

educational institutions, organization of professional development courses. In solving the problem of high cost of technology implementation plays an important role in the correct setting of the goal and competent formation of the project plan, it is very important to gradually invest resources in the development of innovations for subsequent payback. An important aspect of solving the problem of digitalization is the development of regulatory documentation for the subsequent regulation of the use of digital technologies. Software import substitution – solves the problem of software conflicts between different companies by standardizing the software package used.

Based on this study, it can be concluded that the digitalization of construction is an objective process of modernization of the industry, requiring an integrated approach to innovation. Techniques such as comparing costs and potential benefits can be useful in the implementation of various digital technologies.

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INNOVATIONS IN TRADE: ROBOTICS

Инновации в торговле: роботизация

Currently retail trade is one of the leading sectors of the economy where the need for innovation processes is determined by the economy's focus on digitalisation.

The field of innovation in trade is a relevant and important area in everyone's life since each person encounters it. The modern buyer is digital. Information comes to him from the outside through various channels. He values time and prefers to spend less time on purchasing a high-quality desired product and trade organizations are interested in attracting customers using advanced technologies while optimizing their costs and receiving greater profits.

The purpose of the work is to identify the trends in the development of innovative trade namely robotics using the example of drones.

The process of introducing innovations into retail allows you to solve a number of companies' problems such as: increasing efficiency of operating activities; improving customer service quality; expanding business boundaries; improving marketing strategies. Robots can be used to perform a variety of tasks such as: replenishment of stock, order picking, customer service, shopping experience personalization (robots can remember selected customers and suggest them products that they may like), cleaning, security (robots can monitor security in the prevention and prevent of theft).

The study considers such an area of using robots in retail as goods delivery by drones.

A comparison was made between the number of drone and courier deliveries per day to determine the priorities for drones' use in retail activities. The number of deliveries that can be charged by the best courier per day is 10–15 deliveries, by bicycle is 15–20 deliveries, by car is 20–30 deliveries. Taking into account 30-minute flight time, some buffer and the potential for headwind on the return trip we can say that a round trip delivery takes approximately 45 minutes. If you subtract the loading/unloading time (3 minutes), then the potential delivery cycle is 42 minutes. In 24 hours (1440 minutes), one drone can pick up 34 deliveries (calculating: 1440 minutes/42 minutes/delivery). Accordingly it can be noted that 1 drone per day can make several more deliveries than a courier in a car, and almost twice as many deliveries as a walking courier or a courier on a bicycle.

The approximate payback period of one drone is also calculated. Taking into account the Social Security Fund the average courier salary is 2184,2 rubles. The cost of a drone is 25 206,72 rubles, the additional removable battery cost (which is necessary for more efficient use of the drone's flight time) is also added to the drone cost, costing 200 rubles thus the drone pays for itself in 11,6 months. Such drones can be used for third-party delivery such as food delivery, delivery of orders from online store pick-up points, book delivery, etc.

In general, it can be noted that the introduction of advanced technologies in trade has many advantages. They allow you to activate the sale of goods, improve customer service quality and increase retail enterprises efficiency. The successful use of technologies in trade confirms their innovativeness and potential for industry development. The introduction of innovations is becoming a necessity for retail companies to remain competitive and benefit modern customers.

References

1. Цифровизация ритейла 2023–2025: тенденции и актуальные решения // AGORA. – URL: <https://www.agora.ru/blog/tsifrovizatsiya-riteyla-2023-2025/> (дата обращения: 10.11.2024).
2. Retail.ru – портал для ритейлеров и поставщиков : [сайт]. – URL: <https://www.retail.ru/> (дата обращения: 10.11.2024).
3. Подработка доставщиком с Яндекс Доставкой // Яндекс Доставка. – URL: <https://delivery.yandex.by/for-courier/> (дата обращения: 10.11.2024).
4. My Drone : [сайт]. – URL: <https://mydrone.ru> (дата обращения: 10.11.2024).