

In the figure, we can see the number of revealed violations of intellectual property rights in the Republic of Belarus for 2017 - 2019.

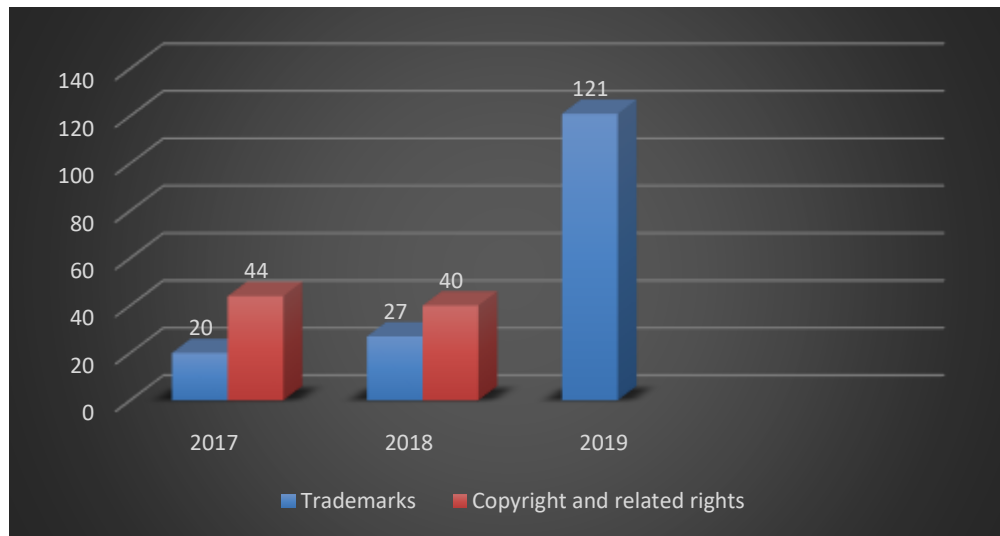


Figure - The number of revealed violations of intellectual property rights in the Republic of Belarus in the context of IP categories in 2017 - 2019 (units)

Analysis of the data in the figure allowed us to conclude that there is an increase in violations of intellectual property rights, in particular in respect of trademarks. Accordingly, the application of the principle «ex – officio» can help to reduce the number of such offences.

Thus, the application of the principle «ex – officio» in the Republic of Belarus can significantly increase the efficiency of the customs authorities, which will allow more rational use of resources through their correct distribution. This is especially important in the current conditions of the occurrences of new sophisticated ways of smuggling goods.

### **Viktorchyk Ulyana Grigorievna**

Belarusian National Technical University, the Republic of Belarus

The research advisor: Moyseyonok Nadezhda Sergeyevna, Senior Lecturer

### **«Information technologies in Customs: problems of their use and solutions»**

*Research Field:*

*Modern technologies in international trade*

Currently, the use of modern equipment, software, as well as new information systems and technologies is becoming increasingly important. The changing conditions of international trade development require the customs authorities to rapidly implement solutions that would allow simplified customs clearance and customs control for all participants in foreign economic activity. One of these solutions is the use of information systems and technologies, which

significantly saves time and resources, as well as minimizes the possibility of making various kinds of mistakes by customs officials in the performance of a number of their duties.

Scientific and technological progress does not stand still. In recent years, various types of information systems and technologies have been effectively implemented, which have become firmly established both in the activities of the entire customs system and in the work of individual customs departments.

To date, it can be argued that the use of the latest technologies has a positive impact on the work of customs officials, contributing to the simplification and acceleration of the customs clearance process, improving the optimization and effectiveness of customs control in relation to goods, vehicles and subjects of foreign economic activity. In addition, modern achievements in this field open up new opportunities for a significant increase in the effectiveness of the protection of the internal market of the state, as well as the protection of public and national interests<sup>1</sup>.

At this stage, there is a gradual introduction of modern technologies in the activities of customs authorities. However, like most areas related to public administration, customs requires the improvement of existing equipment, as well as the creation and introduction of new equipment that can ensure the passage of the customs border in a simplified manner and eliminate most mistakes.

In the process of its development, information technologies constantly face a number of difficulties, which does not allow them to maximize the simplification of international trade. Biometric technologies, nanotechnologies for document verification, as well as automated information systems are most actively used in customs. Of course, their implementation in the activities of customs authorities plays a significant role, but any technology, in addition to obvious advantages, has some disadvantages. To further improve the process of customs clearance and control, it is necessary to identify the imperfections of the most used technologies for further development of ways to eliminate them.

Biometric technologies are used by customs authorities to more accurately identify a particular person by using its physiological characteristics, since, unlike behavioral ones, they are unique and practically do not change throughout life, and are also difficult to falsify. That is why we can talk about the reliability of such identification. Of all the types of biometric technologies, customs authorities usually use recognition by fingerprints, facial geometry, and by scanning the retina of the eye.

---

<sup>1</sup> Агамагомедова, С.А. Развитие информационных технологий в таможенном деле / С.А. Агамагомедова, Н.В. Курдина // Таможенное дело и внешнеэкономическая деятельность компаний. – 2017. – С. 418-432.

However, like any system, biometrics has a number of significant drawbacks. In the process of aging, some biometric characteristics may be distorted and no longer fully correspond to what was previously stated. In such situation, to facilitate the work of customs authorities, it is necessary to provide for mandatory updating of information in databases over a certain period of time, as well as the introduction of several human characteristics, for example, taking fingerprints from two or three fingers or scanning the retina of both eyes, taking into account the possibility of changing physiological characteristics due to various types of injuries. In addition, due to the rapid development of technologies, it is planned to use biometrics to identify representatives of flora and fauna in order to uniquely determine their individual characteristics. To date, this responsibility is assigned to customs officials, who, by using the Short Identifier of Animals and Plants included in the CITES annexes, must accurately identify representatives of flora and fauna by comparison. And if it is impossible to independently make an unambiguous decision, it is necessary to resort to the help of experts, which implies an increase in the identification time and brings certain inconveniences.

At this stage, it is not possible to completely exclude the influence of the human factor, since the final decision is in any case left to the customs officer. However, in the future, we can talk about automating this process by completely replacing people with information technologies to significantly reduce possible errors and increase, respectively, the effectiveness of customs clearance and control.

Nanotechnologies are cross-sectoral in nature and have great prospects for use; in particular, they have become an indispensable part of the activities of customs officials. The use of nanotechnology is primarily aimed at speeding up customs control, improving its optimization and effectiveness in order to obtain information about goods, vehicles, identify signs of administrative offenses, as well as facts of forgery of customs and other documents and information.

In the customs sphere, combined document verification devices are widely used, the main advantages of which are, first of all, their multitasking and relatively small size. These devices contain a built-in system of illuminators, including a remote illuminator, optical systems, a system for registering the magnetic protection of a document, a stationary mounted spectral magnifier, and also include application programs.

Software and hardware systems, thanks to the various research devices included in them, are indispensable, first of all, when conducting operational verification of the authenticity of identity documents, banknotes, customs and other documents equipped with special means of protection. The high information content of the research results makes it possible to detect signs

that are not available for traditional methods. When using these devices, as well as when using biometric technologies, the identification and control process is based on rapid research aimed at identifying the facts of changes in the original content or type of documents. As a rule, this check involves a visual inspection through the use of special technologies, where the final decision is made by a customs official. Due to various circumstances, the employee may lose sight of the inconsistency of the document with the established form, the facts of violation of the law by changing the content of the document, or the provision of forged identity documents. To help prevent such errors, you can only eliminate the human factor and assign this responsibility to special equipment.

In the modern world, without the use of information systems, it is almost impossible to make customs clearance fast and transparent. Their application is aimed at improving the management system, which involves identifying, preventing and eliminating the causes of possible or emerging inconsistencies, as well as violations of customs legislation. Information systems contribute to the expansion of interaction with participants in international trade, creating favorable conditions for organizations and enterprises to conduct foreign economic activities. All this is designed to improve social and information services for citizens, speed up and simplify customs clearance and control procedures<sup>1</sup>.

However, each such system has its own drawbacks. Despite the advantages of using the National Automated Electronic Declaration System, making mistakes when filling out the declaration, non-compliance of its form with the established criteria, as well as providing incomplete or unreliable information leads to an increase in the time of customs clearance, and in some cases can have negative consequences for participants in foreign economic activity. As for the Automated Risk Management System, if the software and databases are not updated frequently enough, as well as if there are failures in operation, this information system may be completely useless. These problems will not allow the program to accurately and quickly determine the risk profile for the subsequent appointment of special measures for the analysis and assessment of the estimated risk. To improve the existing information systems, it is also necessary to introduce mandatory software updates within a certain period of time and provide for the introduction of backup software products in the event of a failure of any of the main systems.

Thus, in the modern world, new technologies are being actively introduced into the activities of customs authorities. Taking into account the difficult epidemiological situation all

---

<sup>1</sup> Безлюдов, О.А. Таможенное право Евразийского экономического союза / О.А. Безлюдов, К.В. Акименко, Н.Н. Панков, В.О. Климова; под ред. О.А.Безлюдова. – Минск: Право и экономика, 2018. – 342 с.

over the world, we can talk about the movement of these technologies towards the abandonment of physical contact during customs operations and procedures and the transition, respectively, to the electronic form of such events. It is assumed that in the near future, all operations will be carried out by equipment, and people will act only as coordinators. This will significantly reduce the time of performing procedures without reducing the effectiveness, improve the conditions for interaction with participants in foreign economic activity, speed up and simplify the process of customs clearance and control.

### **Hanebny Yahor Aliaksandrovich**

Polotsk State University

The research advisor: Grikis Vasil Petrovich

### **«The Use Of Information Technologies In Customs Services»**

*Research Field:*

*Modern technologies in international trade*

The society has passed through many different stages in its formation. As a result of social development and the emergence of private property, as well as due to the scientific and technological progresses, the society has transitioned to the informational one<sup>1</sup>. The informational society can be characterized as the society which uses information and communication technologies almost in every sphere of human activity.

The use of digital systems, among other reasons, has led to the beginning of digital economy. The development of digital, information, and telecommunication technologies is now considered as an “indispensable attribute” of economic growth. It ensures that countries, regions, and economic sectors are competitive enough to operate in the global economy.

It is important to say that international trade is directly linked to the work of customs authorities. The increased role of customs authorities in regulating business activities and in creating the necessary conditions for reducing the costs of foreign economic activity (hereinafter - FEA) makes the provision of high-quality customs services more relevant in the context of the Eurasian Economic Union (hereinafter - EAEU). The need to develop this area is outlined in a number of strategic and regulatory documents of EAEU member States<sup>2</sup>. Thus, according to the

---

<sup>1</sup>Белл Д. Грядущее постиндустриальное общество. Опыт социального прогнозирования. Перевод с англ. М.:Academia, 1999. 956 с.

<sup>2</sup>Чечулин, Ю.О. Механизм управления качеством таможенных услуг в условиях Евразийского Экономического Союза: автореф. дис. на соиск. учен. степ. канд. эк. наук: 08.00.05 / Ю.О. Чечулин; Российская таможенная академия. – Люберцы, 2020. – 3 с.