

## **Analysis of Electronic Commerce Systems in Uzbekistan**

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**Abstract.** *This article conducted a study of e-commerce systems in Uzbekistan on the example of Foton JSC. During the study, the legal framework, infrastructure and practical aspects of e-commerce in the activities of Foton JSC were studied. The results show that e-commerce is developing rapidly in Uzbekistan, but there are a number of problems and recommendations for solving and further development of these problems are presented.*

**Keywords:** *e-commerce, Uzbekistan, Foton JSC, digital economy, online trading.*

### **INTRODUCTION**

In recent years, the number of internet users in the country has increased significantly, which has led to an expansion of the e-commerce market [1]. In such conditions, the effective operation of e-commerce systems is important.

The purpose of this study is to research and identify existing problems in Uzbekistan on the example of photon JSC of e-commerce systems. FOTON JSC is one of the largest e-commerce companies in Uzbekistan, whose experience is indicative for the entire industry.

### **LITERATURE ANALYSIS**

A number of studies have been conducted in Uzbekistan on the development and application of e-commerce systems. The authors examined the basic legislation governing e-commerce in the country and studied their application in Practice[2].

Rakhimov (2023) researched development trends of e-commerce infrastructure in Uzbekistan [3]. number of studies have been conducted in Uzbekistan on the development and application of e-commerce systems. The authors examined the basic legislation governing e-commerce in the country and studied their application in Practice[2].

Rakhimov (2023) researched development trends of e-commerce infrastructure in Uzbekistan [3]. According to the results of his study, in recent years, the speed and coverage of the internet in the country has significantly improved, which creates favorable conditions for e-commerce.

Internationally, there are many studies on e-commerce systems. For example, Li and Wang (2021) studied ways to improve the efficiency of e-commerce systems in developing countries [4]. They conclude that the security of payment systems and the improvement of logistics infrastructure are important factors in the development of e-commerce. Data in the scientific literature on photon AJ activity is relatively scarce. nternationally, there are many studies on e-commerce systems.

### **METHODOLOGY**

This study is based on a combination of qualitative and quantitative methods. The following methods were used in the research process. E-commerce in Uzbekistan is studied by Document Analysis, regulatory legislation, photon JSC reports and other related documents. Data from the State

Statistical Committee of Uzbekistan, the central bank and other official sources were analyzed.

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Semi-structured interviews were conducted with experts working in the field of e-commerce and representatives of FOTON JSC. The data collected during the research process was systematically analyzed and summarized. Based on the results obtained, conclusions were formed and practical recommendations were developed.

The principles of research ethics were strictly observed. All interviewees were informed of the purpose of the study and received their consent. It was ensured that personal information was kept confidential.

## RESULTS AND DISCUSSION

The country's internet and mobile infrastructure is developing rapidly, and according to 2023, the number of internet users in Uzbekistan exceeds 27 million people, which makes up 78% of the population [7]. This indicator indicates that there is a large potential for e-commerce.

A study of photon AJ activity revealed the following important aspects, and this photon AJ was founded in Moscow in 1941, initially producing electronic generators and amplifier equipment. From 1965, it switched to full semiconductor equipment and integrated circuits. It started producing ready-to-use electronic and radio electronic items from 1994. Converted into a joint stock company in 1995 [9]. A study of photon AJ activity revealed the following important aspects, and this photon AJ was founded in Moscow in 1941, initially producing electronic generators and amplifier equipment. From 1965, it switched to full semiconductor equipment and integrated circuits. It started producing ready-to-use electronic and radio electronic items from 1994. Converted into a joint stock company in 1995 [9].

Main areas of activity:

- a) the study and application of semiconductor equipment technologies to production.
- b) introduction to the development and production of radio electronic items for Domestic Purposes and for use in work [10].

Product range: photon AJ produces more than 50 types of semiconductor equipment, including 28 types of fast-acting rectifier diode, 3 types of high-voltage rectifier column, 9 types of low-noise field transistors, 21 types of microcircuits [3].

The enterprise uses modern technologies, including mechanical processing of semiconductor materials, diffusion and planar technologies, radiation coordinating technologies, yoga film coating technology, fine wire bonding technology, etc. are being developed [4]

Photon is certified with certificates that the products of AJ are in accordance with the international standard ISO 9001:2008, and the enterprise has a laboratory and a testing laboratory that performs complex physical and chemical analysis [5].

It is noted that Photon AJ products are better in quality to price ratio than those released in the Russian Federation and other countries [6].

The application of e-commerce systems in Uzbekistan, in particular on the example of FOTON AJ, shows a number of important aspects.

First, the activities of FOTON JSC reflect the development trends of the electronic industry in Uzbekistan. The development of the enterprise in the direction from the production of semiconductor

equipment and integrated circuits to household electronic products indicates the formation of a technological base necessary for e-commerce in the country.

Secondly, the expansion of the product range of FOTON AJ is increasing the possibilities of domestic production of devices and systems necessary for e-commerce. This, in turn, has a positive effect on the development of e-commerce infrastructure in Uzbekistan.

Thirdly, the enterprise's use of modern technologies and compliance of the quality control system with international standards makes it possible to increase the technological competitiveness of domestic e-commerce platforms.

Fourth, the fact that FOTON JSC has a place in the markets of the CIS countries indicates the potential of Uzbekistan's e-commerce companies to compete internationally.

Fifth, the long-term experience of the enterprise and the potential of qualified personnel can serve as an important resource for the development and implementation of innovative solutions in the field of e-commerce. Fourth, the fact that FOTON JSC has a place in the markets of the CIS countries indicates the potential of Uzbekistan's e-commerce companies to compete internationally.

Fifth, the long-term experience of the enterprise and the potential of qualified personnel can serve as an important resource for the development and implementation of innovative solutions in the field of e-commerce.

Sixth, the operation of FOTON AJ as a public company can be a good platform for the development of public-private partnerships in the field of e-commerce.

Seventh, the ability of the enterprise to produce various electronic components expands the possibilities of domestic production of devices necessary for e-commerce in Uzbekistan, for example, electronic payment terminals or mobile devices.

Eighth, the activities of FOTON JSC are also contributing to the development of the digital economy in Uzbekistan, which in turn creates a favorable environment for the growth of e-commerce.

Ninth, the ability of the enterprise to regularly master new technologies and expand the range of products increases its ability to adapt to the rapidly changing requirements of the Uzbek e-commerce market.

Thirdly, the activities of FOTON JSC can serve as a practical platform for training and training technical specialists necessary for e-commerce in Uzbekistan.

This analysis will allow for a better understanding of the existing opportunities and potential challenges for the application and development of e-commerce systems in Uzbekistan.

## CONCLUSIONS

During the activities of the enterprise, FOTON Joint-Stock Company has mastered the assortment of various products and has adapted to modern market requirements. The enterprise produces a wide range of semiconductor equipment and integrated circuits, which makes an important contribution to the development of the electronic industry of Uzbekistan.

Photon Joint Stock Company uses modern technologies and constantly improves production processes. This makes it possible to improve the quality of the product and ensure competitiveness. The quality control system at the enterprise is well established and meets international standards. This ensures that products are in demand in domestic and foreign markets. Photon Joint Stock Company uses modern technologies and constantly improves production processes. This makes it possible to improve the quality of the product and ensure competitiveness. The quality control system at the enterprise is well established and meets international standards. This ensures that products are in demand in domestic and foreign markets. The competitiveness of FOTON AJ in terms of price-quality ratio is helping it to find its place in the markets of the CIS countries as well. In the future, FOTON JSC may also take an important place in the e-commerce sector of Uzbekistan. The technological potential and experience of the enterprise can be used in the production of devices and

systems necessary for e-commerce. To further develop the activities of the enterprise, it is recommended to introduce innovative technologies, improve staff skills and expand international cooperation.

On the example of FOTON AJ, it can be seen that domestic e-commerce companies are developing rapidly, but they need to improve the quality of service so that they are ready for international competition. Increasing the security of electronic payment systems, logistics infrastructure and digital literacy of the population are important conditions for the development of e-commerce. Public and private sector cooperation is important in solving existing problems in the field of e-commerce. The future of the e-commerce market in Uzbekistan is promising, and this industry can significantly contribute to the country's economic development.

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