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ORGANIZATIONAL AND ECONOMIC MECHANISM OF INNOVATION STRATEGY IMPLEMENTATION IN INDUSTRIAL ENTERPRISES: FROM STRATEGY STAGES TO THE COST-TO-RESULT CONVERSION CHAIN

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Abstract. The paper examines the organizational and economic mechanism through which an innovation strategy of an industrial enterprise is turned into economic results. It is shown that the stage-based models of strategy formation widely used in the literature describe what should be done, but do not specify at which point innovation expenditure fails to become a result. Using 2021-2025 official statistics of Samarkand region of Uzbekistan, the paper demonstrates that the growth of research capacity and of the number of implemented innovations has not been accompanied by a comparable increase in innovation expenditure and market results. A mechanism built along the conversion chain “project selection – resource allocation – implementation – commercialization” with four control blocks and measurable transition criteria is proposed.

Keywords: organizational and economic mechanism, innovation strategy, industrial enterprise, innovation expenditure, conversion chain, control block, Samarkand region.

Introduction. Innovation has become a key condition for the competitiveness of industrial enterprises, and the main managerial question has shifted from whether to innovate to how to organize innovation so that it pays off. According to the Oslo Manual, an innovation exists only when a new or improved product or process has been brought into; therefore, the effectiveness of innovation management should be judged by results rather than by the volume of spent resources. In Uzbekistan this task is set by the Law “On Innovation Activity” and the Innovation Development Strategy for 2022-2026, which target the expansion of innovation activity of domestic industrial enterprises. Achieving these targets depends on the organizational and economic mechanism that links strategic decisions with the use of resources and with final results at the enterprise level.

Recent studies treat the organizational and economic mechanism as a set of methods, functions and tools that ensures coordination of the enterprise’s divisions, rational use of resources and continuous evaluation of management decisions. O. Popelo formulates the criteria that such a mechanism must meet and divides the formation of an innovation strategy into consecutive stages: defining the goals of innovation activity, analyzing available resources, assessing external threats and internal strengths, choosing a strategic alternative, developing projects and their financing, implementation with monitoring, and final evaluation with adjustment of the strategy. The author also notes that a monitoring and evaluation system allows identifying areas for improvement and optimizing the allocation of resources among innovation initiatives.

Such stage models are useful for structuring the strategic process, yet they share a common limitation: monitoring and evaluation are placed at the end of the cycle, and the model does not show at which link the spent resources stop turning into a result. As a result, an enterprise may formally pass all stages while its innovation expenditure produces no commercial effect. The aim of this paper is to supplement the stage-based approach with a mechanism that tracks the conversion of innovation expenditure into results and to test its relevance on the data of Samarkand region.

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To assess whether innovation activity in the region is resource-constrained or management-constrained, it is necessary to compare the dynamics of research capacity, innovation implementation and innovation expenditure. The relevant indicators for Samarkand region, based on official statistics, are presented in Table 1.

Table 1

Indicators of research and innovation activity in Samarkand region, 2021-2025

Indicator	2021	2022	2023	2024	2025	2025 to 2021, %
Organizations performing R&D, units	6	8	13	16	18	3.0 times
R&D personnel, persons	2275	3864	4008	3332	3650	160.4
Volume of R&D, bln UZS	20.7	24.3	27.5	26.0	29.4	142.0
Enterprises and organizations that implemented innovations, units	221	140	376	164	220	99.5
Number of implemented innovations, units	471	340	708	1180	1580	3.4 times
Innovation expenditure, bln UZS	112.5	168.7	220.3	102.7	137.5	122.2

Table 1 shows that the research base of the region expanded steadily in 2021–2025: the number of organizations performing R&D tripled, R&D personnel grew by 60.4 per cent and the volume of R&D by 42.0 per cent. The number of implemented innovations increased 3.4 times, from 471 to 1580. At the same time, the number of enterprises that implemented innovations remained practically unchanged (221 in 2021 and 220 in 2025) and fluctuated sharply within the period, falling to 140 in 2022 and to 164 in 2024. Innovation expenditure grew by only 22.2 per cent and in 2024 fell by 53.4 per cent compared with the previous year. Hence, innovation activity is concentrated in a stable and narrow circle of enterprises, and its financing is not planned as a continuous strategic process. The structure of expenditure confirms this conclusion: in 2023, 61.6 per cent of expenditure on technological innovation went to process innovation and only 38.4 per cent to product innovation, while the share of the region in the national volume of innovative products decreased from 1.51 per cent in 2021 to 0.91 per cent in 2023. In other words, the main losses occur not at the stage of generating ideas, which is supported by growing research capacity, but at the stages of implementation and market confirmation.

These findings indicate that the mechanism should control not only the sequence of strategic stages but also the transitions between the links where expenditure is converted into results. For this purpose, the conversion chain is divided into four links, each closed by a control block with a formal transition criterion and a measurable indicator (Table 2).

Table 2

Control blocks of the organizational and economic mechanism along the conversion chain

Control block	Link of the chain	Transition criterion	Document	Block indicator
1. Selection	Project selection	Compliance with strategic direction and positive preliminary	List of projects	Share of selected projects in those considered

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		market assessment		
2. Resource	Resource allocation	Funding source, project team and deadlines are defined	Order on resource allocation	Share of resourced projects in selected ones
3. Implementation	Introduction into production	Pilot batch, technological documentation and trained staff are available	Acceptance act	Share of implemented developments in resourced ones
4. Market	Commercialization	Target values of sales and profitability are achieved	Sales and profitability report	Share of products that reached target values

As Table 2 shows, each block passes a project to the next link only after a documented criterion is met, so the ratio of projects at the input and output of each block indicates where the chain breaks. In contrast to the stage model, where results are assessed after the strategy has been implemented, the proposed mechanism makes evaluation continuous and attaches it to each link. Two contours serve the entire chain: the resource contour includes the innovation budget, target fund, project teams and the procedure of financing, while the information contour includes management accounting, block indicators and a digital platform that accumulates data from all control blocks. For the enterprises of Samarkand region, the implementation and market blocks are the most critical, since the statistical data show that the main losses are concentrated there; therefore, the criteria for these two blocks should be set most precisely, for example by requiring a confirmed pilot batch before scaling and a target share of new products in sales.

Stage-based models of innovation strategy formation define the logic of strategic decisions but do not reveal where innovation expenditure fails to turn into results. The data of Samarkand region for 2021-2025 show that growing research capacity and the increasing number of innovations are not matched by stable financing and market results, which points to weaknesses in the implementation and commercialization links. Supplementing the stage model with a conversion chain of four control blocks, each with a transition criterion and a measurable indicator, allows an enterprise to locate breaks in time, redirect resources to projects with confirmed results and thus increase the economic return of its innovation strategy.

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