THE FEDERAL CUSTOMS SERVICE OF RUSSIA HAS GAINED CONSIDERABLE EXPERIENCE IN ESTABLISHING INTELLECTUAL CONTROL POINTS

Abdurakhmonov Zafar Batirovich
Customs Institute. Senior Lecturer, Department
of Information Technology and Mathematics

Abstract: This article contains information about the implementation of artificial intelligence at border customs posts in the Russian Federation.

Studying the experience of the Federal Customs Service of Russia, the article examines issues related to the introduction of artificial intelligence to create «intelligent checkpoints» at these posts. The main goal of this study is to simplify and improve the efficiency of customs authorities by drawing on advanced foreign techniques and technologies and applying this experience in the Republic of Uzbekistan.

Keywords: artificial intelligence, intelligent checkpoints, automation, inspection and search complexes, neural network, digitalisation, interrogation techniques.

Over the past few years, a number of systematic reforms have been carried out in the Republic of Uzbekistan with the aim of improving and increasing the efficiency of customs authorities, aimed at simplifying customs procedures and implementing the standards and recommendations of the World Trade Organisation, the World Customs Organisation and other international institutions into national legislation. In addition, attention is being paid to the modernisation and technical supply of customs authorities. In particular, to speed up customs procedures and formalities,

In 2020, the customs authorities implemented a «digital customs» system, which is a continuation of the «paperless and electronic customs» [1]. To this end, work was carried out to create an interdepartmental electronic document management platform. As a result, new concepts such as «electronic declaration», «risk-oriented customs control», «risk management system», «red corridor», «green corridor» and «auto-release» with elements of artificial intelligence began to be used.

This, in turn, led to the active development of customs affairs and a gradual transition from electronic customs to intelligent customs. Today, work is continuing on the implementation of artificial intelligence at border customs posts to create «intelligent checkpoints» there. It is expected that the successful implementation of this practice will minimise the time spent crossing the customs border, eliminate barriers through the automation of customs operations and unify the software used at checkpoints.

It is well known that, for a long time, customs control at the border consisted of traditional inspections of goods and vehicles at the border by customs officials. However,

with the growth of the flow of goods, control is becoming an increasingly labour-intensive and costly process. Today, there are a number of problematic issues at checkpoints related to a lack of technical and physical capabilities. In other words, it is becoming very difficult to carry out effective customs control, especially at peak times and with the growing flow of transport. The time required for customs inspection is increasing due to the growing cargo flow, which leads to cargo downtime and long queues at the border.

To solve these problems, it seems appropriate to carry out a large-scale upgrade of checkpoints and to combine them into a single information system that will be integrated not only with the electronic systems of the controlling authorities, but also with the software of technical control means, such as inspection and examination complexes (IEC), weight and size complexes, and radiation control systems. Thus, the «intelligent» customs posts being created will be able to pass vehicles and identify risks in real time.

Based on the results of a study of the experience of the Federal Customs Service of the Russian Federation, it became known that the introduction of an intelligent checkpoint was included in the Strategy for the Development of the Customs Service of the Russian Federation until 2030. The Russian customs service has already begun developing a model of an «intelligent checkpoint» for all types of transport. The basis of this model is a unified information system, which is planned to be integrated not only with the systems of regulatory authorities, but also with the software of technical means, such as inspection and examination complexes (IEC), weight and size complexes, and radiation control systems [2].

According to Vladimir Ivina, deputy head of the customs service, «intelligent» checkpoints will begin to appear as early as 2024 in pilot mode. It is assumed that the inspection process will look as follows:

a) There will be no queues at checkpoints. Cargo vehicles will pass through one after another without delay. Information about cargo, vehicles and drivers will be provided in advance to the customs and border control authorities by foreign trade companies or their representatives.

b) All operations are automated: cameras at the entrance to the checkpoint record the registration number of the vehicle and trailer, read the container number, and recognise the QR code on the windscreen of the vehicle. After the database responds with preliminary information, a green light appears on the monitor in front of the cab and the vehicle is invited to proceed.

c) As the vehicle continues through the portal, radiation control, vehicle weighing, and dimension determination are performed automatically, and a 'smart' tachograph transmits the remaining information about the vehicle and driver to the transport control system in accordance with the requirements of the competent ministries and departments.

All of the above operations take about two minutes.

To pass through customs control, the vehicle continues through the portal, where it and its cargo are 'scanned' using a 'smart' inspection and examination complex (IEC), which will not harm the driver's health.

At this point, artificial intelligence is actively 'activated': a neural network trained on a multitude of images of homogeneous cargoes, which decides whether the goods in the cargo compartment correspond to what is declared in the documents. If the cargo matches and the Customs Risk System has not identified any risk events, the goods are automatically placed under the transit procedure. And if a preliminary declaration has been submitted for the cargo by an Authorised Economic Operator, the final release of the goods may be carried out in accordance with the declared procedure.

If an automated passport control system is integrated into the specified flow-portal solutions, Russian drivers with biometric passports will pass through passport control with minimal time expenditure: it will be enough to place the passport on a special reading and scanning device and, if everything is in order, move on.

The driver then leaves the checkpoint. They spend five to seven minutes here and, importantly, do not come into contact with any of the control authorities' employees [3].

Conclusion and findings:

In the current environment, the customs authorities of the Republic of Uzbekistan are an important element in the chain of realising the state's interests in the field of foreign trade. Creating favourable conditions for the development and intensification of foreign economic activity, as well as minimising the costs of participants in foreign economic activity by reducing the time required to complete customs procedures and improving the quality of services provided in the field of customs.

The creation and development of the necessary conditions for the establishment of an 'intelligent' checkpoint at the customs border are an integral part of improving the quality of the work of customs authorities for effective, efficient and accelerated border control.

In order to improve the quality of customs administration, it seems appropriate to consider addressing factors related to the organisation of checkpoints by:

1) automating processes, integrating the software of state authorities and other participants providing services at checkpoints and beyond through the development of a blockchain system;

2) creating the necessary conditions for the full functioning of 'intelligent border crossing points' by modernising the infrastructure of border crossing points and equipping them with modern technical means;

3) creating a special database (obtained from regional customs offices and customs posts) and an automated information system for processing information (taken from the databases being created).

List of references:

1. Указ Президента Республики Узбекистан «О реформировании таможенного администрирования и совершенствовании деятельности органов государственной таможенной службы Республики Узбекистан» №УП-6005 от 05.06.2020 года.

2. https://www.kommersant.ru/doc/5029401

3. https://russoft.org/news/intellektualnaya-granitsa/