



## WAYS TO EFFECTIVELY USE ARTIFICIAL INTELLIGENCE TO IMPROVE THE ACTIVITIES OF ENTERPRISES IN THE REAL SECTOR

Anafiyaev Abdurashid Mamasidikovich  
PhD, Associate Professor

Dilshodbekov Jawakhir  
Student of 4 Courses, Majoring in Economics  
Andijan City, Uzbekistan

### Abstract

The article discusses the use of artificial intelligence (AI) technologies to improve the activities of enterprises in the real sector of the economy. The main focus is on the benefits of implementing AI, including data analysis, forecasting market trends, risk assessment and automation of business processes. The relevance of the study is due to the active digitalization of the economy of Uzbekistan, the need to attract investment and adapt enterprises to modern technological challenges. Key methods for the effective use of AI in investment management are presented, including machine learning, natural language processing, the use of robo-advisers and blockchain technologies.

**Keywords:** Development, adaptive systems, digital economy, use of artificial intelligence, effective management.

### Introduction

The modern digital economy is developing rapidly, requiring prompt data analysis and strategic planning. Artificial intelligence (AI) plays a key role in managing large volumes of information, identifying hidden patterns and developing optimal investment strategies. Its application covers such areas as risk assessment, selection of promising assets and automation of investment processes.

### Relevance

The use of AI in investment management is becoming especially relevant for Uzbekistan at the current stage of digitalization of the economy. With the rapid growth of new technologies and the increasing importance of data, effective investment management is becoming an important factor in sustainable economic development. Uzbekistan is actively integrating digital technologies into various sectors of the economy, which requires the introduction of AI tools to analyze large volumes of data,





forecast market trends and optimize investment decisions. This is especially important for attracting foreign investment, improving the efficiency of public administration and supporting innovative projects.

In addition, the country is actively developing such areas as financial technologies, e-commerce and the concept of "smart cities", where the use of AI can significantly speed up processes and minimize risks. The introduction of AI in investment management not only meets the objectives of the current stage of digitalization of the economy of Uzbekistan, but also creates the basis for long-term and sustainable development of the country.

### Advantages of using AI

1. Data analysis - AI is able to process huge volumes of structured and unstructured information, extracting key information for decision-making. This is especially important in the context of the multidimensionality and complexity of the modern digital economy.
2. Risk assessment - machine learning and predictive analysis algorithms allow you to more accurately predict potential risks associated with investments and minimize possible losses.
3. Automation - the use of AI in investment management reduces the cost of performing routine tasks, such as market monitoring or reporting analysis.
4. Forecasting – AI-powered models provide more accurate forecasts of market changes, allowing investors to make strategically informed decisions.

### Methods of Effective Use

No	Method	Description
1.	<b>Machine Learning</b>	Using algorithms to analyze market data, predict asset price movements, and identify trends.
2.	<b>Natural Language Processing (NLP)</b>	Analyzing news, social media, and reports to assess the impact of external factors on the investment market.
3.	<b>Robo-advisors</b>	Implementing intelligent systems that offer portfolio management recommendations based on investor preferences.
4.	<b>Portfolio Optimization</b>	Using algorithms to find a balance between return and risk in an investment portfolio.
5.	<b>Blockchain and AI</b>	The synergy of blockchain and artificial intelligence technologies ensures the security and transparency of investment operations



## Limitations and Challenges

Despite significant advantages, the use of AI in investment management is accompanied by a number of limitations and challenges:

- High implementation costs – the development and support of AI systems requires significant financial investments, which may be unaffordable for small companies and emerging markets.
- Shortage of skilled personnel – managing AI systems requires specialists with deep knowledge of machine learning, data analysis and programming.
- The problem of model interpretation – many algorithms, especially deep neural networks, operate as complex systems whose internal processes are difficult to explain. This can cause mistrust on the part of users and investors.
- Ethical aspects – the use of AI can lead to discrimination if the algorithms are trained on biased data. In addition, data privacy issues are becoming increasingly relevant in the context of strict regulatory requirements.

## Conclusions

The introduction of artificial intelligence in investment management opens up new opportunities for improving business efficiency, minimizing risks and optimizing strategic decisions. However, the successful use of AI requires a comprehensive approach, including infrastructure development, personnel training and improvement of the regulatory framework.

Finally, regulation remains an important challenge. The introduction of AI requires the creation of a legal framework that takes into account both the opportunities and risks of the technology. The lack of clear standards and norms can slow down the development of AI or lead to its unethical use.

These challenges highlight the need for a comprehensive approach to the introduction of AI, including investment in education, the development of transparent algorithms, and the creation of ethical and legal standards.

The prospects for using artificial intelligence (AI) in investment management in Uzbekistan look promising, given the active development of the digital economy and the introduction of innovative technologies. In the future, AI will become a key tool for improving the efficiency of investment processes, minimizing risks and optimizing strategies.

One of the promising areas is the integration of hybrid technologies, such as quantum computing, which can significantly speed up data processing and improve the accuracy of forecasts. These technologies can be used to analyze complex investment



portfolios, identify hidden patterns and develop more accurate models of market behavior.

Adaptive AI-based systems are another important area. Such systems are able to automatically change their strategies depending on current market conditions, which makes them especially useful in highly volatile environments. This will allow investors to respond to changes faster and make more informed decisions.

In addition, prospects include the development of a local AI ecosystem, which implies creating conditions for training specialists, developing domestic technologies and attracting investment in this area. Uzbekistan can also benefit from international cooperation, sharing experience and implementing best global practices.

The introduction of AI in investment management also helps to increase the transparency and security of financial transactions, which is especially important for attracting foreign investors.

Artificial intelligence (AI) plays a key role in investment management in the digital economy, ensuring efficiency, accuracy and transparency of decision-making. The article discusses ways to use AI, such as data analysis, forecasting market trends, risk assessment and process automation. Particular attention is paid to technologies such as machine learning, natural language processing and robotic advisors that help minimize risks and optimize investment strategies. The introduction of AI allows for a deeper analysis of market data, the identification of patterns and the provision of recommendations adapted to the current situation. Promising areas of development include the integration of hybrid technologies such as quantum computing and the introduction of adaptive systems capable of automatically responding to market changes.

However, the use of AI is accompanied by challenges, including high development costs, a shortage of qualified personnel, problems with interpreting models and the need for ethical regulation. However, these difficulties can be overcome with an integrated approach that includes investment in education, the development of a local AI ecosystem and the creation of a transparent legal framework.

**To summarize the above**, it can be said that artificial intelligence not only improves investment management, but also contributes to the sustainable development of the digital economy, revealing new opportunities and increasing competitiveness. Uzbekistan, which is at the stage of digitalization, has a unique chance to introduce AI, which can become the basis for economic growth and increased efficiency of investment processes. The effective use of artificial intelligence in investment management is an integral part of the development of the digital economy. AI offers a wide range of opportunities to optimize the investment process,





minimize risks and increase profitability. However, to fully realize its potential, it is necessary to consider technological, economic and social aspects that can determine the success or failure of a given strategy.

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