

THE ROLE OF FIXED ASSETS IN THE DEVELOPMENT OF UZBEKISTAN'S INDUSTRIAL SECTOR UNDER MARKET ECONOMY CONDITIONS

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Аннотация: Статья посвящена оценке влияния производственных основных средств на устойчивое развитие промышленного сектора Республики Узбекистан в условиях рыночной экономики. На основе статистических данных 2020–2023 гг. исследованы структурные изменения в промышленности, динамика затрат, производительности и прибыли предприятий. Особое внимание уделено модернизации оборудования и внедрению инновационно-технологических решений как ключевым факторам повышения экономической эффективности. Определены региональные диспропорции и необходимость реализации дифференцированных мер промышленной политики, направленных на обновление основных фондов и усиление кадрового потенциала.

Ключевые слова: производственные основные средства; промышленность; модернизация; инновации; экономическая эффективность; региональное развитие; производственные затраты; конкурентоспособность; промышленная политика.

Annotatsiya: Maqolada O'zbekiston sanoatida asosiy ishlab chiqarish vositalarining rivojlanish jarayonidagi o'rni va ahamiyati tahlil qilinadi. 2020–2023 yillardagi statistik ma'lumotlar asosida sanoat korxonalari sonidagi o'zgarishlar, ishlab chiqarish xarajatlari va foyda dinamikasi o'rganilgan. Modernizatsiya va innovatsiyalar samaradorlik hamda raqobatbardoshlikka ta'sir etuvchi asosiy omil sifatida asoslab beriladi. Hududiy tafovutlar sanoat siyosatining manzilli qo'llab-quvvatlash zarurligini ko'rsatadi.

Kalit so'zlar: asosiy ishlab chiqarish vositalari; sanoat; modernizatsiya; innovatsiya; iqtisodiy samaradorlik; hududiy rivojlanish.

Abstract: This article examines the impact of fixed production assets on the development and efficiency of the industrial sector of the Republic of Uzbekistan. Based on 2020–2023 statistical data, the study analyzes changes in the number of industrial enterprises, production costs, and profitability. The results highlight the importance of technological modernization and innovation in improving productivity and competitiveness. Significant regional disparities are identified, indicating the need for targeted industrial policy and systematic renewal of fixed assets.

Keywords: fixed assets; industrial development; modernization; innovation; production efficiency; competitiveness; regional disparities.

Introduction. The economic independence of a state is directly linked to the stability and efficiency of its manufacturing sector. In a market economy, enterprises are faced with the need to constantly upgrade their equipment, modernise their production facilities and adapt to changes in demand. The development of a competitive environment requires industry to increase the efficiency of fixed asset utilisation, introduce innovations, and improve technological processes. These factors determine the dynamics of structural transformations, the level of productivity, and the competitiveness of enterprises and economic sectors as a whole [1].

Literature review. Contemporary research emphasises that innovative and technological development of industry is a key condition for increasing the competitiveness and sustainability of enterprises. In their work, Pologentseva et al. note the need to transition to a new techno-economic paradigm based on innovation, technological upgrades, and investment activity [2].

Shatalova and colleagues emphasise the importance of establishing regional innovation development systems capable of ensuring technological modernisation of industrial enterprises and strengthening their resource base [3].

Research in emerging market economies shows a direct correlation between innovation and productivity growth: the introduction of innovative processes and technologies significantly improves the efficiency of firms [5].

The works of Masso and Tiwari demonstrate the impact of capital accumulation, R&D and innovation on the productivity of enterprises in conditions of catch-up development [4].

Empirical studies also confirm that investment — both private and public — is a key factor in the growth of the industrial sector and the economy as a whole [6].

Research into structural transformations in industry highlights the need to optimise the sectoral structure and improve the efficiency of production capacity utilisation [7].

In addition, technological innovations are considered a key factor in the long-term sustainable development of enterprises [8].

Research methodology. The methodological basis of the study includes:

analysis of official statistics on industry in the Republic of Uzbekistan for 2020–2023 [1];

comparative and structural analysis methods to assess changes in the number of enterprises, distribution of industrial production and cost dynamics;

the application of theoretical approaches from scientific works on the modernisation and innovative development of industry [2–8];

economic interpretation of data aimed at identifying the relationships between changes in fixed assets, innovative activity and the economic efficiency of enterprises.

Analysis of material and research results. The main reason for changes in production processes at enterprises is changes in consumer demand among the population, linked to the growth of social needs among the population.

The presence of manufacturing enterprises with material raw materials and fixed assets and factors of production in the volume necessary for the production process of the enterprise, leads to an increase in the cost of fixed assets allocated for its development with the aim of organising new innovative production on the basis of

enterprises that provide raw materials and means of production, which leads them to produce innovative consumer products using innovative techniques and production technologies. The organisation of production in an innovative style leads to an increase in demand for highly qualified professionals and skilled workers for production in this area. It can be seen that production in the republic and its regions is growing on the basis of the programme (Table 1).

Table 1

Production programme in the republic and its regions

Republics and regions		2020	2021	2022	2023	Growth in the number of enterprises in 2020-2023, in %
Republic of Uzbekistan		680	985	987	988	145.5
Republic of Karakalpakstan		29	49	26	38	131.0
<i>By region</i>						
Andijan		142	149	120	160	114.3
Bukhara		40	132	130	120	3.0 times
Jizzakh		34	47	50	42	123.5
Kashkadarya		34	44	42	28	82.4
Navoi		31	61	57	66	212.9
Namangan		32	49	67	66	206.2
Samarkand		29	25	45	69	237.9
Surkhandarya		19	33	19	24	125.3
Tashkent		63	102	100	107	169.8
Fergana		70	103	118	133	197.1
Khorezm		31	59	72	53	171.0
Tashkent city		108	109	113	109	100.9

According to statistics for the period 2020-2023 (Table 1), the total number of industrial enterprises in the republic increased by 45.5 per cent, and the number of enterprises in the regions also increased. It can be observed that manufacturing industrial enterprises in our country fill production programmes with finished products based on industrial cooperation, carry out the production process of basic products, goods and materials, as well as their export.

The data presented (Table 1) shows that we are fully utilising the reserves of industrial production in our country. The main reason for this is that industrial production per capita in the economic regions of our country at the regional level of production in 2023 amounted to 8,942.7 thousand soums, while in the Namangan region this figure was 7,225.6 million soums, in the Samarkand region - 7,915.6 million soums, in the Surkhandarya region - 3,113.7 thousand soums, and in the Fergana region - 8,906.7 thousand soums. The main reason for this is that, despite the availability of

natural resources and the necessary conditions for increasing agricultural yields in the regions, industrial production is not at the required level.

While industrial production per capita in the republic increased by 4.1% during the period under review, this figure was 97.5% in the Republic of Karakalpakstan, 3.5% in the Samarkand region, 3.8% in the Surkhandarya region, in the Tashkent region - 3.4%, in the Fergana region - 3.8%. During the same period of economic analysis, total production costs in the industrial sector increased 2.0 times in billion soums, wages - 1.9 times, social security - 1.8 times, depreciation of fixed production assets increased 1.6 times, various production costs increased 1.4 times, while net profit from gross industrial production increased 3.0 times.

The results of the study are as follows:

1. Growth dynamics of the industrial sector.

According to statistics, the total number of industrial enterprises in the Republic of Uzbekistan increased by 45.5% between 2020 and 2023 [1]. Growth was observed in almost all regions, but its pace varied significantly. Thus, in the Samarkand region, the increase was 237.9%, in the Navoi region – 212.9%, and in the Fergana region – 197.1%. These data indicate the expansion of the production base and the intensification of entrepreneurial activity.

2. Industrial production per capita.

In 2023, industrial output per capita averaged 8,942,700 soums across the country [1]. However, there remains significant variation between regions:

Surkhandarya Region — 3,113,700 soums,

Namangan Region — 7,225,600 soums,

Fergana Region — 8,906,700 soums.

This confirms the findings of studies on the unevenness of regional technological development and differences in the efficiency of fixed asset utilization [3], [7].

3. Costs and economic efficiency.

During the period under review:

production costs increased twofold,

the wage fund increased 1.9 times,

depreciation expenses increased 1.6 times,

and other expenses increased 1.4 times.

At the same time, the net profit of industrial enterprises increased threefold [1]. This trend is consistent with the findings of international studies, which show that equipment modernization and innovation lead to increased productivity and profitability of enterprises [4], [5].

4. Innovation and modernization

According to research, innovation and technological renewal contribute to the optimization of production processes, cost reduction, and improvement of product quality [2], [8]. The increase in the number of enterprises in Uzbekistan, as well as the growth in efficiency, indicate the gradual integration of innovation into the industrial sector.

5. Regional disparities

Despite the overall positive trend, regional differences in the level of industrial development remain significant. This confirms the need for a differentiated industrial

policy in line with the recommendations of researchers on regional development and innovation support [3], [7].

Conclusions. Sustainable development of the industrial sector requires systematic renewal of basic production facilities and improvement of the technological equipment of enterprises.

Innovation, equipment modernization, and staff training are key factors in increasing competitiveness and productivity.

The growth in the number of industrial enterprises and profits, accompanied by a moderate increase in costs, indicates an improvement in industrial efficiency.

Regional differences point to the need for targeted programs to support the modernization of enterprises in specific areas.

Further industrial development requires a comprehensive strategy that includes investment, technological innovation, human capital development, and industrial policy improvement.

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