

In the Republic of Belarus, export control is not only control over the import, but also the export of dual-use and military goods. Such bilateral control and its role as a tool of national security related to the increased export potential of specific goods, primarily weapons and military equipment.

Today in the Republic of Belarus the situation is the following:

more than 25 military industries produce weapons and military equipment;

more than 250 military industries of the Republic of Belarus and the Russian Federation carry out mutual deliveries of component parts, individual weapons and military equipment;

more than 70% of the output of Belarusian military equipment goes to the external market;

more than 70 states (including the EAEU countries) have modern samples of Belarusian-made military products in their armies and law enforcement agencies (the most important strategic partners are the Russian Federation and the People's Republic of China);

the volume of production of industrial products (works, services) by organizations that are part of the State Authority for Military Industry of the Republic of Belarus system increased almost 7 times (from 94.3 million to 654.5 million US dollars) from 2004-2019.;

the volume of exports of goods and services of the organizations of the State Authority for Military Industry of the Republic of Belarus from 2004 to 2018 increased by 7 times (from 143.8 million to 1 billion 49 million US dollars)<sup>1</sup>.

However, such high rates also lead to increasing level of export control. Illegal entry of military goods to other countries with the aim of using weapons not as protection of the country but as attack can provoke outbreaks of military conflicts around the world.

Thus, a responsible and strict attitude to compliance with international legal norms and obligations, improvement of legislation in the field of export control will contribute to the growth of exports of weapons and military equipment (to more than 70 countries, including the EAEU countries) and at the same time to a more thorough implementation of export control in order to prevent the illegal export and import of military goods which determines this measure of non-tariff regulation as a tool of national security in the Republic of Belarus.

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<sup>1</sup>The State Authority for Military Industry of the Republic of Belarus [Electronic resource] - access Mode: <http://www.vpk.gov.by>. - access date: 15.04.2020.

## **«Modern technologies for the organization of warehouses in wholesale and retail trade»**

*The direction of the study:  
Modern technology in international trade*

Innovation becomes an objective condition for the development of modern trade and the competitiveness of enterprises in the long term. By innovating, the company responds to changes in the macro and micro environment and adapts to market conditions.

The purchasing power of the population is now declining. Trade enterprises are forced to refocus on low-price goods. Stores strive to win over the buyer on a long-term basis, to make sure that he becomes a regular buyer, improving the quality of service. At the moment, trading enterprises often take a defensive position on threats from market players and only a few of them retain a leading place in the trading business. One of the main ways for them is to use innovation. Innovation requires financial investment, which can be afforded by large trading organizations. In most cases, the purpose of financial investments is not so much to make additional profit, but rather to maintain a leading position in the market and the ability to develop the business. Large retail chains cannot develop without the introduction of progressive technologies in the system of commodity movement, management of commodity and financial flows, technological processes. The introduction of innovative technologies contributes to better management of inventory and supply.

The development of the warehouse economy in many countries is directly related to the development of retail and wholesale trade. The ever-increasing requirements for retail services and procurement policies have affected the warehouse industry. In Russia, the impetus for the development of the warehouse economy was the entry into the Russian market of foreign companies producing technological equipment for equipping warehouses. Gradually, modern software products were introduced, which allowed to automate information flows in the warehouse and manage the flow of goods. After that, the attitude to the logistics infrastructure in Russia changed a lot, it began to pay direct attention, using as its competitive advantage.<sup>1</sup>

An example of this development is the company e'UITONE engaged in the production of facade decor products. For six years the company faced a number of difficulties and problems, one of which was a warehouse of finished products. The production warehouse is located directly in the production building next to the production line. About 400 moulds were stored in the production building on an area of 1840 m<sup>2</sup>, which is the entire free area. As a result, the

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<sup>1</sup> Virabov S.A. Warehouse and Tar farm: Textbook. - Kiev: Higher Shko-la, 2009. 293s.

management of the warehouse industry had to solve the following list of tasks: to increase the volume of stored products; Determining storage technology Compliance with the conditions for storing complex forms for casting products; free access to each form at any given time.

As a result of the study of a number of modern equipment for the organization of the warehouse, a system of mobile racks with electric drive was proposed. At the same time, the system with 4.5 meters wide was replaced with a system of mobile shelving with only one pass. As a result, the 600m<sup>2</sup> (considering a 4.5 metre wide pass) received a system of 866 press forms. The system of mobile shelving can be controlled directly by the operator of the equipment, which drives and takes away the molds with the remote control or from the general remote control of the entire system.

Also for smaller goods on the site of 7m<sup>2</sup> was installed automated elevator system "Kardex remstar." This system has a height of 12m and fully uses the height of the room, which allowed to place a huge volume of products on 7 m<sup>2</sup>, which significantly reduces the storage area of products compared to the original version, when the products were on racks 60m long and 2m wide.

As a result of this optimization of the warehouse economy, the range and volume of stored products has tripled, and the area occupied has decreased from 1960 m<sup>2</sup> to 607 m<sup>2</sup>.

You can also consider the example of a larger warehouse, for example, the largest retailer (retailer) in the world is Amazon. It is one of the most popular Internet sites and the largest online trading platform in the world. The company delivers up to 4 million deliveries a day. And in order to cope with such a flow of applications, a control system was developed, subject to strict algorithms. Each employee of this company is focused on the work, as the system monitors the effectiveness of the person, and if he does not meet the norm, he is immediately fined or fired, so none of the employees does not allow himself to spend even an extra minute.

There is no need to memorize departments with goods here. The warehouse is in complete "chaos" and without sections. The fact is that this system works on barcodes that are stored in the database of the warehouse. This system consists of the following operations:

1. the item receives its barcode and is sent to a free cell;
2. from the site receives an order for goods;
3. the nearest employee on his scanner - "gun" receives a message about the number of the row and shelves with the goods;
4. the employee reads the barcode to confirm the item;

5. the scanner shows the cell number and the time it takes to deliver the item to the pipeline.<sup>1</sup>

It is also monitored for the movement of employees through the scanner - "gun."

The shelves in the warehouse are divided into small sections and things in them are stored like books. Each cell has a barcode and a literal-digital code, and the code says nothing about the content, the code example is presented in Figure 1.

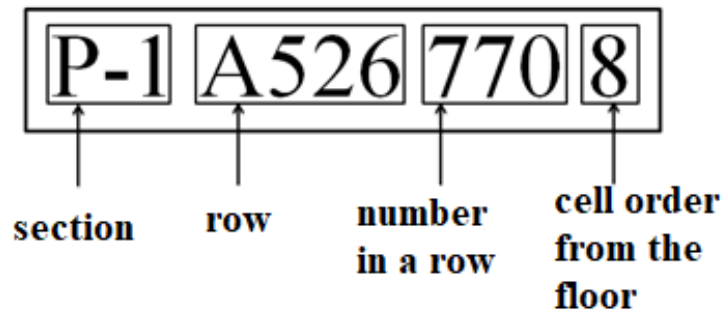


Figure 1 - An example of a literal-digital code at Amazon

Note - Developed by the author.

In the system of "chaos" there is only one rule - two identical goods can not be in neighboring cells, it is done in order to minimize the human factor.

After the goods get on the conveyor belt, it arrives at one of the packing stations, after which the workers place the goods on high shelves on wheels, then the shelves roll to the place of packaging, where algorithms again indicate the time for packaging and the size of the optimal box for order. As a rule, it takes thirty seconds to assemble one order. The packaged order is sent on another conveyor belt to the machine, which puts markings and postage stickers, after which orders go down into a large concrete basement to wait for loading.

Amazon believes that everything should work as efficiently as possible and delays in delivery are not acceptable, even if it is a couple of hours. Since the use of drones for delivery in cities was not allowed, and for transport on the roads there are speed limits, the only option to reduce the time to deliver goods to the final consumer is to optimize the operation of the warehouse itself. Despite the well-established mechanism of search and delivery of goods, the lack of this system was the human factor, which significantly increased the time for processing and delivery of goods. Based on the requirements of the company, the employee must lift up to 22kg, spend 10 to 12 hours on his feet and on average for a shift to pass from 12 to 20 km

<sup>1</sup> Habr [Electronic resource]. – Access mode: <https://habr.com/ru/company/pochtoy/blog/429622/> – Access date: April 20, 2020.

between the shelves. Given these factors, avoiding errors in the work was quite difficult, which led to an additional slowdown in the process.

As a result, it was decided to robotize the warehouses. The robot does not get tired, can work an unlimited amount of time and lift any weight, as a result it completely replaces the employee.

Developed infrastructure and huge scale allow this company to keep minimum prices. Amazon Robotics is also continuing to improve and is exploring options to reduce drone delivery times.

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#### **«Provision of tariff preferences in relation to developing countries in the EEU»**

*Research Field:*

*Customs in the age of globalization and regionalization*

Tariff preferences are one of the elements of customs tariff regulation. Preferences are granted to promote the development of developing and least developed countries by expanding their exports. The country providing tariff preferences regulates the import of goods to the domestic market, taking into account primarily its economic interests and the interests of the national commodity producer. And the beneficiary country exports its goods at a reduced or zero customs duty rate, which contributes to the development of its foreign trade activities.

The unified system of tariff preferences of the Eurasian economic Union (further USTP EEU) takes into account the level of development of the state. The list of countries that established is based on the size of gross national income. The structure of the USTP EEU user countries is numerically dominated by developing countries – 67.3% (103 countries), so we consider the validity of granting tariff preferences to these countries in terms of their level of development.

Many developing countries increase their share of the global export market by producing competitive products. This is confirmed by UNCTAD data, according to which the volume of exports of developing countries tends to increase. If in 2010 it was 6.4 trillion us dollars, in 2018 it was 8.7 trillion us dollars (table 1). At the same time, developed preference-granting countries