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INNOVATION-ORGANIZATIONAL AND COMMUNICATIVE-ECONOMIC PARADIGM OF MANAGEMENT: A METHODOLOGICAL FOUNDATION FOR SUSTAINABLE DEVELOPMENT IN THE ARCHITECTURE AND CONSTRUCTION SECTOR

ІННОВАЦІЙНО-ОРГАНІЗАЦІЙНА ТА КОМУНІКАТИВНО-ЕКОНОМІЧНА ПАРАДИГМА УПРАВЛІННЯ ЯК МЕТОДОЛОГІЧНИЙ БАЗИС РОЗВИТКУ АРХІТЕКТУРНО-БУДІВЕЛЬНОЇ КОМПАНІЇ

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The article substantiates the innovative-organizational and communicative-economic management paradigm as a methodological foundation for the transformation of an architectural and construction company in the context of sustainable spatial renewal. The proposed paradigm serves as an integrated management model that combines digital technologies, adaptive organizational practices, value-oriented governance, and socially responsible stakeholder engagement. The theoretical framework of the study is formed based on the analysis of current scientific sources, which confirm the growing role of digital transformation, soft management skills, ESG approaches, and partnership cooperation in modern construction. The concept is based on seven strategic components: the innovation component, organizational flexibility, communication strategy, value-oriented management, social responsibility, economic efficiency, and the professional competence of the manager.

Keywords: innovative-organizational and communicative-economic paradigm, architectural and construction company, digital transformation, endogeneity of innovation, organizational flexibility, ESG reporting and social responsibility, value-oriented governance, professional managerial competence, sustainable urban development.

У статті обґрунтовано інноваційно-організаційну та комунікативно-економічну парадигму управління як методологічну основу трансформації архітектурно-будівельної компанії в умовах сталого просторового оновлення. Запропонована парадигма виступає як цілісна управлінська модель, що поєднує цифрові технології, адаптивні організаційні практики, ціннісно-орієнтоване управління та соціально відповідальну взаємодію зі стейкхолдерами. Теоретичний каркас дослідження сформовано на основі аналізу актуальних наукових джерел (Scopus, Web of Science), що підтверджують зростання ролі цифрової трансформації (BIM, IoT, AI), м'яких управлінських навичок, ESG-підходів та партнерської співпраці в сучасному будівництві. Концепт базується на семи стратегічних компонентах: інноваційна складова, організаційна гнучкість, комунікативна стратегія, ціннісно-орієнтоване управління, соціальна відповідальність, економічна ефективність та професійна компетентність менеджера. Запропоновано логіку поетапного впровадження кожного з компонентів, що дозволяє забезпечити стійкість трансформацій без організаційного перенавантаження. Послідовність кроків охоплює формування професійної компетентності менеджерів, впровадження інноваційних технологій, розвиток організаційної гнучкості, побудову ефективної комунікативної стратегії, ціннісно-орієнтоване управління, підвищення економічної ефективності та закріплення соціальної відповідальності. Такий підхід забезпечує стійке засвоєння змін, сприяє ефективній трансформації організації, підвищує її конкурентоспроможність і формує позитивне позиціонування на ринку як відповідального й інноваційного гравця. Впровадження запропонованої парадигми сприяє формуванню інтегрованої системи управління, яка здатна оперативно реагувати на виклики ринку та зміни у зовнішньому середовищі. Таким чином, запропонована модель є не лише інструментом модернізації, а й фундаментом для довгострокового успіху та лідерства на ринку архітектурно-будівельних послуг.

Ключові слова: інноваційно-організаційна та комунікативно-економічна парадигма, архітектурно-будівельна компанія, цифрова трансформація, ендогенність інновацій, організаційна гнучкість, ESG-звітність та соціальна відповідальність, ціннісно-орієнтоване управління, професійна компетентність менеджера, сталий урбаністичний розвиток.

Problem statement. In the current context of rapid urban transformations and a growing global emphasis on sustainability principles, architectural and construction companies face the need for a strategic rethinking of their role in shaping the built environment. In particular, the specifics of sustainable spatial renewal are giving rise to a new format of interaction between architectural and construction companies, cities, and society. Considering environmental challenges, climate change, demographic dynamics, and the increasing demand for inclusive environments, contemporary urban planning requires systemic solutions – from the integration of "green" technologies and energy efficiency to addressing the needs of vulnerable social groups through the principles of universal design. Under such conditions, companies are expected not only to build but also to contribute to the development of environments with high social capital. The transformation of market strategies, in turn, is driving companies to rethink their business models – from product-oriented to service- and value-oriented approaches. The importance of non-financial performance indicators is growing, such as ESG metrics, customer loyalty, management transparency, and social responsibility. Companies that integrate partnership ecosystems, open innovation, digital transformation, and empathetic communication with stakeholders are becoming more flexible, adaptive, and competitive within the framework of sustainable development.

In the context of rapid urban renewal, climate-related challenges, and the transformation of market strategies, there is a growing need for a new management paradigm for architectural and construction companies. The innovative-organizational and communicative-economic paradigm emerges as a timely response to contemporary demands, as it combines digital technologies, flexible management methods, social responsibility, and inclusive stakeholder engagement. This approach enables not only increased competitiveness but also adaptability to change, effective responses to new forms of urbanization, and the achievement of sustainable development goals.

Analysis of recent research and publications. Contemporary academic discourse reflects an increased focus on the transformation of architectural and construction management, particularly in the areas of digital integration, organizational flexibility, social responsibility, and human capital development. This is supported by recent publications that help define conceptual and practical guidelines for the innovative-organizational and communicative-economic paradigm. In the domain of innovation, Z. Liu and co-authors [1] reveal the potential of BIM and Smart City as a foundation for sustainable business models, while Y. Pan and L. Zhang [2] emphasize the integration of BIM, AI, and digital twins as critical tools for modern construction management. Both sources justify the necessity of digital

adaptation in architectural and construction companies as a prerequisite for competitiveness and environmental responsibility. Regarding organizational flexibility, C.-L. Scheuer et al. [3] confirm that decentralized approaches, cross-functional teams, and horizontal leadership structures enhance adaptability within complex socio-technical environments. In terms of communication strategy, P. A. Olujimi and A. Ade-Ibijola [4] draw attention to the role of NLP in creating personalized services, which improves stakeholder communication, reduces conflicts, and strengthens customer orientation. The block of value-oriented management is theoretically grounded in the works of A. Baquero [5] and M. K. Bosi et al. [6], who argue for the use of NPS, SERVQUAL indices, and ESG reporting as tools to build trust, service loyalty, and a strong corporate reputation in a post-industrial market environment. From the perspective of social responsibility, A. Sahu and colleagues [7] demonstrate a positive correlation between ESG disclosure and the implementation of green building practices, aligning with the concept of inclusive and ethical spatial development. In the area of economic efficiency, N. Faruqui and co-authors [8] showcase the application of generative AI for strategic cost optimization, while J. Zare and A. Persaud [9] assert that digital transformation underpins innovative business models in unstable environments. Regarding managerial professional competence, T. Ramaci et al. [10] confirm that psychological flexibility and emotional intelligence are key factors of leadership effectiveness during periods of transformation. This corresponds with the proposed paradigm's vision of the manager as a facilitator of change.

The central theoretical pillar is the thesis on the endogeneity of innovation – its internal emergence resulting from the development of human capital, corporate culture, and leadership practices. This idea is clearly reflected in the works of J. Costa, M. Pádua, A. C. Moreira [11]; M. N. Jotabá, C. I. Fernandes, M. Gunkel, S. Kraus [12]; and I. A. K. Maharani, A. Alfina, N. Indawati [13], which align with the concept of the knowledge economy and the logic of a paradigmatic shift in construction management.

Thus, the literature review confirms the relevance of forming a comprehensive paradigm that integrates digital technologies, organizational innovation, social metrics, and soft management competencies as the foundation for the sustainable development of architectural and construction companies.

Research methodology. This study employs a comprehensive methodology that integrates both qualitative and quantitative approaches, ensuring a thorough understanding of the innovative-organizational and communicative-economic paradigm for the development of architectural and construction companies. In particular: 1. System-structural analysis enabled the examination of the paradigm as a holistic management model by identifying its key components (innovation, flexibility, digitalization, communication, values, efficiency, CSR) and constructing the logic of their interaction within the framework of the company's strategic development. 2. Content analysis of regulatory sources and scientific publications (including EN Eurocodes, ISO 9001/14001/45001, ESG standards, and materials from the Scopus and Web of Science databases) provided methodological justification for the formulated management provisions, allowing for the adaptation of international approaches to the national context. 3. Bibliometric analysis was used to identify current scientific trends related to digital transformation, value-based management, professional competencies, and social responsibility in the construction sector. This method helped to detect interdisciplinary changes in management paradigms. 4. Comparative analysis was employed to compare Ukrainian and European practices of innovation implementation in the construction sector. This approach revealed structural gaps and outlined adaptive growth areas. 5. Expert surveys were conducted to assess the level of development of professional and leadership competencies among managers in construction-related companies. The generalization of the obtained results made it possible to construct a step-by-step implementation logic for the paradigm (Table 2). 6. The inductive-deductive approach combined the logic of moving from specific cases, practices, and scientific sources to the formulation of an integrated paradigm (induction), followed by its validation through applied adaptation to construction sector organizations (deduction). This final direction will be presented in future research.

Thus, the methodological tools of the study ensured the integration of theoretical reflection, normative analysis, and practical testing, which enhances the reliability and applied value of the developed management model.

The purpose of the study is to substantiate and structurally develop the innovative-organizational and communicative-economic

paradigm for the development of architectural and construction companies as a holistic management concept that integrates technological innovation, digital transformation, organizational flexibility, socially responsible stakeholder engagement, and value-oriented governance with the aim to enhance the company's competitiveness, its adaptability to the challenges of sustainable urban development, and its compliance with modern European standards of efficiency, inclusiveness, and environmental awareness.

Presentation of the main research material. To define the fundamental direction, it can be stated that the innovative-organizational and communicative-economic paradigm for the development of an architectural and construction company represents a holistic management model that integrates technological innovations, adaptive management solutions, and socially responsible communication. The primary goal is to ensure market competitiveness and contribute to sustainable development under conditions of social equity and environmental responsibility.

According to current theoretical approaches [11–13], a key feature of this paradigm is the endogeneity of innovation – its emergence within the organizational system as a result of the development of human capital, corporate culture, and leadership practices. This corresponds to the principles of the knowledge economy, where knowledge and competencies determine market competitiveness.

From the perspective of practical implementation, the paradigm envisions a shift from vertically hierarchical systems to flexible network-based management structures with broad engagement of partner resources – including universities, R&D centres, start-ups, and civil society organizations. A key role is played by the principle of innovation inclusivity, whereby project and organizational decisions must consider the needs of diverse social groups, focusing on universal design, green urbanism, and social justice. The need of the hour also includes expanding the company performance evaluation system through ESG indicators, social audits, and stakeholder mapping methods.

Special attention is given to the implementation of digital solutions, particularly BIM technologies, virtual modelling systems, IoT infrastructure, and artificial intelligence algorithms, which enable informed management decisions based on data. These tools ensure transparency, accuracy, and adaptability in the planning and implementation of projects – qualities that are critically important in the context of increasing complexity in urban environments [1–2].

In the context of change management, the importance of soft skills among managers is growing – particularly emotional intelligence, facilitation abilities, strategic thinking, and the capacity for delegation. These competencies enable effective communication between teams, reduce the likelihood of conflicts, and contribute to the creation of a psychologically safe environment for innovative activity [10].

The formation of sustainable leadership also involves active engagement with organizational culture. This includes not only creating a supportive environment for creativity and initiative but also implementing motivation mechanisms aligned with the value orientations of Generation Z and millennials. Interactive formats for team collaboration – such as the "Idea Factory," design thinking, and the "Six Thinking Hats" method – are becoming increasingly relevant, as they promote horizontal connections and improve the quality of collective thinking.

Equally important is the assurance of openness to feedback, which is implemented through internal systems for monitoring employee satisfaction, analysing customer experience, and conducting surveys using SERVQUAL and NPS methodologies [4]. This approach enables not only the adaptation of the management model to external demands but also the development of reputational resilience in the long term.

Thus, the innovative-organizational and communicative-economic paradigm for the development of an architectural and construction company is a comprehensive management model that integrates technological innovation, flexible organizational structures, digital transformation, and socially oriented communication with the goal of enhancing competitiveness, sustainable development, and corporate social responsibility in a dynamic market environment. The paradigm is based on the endogenous generation of innovation, the development of human capital, multi-stakeholder engagement, and value-oriented governance aimed at creating effective, inclusive, and adaptive architectural and construction solutions.

The characteristics of the core components are presented in Table 1.

Within the innovative-organizational and communicative-economic paradigm, seven interrelated components are identified that form its strategic framework. Firstly, the innovation component encompasses the implementation of modern technologies (BIM, IoT, Lean), digital design tools, and adaptive architecture oriented

Table 1

Components of the Innovative-Organizational and Communicative-Economic Management Paradigm for the Development of an Architectural and Construction Company

Paradigm component	Content / Implementation examples
Innovation component	Implementation of BIM, Lean, Smart technologies, adaptive architecture, and “Smart City” technologies
Organizational flexibility	Decentralization, cross-functional teams, “Idea Factory”, visual management
Communicative strategy	NLP, non-violent communication, customer orientation, personal sales
Value-oriented management	Focus on stakeholder needs, service loyalty, NPS and SERVQUAL indices
Corporate social responsibility (CSR)	Green construction, community engagement, ethical standards, ESG reporting
Economic efficiency	Cost optimization, resource saving, adaptive business models, digital transformation
Professional managerial competence	Motivation, psychological flexibility, conflict management, strategic thinking

Source: compiled by the authors

toward the changing life scenarios of users [1–2; 14]. Secondly, organizational flexibility is achieved through multidisciplinary teams [3; 15], visual management, the “Idea Factory” model, and a shift away from excessive centralization in favour of horizontal linkages. Thirdly, the communicative strategy involves fostering a culture of empathy, incorporating NLP techniques, applying a personalized approach to stakeholder interaction, and using non-violent communication as a standard of managerial ethics [4; 16].

The fourth core block is value-oriented management, which is grounded in client-centricity, social dialogue, and service loyalty. Its implementation requires quality monitoring through NPS, SERVQUAL, and other user interaction metrics [5–6]. The fifth component, corporate social responsibility (CSR), builds long-term social capital for the company by embedding principles of environmental sustainability, ethics, and participatory design [7]. The sixth direction is economic efficiency, which is ensured through digital business model transformation, implementation of ERP/CRM systems, and resource-saving strategies [8–9].

Finally, the professional competence of the manager is a fundamental component. It includes not only technical expertise but also soft skills such as emotional intelligence, strategic vision, the ability to facilitate change, and overcome communication barriers [10]. Within this paradigm, the manager is not merely an administrator but a leader of innovative transformation capable of uniting a team around shared values. This integrated management model enables architectural and construction companies to adapt to the challenges of sustainable spatial development and the digital realities of the 21st century.

From both theoretical and practical standpoints, special emphasis should be placed on the need for interdisciplinary thinking, which integrates architectural, engineering, social, and managerial knowledge. Companies that adopt this model demonstrate digital transparency, openness to the public, and the use of online platforms and interactive tools to ensure feedback. Innovation within this paradigm is not viewed as a one-off technological event but as a continuous process of improvement based on flexible adaptation, research, testing, and constant market feedback.

A key result of implementing this paradigm is the reorientation of the company towards long-term value – both for the client and for the community, institutional partners, and the environment. This is achieved through the use of low-carbon materials, investment in energy efficiency, and support for social integration and mobility. Against this background, the professional role of the manager also changes: they become a transformation facilitator, demonstrating leadership in complex conditions by combining systems thinking with high emotional intelligence. Such a manager is precisely the one capable of ensuring the company’s strategic breakthrough in the field of sustainable spatial development.

Several practical steps. The implementation of components of the innovation-organizational and communicative-economic paradigm should be carried out gradually, considering the strategic logic of the architectural and construction company's development. This sequence allows for creating a foundation for effective organizational transformation, avoiding system overload, and ensuring sustainable assimilation of changes.

The first step should be the formation of the manager's professional competence, since the management team itself is the driver of change. After that, it is logical to move on to the innovation component, which introduces cutting-edge technologies and creates conditions for digital transformation. The third stage should initiate organizational flexibility – through the creation of interdisciplinary teams, decentralization, and visual management tools. This lays the groundwork for an effective communication strategy, which becomes the fourth step: fostering a culture of open interaction, implementing NLP practices, and empathetic leadership. The fifth component is value-oriented management, which reinforces the sustainability of changes by focusing on the needs of clients and stakeholders. At the sixth stage, the organization implements economic efficiency – through automation, loss reduction, and business model adaptability. The final stage is social responsibility, which consolidates the company's external positioning as a responsible, ethical, and environmentally conscious player (Table 2).

Conclusions. Thus, the innovation-organizational and communicative-economic paradigm emerges as an integral managerial foundation for the transformation of an architectural and construction company in the context of sustainable spatial renewal. It combines the strategic guidelines of the knowledge economy with digital technologies, social innovations, and new formats of stakeholder interaction. A central element of this model is the endogenous generation of innovation – through the development of human capital, corporate culture, and leadership thinking.

Table 2

Logic of the phased implementation of components of the innovation-organizational and communicative-economic management paradigm for the development of an architectural and construction company

Stage	Paradigm component	Content / Examples of implementation	Mandatory actions
1.	Manager's professional competence	Motivation, strategic thinking, emotional intelligence, change facilitation	Conducting leadership training, coaching sessions, soft skills assessment, implementing individual development plans
2.	Innovation component	Implementation of BIM, Lean, Smart technologies, adaptive architecture, "Smart city" concepts	Developing a digitalization roadmap, staff training, pilot projects with new technologies
3.	Organizational flexibility	Decentralization, cross-functional teams, "Idea Factory," visual management	Introducing horizontal structures, launching the "Idea Factory," creating visual management dashboards
4.	Communication strategy	NLP, nonviolent communication, client orientation, personalized interaction	Conducting workshops on NVC/NLP, implementing communication standards, creating stakeholder maps
5.	Value-oriented management	Focus on stakeholder needs, service loyalty, NPS and SERVQUAL indices	Regular client surveys, analysis of NPS/SERVQUAL, implementation of client-centric policies
6.	Economic efficiency	Cost optimization, resource conservation, adaptive business models, digital transformation	Cost audits, implementation of ERP/CRM systems, development of efficiency KPIs, process automation
7.	Corporate social responsibility (CSR)	Green building, community involvement, ethical standards, ESG reporting	Preparation of ESG reports, environmental audits, engaging the community in projects, implementation of ethical code

Source: compiled by the authors

The practical implementation of the paradigm requires flexible organizational solutions: from network structures and decentralization to active collaboration with partners in the knowledge ecosystem – universities, research centres, and public initiatives. At the same time, key conditions for effectiveness include digital transformation, ESG monitoring tools, management transparency, the use of BIM technologies, and a focus on sustainable outcomes.

Successful adoption of this paradigm contributes to the formation of an adaptive, service-oriented company capable of responding to the demands of the modern market and society. In this model, the manager acts not only as a process coordinator but also as a change facilitator – possessing a high level of emotional intelligence, strategic vision, and the motivational ability to unite the team around the values of sustainable development.

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