

# Risk Management System And Factors Affecting The Level Of Risk In The Customs Authorities Of Uzbekistan

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**Annotation:** The article describes the reasons for the introduction of the "risk management" system into the customs authorities, the necessary elements that ensure the functioning of the "risk management" system and their specific features, factors affecting risk and their significance.

Processes of collecting and processing information necessary to identify risks and determine their levels, identify and analyze risks, develop and apply risk management measures, summarize the results of the measures used, and prepare proposals.

At the same time, mathematical algorithms specially developed by the author aimed at automatically determining the risk and its levels of under- or overvaluation the invoice value of imported goods presented by the participants of foreign economic activity for customs clearance are described.

**Keywords:** risk, elements of risk management system, risk management system, factors affecting risk level, potential risk, low risk level, medium risk level, high risk level, average value, standard deviation, three sigma rule, mathematical algorithm, normal range, data collection, data processing, risk identification, risk analysis, risk management, risk minimization measures, application of minimization measures.

## INTRODUCTION

The development of economic integration processes of Uzbekistan with the countries of the world, the increase in the volume of foreign trade, the renewal of the structure of goods and the attraction of foreign investments are related to the development of foreign trade relations of Uzbekistan with far and near foreign countries.

In recent years, the development of foreign trade during the implementation of the policy of forming an open economy in the Republic is helping the emergence of new goods in the domestic market of Uzbekistan.

The emergence of new goods and new supply chains, the characteristics of goods, prices,

terms of delivery and payment, and other information lead to an increase in the amount of information required for customs purposes.

At the same time, globalization processes demand acceleration of international trade of goods.

International practice dictates the need to speed up customs operations and customs control using a risk management system to speed up the movement of goods within international trade chains.

Permanent works that provide for the development and implementation of measures to prevent risks and reduce them as much as possible, evaluate their effectiveness, as well as

control over the execution of customs operations, continuous updating, analysis and revision of information available in customs authorities - recognized as risk management [1].

## LITERATURE ANALYSIS AND METHODS

Inadequate risk management practice creates new risks of customs violations in the Republic and creates the need to accelerate the implementation of customs control and the risk of wrong decisions by customs officials. The existing contradictions between the quality and speed of decision-making threaten the economic security of Uzbekistan. Therefore, customs authorities should perform both fiscal and law enforcement and regulatory tasks and introduce proposals for improving customs legislation.

In this regard, in accordance with the roadmap for the development of customs authorities of the Republic of Uzbekistan in 2018-2021, the customs service is carrying out consistent reforms in the field of optimizing customs operations by introducing modern information technologies and innovative management methods. One of them was the introduction of the "Risk Management" system on a trial basis from December 1, 2017, and fully from March 1, 2018. [2].

The use of the "Risk management" system in customs authorities is an important tool for detecting and preventing customs violations and crimes. "Risk management" system is a modern method of customs administration based on selected customs control principles. The system increases the quality of the decisions made and the efficiency of the use of the forces and means at the disposal of the customs authorities.

Today, improving the mechanisms of using the "Risk Management" system is an important strategic task of customs authorities in all countries of the world, and to solve it, a comprehensive assessment of scientific, methodological, statistical, information-technical and regulatory-legal support is necessary [3].

At the meeting of the Commission of the World Customs Organization on the Facilitation and Development of International Trade, held in Brussels on March 7-9, 2017, the Secretary

General of the World Customs Organization, Kunio Mikuriya, emphasized that the "Risk management" system is the basis for the application of modern customs control, and on the prevention of law violations in the customs authorities. The development of analytical activities related to the identification of risks is a priority task of the World Customs Organization, which emphasized the need to use modern information technologies based on intuitive risk assessment systems..

As subjects of regulation of foreign economic activity, the activities of customs authorities are directly related to high-risk areas. Risks in customs activities are complex in nature and require a scientific and practical approach. Risk management in relation to customs activities means the implementation of an effective unified policy for the detection, assessment and prevention of violations of customs legislation.

It is the customs authorities that control the observance of customs legislation, control the receipt of customs duties to the state budget, ensure the economic security of the country when it comes to combating counterfeit or dangerous products, goods prohibited for import into the territory of the country, prevent capital from leaving the country and illegal withdrawal of strategically important goods.

Thus, there is a need to maintain a balance of interests, since it is necessary to speed up the observance of all customs formalities, but not to allow weakening of control. Therefore, the best idea today to increase the efficiency of the customs administration, which is one of the most important areas of state economic policy, is the use of the "risk management" system.

In general, a risk management system is used in customs authorities to identify goods and vehicles, documents and persons subject to customs control, to establish forms and levels of customs control applied to such goods, vehicles, documents and passengers [4].

## ANALYSIS AND RESULTS

Just as any system consists of a set of elements that make it up, the "risk management" system is made up of 4 elements [5]. Including:

- маълумотларни тўплаш ва қайта

ишлаш;

- identification and analysis of risks;
- development and application of risk management measures;
- summing up the result of the measures used and preparing proposals.

These elements ensure the normal operation of the system, making up a continuous whole process, which is in constant motion and updating. When the movement of any element in the system in the process stops, the system stops working efficiently. Therefore, the elements require constant movement and renewal.

**Data collection and processing:** This element provides for the collection and processing of all information received from various sources, including other information about goods and vehicles transported through the customs borders of the Republic of Uzbekistan.

It is also the procedure for collecting and processing information, the analysis of objects of customs control, accounting, systematization and actions aimed at preserving information. Processing - accounting, systematization, modification and storage of information for analytical purposes.

Information is collected in the customs authorities on the basis of information in the documents provided to them, information in the unified automated information systems of the state Customs Committee, as well as information received by foreign customs services and other bodies and organizations of the state.

Information received at Customs is registered and summarized.

Information is transferred to the format and type of software tools of the customs authorities and is grouped and systematized according to the parameters and criteria needed.

In order to ensure the possibility of risk assessment, the data obtained must be kept unchanged.

The procedure for storing information is determined by the customs authorities according to the information content, format, as well as the type of presentation and formalization.

The most important factor that determines the validity and effectiveness of management

decisions in the development and implementation of measures to prevent and minimize risks is the completeness, speed (timeliness) and reliability of information.

Customs authorities must have complete, reliable and up-to-date sources of information and, based on this information, assess risks, otherwise it may indirectly interfere with the development of foreign trade.

The information resources of the State Customs Committee are used as the main source of information to identify potential risks and prevent them.

When collecting, summarizing and analyzing information, special attention should be paid to their systematicity and completeness, the basis of several independent sources of information, as well as the technology of information collection and the frequency of their updating, filling of databases with new information.

The following information is essential for identifying risks in customs authorities [6]:

- Requirements of legislation of the Republic of Uzbekistan;
- Comparative statistical data on goods and vehicles transported through the customs borders of the Republic of Uzbekistan, including the internal data of Uzbekistan and the state data of the counterparty with Uzbekistan;
- Information on the economic production potential of the counterparty state with Uzbekistan;
- information received from law enforcement agencies, including customs authorities of foreign countries;
- results of operational-search activities of customs authorities and special statistical data on violations of customs legislation;
- information on crimes and violations committed in the field of customs work;
- Information on the activities of persons performing legally significant actions with goods under customs control on their behalf in accordance with the civil and (or) customs legislation of the Republic of Uzbekistan;
- customs brokers, declarants, warehouse keepers, carriers and customs officers and basic information on goods and vehicles;

- information on the results of the implementation of customs operations and the application of measures to minimize risks;
- information on payment relations for foreign trade transactions;
- information in customs, commerce, transport (other cargo related documents) and other documents.

### **Identification and analysis of risks:**

In order to determine the occurrence of risks and its consequences, the data collected and processed in the customs authorities are analyzed.

In risk analysis and assessment, the management of base information, the creation of operational (including visual) algorithms for data analysis, as well as the information and software of the unified automated information system of the state Customs Committee are used.

For the analysis and assessment of risks, mathematical, statistical and environmental methods of risk assessment (methods of targeted risk analysis) developed by the customs authority are used.

As a result of grouping methods for targeted risk analysis and creating algorithms, the risk assessment process can be automated.

It is because of the risks that the risk profile should be minimized to minimize the risks necessary for making a decision, as well as as a basis for making a decision.

Types of risks are classified by the State customs committee, based on offenses and crimes committed in most cases by the participants of the FEA without complying with the requirements of the law documents.

At the time when the risk is identified by the customs authorities, a risk profile should be developed and approved in a mandatory order and a decision should be made on the application of measures to minimize the risk [7].

The main directions in risk analysis are as follows:

- set of conditions and factors affecting risks;
- customs operations in the implementation of which there is a possibility of committing a customs offense;
- criteria and parameters describing risks

(number of actions, types of goods, recipient of goods, etc.);

- risk indicators (threshold quantitative: indicators that determine the need to apply measures to prevent or minimize risks);
- estimate the amount of damage that may occur in the event of a risk;
- other analysis objects.

### **Development and implementation of risk management measures:**

The following should be taken into account when developing and implementing risk management measures:

- predict outcomes and identify likely consequences;
- measures to prevent or minimize risks and analyze their results;
- choosing the most appropriate measures provided for by the current legislation;
- determining measures to minimize risks, as well as the procedure for their application;
- develop and validate risk profiles.

Risk profiles are developed by customs authorities in order to identify the objects of customs control based on risk indicators and to apply measures to minimize risk in relation to them.

Risk profiles are classified by the State Customs Committee according to their validity period and territory, methods used in risk assessment, as well as methods of delivery and application.

Customs control objects are selected on the basis of risk indicators.

The selection of customs control objects is carried out by customs authorities independently based on risk indicators or using the software tools of the Unified automated information system of the State Customs Committee..

The use of automated methods of applying risk minimization measures in accordance with the approved risk profiles is carried out by the participants of foreign economic activity by providing information on goods and vehicles transported across the customs border in electronic form in accordance with the procedure established by law. [8].

### **Summarizing the results of the measures used and preparing proposals:**

Risk management cannot be implemented without a "feedback" system.

Because the measures taken to minimize the risks may have different results or affect different aspects of customs activities (fiscal, law enforcement and customs control procedures). In particular:

- to stop the illegal transportation of goods through the customs border;
- to the effectiveness of customs control;
- to the full collection of customs payments;
- to the acceleration of the circulation of goods;
- to the costs of customs authorities and persons transporting goods related to customs control;
- to a change in customs clearance time.

Customs authorities use electronic methods of information transmission, storage and processing, including information systems and information technologies, in risk management and assessment, as well as in the classification of foreign economic activity participants.

If the concept of risk is derived from the given tariff, that is, the risk is the degree of probability of non-compliance with the customs legislation, and there are always certain factors that cause the risk to appear or how dangerous it is [8].

The presence of several of these factors at the same time or the magnitude of the influence of one factor determines how important or opposite the level of risk is. Below are listed the main factors affecting the occurrence of risk and its level in customs activities.

If a risk is identified and there is a high probability of non-compliance with customs legislation, it is necessary to apply more cost-effective risk minimization measures, i.e. one or more appropriate forms of customs control.

In this case, the costs incurred by the customs authority for the implementation of customs control, including time costs, are interrelated with the economic damage that may occur.

Thus, the fact that the costs incurred are

less than the economic or other losses prevented is one of the indicators of the effective operation of the risk management system.

Exposure to risk is carried out by the officials of the customs authorities through the direct application of measures to minimize the risk provided for by law.

Customs authorities divide foreign economic participants into categories in order to differentiate the risks and to show the corresponding impact on it [9].

It envisages the use of information collected on the level of risk of participants of foreign economic activity as a result of categorization of foreign economic activity participants, identification of customs control objects with risk indicators in the course of customs operations, as well as application of risk minimization measures.

In order to classify the risk, the activity of all foreign economic activity participants is analyzed and the level of risk is grouped according to the following categories [10]:

- low risk group;
- medium risk group;
- high risk group.

Classification of participants of foreign economic activity into risk categories information on the activities of participants of foreign economic activity under the jurisdiction of customs authorities, the results of customs operations and customs control of goods and vehicles, including documents and information independently submitted by participants of foreign economic activity and the State Customs Committee is carried out on the basis of a comprehensive analysis of information in a single automated information system.

For this, special mathematical algorithms aimed at identifying risks are developed and with their help, risks are automatically identified.

The mathematical algorithm developed and proposed by us is aimed at determining the risk level of incorrect presentation of the invoice value of imported goods to the customs authorities.

For this purpose, the invoice value of each imported commodity in the existing database should be distributed according to the law of

normal distribution. That is, the values are converted to normalized values by taking logarithm to the base of the mathematical constant  $e$  ( $\log_e x$ ;  $x$  – the value of goods;  $e \approx 2.71$ ).

Then the average value of the resulting normal values is determined using the following formula ( $\bar{x}$ ) [11] [13] [14] [16].

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i = \frac{1}{n} (x_1 + \dots + x_n)$$

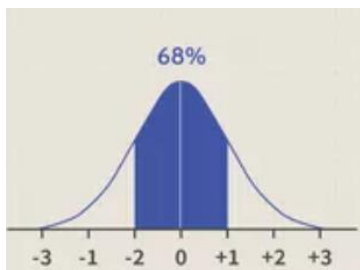
Here:

$n$  – the number of batches of imported goods in a certain period of time;

$x_1, x_2, \dots, x_n$  – the values of each batch of goods imported during a given period;

$\bar{x}$  – the average value of a batch of imported goods during a certain period of time.

Then the standard deviation of the values of a batch of imported goods for a certain period of time is found by the following formula [12] [13] [14] [16].



$$S = \sqrt{\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2}$$

68% of all values fall within 1 standard deviation of the mean.

Here:

$x_i$  – value of batch  $i$  in the database;

$\bar{x}$  – the average value of a batch of imported goods during a certain period of time;

$n$  – the number of batches of imported goods in a certain period of time.

Then, based on the "Empirical" or "Three Sigma" rule, the range of normal values of goods is determined [15] [16]. In this:

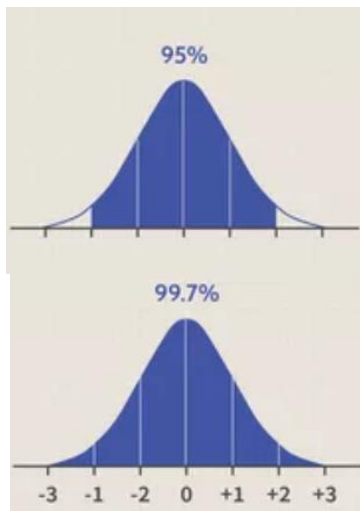
- 68.2% of commodity values in the database are within “+” or “-” one standard deviation of the mean value ( $\bar{x} - \sigma$ ;  $\bar{x} + \sigma$ );

- 95.4% of commodity values in the database are within + or - two standard deviations of the mean value ( $\bar{x} - 2\sigma$ ;  $\bar{x} + 2\sigma$ );

- 99.7% of commodity values in the database lie within "+" or "-" two standard deviations of the mean value ( $\bar{x} - 3\sigma$ ;  $\bar{x} + 3\sigma$ ).

This means that if the values of new imported goods are outside the range of 3 standard deviations, these values are considered abnormal values for us, i.e. risk.

The value of normally distributed goods lies in the interval ( $\bar{x} - 3\sigma$ ;  $\bar{x} + 3\sigma$ ) with the probability of 0.9973.



95% of all values fall within 2 standard deviations of the mean.

99.7% of all values fall within 3 standard deviations of the mean.

Based on the above, it is determined that the invoice value of the imported goods is presented to the customs authorities at a lower or higher value than the actual price. This, in turn, leads to the correct collection of customs fees charged to the state budget.

When evaluating and monitoring the results of the application of risk minimization measures, customs authorities, as well as TIF participants, take into account the violations committed in compliance with the norms provided for by law [17].

## DISCUSSION

Thus, the use of the "Risk management" system solves the problem of the optimal use of available resources for the effective performance of the duties assigned to the customs body.

The use of the "Risk management" system is an important part of the process of improving the customs administration, coordinating the fiscal, regulatory and law enforcement activities of the customs authorities and increasing their efficiency..

The purpose of the risk management system is to establish a balance between the interests of law-abiding participants of foreign economic activity and the need for customs control.

Currently, the selection and application of customs control forms is carried out by the officials of the customs authorities based on the information in the "Risk management" system. Constant changes in the external environment require constant monitoring of risk zones.

Therefore, issues related to improving the use of the "Risk management" system should be included in the permanent agenda of customs

authorities.

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