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CONCEPTUALIZING A MECHANISM FOR STRATEGIC MANAGEMENT OF INNOVATIVE DEVELOPMENT OF A PHARMACEUTICAL ORGANIZATION

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РЕЗЮМЕ

Стаття присвячена обґрунтуванню та розробці механізму стратегічного управління інноваційним розвитком фармацевтичних організацій на основі інтеграції систем управління знаннями. Проведено діагностику інноваційної стратегії на прикладі мережі «Аптека 9-1-1». Виявлено, що попри високу технологічну зрілість та відкритість до ідей, існують системні розриви у фіксації досвіду невдач та формалізації відповідальності. Запропоновано концептуальну модель механізму, що базується на циклічній капіталізації інтелектуальних активів.

Ключові слова: фармацевтичний менеджмент, інноваційна стратегія, управління знаннями, аптечна мережа, конкурентоспроможність, розвиток

ABSTRACT

The article is devoted to the justification and development of a mechanism for strategic management of innovative development of pharmaceutical organizations based on the integration of knowledge management systems. Diagnostics of the innovation strategy is carried out using the example of the network "Pharmacy 9-1-1". It is revealed that despite the high technological maturity and openness to ideas, there are systemic gaps in recording the experience of failures and formalizing

responsibility. A conceptual model of the mechanism is proposed, based on the cyclical capitalization of intellectual assets.

Key words: pharmaceutical management, innovation strategy, knowledge management, pharmacy network, competitiveness, development

Introduction. The pharmaceutical industry, as one of the most knowledge-intensive and highly risky, operates in conditions of exponential growth of scientific data, increasing regulatory pressure and unprecedented global competition. In these conditions, traditional approaches to innovation management, based solely on financial investments in research, demonstrate diminishing marginal efficiency, which is reflected in Eroom's law, which records the doubling of the cost of developing a new drug every nine years [1-5].

The fundamental importance of an innovation strategy for a pharmaceutical organization lies in its ability to provide a sustainable competitive advantage and competitive position in the market through diversification of the product portfolio and the introduction of original drugs to the market. However, the presence of a strategy does not guarantee its successful implementation. The key problem is the lack of a valid and integrated mechanism for assessing the effectiveness of this strategy, which would consider not only quantitative indicators of output (number of patents, sales volume of new products), but also qualitative indicators characterizing its internal stability and adaptability. It is in this context that knowledge management acquires the status of a strategic imperative [30].

Knowledge management in the pharmaceutical industry acts as a meta-process that integrates all stages of value creation, namely, from the generation of scientific hypotheses and clinical studies to marketing strategies for bringing the product to the market. An effective knowledge management system ensures: intellectual capitalization of internal and external knowledge, including the experience of unsuccessful experiments; minimizing duplication of research and development, reducing the "time to market"; promoting cross-functional cooperation between

scientific, clinical and commercial units. Thus, knowledge management is a catalyst for increasing the productivity of innovation processes and reducing their uncertainty

Aim is to develop a mechanism for strategic management of innovative development of a pharmaceutical organization.

Materials and methods. To achieve the goal, a set of methods was used: system-structural analysis – to form the theoretical basis of the mechanism; questionnaire (n=88) – to diagnose innovation processes in the "Pharmacy 9-1-1" network; mathematical statistics methods - to process the survey results on a 5-point Likert scale. The respondents were highly qualified specialists (70% have over 7 years of experience, 84% have specialized education).

Results. A survey of 88 employees of the pharmacy chain "Pharmacy 9-1-1" to diagnose the existing innovation strategy and key innovation processes of the "Pharmacy 9-1-1" network was conducted among highly qualified and experienced personnel (70% have over 7 years of experience, 84% have a pharmaceutical education), revealed a high innovation culture and technological maturity, but significant systemic gaps in the formalization of processes.

It was found that employees are highly encouraged to participate in innovative projects (4.7 points), and the idea generation process is systematic and open (4.5 points). The network demonstrates the highest level of use of technological tools (AI, internal search engines) for accessing information (4.9 points), and also has an effective onboarding process for new employees (4.5 points). Gathering knowledge about customer needs is the first stage in launching innovations (4.8 points), which indicates a high focus on the external market.

Learning from mistakes (a critical gap) was found to be the weakest aspect of the UM system. Knowledge gained from unsuccessful projects is not systematically recorded and analyzed (2.9 points). There is insufficient formalization of the processes of documenting and disseminating successful experiences throughout the network (3.8 points), as well as a critical gap in the development of training materials to support the implementation of innovations (3.4 points). The statement about the clear definition of innovation priorities (3.3 points) received the lowest score in the

innovation block, which indicates the need to strengthen the connection between initiatives and the overall strategy. Insufficiently formalized responsibility structure - low assessment of the presence of a specially designated team for managing innovation projects (3.5 points).

The identified problems in knowledge management directly create barriers to the effectiveness of the innovation strategy, in particular in terms of organizational learning and systematization of experience (lack of a dedicated responsible employee/team (20%), lack of time and priorities (19%), fear of punishment/criticism for mistakes (17%), which indicates problems with the culture of openness and trust).

The pharmacy chain "Apteka 9-1-1" has a solid financial and technological foundation, as well as a high innovation culture, but its innovation strategy is imperfect due to systemic gaps in the formalization of knowledge management, especially in the area of learning from failures and scaling successful experiences. To achieve strategic goals (growth of market share, digital transformation), it is necessary to integrate knowledge resources into formalized processes of the innovation cycle.

The results of a qualitative analysis of open-ended responses from respondents allowed us to systematize the key destructive factors that hinder the innovation dynamics of the organization, according to three basic domains: cultural, resource and organizational. In particular, a persistent cultural barrier was identified, associated with the fear of professional criticism for mistakes (17% of responses), which actually paralyzes the mechanisms of horizontal exchange of negative experience. The resource barrier (19%) is manifested due to the shortage of time resources and insufficient clarity in ranking priorities, while the organizational gap (20%) is due to the lack of an institutionalized structure or a profile manager responsible for coordinating innovation cycles.

Based on the identified deficits, a conceptual model of the strategic management mechanism was synthesized, based on the architecture of four functional blocks. The first segment — the knowledge resource block — involves the deployment of a single repository (Knowledge Hub) aimed at transforming latent,

implicit knowledge of individual employees (tacit knowledge) into formalized intellectual assets of the organization (explicit knowledge), including the creation of a specialized “library of errors” to prevent the replication of ineffective solutions.

Process formalization is implemented through the introduction of a mandatory Post-Project Review regulation, where verification of results is carried out not only through the prism of financial KPIs, but also based on the metrics of intellectual capital growth. To overcome structural inertia, it is proposed to create a cross-functional transformation office that integrates the competencies of the pharmaceutical, IT and commercial divisions, ensuring synergy between the scientific base and market needs. The final stage of management is closed with a strategic filter, which ensures strict coherence of each innovation initiative with the global vectors of enterprise development, such as large-scale digital transformation or expansion into new segments of the pharmaceutical market.

Conclusions. It is proven that a modern pharmaceutical organization (using the example of “Pharmacy 9-1-1”) has a powerful technological potential (4.9 points), but its innovation strategy is imperfect due to systemic gaps in the formalization of knowledge management.

The key destructive factor is identified as a low culture of failure analysis (2.9 points), which inhibits organizational learning.

The developed strategic management mechanism suggests a transition from fragmented innovation initiatives to a cyclical process of knowledge capitalization. This will allow the network not only to effectively implement digital tools, but also to scale successful experience, minimizing strategic risks.

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