ALGORITHM FOR ORDERING GOODS AND ITS DELIVERY PROCESS TO UKRAINE

Viter I. D., Molodid I.O., Mruts B.I.

National Aviation University, Kyiv Supervisor – Shevchuk D.O., Doctor of Science

Key words: avtomatization, delivery goods, delivery process, transport, system

In order to understand the whole life cycle of goods entering the territory of Ukraine, we will describe how the process takes place in general. It all starts with the ordering process, the moment when Ukraine decided to order a certain product from the head office in Germany. The logistician will place an order, send a request and receive an invoice in format, which contains information about specific products, their quantity and price. After receiving this file, enter the invoice into the system, start processing data, then check the completeness of the file, if the file is incomplete, you need to re-apply to the main office in Germany, if the file is complete, its processing begins. Upon arrival of the car in a warehouse unloading of the goods, and its decomposition on places begins. The algorithm of the order of the goods is presented in fig. 1.) [1, 2].



Fig. 1 Block diagram of the algorithm for automating the order of goods from the head office from Germany to Ukraine.

To increase the efficiency of the level of delivery of goods to the customer, we will form additional tasks to automate the process of ordering goods. First, the operator generates an order in the tab "Order of goods", it sends it manually via data channels [2].

The reverse party receives the file and begins to process the received data, and forms the invoice which contains the necessary information on goods. This file is

registered in the Bosch database and sent to the service. The registration service sends the code, which must be entered into the program manually and only after receiving the code, you must inform the driver (Fig. 2).



Fig. 2. Functional diagram of automation of the ordering process at the computer-technical level

After crossing the border, the car goes to a certain place of unloading. To increase the speed of unloading of goods, it is necessary to develop an automatic system that would allow to quickly determine the place of storage of goods. Control over the location of the product will give the whole mechanism more flexibility, because the customer always wants to know where his product is. Also, this information will allow the Bosch representative to optimally plan the actions of the purchase and sale process. Thus, the analysis of the company's transport system by Robert Bosch showed that reducing the time of ordering and arrival of goods at the regional office in Ukraine, it is necessary to improve the structural and functional scheme by developing additional automation algorithms and implement them as a software product.

To summarize, we can say that the coordination of the participants in the logistics process plays a very important role in the company. Integration and coordination of any links in the logistics process is an important criterion for effective the functioning of the entire distribution system.

References:

Solution beyond logistics. URL: <u>https://www.ahlers.com/en/news/events/</u>.
Українські інтелектуальні системи.URL: <u>https://uislab.com/</u>.