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IMPROVING THE ORGANIZATIONAL AND ECONOMIC MECHANISM FOR MANAGING THE PRODUCTION POTENTIAL OF INDUSTRIAL ENTERPRISES

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Abstract: This article examines how the organizational and economic mechanism for managing the production potential of industrial enterprises can be improved. Production potential is treated as the combined capacity of equipment, labour, technology and organizational resources to produce output, and its effective use depends on planning, control and incentive structures inside the enterprise. The study reviews the principles of production capacity management and analyzes recent national policy documents of Uzbekistan that set targets for industrial growth and manufacturing development, together with official statistics on the industrial sector. The analysis shows that the industrial share of GDP rose from 21.1 percent in 2017 to 26.7 percent in 2022, and that manufacturing accounted for 86.0 percent of industrial output in 2025, while the mechanisms that link strategic targets to enterprise-level decisions remain uneven. On this basis, the article proposes a four-element mechanism covering goal setting, resource planning, operational monitoring and performance evaluation, and outlines practical steps for its implementation.

Keywords: production potential, industrial enterprise, organizational and economic mechanism, capacity management, industrial policy, manufacturing, performance evaluation, Uzbekistan.

INTRODUCTION

Industrial enterprises are the core of national production systems, and their ability to convert available resources into output determines economic growth, employment and export capacity. The Strategy for a New Uzbekistan for 2022–2026 gives high growth rates a central place among its national goals [1]. The Uzbekistan-2030 Strategy, approved by Presidential Decree PF-158 of 11 September 2023, extends this course and defines the medium-term economic ambitions of the country [2]. Presidential Decree PF-169 of 12 October 2023 addresses the accelerated development of industry and its core sectors [3].

Strategic targets, however, do not automatically translate into higher output at the level of a single enterprise. Production potential, understood as the aggregate ability of an enterprise to produce goods given its equipment, personnel, technology and organization, can remain underused if planning, control and motivation systems are weakly connected. The organizational and economic mechanism, which includes the structure of management, the methods of planning and the economic instruments that stimulate efficient use of resources, is therefore the decisive link between national goals and enterprise performance.

The relevance of this problem follows from three observations. First, the industrial sector of Uzbekistan has grown in recent years and continues to expand its share of the economy. Second, the number of operating industrial enterprises has increased considerably, which raises the importance of management practices that can be applied across many firms with different scales and technologies. Third, national policy documents set quantitative goals that enterprises are expected to support, yet the instruments for monitoring their contribution are not uniformly developed. The purpose of this article is therefore to propose improvements to the organizational

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and economic mechanism for managing production potential, grounded in the analysis of management theory and official data.

The study pursues four objectives: to define production potential and its components; to review the principles of its management; to analyze the relevant national indicators; and to formulate a practical mechanism that enterprises can apply to strengthen their production capacity.

LITERATURE REVIEW AND METHODOLOGY

The management of production capacity has been studied as a set of principles and functions that ensure the efficient use of an enterprise's productive resources. Tursunov discusses the principles and functions of production capacity management as elements of a single management system [4]. This view is consistent with the systemic approach, in which production potential is not a fixed quantity but the result of how resources are combined and managed over time.

The methodology of the study combines three approaches. The normative approach analyzes the legal and strategic documents that define national goals for industry. The comparative approach relates these goals to the structure and dynamics of industrial production. The interpretive approach uses official statistical releases and reputable news reports of official data to identify trends. Sources were selected from documents published in 2016 or later, including presidential decrees, statistical releases and analytical reports.

A second strand of the literature concerns the relationship between industrial policy and enterprise management. National strategies usually operate at the level of sectors and regions, whereas production decisions are made in individual firms. The gap between these two levels is often bridged by intermediate instruments such as sectoral programs, investment incentives and performance reporting. The quality of these instruments determines whether a national objective, such as an increase in manufacturing output, results in actual changes in enterprise behaviour. This perspective justifies the focus of the present study on the internal organizational and economic mechanism of the enterprise.

The human factor occupies a central place in the management of production potential. Equipment can only deliver its designed output when it is operated, maintained and scheduled by competent personnel. Work organization, including shift patterns, task allocation and communication between departments, determines how efficiently the available capacity is used. For this reason, the mechanism considered in this article includes personnel development as a condition of its effectiveness rather than as a separate management function.

1. Components of production potential. Production potential is considered in four interrelated components: material and technical resources, including equipment, buildings and energy supply; human resources, including skills and work organization; technological resources, including process know-how and the ability to adopt new methods; and organizational resources, including management structure, planning discipline and information flows. A change in any one component affects the capacity to produce output, and a mismatch among them reduces the efficiency of the whole system.

2. Principles of production capacity management. The management of production capacity rests on several principles: the alignment of capacity with demand, the continuous monitoring of capacity utilization, the flexibility to adjust capacity to changing market conditions, and the integration of capacity decisions into the enterprise's overall strategy. These principles are interdependent, and their implementation depends on clearly defined management functions.

3. Strategic and operational levels. The management of production potential operates at two levels. The strategic level defines long-term investment and modernization decisions, while the operational level manages the day-to-day use of existing capacity through scheduling,

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maintenance and quality control. Problems arise when strategic decisions are not translated into operational indicators, which makes it impossible to evaluate whether an investment has actually increased the output that the enterprise can achieve.

4. Economic instruments. The economic instruments of the mechanism include budget planning, performance-linked remuneration, investment appraisal and cost control. Their effectiveness depends on the accuracy of the underlying data. When cost and output data are collected irregularly, managers cannot compare alternatives reliably, and capacity decisions tend to be made on the basis of experience rather than evidence.

RESULTS AND DISCUSSION

The national data provide a useful context for the analysis. According to the Institute of Forecasting and Macroeconomic Research, as reported by Kun.uz, the share of industry in Uzbekistan's gross domestic product increased from 21.1 percent in 2017 to 26.7 percent in 2022, while manufacturing output grew by 47.4 percent over the same period [5]. This growth shows that the industrial base has been expanding, which makes the efficient use of production potential an increasingly important task for enterprise management.

The quality of the statistical base is itself a constraint on management. National indicators describe the industry as a whole, and they are not designed to show how efficiently individual enterprises use their capacity. Enterprise managers therefore need internal data systems that complement official statistics. The comparison of national and enterprise-level indicators can be useful in both directions: national trends give managers an external benchmark, while enterprise data reveal whether national growth is being realized in individual production units. Without this comparison, both levels of analysis remain incomplete.

Differences between large and medium-sized enterprises also deserve attention. Large enterprises usually have separate planning, quality and maintenance departments, which allows them to apply a detailed version of the mechanism. Medium-sized enterprises tend to combine these functions in a small number of managers, so the mechanism must be simpler and more closely integrated with daily work. For both groups, the principle is the same: decisions about capacity should be based on measured evidence, and the evidence should be reviewed regularly by those who make the decisions.

The structure of industrial output confirms the central role of manufacturing. The National Statistics Committee reports that manufacturing accounted for 86.0 percent of industrial output in January–December 2025 [6]. Because manufacturing is the sector in which production potential is most directly tied to equipment, technology and labour organization, improvements in the management mechanism are expected to produce the largest effects in this segment.

Industrial activity also showed a strong short-term dynamic. Reports published in August 2024 indicated that industrial production reached 435 trillion soums, an increase of 7.1 percent compared with the same period of the previous year [7]. Such growth is encouraging, but it does not reveal how much of the available capacity was used. Without reliable utilization indicators, growth in output cannot be attributed with confidence to better management rather than to a favorable market environment or to new investment.

These observations lead to a clear conclusion. The national strategy sets high targets, and the industrial sector is expanding, but the link between these targets and the internal management of enterprises is not yet systematic. Enterprises need an organizational and economic mechanism that translates national objectives into measurable goals, allocates resources to achieve them, monitors progress and evaluates results in a consistent way.

Based on the analysis, the proposed mechanism consists of four elements. The first is goal setting, in which the enterprise links its production targets to the sectoral priorities defined in

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national programs and to its own market position. The second is resource planning, which estimates the capacity of equipment, labour and technology required to reach these targets and identifies the investments needed to close any gap. The third is operational monitoring, which tracks the utilization of capacity, the quality of output and the cost of production at regular intervals. The fourth is performance evaluation, which compares actual results with planned indicators and feeds the findings back into the next planning cycle.

The first element, goal setting, begins with a translation of national priorities into enterprise terms. An enterprise operating in the machine or food-processing sector, for example, should identify which national programs affect its market and which output volumes, product categories or export markets are expected to grow. Goals should be expressed in measurable form, such as the volume of output per year, the share of new products or the target utilization rate of existing equipment. A goal that cannot be measured cannot be monitored, and therefore cannot influence decisions. Goals should also be consistent with one another: a plan to increase output without corresponding increases in labour skills or raw material supply produces an internal contradiction that monitoring will reveal only after the period has passed.

The second element, resource planning, converts goals into requirements. The enterprise determines how much output it can produce with its current equipment working in one or two shifts, how many workers and supervisors are needed for each shift, and which technological operations limit the process. The difference between the output that current resources can deliver and the output required by the goal defines the capacity gap. Closing this gap may require equipment repair, reorganization of shifts, retraining of personnel or new investment. Each option should be evaluated by its cost, lead time and expected effect on output, so that managers can compare alternatives on a common basis.

The third element, operational monitoring, provides the information needed to act before problems become costly. The core indicator is the capacity utilization rate, which compares actual output with the potential output that the equipment and labour could produce in the same period. Supporting indicators include the share of planned working time lost to equipment failures, the rate of defects in the output and the unit cost of production. These indicators should be collected at a frequency that matches the production cycle: daily or weekly for operational decisions and monthly for managerial review. Reliable collection requires simple, consistent procedures that record the same events in the same way across shifts and departments.

The fourth element, performance evaluation, closes the cycle. At the end of each period, actual results are compared with the goals set in the first stage, and deviations are analyzed by their causes: insufficient capacity, poor scheduling, low quality of inputs, weak management attention or external factors beyond the enterprise's control. The analysis should distinguish between factors the enterprise can influence and those it cannot, because the corrective actions differ in each case. The findings then return to the goal-setting stage of the next cycle, which makes the mechanism continuous rather than episodic.

An illustrative calculation shows how the indicators work together. Suppose an enterprise has equipment capable of producing 12,000 units per month under full utilization, while its planned output for the month is 10,000 units. The planned utilization rate is therefore 83.3 percent. If the actual output is 8,800 units, the realized utilization rate is 73.3 percent, and the gap of 1,200 units between plan and actual output is a signal for analysis. If the monitoring shows that 15 percent of planned working time was lost to failures of a single machine, the analysis identifies a specific cause that can be addressed through maintenance scheduling rather than through a general increase in investment. This example is illustrative and does not describe a

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specific enterprise, but it demonstrates how a small number of linked indicators can direct managerial attention to the most important problem.

The mechanism is particularly suitable for medium-sized enterprises, which often lack the analytical departments of large firms but still face the same pressure to modernize. For such enterprises, a limited set of indicators is preferable: capacity utilization rate, output per worker, share of time lost to equipment failures and the share of output meeting quality requirements. Four to six indicators, reviewed monthly, are usually sufficient to reveal the main problems without creating an excessive reporting burden.

Implementation requires attention to three conditions. The first is the reliability of data, since monitoring is meaningless if measurements are inconsistent. The second is the involvement of frontline managers, who must understand why the indicators matter and be able to act on them. The third is the link between evaluation and incentives: when results influence remuneration and investment priorities, the mechanism gains real authority within the enterprise.

The proposed mechanism is compatible with well-known production management concepts that emphasize the continuous improvement of equipment use and the elimination of losses. Approaches such as total productive maintenance and lean production focus on reducing unplanned downtime, eliminating waste and involving workers in the improvement of processes. The mechanism developed here does not replace these approaches; it provides the organizational and economic frame within which they can be coordinated with planning, budgeting and investment decisions. In this sense, the mechanism works as an integrating structure rather than as a separate set of tools.

The organizational effects of the mechanism are as important as its numerical results. Regular reviews of goals and indicators clarify who is responsible for each part of the production process and how their decisions affect the overall result. This clarity reduces the time spent on coordination and limits the tendency to attribute problems to other departments. Over time, the discipline of reviewing evidence becomes part of the enterprise's management culture, which supports the adoption of new technologies and the adjustment of production to changing demand.

The study has limitations. It relies on aggregated national statistics and on published analytical materials rather than on primary data collected from enterprises. The proposed mechanism therefore requires empirical testing in a sample of firms, with comparison of utilization rates and economic results before and after its introduction. Such testing would also clarify how the indicators should be weighted for different branches of industry.

The national context shows the scale of the challenge. The National Statistics Committee reported 63.3 thousand operating industrial enterprises as of 1 July 2026 [8]. With such a large population of enterprises, a common and simple mechanism is more valuable than a complex system that only a few firms can apply. The mechanism proposed here can be implemented in stages, starting with the largest enterprises and extending to smaller firms as indicator systems and staff competencies mature.

A practical implementation can follow four stages over a twelve-month period. In the first quarter, the enterprise defines its goals and selects the core indicators. In the second quarter, it establishes data collection procedures and trains the managers who will use the information. In the third quarter, it runs the first full monitoring cycle and records the deviations between planned and actual results. In the fourth quarter, it conducts the first performance evaluation, revises the goals for the next year and links the results to incentive and investment decisions. This sequence allows the enterprise to test the mechanism before committing significant resources to it.

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Several risks should be anticipated. The first is formalism, in which indicators are reported but not used in decisions. This risk is reduced when each indicator has a named owner who is accountable for its improvement. The second is resistance from managers who fear that transparent indicators will expose past weaknesses. Clear communication that the purpose of the mechanism is problem solving rather than the assignment of blame can reduce this resistance. The third is an excessive focus on short-term utilization, which may encourage overloading equipment at the expense of maintenance and long-term reliability. Balancing utilization with equipment condition indicators addresses this risk directly.

The effects of the mechanism should be assessed through comparable indicators over time. Useful measures include the change in capacity utilization, the reduction of unplanned downtime, the change in output per worker and the change in unit production cost. A rise in utilization accompanied by stable quality and falling unit costs would indicate that the mechanism improves the use of production potential rather than merely increasing the pressure on existing resources. Such an evaluation would also help managers decide where further investment is justified.

CONCLUSION

The organizational and economic mechanism for managing production potential is a decisive factor in turning national industrial strategy into enterprise-level results. The analysis shows that Uzbekistan has a strong strategic framework and a growing industrial base, but the systematic connection between national targets and enterprise management remains incomplete. A four-element mechanism based on goal setting, resource planning, operational monitoring and performance evaluation offers a practical way to close this gap. Based on the findings, the following recommendations are proposed:

first, enterprises should link their production targets explicitly to the priorities of national industrial programs;

second, capacity utilization should be measured regularly and reported as a core management indicator;

third, investment decisions should be justified by expected changes in achievable output rather than by equipment volume alone;

fourth, incentive systems should reward the efficient use of existing capacity as well as the expansion of output;

fifth, statistical bodies and enterprises should cooperate to produce reliable utilization data that can support management decisions.

Taken together, these recommendations form a coherent approach in which national strategy, enterprise planning and evidence-based management reinforce one another. The improvement of the organizational and economic mechanism is not a one-time reform but a continuing process of setting goals, measuring results and adjusting the use of resources. Enterprises that adopt this approach are better positioned to convert their production potential into sustained output growth, and the national industrial strategy gains a reliable channel through which its objectives can be realized.

REFERENCES

1. Presidential Decree of the Republic of Uzbekistan No. PF-60, 28 January 2022, On the Development Strategy of New Uzbekistan for 2022–2026. – URL: https://lex.uz/docs/-5841063 (accessed: 24.10.2026).
2. Presidential Decree of the Republic of Uzbekistan No. PF-158, 11 September 2023, On the Strategy Uzbekistan-2030. – URL: https://leap.unep.org/en/countries/uz/national-

ISSN: 2224-6878 | Pakistan Volume 6, No. 10.

IF: 14.91 | 2026 http://waerasia.org/index.php/ijtar

legislation/presidential-decree-no-158-validating-strategy-uzbekistan-2030 (accessed: 24.10.2026).

3. Presidential Decree of the Republic of Uzbekistan No. PF-169, 12 October 2023, On accelerated development of industry and its core sectors. – URL: https://gov.uz/en/imv/pages/vazirlik-faoliyatiga-oid-normativ-huquqiy-hujjatlar (accessed: 24.10.2026).
4. Tursunov. Principles and functions of management of production capacity // Journal of Process Management and New Technologies. – 2017. – URL: https://asistent.ceon.rs/index.php/joupproman/en/article/view/15248 (accessed: 24.10.2026).
5. Kun.uz. Share of industry in Uzbekistan's GDP increased to 26.7% // Kun.uz, 4 February 2023. – URL: https://kun.uz/en/news/2023/02/04/share-of-industry-in-uzbekistans-gdp-increased-to-267 (accessed: 24.10.2026).
6. National Statistics Committee of the Republic of Uzbekistan. Press release on industry, January 2026 (data for January–December 2025). – URL: https://stat.uz/img/news/press-reliz-sanoat-19_01_2026-j_-eng_p28348.pdf (accessed: 24.10.2026).
7. Kun.uz. Industrial growth reaches 7% as Uzbekistan launches 1,300 new facilities // Kun.uz, 29 August 2024. – URL: https://m.kun.uz/en/news/2024/08/29/industrial-growth-reaches-7-as-uzbekistan-launches-1300-new-facilities-aiming-for-more-by-years-end (accessed: 24.10.2026).
8. National Statistics Committee of the Republic of Uzbekistan. Press release on industry, July 2026 (data for January–June 2026). – URL: https://stat.uz/img/press-relizlar/press-reliz-sanoat-07-2026-en_p39262.pdf (accessed: 24.10.2026)