

CONCEPTUAL AND CATEGORICAL FOUNDATIONS OF THE ECOSYSTEM APPROACH IN RESOURCE MANAGEMENT OF HEALTHCARE INSTITUTIONS

Yuliia Matvieieva, PhD, Associate Professor, Senior Lecturer at the Oleg Balatskyi Department of Management, Sumy State University

Ye Mao, PhD Student of the Oleg Balatskyi Department of Management, Educational and Scientific Institute of Business, Economics and Management, Sumy State University

The healthcare system in contemporary conditions operates under the influence of global transformations, including digitalization, demographic changes, increasing public demand for healthcare services, financial constraints, and the need to enhance the resilience of healthcare systems to crisis challenges (WHO, 2021; OECD, 2024). Under such circumstances, the issue of effective resource management in healthcare institutions becomes particularly relevant. Traditional management approaches do not always allow for a comprehensive consideration of the interdependence among all participants in the healthcare system, which contributes to the growing interest in the ecosystem approach (Adner, 2017).

The formation of the ecosystem approach is associated with the development of systems theory, strategic management, and the concept of business ecosystems. One of the first scholars to propose considering organizations as part of an interdependent system was J. Moore. He defined an ecosystem as a community of organizations and individuals that interact with one another and jointly create value (Moore, 1993). The further development of this concept is reflected in the works of M. Iansiti and R. Levien, who substantiated that the effectiveness of an ecosystem depends on the level of interaction among its participants, the system's ability to adapt to change, and its capacity to ensure long-term sustainability (Iansiti & Levien, 2004).

In the healthcare sector, the ecosystem approach involves considering a healthcare institution not as an isolated organization, but as an element of a broader system of interaction among patients, healthcare professionals, public authorities, insurance structures, digital platforms, technology providers, and partner organizations (WHO, 2021; Adner, 2017). Within this approach, the effectiveness of resource management depends not only on the internal processes of the institution, but also on the level of coordination among all participants in the healthcare system.

The formation of the conceptual and categorical framework of the ecosystem approach requires clarification of its key categories. The fundamental concept is the healthcare ecosystem, which can be understood as an open system of interaction among various actors whose activities are aimed at ensuring the quality

of healthcare services and improving public health outcomes (WHO, 2021). Important components of such a system include healthcare institution resources, namely financial, human, material and technical, informational, and digital resources, as well as organizational knowledge, reputation, and partnership relations (Barney, 1991).

Within the ecosystem approach, particular importance is attached to the concept of resource integration, which reflects the process of combining the resources of various participants in the healthcare system in order to achieve a common outcome (Vargo & Lusch, 2004). At the same time, the concept of value co-creation implies the active involvement of patients in the processes of treatment, prevention, and the formation of individual healthcare trajectories (Vargo & Lusch, 2004; Osborne et al., 2016). Another important characteristic is co-evolution, understood as the interdependent development of ecosystem participants, whereby changes in the activities of one actor influence the adaptation of other participants within the system (Moore, 1993; Iansiti & Levien, 2004).

For the development of the theoretical foundations of the ecosystem approach, it is important to distinguish it from related management concepts. The Resource-Based View (RBV) primarily focuses on the internal resources of an individual organization and their ability to create competitive advantages (Barney, 1991). The network approach emphasizes interorganizational relationships and partnerships among system participants (Powell, 1990). In contrast, the ecosystem approach considers the healthcare system as a holistic environment of interaction among diverse actors, where resource integration, coordination of actions, and the co-creation of value play a central role (Adner, 2017). A distinctive feature of this approach is the combination of cooperation and competition among system participants.

Within the ecosystem approach, it is advisable to distinguish three interrelated levels of functioning of the resource management system in healthcare institutions. The micro-level encompasses the internal resource subsystems of a healthcare institution, including human, financial, material and technical, and informational resources that shape its operational capacity. The meso-level involves the interaction of the healthcare institution with other participants in the local ecosystem, such as insurance organizations, educational and research institutions, non-governmental organizations, and providers of healthcare services and technologies. The macro-level covers the institutional environment, including public healthcare policy, international standards, and the Sustainable Development Goals, which define the general framework for the functioning of the healthcare system (OECD, 2024; WHO, 2023).

An important component of the ecosystem approach is the assessment of ecosystem health. Based on the concept proposed by M. Iansiti and R. Levien, it is appropriate to identify such criteria as productivity, resilience, adaptability, and

inclusiveness (Iansiti & Levien, 2004). Productivity reflects the efficiency of resource utilization in the provision of healthcare services; resilience refers to the ability of the system to function under crisis conditions; adaptability characterizes the speed of response to environmental changes and the implementation of innovations; inclusiveness concerns ensuring equal access to healthcare resources and services for the population.

Thus, the ecosystem approach forms a new conceptual framework for healthcare resource management, focused on resource integration, the development of partnership interaction, strengthening system resilience, and ensuring the effectiveness of healthcare services in a dynamic environment (WHO, 2021; Adner, 2017).

References

1. Adner, R. (2017). Ecosystem as structure: An actionable construct for strategy. *Journal of Management*, 43(1), 39–58. URL: https://www.researchgate.net/publication/310788892_Ecosystem_as_Structure_An_Actionable_Construct_for_Strategy
2. Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. URL: <https://journals.sagepub.com/doi/10.1177/014920639101700108>
3. Freeman, R. E. (1984). Strategic management: A stakeholder approach. Pitman. URL: <https://www.scirp.org/reference/referencespapers?referenceid=1209107>
4. Iansiti, M., & Levien, R. (2004). The keystone advantage: What the new dynamics of business ecosystems mean for strategy, innovation, and sustainability. Harvard Business School Press. URL: <https://www.hbs.edu/faculty/Pages/item.aspx?num=16920>
5. Moore, J. F. (1993). Predators and prey: A new ecology of competition. *Harvard Business Review*, 71(3), 75–86. URL: https://www.researchgate.net/publication/13172133_Predators_and_Prey_A_New_Ecology_of_Competition
6. OECD. (2024). Health at a glance 2024: OECD indicators. OECD Publishing. URL: <https://sur.l.li/onywix>
7. Osborne, S. P., Radnor, Z., & Strokosch, K. (2016). Co-production and the co-creation of value in public services. *Public Management Review*, 18(5), 639–653. URL: <https://sur.l.li/rgoxck>
8. Powell, W. W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in Organizational Behavior*, 12, 295–336. URL: <https://sur.l.li/brtjmx>
9. Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17. URL: <https://sur.l.li/vcrjcw>

10. World Health Organization. (2021). Global strategy on digital health 2020–2025. WHO. URL: <https://surl.li/hgxnul>
11. World Health Organization. (2023). Strengthening health systems resilience: Policy brief. WHO. URL: <https://surl.li/clxxht>