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**ORGANIZATION MANAGEMENT BASED ON THE MODEL OF
INTEGRATION OF INTANGIBLE ASSETS IN THE DIGITAL
TRANSFORMATION OF THE ECONOMY**

5.2.6. Management

ANNOTATION

dissertations for the degree of doctor of economics sciences

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The relevance of the research topic. The modern economy is characterized by the transition from an industrial model to a knowledge-based and digital economy, where traditional factors of production are no longer the main sources of competitive advantages. The effectiveness of managing a modern organization is increasingly determined by its ability to generate, accumulate, and use intangible assets in a rational manner. As the role of information, technological innovations, and other intangible assets increases, the theory and practice of management require the development of new principles, approaches, and tools for managing organizations that take into account the importance of intangible assets.

Digital transformation brings about qualitative changes in the structure of intangible assets themselves. In the context of significant and uneven growth in the volume of information and technological development, artificial intelligence ceases to be just a tool and becomes an independent asset that integrates business structures. This fundamentally new understanding of the role of artificial intelligence requires deep reflection, as it changes the logic of managerial interactions within an organization.

In the digital economy, an organization's assets exist not in isolation but in close interconnection. Their integration opens up new opportunities for the development of modern enterprises, which in turn requires the development of a management model that aligns with the trends of the digital economy.

The concept of organization management, which provides new approaches to making management decisions based on the integration of intangible assets, is not fully developed in theory.

Thus, the national economic challenge is the need for business structures to adapt their management systems to the increasing strategic role of intangible assets and the requirements of the digital environment. This involves not only the use of advanced IT solutions to accelerate decision-making in an increasingly competitive

environment, but also a comprehensive restructuring of management approaches, which in turn requires appropriate methodological support.

The key tools for solving these problems in the dissertation research are the development of an organization management concept using fundamentally new mechanisms for making managerial decisions focused on identifying, developing, and integrating intangible assets; the implementation of a strategic approach to managing the formation of harmonious configurations of the organization's total intangible assets in the management system; the use of a capital platform and ecosystem interactions between internal and external intangible assets; and the use of a fractal approach, artificial intelligence tools, and control management in the process of forming management models.

Thus, in the context of ongoing processes of digital transformation of socio-economic relations and import substitution, the development of the theory and methodology of organization management based on the model of integration of intangible assets is relevant. It is focused on enriching the existing theory of organization management, as well as on developing methodological approaches that ensure the adaptability, sustainability of development, and competitiveness of modern organizations.

The degree of development of the scientific problem. Various aspects of organization management based on the model of integration of intangible assets in the context of digital transformation have been developed in the works of Russian and foreign researchers.

The theoretical foundations of organization management in the context of transformation processes have been developed in the classical works of L. Abalkin, J. Galbraith, E. Denison, J. Keynes, D. Coleman, K. Marx, G. Mintzberg, L. von Mises, E. Maddison, W. Eucken, G. Ford, L. Edvinsson, and others.

The relationship between the evolution of approaches and mechanisms for managing organizations and the development of their intangible assets is explored in

the works of G. Becker, S. Kuznets, G. Mankiw, M. Porter, G. Simon, J. Stigler, C. Stiward, I. Fisher, M. Friedman, K. Arrow, and others. In this area, it is necessary to highlight the works of V. Akberdina, P. Bourdieu, J. Kendrick, R. Lucas, J. Minczer, R. Posner, P. Romer, R. Solow, J. Stiglitz, and others, which reveal the trend towards the specific component of intangible assets in the total capital of an organization and the dynamic increase in its role in the management of an organization in the context of modern transformations.

The works of foreign researchers R. Adner, M. Van Alstyne, A. Gawer and D. Yoffie, M. Jacobides, R. Kaplan, R. Levien, J. Moore, D. Norton, G. Parker, T. Stewart, K. Sveiby, D. Teece, R. Edner, M. Yansiti, and others are devoted to various aspects of the impact of an organization's intangible assets on its management. In this area, it is necessary to highlight the research vector on the impact of the value creation process in ecosystems on organizational management, which is represented by the works of D. Autor, C. Cennamo, D. Dorn, L. F. Katz, C. Patterson, J. Van Reenen, J. Santalo, and others.

The features of managing an organization in whose total capital the share of intangible assets is dynamically increasing are studied in the works of Russian scientists A. Auzan, V. Akberdina, S. Bodrunov, A. Varshavsky, S. Glazyev, R. Grinberg, V. Danilov-Danilyan, S. Dyatlov, G. Kleiner, V. Kovalev, N. Kozyrev, M. Kritsky, A. Krutik, D. Lvov, B. Milner, E. Oleinik, G. Ramensky, M. Eskinarov, and others. In this area, it is necessary to highlight the construction of models of interaction between the intangible assets of an organization operating in conditions of transformation processes (works by V. Agafonov, S. Baidakov, G. Gorelova, V. Ermolenko, H. Konstantinidi, N. Pankratova, and others).

The works of A. Alchian, J. Buchanan, V. Volchik, B. Ernzykian, O. Inshakov, R. Nizhegorodtsev, Yu. Latov, D. North, R. Nureev, M. Polterovich, O. Sukharev, V. Tambovtsev, V. Tretyak, and others are devoted to the institutional

aspects of managing an organization using the opportunities for interaction between its intangible assets in the context of digital transformation.

At the same time, a study of the degree of development of the stated problem leads to the conclusion that a number of its significant aspects remain unresolved: the possibilities and specific characteristics of the integration of an organization's intangible assets in the context of digital transformation of the economy; the opportunities for managing an organization that arise from this integration; modeling the integration of an organization's intangible assets in the context of digital transformation of the economy; methodological approaches to managing an organization based on the developed model of intangible assets integration; the development of tools and algorithms for managing an organization based on the integration of intangible assets.

The object of the dissertation research is the economic organizations of modern Russia that operate in the context of digital transformation of the economy.

The subject of the dissertation research is the economic relations, methodological approaches, and mechanisms that develop in the process of managing an organization based on the model of integrating intangible assets.

Purpose and objectives of the study. The purpose of the study is to solve the scientific problem of forming and improving the theoretical and methodological provisions for managing an organization in order to increase its efficiency and ensure long-term competitiveness in the context of digital transformation based on the model of integrating intangible assets.

To achieve this goal, the following **scientific problems** were solved in the study:

- identify and systematize the key components of the intangible assets of a modern organization from the perspective of a systematic approach and determine their role in ensuring economic growth in the context of digital transformation;

- reveal the essence and systemic properties of the integration of the organization's intangible assets by establishing and classifying the factors that determine this process, highlighting a new group of implicit factors;
- to substantiate the need and develop the conceptual foundations of modeling the process of integrating intangible assets, defining the role of implicit factors as key determinants of the harmonization of the organization's system of integrating intangible assets and its interaction with tangible assets;
- to develop a methodology for managing the organization based on the model of integrating intangible assets;
- development of a strategic approach to managing the formation of harmonious configurations of the organization's intangible assets;
- formation of a capitalogram as a management tool for integrating the organization's intangible assets in the context of digital transformation of the economy;
- development of a fractal approach to organization management based on the model of integration of intangible assets;
- proposal of a methodology for assessing the integrated intangible assets of an organization using artificial intelligence tools, and testing of this methodology;
- defining the main stages of introducing al tools into the management of an organization based on the model of integration of intangible assets;
- defining the possibilities of controlling in the management of an organization based on the model of integration of intangible assets;
- determination of the assessment of the development potential of a modern organization, formed on the basis of the integration of intangible assets in the conditions of digital transformation of the economy;

– development of the management elements of the TMU system integrator on the basis of the model of the integration of intangible assets in the conditions of digital transformation of the economy.

The theoretical and methodological basis of the study is formed by the principles of systemic, evolutionary, and institutional approaches, as well as the conceptual provisions of a number of relevant economic theories: general and strategic management, organization, intangible assets, integration, knowledge management, intellectual capital, sustainable development, and digital transformation of the economy. The study also utilizes the possibilities of cross-border synthesis by involving resources from a number of disciplines related to management science.

The study used methods of analysis and synthesis, modeling, expert assessments, and quantitative data analysis methods. Combinatorial and comparative analysis methods were also used to solve the assigned tasks. Special attention was paid to the productive combination of qualitative and quantitative research methods, which allowed for a systematic approach to the study of the stated problem and ensured the productivity of such research.

The research information base includes up-to-date fundamental and applied research by domestic and foreign scientists that developed concepts and hypotheses presented in the scientific literature on the principles and methods of managing a modern organization; federal government databases (websites of the Government of Russia, the Ministry of Economic Development of the Russian Federation, and the Federal State Statistics Service), annual and accounting reports of a number of foreign organizations and Russia, data from international and domestic scientific conferences, publications in leading peer-reviewed journals, and the author's own research results. The study used regulatory acts of the Russian Federation governing the digital transformation of the economy, innovation activities, and organizational

management, as well as the Research Commons database and the White Paper on the Digital Economy.

Compliance of the dissertation topic with the requirements of the passport of specialties of the Higher Attestation Commission. The dissertation research was conducted within the framework of the scientific specialty 5.2.6 Management and corresponds to the areas of scientific research 10. Design of organizational management systems. Business processes: construction methodology and optimization models. Network models of organizations. Information and analytical support for organizational management. 18. Knowledge management: theory, methodology, technology, and intra-firm practices. Management of the firm's intangible assets. 26. Management of the organization in the context of digital transformation. Strategies and methods of digital business transformation. 27. Data management in an organization. Application of artificial intelligence and big data methods in management.

The scientific novelty of the research lies in solving the scientific problem of developing theoretical foundations and methodology for managing an organization based on the integration of intangible assets in the context of digital transformation of the economy, which involves the formation of methodological aspects for managing an integrated set of intangible assets as a single, dynamic, and synergistic object that integrates the concepts of the digital economy, the knowledge economy, and the synergistic approach to create adaptive and highly efficient management systems for modern organizations.

Scientific results obtained by the author personally.

1. Based on the analysis of fundamental theories, scientific concepts, and the works of contemporary researchers, the content of the concept of organization management in the context of digital transformation of the economy has been revealed. In addition to existing approaches, the expediency of shifting the focus from managing traditional organizational resources to managing knowledge, data,

and digital platforms using fundamentally new mechanisms for making managerial decisions focused on identifying, developing, and integrating intangible assets has been substantiated. Unlike existing approaches, it has been determined that in the context of the development of the digital economy and the knowledge economy, the effectiveness of managing a modern organization is determined by its ability to generate, accumulate, and utilize intangible assets. The author has supplemented the content of intangible assets with a system-forming component – artificial intelligence and data. It has been determined that artificial intelligence in the context of digital transformation acts as an integrator asset that accumulates the interaction between all components of an organization's intangible assets, creating the phenomenon of "network synergy," where their integral value becomes non-additive and multiplicative (Item 18 of the Scientific Speciality Passport 5.2.6. Management).

2. A methodological approach to the management of an organization based on the integration of intangible assets in the context of digital transformation of the economy has been developed. This approach is based on a modular version of the system approach and the theory of economic integration, which together provide a transition from fragmented management to the holistic design of integration relationships in management. The author's approach allows for the consideration of intangible assets not as a disparate set, but as resources that are linked to specific organizational management modules. Human capital is concentrated in the R&D modules and creative teams, structural capital (knowledge bases, patents) is concentrated in the intellectual property management modules, and relationship capital is concentrated in the marketing and sales modules. The basic principles of integrated total intangible assets of an organization include variability, multifunctionality, cumulative effect, and resistance, which allow organizations to manage their assets not in isolation, but as integrated asset complexes, thereby improving the quality of organizational management at both the operational and

strategic levels in the context of digital transformation of the economy (Item 10 of the Scientific Specialty Passport 5.2.6. Management).

3. The strategic approach to managing the formation of harmonious configurations of an organization's total intangible assets was scientifically substantiated as a dynamic, synergistic set of interconnected and complementary intangible assets (intellectual capital, organizational, human, and other assets), the structure and properties of which ensure a sustainable competitive advantage for the enterprise and its ability to create value in the long term. Unlike existing approaches, the author's approach is based on the concept of strategic knowledge management, the construction of a matrix of selected typical strategies for the development of the information system for intangible assets of the organization (further in the text - OIAIS) (aggressive "offensive", balancing "stabilization", protective "defensive", and adaptive "niche") and their unique combination to form a balanced portfolio of strategic management decisions that ensure the sustainable development of the organization (Item 18 of the Scientific Speciality Passport 5.2.6. Management).

4. A capitalogram has been developed as a strategic management tool for integrating the organization's intangible assets in the context of digital transformation of the economy. Unlike existing tools, the capitalogram provides strategic diagnostics of business processes, external opportunities and threats, strategic goals and means of achieving them, which are concentrated in human capital, and scenario modeling, showing how changes in one management element affect other management components. The proposed tool is based on a capital platform, a digital infrastructure that provides aggregation, transactions, exchange, synergy, and cooperation of intangible assets in the management system of a modern organization, as well as an ecosystem that ensures the attraction of external intangible assets and their integration into the total capital. The use of a capital platform and ecosystem interactions allows for the effective combination of internal

and external OIA, harmonizing their management process and creating sustainable competitive advantages for a modern organization (p. 26 of the Scientific Specialty Passport 5.2.6. Management).

5. The method of fractal approach to the management of the total intangible assets of the organization, distinguished by the reliance on the Mandelbrot fractal, the possibilities of the artificial intelligence system of "Eidos++" and refined requirements for the forms of graphic representation is offered. The formats of construction of capitalogram based on the fractal approach using digital technologies: radial (solar) diagram; fractal map; dynamic system diagram; interactive digital panel; ontological map are highlighted. The author's approach allows for the visualization of complex interrelations and management models of the organization's intangible and tangible assets, the identification of the organization's vulnerabilities, and the modeling of a development strategy, which contributes to the identification of hidden patterns and the optimization of management decisions (Item 27 of the Scientific Specialization Passport 5.2.6. Management).

6. An organizational and procedural mechanism for managing the integral set of an organization's intangible assets (IS OIA) has been developed, which, unlike existing mechanisms, allows for assessing not only the value parameters of individual assets but also the systemic quality of their integration, which leads to the origination of emergent properties and sustainable competitive advantages for modern enterprises. The implementation of the author's approach is based on the Eidos++ artificial intelligence tools. The key evaluation criterion (three-level scale) is the qualitative level of systemic connections (systemic harmony) of the OIAIS based on the systemic and cognitive analysis of the organization's capitalogram.

The mechanism substantiates the existence of a correlation between a high level of systemic harmony in the OIAIS and objective market indicators of the organization's performance (market share, growth rate, and innovation activity), which ensures the potential for its adaptive application in the context of digital

transformation of the economy, where the management of intangible assets becomes a critical factor for development (Item 18 of the Scientific Specialization Passport 5.2.6. Management).

7. The author has developed and substantiated a toolkit for managing an organization based on the integration of intangible assets, which includes an algorithm for implementing artificial intelligence tools, followed by the development of controlling management. From the author's perspective, artificial intelligence serves as a tool for strengthening and formalizing the connections within the integral set of intangible assets and provides a comprehensive diagnosis of the state of the modern organization's asset system. The step-by-step algorithm not only assesses the level of asset harmony but also identifies problematic areas in management and, with the involvement of the unique competencies of human capital holders, develops management solutions for integrating selected artificial intelligence tools into the management of the OIAIS.

Management decisions are implemented within the framework of the proposed concept of controlling management, which, from the author's perspective, is an information and analytical subsystem of management that provides structured, dynamic knowledge about the state and interconnections of the elements of the system for managing the formation, development, and use of integrated assets. The functionality of controlling management is transforming from a system of accounting for the past into a system of shaping the future, where the object of management is the OIAIS – synergistic combinations of assets that generate unique competitive advantages for business structures and their long-term sustainability (paragraph 27 of the Scientific Specialization Passport 5.2.6. Management).

8. An organizational algorithm has been proposed and substantiated, with the aim of testing the management of a modern organization based on the integration of intangible assets in the context of digital transformation of the economy. Unlike existing approaches, the author's approach involves a sequence of analytical

procedures aimed at identifying explicit and implicit intangible assets using traditional and cognitive metrics, measuring the value of intangible assets, and determining the synergistic effect of their integration by identifying the integrated development potential of the organization in the form of a capitalogram. The testing of the proposed algorithm on the materials of the TMU group of companies allowed for the implementation of a growing package of high-tech projects, not by increasing individual assets, but by smart, controlled recombination of individual OIA, which is the highest form of competitive advantage in the digital economy (pp. 18, 26 of the Passport of the scientific specialty 5.2.6. Management).

Reliability and validity of the results of the study are confirmed by the use of scientific methodology, a critical summary of the achievements of domestic and foreign researchers on the topic of the dissertation, the correct choice of research methods, the analysis of representative samples of new data on the stated problem, and the testing of the author's scientific results. The work uses key relevant theoretical sources on the topic of the research. The author's theoretical positions, conclusions, and practical recommendations are supported by necessary calculations, analytical tables, and graphical interpretations.

Theoretical and practical significance of the dissertation research lies in the development of the theoretical foundations of organization management in the context of digital transformation of the economy, which includes a system of methodological approaches, tools, and algorithms for effective management based on the model of integration of intangible assets, as well as the improvement of the conceptual framework, which includes concepts related to the management of the organization's total intangible assets in the digital economy. The author's substantiated concept of organization management based on the model of integration of intangible assets allows for the resolution of the remaining theoretical issues related to the optimization of management systems in the context of digital transformation of the economy.

Approbation of the research results. The results of the dissertation research were discussed and approved at international and All-Russian scientific and practical conferences from 2009-2026 (Yekaterinburg, Krasnodar, Kursk, Moscow, Novosibirsk, Rostov-on-Don, St. Petersburg, Simferopol, Orel, etc.). The main provisions of the thesis are implemented in the activities of the TMU LLC group of companies.

Publications. Based on the results of the conducted research, 93 scientific papers have been published with a total volume of 137,53 printed pages (including 106,57 printed pages by the author), including 7 monographs, 77 scientific articles in peer-reviewed journals from the list recommended by the Higher Attestation Commission under the Ministry of Science and Higher Education of the Russian Federation for the scientific specialty of the dissertation submitted for the dissertation defense, classified as K-1 and K-2; 11 articles in journals included in the international abstract database Web of Science and Scopus. The results presented in the dissertation and presented for defense, as well as those reflected in scientific publications, were obtained by the author independently.

Structure and content of the dissertation. The dissertation consists of an introduction, 5 chapters with conclusions for each chapter, a conclusion, 10 tables, 21 figures, 17 applications, and 417 bibliographic sources.