities, in accordance with the provisions of Part 2 of Art. 361 of the CCU, apply a risk management system to identify goods, vehicles, documents and persons subject to customs control, forms of customs control applicable to such goods, vehicles, documents and persons, and the scope of customs control. Thus, in the implementation of customs, including at checkpoints, a risk management system that complies with international standards of modern customs administration and best world practice is used to determine the forms and scope of customs control.

Thus, in accordance with the Kyoto Convention Standard Rules [4], the customs service should use a risk management system when applying customs controls and also apply audit and risk analysis techniques to identify persons and goods, including vehicles to be inspected, and of such verification. The Customs also adopts a strategy based on a system for assessing the likelihood of non-compliance. The Framework Security Standards [5] mandate the Customs Administration to set up a risk management system to identify potentially dangerous goods and to automate such a system. The provisions of the Trade Facilitation Agreement [6] stipulate that each Member State should adopt or maintain a risk management system in customs control, develop and apply it in such a way as to avoid arbitrary or unjustified discrimination or hidden restrictions on international trade based on risk management on the risk assessment of the relevant selection criteria. The risk management system (hereinafter referred to as the RMS) replaces total one hundred percent control and is an effective mechanism aimed at securing the interests of all parties to the customs relationship - both the state and the FEA subjects, in particular by minimizing subjective and discretionary ( that is, the ability to make decisions at its own discretion without the existence of grounds) for customs controls and, as a consequence, reduces the level of corruption at customs. It should be noted that the legislation on state customs matters does not currently include a statutory definition of "risk management system".

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However, in accordance with Section I, Section 12, Procedure for Risk Analysis and Assessment, Development and Implementation of Risk Management Measures to Determine Forms and Scopes of Customs Control (hereinafter - Procedure) [7], it is determined that an automated risk analysis and management system (hereinafter referred to as ARAMS) ) Is a collection of software and information systems that ensure the functioning of the risk management system during customs control and registration of goods and vehicles.

As defined in Art. 337 ICU, control using an RMS is a risk assessment by analyzing (including using information technology) the documents submitted in the specific case of movement of goods, vehicles for commercial purposes across the customs border of Ukraine in order to select the forms and scope of customs control sufficient to provide compliance with the requirements of the legislation of Ukraine on issues of state customs [2, p.337]. In doing so, the customs authorities of Ukraine during customs control should be guided by the principle of selectivity and, as a rule, be limited to forms of customs control sufficient to ensure compliance with the customs legislation of Ukraine, which provides for the fulfillment of the minimum customs formalities necessary to ensure compliance with the legislation of Ukraine on state customs matters [ 2, Art. 318]. In this way, control with the use of RMS involves the use of information technology. In practice, this is implemented with the help of ARAMS, whose functional elements are electronic risk profiles.

At present, the following modules are functioning at ARAMS: at customs clearance of the customs declaration (including the electronic customs declaration); at the border crossing points for road and rail (along the so-called "red corridor" and "green corridor"). Also, taking into account international best practice in the customs field and in order to ensure proper control of cargo transiting through maritime checkpoints, the provision of advance cargo information by maritime agents prior to the arrival of a ship in port in Ukraine has been established. This information contains, in particular, data on the container, the weight characteristics of the product, its description, which allows it to be used for the analysis and assessment of risks both at customs clearance of declarations and at checkpoints (check and comparison with the declared type of container, quantitative and weight characteristics product, its description, etc.).

At the same time, the existing IT support allows for the automated analysis of goods moving through the sea checkpoints in containers, only when the customs declaration is made at the customs office of destination. Therefore, a priority direction for further automation of risk analysis and assessment is the implementation of the ARAMS module at border crossing points for maritime communication. With the help of ARAMS automated comparison of data (information) on a specific move to coincide them with the algorithms included in the ARAMS (risk profiles). In case of detection of possible risks of violation of customs legislation, the customs inspector is automatically issued a list of customs formalities (control measures) that must be completed to confirm or refute the identified risks.

To strengthen the institutional capacity of the risk management system, it is envisaged both to expand the functionality of the existing ARAMS and to introduce new approaches to the analysis and assessment of risks from prior information before the arrival of goods at the border. Thus, one of the important tasks of the new customs service is the need to build an ARAMS to cover risks not yet covered by the system. Customs authorities, in conjunction with the World Customs Organization (hereinafter WCO), with the financial support of the US Export Control Program, EXBS, have already begun work on Ukraine's accession to the Cargo Targeting System of WCO (WCO CTS), which will be located in seaports to enable the analysis and assessment of risks before the arrival of goods in containers at the port. The WCO CTS system was developed by WMO to assist customs administrations in collecting, storing and exchanging information contained in the cargo manifest. The application of the WCO CTS, in particular,

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aims at implementing the provisions of the Framework Standards for Security and the Kyoto Convention into customs, and is an effective means of combating customs crimes.

For example, the Framework Security Standards [5] stipulates that customs administrations should use sophisticated methods to identify and purposefully inspect goods with a potentially high risk, and to ensure adequate risk assessment, the customs administration must request advance electronic information in a timely manner. The implementation of the WCO CTS project in Ukraine will be important for determining the forms of customs control at ports, since it involves the creation of analytical teams to analyze information and determine customs formalities before the ship arrives in port. One of the most promising areas for the development of information cooperation between customs authorities and FEA entities is the provision of prior information, as it serves as a tool for the modernization and institutional development of customs administrations, and also creates conditions for enhancing the security of the international supply chain. According to the current customs legislation, prior information is a business process during which electronic information on goods and vehicles that are planned to be imported / exported to / from the customs territory of Ukraine via checkpoints is transmitted and processed [8].

The use of such a customs instrument as prior information has significant benefits for both the customs authority and the FEA entity. Prior information technology is beneficial for FEA participants in that it: significantly reduces the duration of customs control; minimizes financial costs for customs clearance; creates conditions for transparency and predictability of actions of customs authorities. As for the benefits for customs administrations, without using such advanced customs tools as prior information, they will simply not be able to cope with the growing volume of goods moving across borders. In addition, the widespread use of prior information allows to: minimize the time of completion of customs formalities at points of transit across the state border of Ukraine and places of clearance; significantly increase the reliability of the declaration; comprehensively control the movement of goods and vehicles across the customs border; guarantee the accuracy of the information transmitted; accelerate delivery of goods to the consumer; to optimize the activities of customs authorities on the distribution of human and material resources, minimize threats to the national and economic security of Ukraine; to accelerate foreign trade turnover.

Along with the significant advantages of prior information, some practices also highlight some of the disadvantages of this tool, in particular: the additional duty entrusted to participants in foreign economic activity; additional costs for the FEA participants (in case of providing preliminary information with the help of a mediator) and for the customs (for servicing the electronic resource); does not always guarantee the acceleration of customs clearance; requires the re-submission of documents and information to the customs authority at the time of border crossing. In general, the implementation of prior information to the customs authorities is a system of information interaction between the customs clearance unit and the subjects of FEA (Fig. 1).

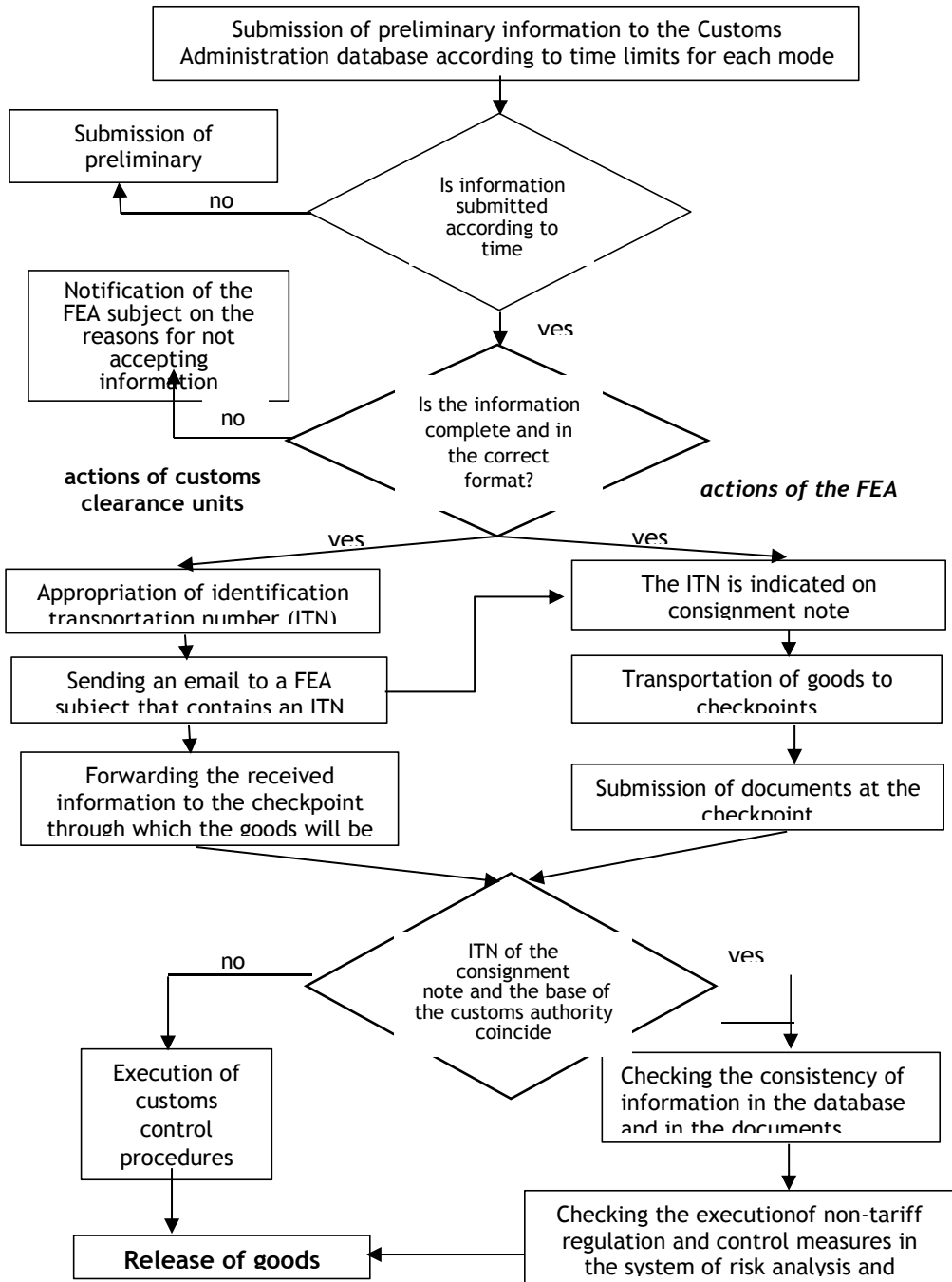
Also, it should be noted that prior information is one of the most important elements of the process of implementation of the customs risk management system. In general, there are four key elements in the structure of the risk management system, in particular such as: collecting and processing information on goods and vehicles moving across the country's customs border (ie prior information); risk identification and analysis; development and implementation of risk management measures; generalization of the results of the implemented measures and preparation of proposals. Therefore, prior information is a modern tool used by most customs administrations to simplify and expedite customs control procedures, but analysis of international experience shows that its primary task should be to ensure a high level of security for international freight. Thus, in the European Union, according to the Decree of the European

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Parliament and of the Council No 48/2005 (amendments to the Customs Code of the European Union) and Commission Regulation No 1875/2006 (amendments to the provisions on the application of the Customs Code of the European Union) the territory of the EU, are subject to risk analysis for their safety before the shipment. In order to do so, the customs authorities of the country where the cargo is intended to be shipped must be submitted through the European Import Control System (ICS), a summary import declaration (ENS).

The use of ICS imposes on carriers the obligation to submit simplified import declarations, in electronic form, on importation into the customs territory of the Community of goods from third countries. The data specified in the ENS, the so-called "safety data sheets", which are submitted to the customs frontier before the goods are brought into the customs territory of the Community, allow the customs authorities to carry out a risk analysis, first and foremost, to determine the degree of security and how customs controls the security requirements properly. The security information submitted to the customs authority in the ENS shall be drawn up in accordance with the XML.

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**Fig. 1.** Structural and logical scheme of interaction between the customs authority and the subject of FEA when submitting preliminary information

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Technical Specification for Entrepreneurs and to the extent specified in Annex 30A to the Regulation on the application of the European Union Customs Code (Table 1) and signed with the key for data transmission security.

**Table 1.** Volume of safety data to be submitted to the ENS in accordance with Annex 30A of the Regulation on the application of the EU Customs Code

Table number	Table content
Table №1	the amount of data to be provided in the case of carriage by air, sea, inland waterway, other modes of transport or in other cases to which Tables 2 to 4 may not apply;
Table №2	the amount of data to be provided in the case of mail and express delivery;
Table №3	the amount of data to be provided in the case of road transport;
Table №4	the amount of data to be provided in the case of rail transport;
Table №5	volume of data for entrepreneurs who are certified economic operators

Thus, ICS allows for the electronic exchange of information between the FEA entity and the customs authority in the field of security information, as well as the exchange of messages on the results of risk analysis between customs authorities in the Community. It is worth noting that in some countries, prior information is also used to improve the safety of passenger movement. In particular, the Concept of the Passenger Information System (APIS) was first developed and implemented in the United States to address drug trafficking and national security threats, as well as the increasing volume of international transportation. In recent years, the use of such systems around the world has increased. Although different systems may operate in completely different modes, the ultimate goal is the same, the competent authorities receive the necessary information about the passengers prior to their arrival, so that most of the screening process can be carried out in advance [9]. The Advance Passenger Information system provides the air carrier to collect biographical data and passenger details (APIs) during the check-in process. However, this system has one major drawback, namely that it only identifies potential high-risk passengers only after a flight has departed. As a result, actions can only be taken after boarding a flight. In rare cases, a flight may be forced to return and return to the point of departure to the detriment of other passengers, as well as the operations and economic interests of the airline concerned. Therefore, a more sophisticated API version - the Interactive API System (iAPI) - can meet the growing needs of immigration aviation security services and combat illegal migration, drug smuggling and other national security threats. A distinctive feature of iAPI is that it provides online electronic messaging for each passenger between the aircraft operator and the border control authority of the country of destination (as opposed to a single API message for all flight passengers). This increases the level of aviation security, as destination countries may prevent high-risk passengers from boarding at the point of departure without prior notice. The API system may also be applied in such a way that the designated authorities of the country of departure also grant a boarding permit or prohibit the boarding of individual passengers in real time [10].

In addition, with the aim of speeding up customs procedures, improving the quality of customs control and ensuring customs security when dealing with passengers, we propose to introduce prior information on goods that are moved by citizens on the basis of smart declaring by means of technologies "Smart-customs-citizens" [11]. To this end, the IT department needs to develop an electronic version of the customs declaration for the written declaration of goods being moved across the customs border of Ukraine by citizens for personal, family and other needs not related to business activities. A citizen through the Market option will be able to install on this mobile phone a software product that is linked to the State Customs Service of Ukraine on the Internet and which can be accessed through the application (application) of the

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State Customs Service of Ukraine. After logging in to the Customs Service website, the citizen performs the following actions: Step 1 - enter the Menu (1) and open the option "Custom Declaration" (2); Step 2 - Activate the check-in or check-out field and fill in the active fields in the "Personality information" section (2); Step 3 - Fill in the active fields of the section "Product Information" (3), if necessary refer to the provisions of the ICU or other regulations (4); Step 4 - Complete the declaration. Prior to the passenger's arrival at the destination, the customs authorities may analyze the preliminary information and prepare a paper copy of the declaration. This, on the one hand, will significantly accelerate the origin of the passenger through the customs procedure, and on the other, will identify potentially dangerous passengers even before they pass customs control.

## 4 Conclusion

Thus, prior information is an effective modern customs control mechanism that can significantly accelerate the customs clearance process, and through the extensive use of automation of the risk analysis and management system, helps significantly improve the effectiveness of customs control in preventing and counteracting customs violations and customs crimes. In addition, it should be noted that the primary purpose of pre-informing customs authorities about the movement of goods is to ensure a high level of security of the international supply chain and to ensure the customs security of the country as a whole.

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