

**ECONOMIC EVALUATION OF THE EFFECTIVENESS OF SCIENTIFIC AND TECHNOLOGICAL PROGRESS IN CONSTRUCTION AND ITS INDICATORS****Rasulova Sharifa G'aybullayevna**Associate Professor, Department of Economics  
and Management, Jizzakh Polytechnic Institute**Tursunboyeva Sevinch Axmadjon kizi**

Student, Faculty of Civil Engineering

**Annotation:** This work highlights the impact of scientific and technological progress on the construction industry, as well as the mechanisms and main indicators for the economic assessment of its effectiveness.

**Keywords:** Scientific and technical progress (ITT), innovations in construction, innovative technologies, modernization of construction processes, efficiency indicators, economic assessment, investment efficiency

**Аннотация:** Работа посвящена влиянию научно-технического прогресса на строительство, научно-техническим механизмам и основным показателям его производства.

**Ключевые слова:** Научно-технический прогресс ,инновации в строительстве, инновационные технологии, модернизация строительных процессов, показатели эффективности, экономическая оценка, инвестиционная эффективность

Scientific and technological progress (STP) is one of the decisive factors in the development of the modern construction industry. The introduction of innovative technologies into construction processes, the use of new-generation construction materials, and the application of modern mechanization and automated control systems accelerate production processes, improve product quality, and reduce costs. Therefore, the economic evaluation of the effectiveness of STP plays an important role in the planning and management of construction enterprises.

The main directions of scientific and technological progress in construction include the development of new structural solutions, the use of energy-efficient materials, the introduction of high-performance equipment, design based on digital technologies (BIM technologies), and the mechanization and automation of production processes. These innovations ensure increased labor productivity, reduced construction time, improved quality, and enhanced safety levels.

A number of indicators are used in the economic evaluation of the effectiveness of scientific and technological progress. These include the profitability level of investment projects, cost-benefit ratios, labor productivity growth rates, reduction in production costs, efficiency of fixed asset utilization, energy efficiency, and reduction of resource consumption. Using these indicators, the economic results of implementing innovative technologies are determined, and the competitiveness of enterprises is assessed.

The economic efficiency of STP in construction is primarily reflected in the reduction of production costs and the growth of profits. For example, the use of high-performance equipment and technologies allows construction works to be completed in a shorter period, which leads to a decrease in overall costs. In addition, the use of modern energy-efficient materials reduces operating costs. Digitalization and

automated management systems increase the accuracy of construction processes, reduce errors, and enable the rational use of resources.

In conclusion, scientific and technological progress is one of the most important sources of increasing economic efficiency in the construction industry. Through the widespread adoption of innovative technologies, efficient use of available resources, optimization of production processes, and improvement of quality, construction enterprises can achieve high economic results. Therefore, the economic evaluation of the effectiveness of STP and the correct application of its assessment indicators are crucial for the strategic planning of the industry.

## REFERENCES

1. Gaybullayevna, R. S. ., & Musurmangulov. (2024). THE IMPORTANCE OF TIME MANAGEMENT IN ENSURING EFFICIENCY IN CONSTRUCTION. *JOURNAL OF ECONOMY, TOURISM AND SERVICE*, 3(1), 28–31.
2. Gaybullayevna, R. S. (2023). THE STATE OF THE DIGITAL ECONOMY TODAY: PROBLEMS AND SOLUTIONS. *JOURNAL OF ECONOMY, TOURISM AND SERVICE*, 2(12), 38-42.
3. Sharifa, R., & Ilyos, T. (2023). PRINCIPLES OF SCIENTIFIC MANAGEMENT IN MANAGEMENT. *Новости образования: исследование в XXI веке*, 2(16), 1097-1100.
4. Sharifa, R., & Sayyora, M. (2023). HISTORY OF EMERGENCE OF MANAGEMENT AND ITS PLACE TODAY. *Новости образования: исследование в XXI веке*, 2(16), 1093-1096.
5. Sharifa, R. (2023). DIRECTIONS FOR INCREASING INVESTMENT ATTRACTIVENESS IN REGIONS. *Новости образования: исследование в XXI веке*, 2(16), 1088-1092.
6. Sharifa, R., & Nozima, T. (2023). QUALITY MANAGEMENT IN COMPETITIVE CONDITIONS IS THE MAIN FACTOR OF ENTERPRISE SUCCESS. *SCIENTIFIC APPROACH TO THE MODERN EDUCATION SYSTEM*, 2(20), 200-203.
7. Sharifa, R., & Mahliyo, K. (2023). ORGANIZATIONAL STRUCTURE OF ENTERPRISES AND THEIR APPEARANCES. *JOURNAL OF ECONOMY, TOURISM AND SERVICE*, 2(5), 77-83.
8. Gaybullayevna, R. S. (2023). WOMEN'S ENTREPRENEURSHIP IS A FACTOR OF INCREASE IN OUR COUNTRY'S ECONOMIC WELFARE AND SOCIAL DEVELOPMENT. *JOURNAL OF ECONOMY, TOURISM AND SERVICE*, 2(5), 73-76.
9. Gaybullayevna, R. S. (2023). MODERN FUNDAMENTALS OF FINANCIAL MANAGEMENT OF INVESTMENT ACTIVITY. *JOURNAL OF ECONOMY, TOURISM AND SERVICE*, 2(5), 51-54.
10. Gaybullaevna, R. S. (2023). Methods for Assessing the Economic Efficiency of Investments in Construction. *European Journal of Higher Education and Academic Advancement*, 1(1), 95-98.
11. Gaybullaevna, R. S. (2023). Construction Industry in Uzbekistan Is an Important Priority Network of the National Economy. *Pioneer: Journal of Advanced Research and Scientific Progress*, 2(3), 69-71.
12. Qamarov Asadbek Zafar o'g'li, & Rasulova Sharifa G'aybullayevna. (2023). BIZNESINGIZ UCHUN SAMARALI MARKETING STRATEGIYALARINI QANDAY YARATISH MUMKIN. *Scientific Impulse*, 2(14), 305–312.
13. Gaybullaevna, R. S. (2023). Economic Efficiency of Investing in Construction. *International Journal on Economics, Finance and Sustainable Development*, 5(3), 94-97.

14. Расулова, Ш. Ф. (2021). ЎЗБЕКИСТОНДА БАНДЛИК МУАММОСИ. ИШСИЗЛАРНИ ИЖТИМОЙ ҲИМОЯ ҚИЛИШ. *Global Science and Innovations: Central Asia (см. в книгах)*, 3(7), 22-25.

15. Расулова, Ш. Г. (2020). ПРИВЛЕЧЕНИЕ ИНВЕСТИЦИЙ. *Экономика и социум*, (2 (69)), 316-319.

16. Rasulova, S. G., & Obidova, F. Y. (2019). ISSUES OF SMALL BUSINESS DEVELOPMENT. *Theoretical & Applied Science*, (9), 426-429.

17. Расулова, Ш. Г. (2019). ВАЖНОСТЬ ОРГАНИЗАЦИОННО-ЭКОНОМИЧЕСКИХ МЕР ПО ПОВЫШЕНИЮ ЭКОНОМИЧЕСКОЙ АКТИВНОСТИ НАСЕЛЕНИЯ. *Актуальные научные исследования в современном мире*, (3-8), 95-100.

18. Rasulova, S., & Jabborova, Z. (2019). PRINCIPAL DIRECTIONS ON THE DEVELOPMENT OF ENTREPRENEURSHIP. *International Finance and Accounting*, 2019(3), 18.

Расулова, Ш. Ф. (2019). ЭКОНОМИЧЕСКАЯ ПОЛИТИКА ГОСУДАРСТВА И ПОВЫШЕНИЕ ЕЕ ЭФФЕКТИВНОСТИ, НАПРАВЛЕННЫЕ НА ПОВЫШЕНИЕ ЭКОНОМИЧЕСКОЙ АКТИВНОСТИ НАСЕЛЕНИЯ В УЗБЕКИСТАНЕ. *Актуальные научные исследования в современном мире*, (3-8), 90-95.

