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THE FORMATION OF RESILIENCE IN CONSTRUCTION ENTERPRISES UNDER DIGITAL TRANSFORMATION

Introduction. The construction industry constitutes a fundamental component of national and global economies, forming the material foundation for the development of infrastructure, housing stock, and industrial production. According to European Commission data, the construction sector in the European Union provides approximately 18 million jobs and generates nearly 9% of Gross Domestic Product (GDP). At the same time, it is characterised by high fragmentation, low productivity growth rates, and significant dependence on external shocks [1]. In the global dimension, construction ranks among the largest economic sectors; however, it remains one of the most vulnerable to crisis phenomena, particularly financial, institutional, technological, and social ones [2].

The urgency of the issue regarding the resilience of construction enterprises has increased significantly in the context of digital transformation, which is reshaping the logic of project management, supply chains, human resources, and stakeholder interaction. International studies indicate that digital technologies have the potential to reduce construction costs by 10–15%, shorten project duration by up to 20%, and decrease the number of design errors by more than 30%. Nevertheless, the actual rates of the industry's digitisation remain uneven and lower compared to other economic sectors [4]. It is precisely this factor that creates a structural gap between the potential of digital tools and the real ability of construction enterprises to adapt to transformational changes.

A further factor enhancing the scientific and practical significance of this research is the growth of systemic risks associated with global crises, the COVID-19 pandemic, geopolitical instability, disruptions in international supply chains, and a shortage of skilled labour. Analytical reports indicate that over 60% of risks in construction projects are of an inter-organisational nature and are linked to insufficient coordination among participants, weak integration of information flows, and low flexibility of management structures [4]. Under such conditions, traditional management models oriented towards stability and linear planning lose their ability to ensure the long-term viability of enterprises.

Modern researchers and practitioners view the digital transformation of the construction industry not merely as a technological upgrade, but as a profound managerial shift encompassing Building Information Modelling (BIM), digital twins, Artificial Intelligence (AI), big data analytics, automated permit systems, and platforms for inter-organisational interaction [1; 5]. In 2025, the European Commission defines the digitisation of the construction sector as a key factor in increasing competitiveness, industrial resilience, and achieving sustainable development goals [1]. However, empirical studies demonstrate that digital technologies in themselves do not guarantee enhanced resilience for construction enterprises without the appropriate institutional, organisational, and ecosystem foundations [6; 7]. Summarising this, it can be argued that the key challenge is not the «availability of technologies», but the ability to integrate them into management practices and ecosystem interaction.

Consequently, building resilience in construction enterprises in the context of digital transformation emerges as a complex scientific problem necessitating conceptualisation from the perspectives of modern management, economics, and the ecosystem approach. Accordingly, the subsequent exposition focuses on clarifying the problem field, analysing scientific approaches, and substantiating the author's model of resilience.

Problem Statement. In current conditions characterised by high turbulence, the digitalisation of the economy, and the increasing complexity of project-construction ecosystems, construction enterprises are encountering new forms of risk that cannot be adequately captured by traditional approaches to financial stability assessment. Existing resilience models typically consider individual operational aspects in a fragmented manner and fail to reflect the systemic impact of digital transformation on the ability of enterprises to adapt, transform, and maintain viability in the long term. Consequently, the problem lies in the methodological misalignment between the complexity of the digital-ecosystem environment in construction and the existing instrumentation, which predominantly captures only isolated «snapshots' of resilience.

In this regard, the scientific problem arises of conceptually rethinking the stability of construction enterprises as a multidimensional category of resilience, and of establishing the methodological foundations for ensuring it within the digital economy.

Analysis of Recent Research and Publications. In modern scientific discourse, the issue of resilience in construction enterprises is becoming increasingly intertwined with digital transformation processes. This is driven by high turbulence in the external environment, industry fragmentation, the growing complexity of project ecosystems, and an increasing reliance of performance results on digital data and technologies [1; 4; 5]. However, a review of the literature indicates that relevant studies are emerging predominantly within several relatively autonomous research streams, necessitating their further integration. Given this, it is appropriate to systematise the key directions that shape the contemporary vision of resilience in construction and to outline their limitations for the purpose of constructing an integrated model.

A significant contribution to understanding digital transformation specifically at the level of construction companies has been made in the work of R. Nyqvist, A. Peltokorpi, R. Lavikka, and A. Ainamo [6]. Based on a multi-case study, the authors demonstrate that digital transformation in construction is not merely reduced to the implementation of individual technologies but is a systemic process encompassing business models, managerial practices, and the evolution of the industry ecosystem [6; 7]. Particular attention should be paid to the identification of structural barriers to resilient digital change–such as industry fragmentation, insufficient demand from clients, and the limited influence of individual actors–which directly correlates with the problems of long-term organisational resilience in construction enterprises.

The human and leadership dimension of digital transformation in construction is explored in the study by S. Shahruddin and S. Husain [3], where the resilience of professional identity and the capacity for paradoxical leadership are viewed as critical conditions for adaptation to the digital environment. The authors show that digital transformation generates conflicting roles and requirements for specialists, and their ability to integrate these opposites determines the organisational viability and innovation potential of architectural and construction organisations [3; 11].

Technological aspects of digital transformation in the context of enhancing productivity and process reliability are investigated in works dedicated to the implementation of blockchain technologies [8] and digital twins [13]. For instance, A. Prakash and S. Ambekar [8] argue that blockchain can serve as a tool for reducing transaction risks, increasing payment transparency, and strengthening supply chain resilience, which indirectly influences the financial and operational stability of construction enterprises [8]. Conversely, C. Sun, Y. Zhang, and Q. Luo [13] emphasise the necessity of formalising maturity levels for the application of digital twins, without which digital solutions fail to provide the expected effect of project stability and manageability.

An important body of research is dedicated to leadership and the role of key ecosystem actors in digital transformation. Notably, S. Zulu and F. Khosrowshahi [9] proposed a taxonomy of digital leadership in the construction industry, demonstrating that the type of leadership behaviour directly influences the trajectory of an organisation's digital development [9]. Complementing this approach is the research by S. Kussl and A. Wald [10], which demonstrates the decisive role of clients as catalysts or inhibitors of digital innovation in the sector, thereby forming the ecosystem prerequisites for the resilience of construction enterprises [10; 1].

The direct link between digital technologies and the resilience of construction projects is empirically substantiated in the work of Z. Liu and N. Wang [12], which proves that digital technologies positively influence a project's capacity for anticipation, response, and adaptation to disruptions, and that this effect is amplified under conditions of developed relational governance [12]. This study is among the few that directly combine digital transformation with the concept of resilience in construction [12].

The Ukrainian scientific school traditionally focuses on the economic and financial stability of construction enterprises. In the works of O. Bielienkova and Yu. Antropov [15], E. Izmaylova and N. Bolila [14], as well as R. Skupskyi et al. [16], methodological approaches have been developed for diagnosing financial stability, economic security, and the anti-crisis potential of construction enterprises. Researchers G. Ryzhakova and K. Chupryna emphasise the necessity of integrating economic, managerial, and organisational criteria to enhance the coherence of managerial decisions and the resilience of project ecosystems. It has been proven that the digitalisation of managerial and operational processes forms new prerequisites for increasing the efficiency, adaptability, and long-term resilience of construction organisations [17-19].

A synthesis of the analysis results indicates that despite the existence of a significant number of studies dedicated separately to digital transformation, leadership, innovation, and financial stability, there is a lack of a holistic conceptual model for building resilience in construction enterprises that would combine technological, organisational, and ecosystem factors of digital transformation. Issues regarding the integration of digital maturity, management practices, and stakeholder interaction into a single logic for ensuring the long-term resilience of construction enterprises remain insufficiently developed, necessitating further theoretical and conceptual research in this direction.

Identification of Unresolved Aspects of the General Problem. Despite a significant body of research dedicated to the financial, operational, and investment stability of construction enterprises, issues regarding the integration of digital transformation into the system of building resilience at a conceptual level remain insufficiently addressed in modern scientific discourse. Specifically, there is a lack of elucidation regarding the relationship between digital maturity, information stability, and enterprise resilience, as well as the

adaptation of universal resilience theories to the specific characteristics of the construction industry. A distinct research gap is the absence of holistic models that would combine the internal components of enterprise resilience with the ecosystem environment of its functioning. It is precisely this aggregate of unresolved aspects that has determined the logic, structure, and content of this study.

Aim of the Study. The aim of the research is to substantiate the building of resilience in construction enterprises in the context of digital transformation through the systematisation of the evolution of scientific approaches, clarification of the essence of the category of «resilience», expansion of the system of assessment indicators, and the development of an integrated conceptual model of the relationship between digital transformation and the resilience of enterprises in the construction sector.

Results. In management theory and economics, the category of 'resilience' has undergone substantial evolution, reflecting the increasing complexity of socio-economic systems, the growth of external environmental uncertainty, and the transformation of the logic of enterprise functioning in the digital economy.

In the early stages of management science development, resilience was interpreted primarily as financial stability, associated with an enterprise's ability to maintain solvency, liquidity, and profitability within a relatively stable market environment. Within this approach, a key role was played by financial ratios, multi-factor forecasting models, and crisis management tools [14; 15; 17].

The further development of organisation theory contributed to expanding the content of resilience to an operational category, encompassing the enterprise's ability to ensure business process continuity, and adherence to schedules, quality standards, and resource constraints. In the context of construction, this meant a focus on project risk management, supply chain coordination, and the minimisation of waste in the value creation process, which was reflected in process-based and Lean-oriented approaches [4; 9].

At the strategic level, resilience began to be viewed as the enterprise's capacity for long-term development, maintaining competitive positions, and adapting to structural market changes. Within this approach, resilience is combined with dynamic capabilities, innovation potential, and strategic flexibility, which is particularly relevant for industries with high capital intensity and cyclicality, such as construction [6; 7].

Further complexity of management systems contributed to the formation of the concept of organisational resilience, which encompasses social, institutional, and behavioural aspects of enterprise functioning. In this context, the emphasis shifts to the role of leadership, organisational culture, the staff's learning ability, and the integration of conflicting requirements of digital transformation, as convincingly demonstrated in studies on leadership identities and paradoxical management in architectural and construction organisations [3; 10].

In parallel, within the concept of sustainable development, an interpretation of resilience formed as an environmental and social category linked to corporate responsibility for environmental impact, resource efficiency, and the social consequences of economic activity. For the construction industry, this implies the integration of environmental standards, facility life cycles, and ESG criteria into strategic decisions [1; 5].

In contemporary research, the transition from the perception of stability as a static condition towards the concept of resilience and adaptability is becoming increasingly widespread, reflecting the ability of enterprises to anticipate disruptions, respond effectively to them, and transform amidst change. It is in this context that digital transformation is viewed as a key factor in forming a new quality of resilience, based on data, network interactions, and integrated digital platforms.

Thus, an analysis of the evolution of the concept of 'resilience' in management theory and economics demonstrates a gradual transition from a narrow interpretation focused on financial stability to a multidimensional understanding of resilience as a dynamic capability of organisations to adapt, transform, and maintain viability amidst increasing uncertainty and environmental complexity. Each subsequent stage in the development of scientific approaches has not only expanded the scope of this category but has also integrated new managerial tools, reflecting a shift in the dominant drivers of economic development – from industrial logic to a digital-ecosystem paradigm.

In this regard, it becomes necessary to systematise the key stages in the transformation of the concept of enterprise resilience by summarising their content, chronological boundaries, and managerial emphases, whilst taking into account the specifics of the construction industry. This synthesis is presented in Table 1, which reflects the evolution of approaches to building enterprise resilience and serves as the theoretical basis for the further analysis of the resilience of construction enterprises in the context of digital transformation.

The proposed periodisation demonstrates that the contemporary understanding of construction enterprise resilience is formed at the intersection of resilience, digital transformation, and the ecosyste approach. Each subsequent stage does not negate the previous one but incorporates its instrumentation into a more complex, multidimensional managerial logic, which is characteristic of the digital economy. The periodisation of the evolution of the enterprise resilience concept allows for the conclusion that the modern understanding of resilience is formed as a result of the layering of financial, operational, strategic, organisational, environmental, and digital approaches. At the same time, universal theoretical models of resilience developed within general management theory require further concretisation taking into account industry specifics, as the conditions for

Table 1. **Stages of evolution and transformation of the concept of enterprise sustainability in management theory and economics**

Stage of evolution	Approximate period of dominance of the approach	The dominant interpretation of sustainability	Key management focus	Main tools and approaches	Importance for construction companies
I. Financial stabilization	1950s – late 1980s.	Sustainability as financial stability (solvency, liquidity, profitability)	Maintaining financial balance in a relatively stable environment	Financial ratios, multifactor models, crisis management	Ensuring financial viability in a cyclical and highly capital-intensive environment
II. Operational and process	Late 1980s – 2000s.	Sustainability as continuity of operations	Reliability of business processes and fulfillment of project commitments	Project management, Lean approaches, risk and supply chain management	Reducing losses, meeting deadlines and quality in conditions of project fragmentation
III. Strategically adaptive	Early 2000s – 2010s.	Resilience as the ability for long-term development and adaptation	Building competitive advantages and strategic flexibility	Dynamic abilities, innovative strategies, scenario planning	Adaptation to structural market changes, regulatory and technological shifts
IV. Organizational-behavioral	2010s	Sustainability as organizational viability	Leadership, culture, staff capacity for learning and change	Organizational development theories, paradoxical leadership, knowledge management	Overcoming socio-institutional barriers to digital transformation
V. Environmental and social (sustainable)	2010s – early 2020s.	Sustainability as an environmental and social responsibility	Balancing economic, environmental and social goals	LCA, ESG, sustainable construction standards, life cycle management of facilities	Reducing environmental risks and increasing public legitimacy
VI. Resilient-digital	2020s – present	Sustainability as resilience and adaptability in the digital environment	Anticipating disruptions, responding quickly, and transforming	Digital platforms, data management, BIM, digital twins, blockchain	Building digital resilience in the context of ecosystem and platform interaction

Source: summarized by the author based on [1; 9–10; 12–14, 17-20]

building and maintaining resilience vary significantly depending on the nature of the enterprise's activities. In this context, the construction industry is distinguished by a combination of project-based logic, long investment cycles, multi-level stakeholder interactions, and high risk exposure, which necessitates specific mechanisms for building resilience. Therefore, it is expedient to focus further analysis on identifying the specific features of construction enterprise resilience, particularly their vulnerability and adaptive potential in the context of digital transformation.

The resilience of construction enterprises is formed under the influence of specific industry characteristics that significantly distinguish construction activity from other economic sectors and determine special mechanisms for ensuring organisational viability. Primarily, construction has a project-based nature, manifested in the uniqueness of each facility, the temporality of organisational structures, and a high dependence of performance results on the effective coordination of numerous project participants. This functional logic increases the vulnerability of enterprises to disruptions in communications, supply, and financing, which, in turn, intensifies the requirements for resilience management systems [4; 9].

The second defining feature is long investment cycles and the high capital intensity of construction projects, which limit the strategic flexibility of enterprises and increase their sensitivity to macroeconomic, regulatory, and technological changes. Under such conditions, resilience largely depends on the ability of enterprises to forecast risks, maintain financial equilibrium, and adapt business models to changes in the external environment [14; 15; 19]. Additionally, the complexity of ensuring resilience is exacerbated by multilateral stakeholder interactions involving clients, contractors, designers, suppliers, regulatory bodies, and local communities. Modern studies confirm that the role of key actors in the industry ecosystem, particularly clients, significantly influences the trajectories of digital innovation and, consequently, the long-term resilience of construction enterprises [11; 20].

In the context of digital transformation, traditional construction risks are supplemented by digital, environmental, and regulatory challenges. Industry fragmentation, a low level of process standardisation, and the limited influence of individual companies on the ecosystem complicate the implementation of digital solutions and reduce the potential effect of innovations, as empirically confirmed in studies on the digital transformation of construction companies [6]. In this context, it is appropriate to single out the concept of digital (information) resilience of a construction enterprise, which should be understood as the organisation’s ability to ensure the continuity and adaptability of operations through the effective use of digital technologies, data management, protection of information resources, and the development of staff digital competencies.

Research on the impact of blockchain technologies, digital twins, and other Construction 4.0 tools indicates that digital solutions are capable of enhancing the transparency, manageability, and resilience of construction projects, provided they are systemically inte-

grated and the organisation achieves an appropriate level of digital maturity [8; 12; 13; 20]. At the same time, fragmented IT architecture, poor data quality, or dependence on external digital platforms can significantly reduce the overall resilience of an enterprise even with satisfactory financial results.

A generalisation of scientific approaches allows for the proposal of the following author's interpretation: Resilience of a construction enterprise is an integral, dynamic capability of an organisation to ensure the continuity and effectiveness of project-investment activity, maintain financial equilibrium, sustain operational manageability, adapt to technological, market, and regulatory changes, and transform its own business model within the digital economy. Unlike static stability, such resilience is of a resilient and adaptive nature and is formed within complex industry and digital ecosystems.

Thus, in modern conditions, the resilience of construction enterprises should be viewed as a multidimensional category combining financial, operational, strategic, organisational, and information-digital components. This necessitates the expansion of traditional approaches to resilience assessment by integrating digital and information indicators into a unified analytical system, creating a methodological foundation for the further development of integrated resilience models for construction enterprises in the context of digital transformation.

Given this, it is proposed to expand traditional approaches to resilience assessment by including indicators characterising the digital and information component, integrating them into a unified analytical system (Table 2).

Table 2. **System of indicators for assessing the sustainability of a construction enterprise in the context of digital transformation**

Component of stability	Indicator group	Main indicators
Financial sustainability	Solvency and liquidity	Current, quick and absolute liquidity ratio
	Financial independence	Autonomy ratio; long-term financial sustainability ratio
Production (operational) sustainability	Performance efficiency	Profitability of operating and general activities
	Staff resilience	Labor productivity growth; ratio of wage growth rates to productivity
	Condition of the means of production	Depreciation rate of fixed assets; growth rates of current assets and accounts receivable
Investment sustainability	Sustainability of economic growth	Reinvestment ratio; share of gross capital investment in assets
Organizational resilience	Management capacity	Stability of the management structure; level of process standardization
Information (digital) resilience	Digital infrastructure	Share of digitalized business processes; integration of BIM/ERP/PLM systems
	Data quality and security	Level of data availability; availability of cybersecurity policies; frequency of incidents
	Digital maturity	Level of use of data analytics; application of digital platforms and shared data environments
Ecosystem sustainability	Interaction with stakeholders	Degree of integration with customers, suppliers and regulators in digital environments

Source: summarized by the author based on [12; 13; 15; 16]

The proposed system of indicators allows us to move from a narrow interpretation of sustainability as financial stability to a multidimensional analytical construct that takes into account the industry specifics of construction activities, the project nature of production, the ecosystem interaction of stakeholders, and the modern challenges of digital transformation. The incorporation of the information (digital) component expands the traditional boundaries of sustainability assessment and creates the prerequisites for considering it as a dynamic, adaptive, and resilient characteristic of an enterprise.

At the same time, the multidimensionality and interdependence of individual components of sustainability make it impossible to effectively analyze them within the framework of isolated indicators. This necessitates the transition from a list of indicators to a conceptual generalization that allows reflecting the systemic logic of the formation of the sustainability of a construction enterprise in the conditions of a digital economy. That is why it is advisable to develop a conceptual model that integrates financial, operational, strategic, organizational and information-digital components into a single structural and functional system.

The proposed model of building the sustainability of a construction enterprise in the context of digital transformation is based on a systematic combination of internal components of sustainability, a digital integration circuit and an ecosystem environment of functioning. At the center of the model is the integral sustainability of the enterprise, which is formed as a result of the interaction of financial, operational, strategic, organizational and information-digital sustainability. Digital transformation acts as a cross-cutting factor that modifies all components of sustainability, ensuring the transition to data-driven management and increasing the adaptability of the enterprise. The external ecosystem circuit reflects multilateral stakeholder interactions that form both risks and opportunities for long-term development. The dynamic resilience mechanism ensures the ability of the enterprise to anticipate disturbances, effectively respond to them and transform in the context of the digital economy (Figure).

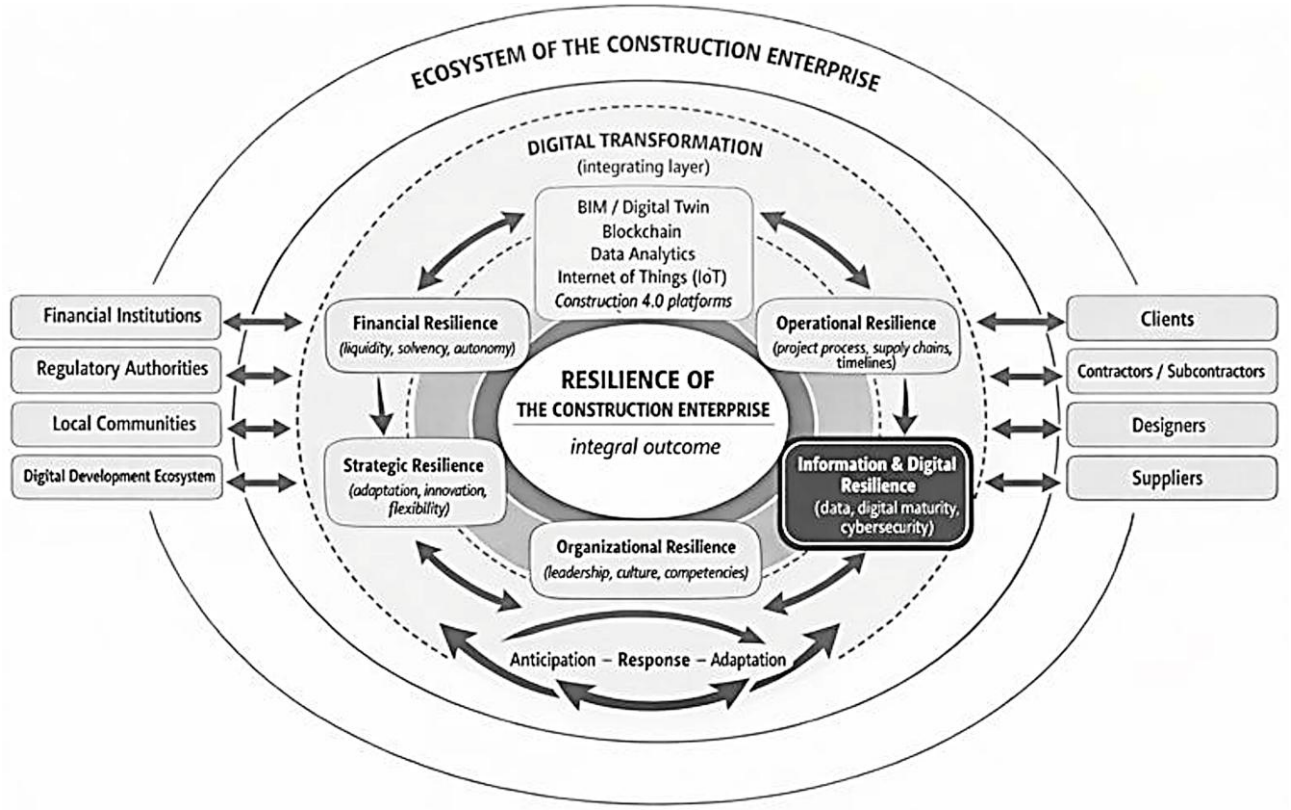

Figure. **Model of building sustainability of a construction enterprise in the context of digital transformation**
Source: generated by the author

The generalization of the research results allows us to substantiate digital transformation as a key integration mechanism for ensuring resilience and long-term adaptability of construction enterprises in a turbulent environment. Unlike the fragmented implementation of individual digital tools, digital transformation forms an end-to-end management circuit that combines the financial, operational, organizational and information subsystems of the enterprise into a single dynamic architecture. It is through digital platforms, data management systems, analytics tools and network interactions that processes are synchronized, decisions are made more transparent and information asymmetry between participants in the design and construction ecosystems is reduced.

In this context, the resilience of a construction company becomes not reactive, but proactive, as digital technologies create opportunities for early risk identification, simulation of scenarios, flexible resource reallocation and rapid adaptation of business models to changes in the regulatory, technological and market environment. Digital transformation enhances the ability of enterprises not only to recover from disruptions, but also to use crisis conditions as a source of organizational learning and innovative development.

Thus, digital transformation acts as a system-forming factor in the formation of sustainability of construction enterprises, ensuring the integration of different-level components of sustainability into a single management logic. This allows us to interpret it not as an auxiliary tool for increasing efficiency, but as a strategic basis for the long-term competitiveness, resilience and adaptability of construction enterprises in the conditions of the digital economy and growing uncertainty.

Conclusions. The article provides a theoretical and conceptual generalization of approaches to building resilience in construction companies in the context of digital transformation. The evolution of the concept of «resilience» from a financial-stabilization interpretation to a multidimensional resilient category that integrates financial, operational, strategic, organizational, ecosystemic, and information-digital components is substantiated.

The author's definition of the sustainability of a construction enterprise is proposed as an integral dynamic ability to ensure the continuity and effectiveness of project and investment activities, adaptation to external disturbances, and transformation of the business model in the digital economy.

The system of indicators for assessing sustainability has been improved by including an information (digital) component, which allows overcoming the limitations of traditional financial and economic approaches. On this basis, a conceptual model has been formed in which digital transformation acts as an integration mechanism for building resilience and long-term adaptability of construction enterprises in a turbulent environment.

Further research will be aimed at developing an integrated sustainability index for construction enterprises taking into account digital maturity and formulating applied recommendations for managing digital sustainability within construction ecosystems.

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Onofriichuk O. Formation of construction enterprise resilience in the context of digital transformation

The article examines the formation of construction enterprise resilience under conditions of digital transformation and increasing environmental turbulence. It substantiates that traditional approaches to interpreting resilience, predominantly focused on financial stability, are insufficient to explain the mechanisms of long-term viability of construction enterprises in a digitally transformed economy. Based on a synthesis of academic sources, the evolution of the resilience concept is systematised–from financial-stabilisation and operational–process approaches to strategic–adaptive, organisational–behavioural, environmental–social, and resilience-oriented digital models. It is demonstrated that the construction industry is characterised by a combination of project-based operational logic, long investment cycles, high capital intensity, multi-level stakeholder interactions, and elevated risk exposure, which determines specific mechanisms for resilience formation. Construction enterprise resilience is defined as an integral, dynamic capability to ensure continuity and effectiveness of project–investment activities, maintain financial equilibrium, sustain operational controllability, adapt to technological, market, and regulatory changes, and transform the business model within the digital economy. The system of resilience assessment indicators is expanded by incorporating informational (digital) and ecosystem components, which helps to overcome the limitations of isolated financial and economic indicators. A model of construction enterprise resilience formation is developed, in which digital transformation is viewed as a cross-cutting integrative mechanism for ensuring resilience and long-term adaptability in a turbulent environment. It is argued that digital platforms, data management, and networked interactions form the basis for a shift from reactive to proactive resilience management models. The results obtained provide a theoretical and methodological foundation for further applied research into digital maturity and integrated resilience assessment of construction enterprises.

Keywords: construction enterprise resilience, digital transformation, resilience, digital maturity, ecosystem approach, risk management, information resilience, adaptability, construction industry.

Онофрійчук О. П. Формування стійкості будівельних підприємств в умовах цифрової трансформації

У статті здійснено дослідження формування стійкості будівельних підприємств в умовах цифрової трансформації та зростаючої турбулентності зовнішнього середовища. Обґрунтовано, що традиційні підходи до трактування стійкості, зосереджені переважно на фінансовій стабільності, є недостатніми для пояснення механізмів довгострокової життєздатності будівельних підприємств у цифрово трансформованій економіці. На основі узагальнення наукових джерел систематизовано еволюцію концепції стійкості – від фінансово-стабілізаційних та операційно-процесних підходів до стратегічно-адаптивних, організаційно-поведінкових, еколого-соціальних і резильєнтно-цифрових моделей. Доведено, що будівельна галузь характеризується поєднанням проєктної логіки діяльності, тривалих інвестиційних циклів, високої капіталомісткості, багаторівневих стейкхолдерських взаємодій та підвищеного ризиконавантаження, що зумовлює специфічні механізми формування стійкості. Визначено стійкість будівельного підприємства як інтегральної, динамічної здатності забезпечувати безперервність і результативність проєктно-інвестиційної діяльності, зберігати фінансову рівновагу, підтримувати операційну керованість, адаптуватися до технологічних, ринкових і регуляторних змін та трансформувати бізнес-модель в умовах цифрової економіки. Розширено систему показників оцінювання стійкості шляхом включення інформаційної (цифрової) та екосистемної складових, що дозволяє подолати обмеженість ізольованих фінансово-економічних індикаторів. Розроблено модель формування стійкості будівельного підприємства, у якій цифрова трансформація розглядається як наскрізний інтеграційний механізм забезпечення резильєнтності та довгострокової адаптивності в турбулентному середовищі. Обґрунтовано, що цифрові платформи, управління даними та мережеві взаємодії формують основу переходу від реактивних до проактивних моделей управління стійкістю. Отримані результати створюють теоретико-методологічне підґрунтя для подальших прикладних досліджень цифрової зрілості та інтегральної оцінки стійкості будівельних підприємств.

Ключові слова: стійкість будівельних підприємств, цифрова трансформація, резильєнтність, цифрова зрілість, екосистемний підхід, управління ризиками, інформаційна стійкість, адаптивність, будівельна галузь.