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## ARTIFICIAL INTELLIGENCE TO INCREASE THE EFFICIENCY OF SMALL BUSINESSES

**Abstract:** Artificial intelligence is an important force in the technology industry and virtual assistants are becoming a key part of new products. Artificial Intelligence (AI) can be seen as a technology that takes on many of the cumbersome and repetitive tasks of a small business, such as logistics, accounting, planning and fraud protection, and can also respond to customer support requests. read and understand business laws and regulations in accordance with legal regulations. Given that a small business has a limited number of employees, then, for the transfer of labor-intensive tasks, AI makes it possible to use human resources more efficiently. This article explores the use of AI to quickly solve customer service problems and to attract as many consumers as possible in the future and in sales marketing.

**Key words:** AI, small business, production processes, labor-intensive operations, human resources, data collection, information processing.

**Language:** English

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### Introduction

The boom of technologies based on AI, which occurred in the 21st century, is due to two conditions: powerful computers appeared that made it possible to analyze external sources and make decisions much faster than a person, in addition, there was a need for companies to generate income in a limited number of specialists and time. It is difficult to fulfill this requirement without using AI. The development of artificial intelligence technologies is rapidly changing all industries, both service and production processes in industry. Small businesses are also using AI to improve customer service, collect data, and find the best solution for their needs. Voice search and built-in chatbots help customers find the products or information they need and answer frequently asked questions, are some of the most popular artificial intelligence technologies around the world. In addition, AI is a tool that analyzes the engagement of small business workers and collects feedback on small business development needs.

### Research methods.

When writing the article, the methods of synthesis and analysis of the studied materials on AI, both foreign and Uzbek scientific publications, were used.

### The discussion of the results.

AI-based solutions help you complete labor-intensive operations in trade outlets, warehouses, stores for ordering and keeping records of purchases from various suppliers two to three times faster, determine production resources by mining companies, collect data on construction of facilities, analyze information about the sale of electricity, etc. These AI solutions provide massive resource savings.

In Russia, the AI market is developing at a fast pace. Tadviser analysts estimate its volume at 700 million rubles, but predict that in three years its volume will grow 40 times, to 28 billion rubles. Experts from the American Accenture claim that by 2020 Russian companies will actively invest in

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technologies such as embedded AI, machine learning and natural language data processing.

The program of measures for the study and implementation of artificial intelligence technologies in 2021-2022 was approved by the Decree of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev "On measures to create conditions for their accelerated introduction of AI." This program provides for the development of priority areas of AI in Uzbekistan. For example, the development of a Strategy for the Development of Artificial Intelligence; development of a regulatory and legal framework that defines uniform requirements, responsibility, safety and transparency in the development and use of AI technologies in economic and social sectors, in the public administration system; the widespread use of AI technologies to improve the quality of the provision of public services in the interests of the population, as well as to increase the efficiency of government bodies in data processing; creation of a domestic ecosystem, innovative developments in the field of AI, stimulating fundamental and applied scientific research to develop useful technological solutions with their subsequent commercialization; creating conditions for software developers using AI in access to digital data, as well as ensuring accelerated digitization of relevant data from government agencies and organizations; formation of investment attractiveness of scientific works and developments in the field of AI, including for increasing the competitiveness of goods and services in the domestic and foreign markets; ensuring access for domestic enterprises and specialists to information resources and competencies in the field of AI, as well as developing the necessary educational environment; development of international cooperation in the field of AI [1].

For enterprises, practical AI applications can be used in a variety of ways depending on the needs of the enterprise and understanding of the essence of business intelligence. Small businesses can use AI for many different tasks, from analyzing social data to engaging customers in customer relationship management. AI is helping to optimize transport logistics and measure the business performance of small businesses when it comes to tracking and managing assets. Another well-known fact is that companies with a billion dollar budget have more opportunities to develop an efficient service that is integrated with AI. There are AI-enabled tools that can quickly determine product-to-market fit by training machines to understand customer segmentation. Rather than manually analyzing endless amounts of data, small businesses can use AI to quickly collect and evaluate their business results. Small businesses are becoming more targeted in their advertising, both traditional and online. AI can pinpoint customers and empower small businesses to better navigate their customer base. The use cases for AI may seem

limitless to small business owners, such as collecting data, finding and renting real estate, managing day-to-day communications, scheduling appointments and more [2,3].

Artificial intelligence is used to solve many problems in various industries and spheres, and nevertheless, experts say that it is still one of the most difficult technologies to implement it into everyday activities. Some companies are not prepared to face challenges in the implementation process, but AI is worth the effort. The use of expert systems and neural networks brings significant economic benefits. The reasons that led artificial intelligence systems to commercial success are as follows [4,5,6]: - specialization. The transition from the development of general-purpose tools to problem / subject-specific tools [1], which provides a reduction in the development time of applications, increases the efficiency of using tools, simplifies and accelerates the work of an expert, allows you to reuse information and software; - use of traditional programming languages and workstations. The transition from systems based on artificial intelligence languages to traditional programming languages has simplified "integration" and reduced application requirements for speed and memory capacity; - integration. Artificial intelligence tools have been developed that are easily integrated with other information technologies and tools; - openness and portability. Developments are carried out in compliance with the standards that provide these characteristics; - client / server architecture. The development of a distributed information system in this architecture makes it possible to reduce the cost of the equipment used in the application, increase the reliability and overall performance, since the amount of information transferred between computers is reduced, and each application module is executed on adequate equipment. So, in the field of artificial intelligence, expert systems and tools for their development have achieved the greatest commercial success.

The main direction of artificial intelligence. Among the specialized knowledge-based systems, the most significant are expert systems. An expert system is a program (at the modern level of human development) that replaces an expert in a particular field. Expert systems are designed, mainly for solving practical problems arising in a poorly structured and difficult to formalize subject area. AI-based algorithms can study resumes, find suitable candidates within companies, identify high-performing employees and even give transcripts of video interviews, helping us select the talent that is most likely to be the most successful AI recruiting has a bright future. research shows that proficiency in technical navigation Most recent research on high-performance recruiting suggests that Maturity Four companies, those that perform the best financially due to good hiring, are betting (40% of hiring criteria ) on

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emotional and psychological characteristics, such as ambition, learning ability, enthusiasm and dedication [7,8,9].

AI is a "deep computing" technique that is most promising in situations where a large amount of computation is required that needs to be done very quickly. Therefore, the need to use high-speed computers is an important problem. One of the most affordable and popular solutions to this problem is also the use of cloud computing. As data volumes continue to grow, AI is driving the creation of ever more complex algorithms, and this is where the development of next generation computing infrastructure is needed. Some enterprises have begun to use cloud computing in their production activities and the technological breakthrough in the field of AI is becoming a solution to the global problem of economic development. The study found that 93% of marketers see artificial intelligence as a promising future for the industry. AI is revolutionizing marketing. This is true for both small businesses and large corporations. Conclusion. Small businesses used to be limited to advertising they could afford in local

markets, but now they can reach a wide audience by placing ads online. You can use the Facebook and Google advertising platforms to find specific consumers who will be receptive to your ad, and collect and analyze consumer data from multiple channels. And all this without the army of marketers. AI has the most significant impact on marketing and sales. Small businesses are implementing AI now to attract as many consumers as possible in the future [10]. Uzbekistan is accelerating the introduction of artificial intelligence in many sectors of the economy. It is planned to cooperate with the Sberbank group, introduce artificial intelligence technologies SubTech and RegTech for monitoring commercial banks, as well as for analyzing the quality of banking services, remote biometric identification Face-ID. The Scientific Research Institute for the Development of Digital Technologies and Artificial Intelligence is opening in Tashkent under the Ministry for the Development of Information Technologies and Communications of Uzbekistan. The Institute will carry out government orders and programs, as well as take part in fundamental and practical research.

## References:

1. Gulamov, S.S., & Shermukhamedov, A.T. (2021). *The effectiveness of digital innovative technologies in the economy*. "Youth and the XXI century - 2021". Materials of the XI International Youth Scientific Conference on February 18-19, 2021. Russia. Volume 1. Economics. (pp.116-126). Kursk: Southwest State University.
2. Shermukhamedov, A.T., & Ilkhamova, Yo. (2021). Statistical data processing in the digital economy. *International Scientific Journal Theoretical & Applied Science. USA*, Issue: 02 Volume: 94, pp.177-179.
3. Gulamov, S.S., & Shermukhamedov, A.T. (2020). *Artificial intelligence technologies in marketing and logistics. amaliy anjumani*. (pp.212-226). Tashkent: Publishing house Fan.
4. Shermukhamedov, A.T., Kabulov, A.A., & Abdullaeva, D.K. (2020). *Digital logistics: innovative complex of transport services*. Materials of the xvi international scientific and practical conference cutting-edge science - 2020, april 30 - may 7, 2020, volume 9. (pp.3-6). Sheffield, England, science and education LTD.
5. Shermukhamedov, A.T., Kabulov, A. A., & Abdullayeva, D. K. (2021). *Digital logistics: innovative complexes of transport services in digital logistics*. // XXI century-the age of intellectual development of youth. Republican scientific and scientific-practical conference on April 24, 2020. (pp.201-222). Tashkent: Fan publishing House.
6. Gulamov, S.S., & Shermukhamedov, A.T. (2020). *Technologies of artificial intelligence. // Branch of the Moscow State University named after M.V. Lomonosov in the city of Tashkent on April 18, 2020*. Materials of the scientific-practical conference "Actual problems of science, education and digital technologies in the professional development of the personality of the XXI century" with international participation Volume 2, April 18, 2020. (pp.20-46). Tashkent: Branch of the Moscow State University. M.V. Lomonosov in Tashkent.
7. Shermukhamedov, A.T., & Holboev, B.M. (2020). Impact of innovations and technologies of industry 4.0 on the sustainable development of enterprises. *"Innovative economy: prospects for development and improvement" Scientific and practical peer-reviewed journal, №7 (49)*, pp.12-176.
8. Gulamov, S.S., & Shermukhamedov, A.T. (2021). *The effectiveness of digital innovative technologies in the economy*. "Youth and the

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- XXI century - 2021". Materials of the XI International Youth Scientific Conference on February 18-19, 2021. Volume 1. Economics. (pp.116-126). Kursk: Southwest State University.
9. Shamis, A.L. (2005). *Behavior, Perception, Thinking: Problems of Artificial Intelligence*

- Creation*. - Series "Science of the artificial" - 2005. (p.145).
10. (n.d.). *Artificial intelligence (AI) as a key factor in the digitalization of the global economy*. - Retrieved from <https://www.crn.ru/news/detail.php?ID=117544>