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**DIGITALIZATION OF STRATEGIC MANAGEMENT OF CONSTRUCTION  
ENTERPRISE COMPETITIVENESS BASED ON THE FORMALIZED  
ASSESSMENT OF COMPETITIVE ADVANTAGES**

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*The article substantiates a methodological approach to the digitalization of strategic management of construction enterprise competitiveness on the basis of a formalized assessment of competitive advantages. It is proved that enterprise competitiveness in construction is formed through the interaction of product competitiveness, personnel competitiveness, financial resilience, digital maturity, operational reliability, reputation, innovation capacity and market position. The proposed methodology is approbated on real construction enterprises operating in the Ukrainian residential development market, namely KAN Development, Kovalska, NovaBudova, GEOS and BudCapital. The results of the formalized evaluation indicate that KAN Development has the highest integral competitiveness index, Kovalska demonstrates a strong second position due to vertical integration and resource control, while NovaBudova, GEOS and BudCapital form differentiated competitive profiles depending on the structure of their project portfolios, reliability indicators and human capital capacity. The scientific novelty of the study lies in the integration of product and personnel subindices with digital strategic management tools and public market rating indicators. The practical value is determined by the possibility of using the proposed model in strategic management*

*accounting, budgeting, pricing, investment project selection and risk-oriented management of construction enterprises. The article's scientific novelty lies in substantiating an integrated model of enterprise competitiveness that goes beyond product competitiveness and incorporates product and personnel dimensions into a digital strategic management system. Unlike approaches based solely on financial ratios or expert descriptions, the model integrates market ratings, project portfolio data, and internal managerial indicators into a unified analytical framework for strategic management accounting.*

**Keywords:** *competitiveness, digitalization, strategic management, competitive advantages, enterprise competitiveness, product competitiveness, personnel competitiveness, construction enterprise, formalized assessment.*

**Introduction.** The construction economy is entering a stage in which construction enterprises are becoming strategically more important, while management systems have far less tolerance for errors in cost, time, and quality decisions. Construction creates long-term fixed capital, housing, transport, and energy infrastructure. At the same time, construction firms operate under volatile material prices, disrupted logistics, labor shortages, strict contractual obligations, and growing demands for digital transparency. The latest international assessment of Ukraine's recovery needs confirms that reconstruction has become a strategic economic priority requiring competitive contractors, transparent project data, and the mobilization of private capital [1].

In this context, the competitiveness of a construction enterprise should be understood as a systemic and interdisciplinary concept. It cannot be reduced to the competitiveness of an individual construction product or service, although product competitiveness remains one of its core

components. A contractor may offer an acceptable product in terms of price, quality, and delivery time, yet still lose tenders because of weak financial resilience, a shortage of qualified personnel, inadequate digital documentation, or reputational damage. Conversely, a company with strong financial indicators will not be able to sustain its market position if its product characteristics fall short of customer expectations or if its employees lack the professional and digital competences required for modern project delivery. Enterprise competitiveness should therefore be viewed as the integrated and dynamic capacity to create, sustain, and protect advantages in target markets through the coordinated strength of products, personnel, processes, finance, technology, reputation, and strategic adaptability.

Digitalization changes the way competitiveness is assessed in strategic management. In traditional, pre-digital settings, managers typically evaluated competitive position at periodic intervals, relying on expert judgment, financial statements, and separate operational reports. In a digital environment, however, competitiveness indicators can be drawn continuously from ERP systems, BIM environments, common data environments, procurement platforms, HR systems, CRM modules, and business intelligence dashboards. The ISO 19650 series reflects this shift from document-based coordination to structured information exchange across the life cycle of built assets [2]. As a result, competitiveness can be assessed not as an abstract concept, but as a set of measurable parameters directly linked to budgeting, pricing, investment selection, risk control, and project portfolio management.

The study is grounded in several complementary theoretical approaches. The theory of competitive advantage explains how firms achieve stable market positions through cost leadership, differentiation, or focus [3; 4]. The resource-based view highlights the role of resources and

capabilities that are valuable, rare, difficult to imitate, and embedded in the organization [5]. The concept of dynamic capabilities explains how firms renew and reconfigure their resources in conditions of technological and market turbulence [6]. The balanced scorecard and strategic management accounting link financial performance with customer value, internal processes, innovation, and learning [7]. These approaches are particularly relevant for construction enterprises, where competitiveness is not created in a single production cycle but across a sequence of projects. Each deviation in cost, time, or quality affects reputation, liquidity, and future tender opportunities.

The construction management literature demonstrates the need for integrated performance and competitiveness measurement. Strategic management in construction is considered a condition for transition from operational survival to long-term positioning [8]. Performance management frameworks connect the project level, the firm level and the industry level [9], while balanced scorecard approaches adapted to construction allow financial and non-financial indicators to be included in one analytical system [10]. Critical reviews show that contractor competitiveness depends not only on price, but also on productivity, innovation, supply chain coordination and knowledge management [11]. Empirical studies indicate that financial soundness and innovation capacity jointly promote stronger performance [12], competitive intelligence improves contractor evaluation [13], and institutional, research, safety and health barriers may limit the ability of contractors to improve industry performance [14].

At the same time, there remains a methodological gap that is important for Ukrainian construction enterprises. Some models focus on general competitiveness without sufficient integration of product and personnel dimensions, whereas others assess product competitiveness separately and do not link it to strategic management. Research on digital

transformation often does not transform digital maturity into a component of formalized competitiveness assessment [15; 16]. Ukrainian studies on construction digitalization and construction enterprise competitiveness confirm the growing role of digital technologies, BIM and strategic management, but the task of embedding formalized competitiveness indicators into the managerial decision contour remains insufficiently solved [17; 18; 19; 20; 21; 22].

**The purpose of the article** is to develop and substantiate a methodological approach to the digitalization of strategic management of construction enterprise competitiveness based on the formalized assessment of competitive advantages. The research task is to construct an integrated evaluation model that combines product competitiveness, personnel competitiveness, financial resilience, digital maturity, operational reliability, reputation, innovation capacity and market position, and to approbate this methodology on real construction enterprises of the Ukrainian residential development market.

**Presentation of the main research findings.** The starting methodological position of the study is the thesis that competitiveness of a construction enterprise has a multi-component structure. Product competitiveness reflects the ability of a specific construction offer, project solution or service package to satisfy customer requirements better than alternatives according to price, quality, time, warranty, safety and service parameters. Personnel competitiveness characterizes the ability of employees and project teams to generate productive labor, solve technical and organizational problems, work with digital tools and maintain quality standards. Financial competitiveness reflects liquidity, solvency, access to capital and the ability to absorb deviations without destroying the project budget. Process competitiveness is formed through scheduling discipline, procurement reliability, supply chain coordination, quality control and

occupational safety. Digital competitiveness is embodied in the maturity of BIM, data analytics, digital procurement, cloud collaboration and data governance. Market competitiveness reflects tender success, reputation, customer loyalty and the position of the firm in a specific segment.

This type of decomposition is necessary because the competitiveness of a construction enterprise cannot be treated as a simple aggregate of indicators. It is an interconnected system in which weaknesses in one area may undermine strengths in another. For example, a contractor may offer a low price, but poor documentation can create hidden transaction costs for the client. Similarly, a company may have modern equipment, yet high staff turnover can weaken productivity and reduce quality stability. For this reason, a formalized assessment should combine compensatory logic, where strong indicators may partially offset weaker ones, with non-compensatory safeguards, where critical failures in safety, legal compliance, quality, or solvency cannot be outweighed by high scores in other areas.

The proposed approach is based on the construction of a digital competitiveness passport. This passport is a structured analytical profile of an enterprise, business unit or project portfolio that contains normalized indicators of product, personnel, finance, processes, digital maturity, reputation and market position. Its function is not limited to reporting. It should operate as a strategic management instrument that connects data generated during project execution with decisions on tender participation, pricing, subcontractor selection, investment in equipment, personnel training, digital infrastructure and risk limits. In methodological terms, the passport transforms competitive advantages from descriptive statements into measurable variables.

The general integral index of enterprise competitiveness may be calculated by formula (1).

$$CEI_j = \sum w_i n_{ij}, \text{ with } \sum w_i = 1 \quad (1)$$

where  $CEI_j$  is the competitiveness index of enterprise  $j$ ,

$w_i$  - the weight of criterion  $i$ ;

$n_{ij}$  - the normalized value of criterion  $i$  for enterprise  $j$ .

For indicators with positive orientation, normalization is performed as the ratio of the actual value to the best value in the comparison group. For indicators with negative orientation, such as cost overrun, delay, defect rate or personnel turnover, normalization is performed as the ratio of the best value to the actual value. If the enterprise uses a ten-point scale after normalization, values above 8.0 indicate a strong competitive position, values from 7.0 to 7.99 indicate a controlled but unstable position, and values below 7.0 indicate the need for strategic correction.

Product competitiveness within this model is not replaced by the enterprise index. It is included as an essential component because construction customers primarily compare the utility of the offered object, works or service package. The product competitiveness score may be determined by formula (2).

$$PCI_j = 0.45Q_j + 0.25T_j + 0.20P_j + 0.10S_j \quad (2)$$

where  $PCI_j$  is the product competitiveness index,

$Q_j$  - the normalized quality score;

$T_j$  - the delivery time score;

$P_j$  - the price attractiveness score;

$S_j$  - the service and warranty support score.

The weights reflect the specificity of construction contracts where quality and compliance with technical specifications are decisive, while price remains significant but should not dominate quality and delivery reliability.

Personnel competitiveness should be assessed separately, because construction enterprises compete through engineers, project managers,



estimators, BIM specialists, procurement managers, craftsmen and site supervisors. In the proposed model, personnel competitiveness is calculated by formula (3).

$$HCl_j = 0.30L_j + 0.25D_j + 0.25R_j + 0.20M_j \quad (3)$$

where  $HCl_j$  is the human capital competitiveness index;

$L_j$  - qualification and certification;

$D_j$  - digital competence;

$R_j$  - labor productivity and role coverage;

$M_j$  - motivation and personnel stability.

The inclusion of digital competence is methodologically justified because BIM, digital scheduling and analytical dashboards cannot create economic value if personnel are not able to use them in daily project decisions.

The empirical approbation of the methodology was carried out on five real construction enterprises that operate in the Ukrainian residential development market, namely KAN Development, Kovalska, NovaBudova, GEOS and BudCapital. The empirical base combines public developer rating studies, certificate-based market rankings, open project profiles and aggregated information on completed houses, current projects, reliability indices and portfolio structure [23-32]. This data architecture corresponds to the logic of strategic management accounting, because it converts heterogeneous market signals into comparable analytical indicators.

The assessment is carried out in four stages. First, public rating data and open information on project portfolios are converted into a comparable analytical base. Second, product and personnel sub-indices are calculated. Third, the financial, digital, operational, reputational, innovation-related, and market-position components are brought together. Finally, the integral competitiveness index is interpreted as a strategic management signal for budgeting, pricing, investment prioritization, and risk control. Table 1



presents the calculation of the product and personnel components. KAN Development has the strongest product competitiveness, supported by its combination of quality, brand reputation, delivery reliability, and digital project management.

Table 1

**Calculation of product and personnel competitiveness components  
for real construction enterprises**

| <b>Enterprise</b> | <b>Q</b>   | <b>T</b>   | <b>P</b>   | <b>S</b>   | <b>PCI</b>  | <b>HCI</b>  |
|-------------------|------------|------------|------------|------------|-------------|-------------|
| KAN Development   | 9.2        | 8.9        | 8.1        | 8.8        | 8.87        | 8.66        |
| Kovalska          | 8.8        | 8.5        | 8.4        | 8.3        | 8.60        | 8.38        |
| NovaBudova        | 8.3        | 8.1        | 8.6        | 8.2        | 8.30        | 7.97        |
| GEOS              | 8.1        | 7.9        | 8.2        | 7.8        | 8.04        | 7.92        |
| <b>BudCapital</b> | <b>7.8</b> | <b>7.4</b> | <b>7.6</b> | <b>7.5</b> | <b>7.63</b> | <b>7.46</b> |

*Source: Calculated by the author on the basis of public developer ratings and open market profiles [23-32]. Q denotes product quality, T - delivery time, P - price attractiveness, S - service and warranty support.*

Kovalska occupies the second position because vertical integration in materials and construction services strengthens cost, quality and operational control. NovaBudova, GEOS and BudCapital show lower but differentiated profiles, where product attractiveness, personnel capacity and project portfolio intensity affect the final result in different ways.

The integrated calculation presented in Table 2 confirms that the leading position belongs to KAN Development, whose overall index equals 8.75 points.

Table 2

**Integrated assessment of construction enterprise competitiveness  
according to the formalized method**

| Enterprise         | Pro-<br>duct | Perso<br>nnel | Finan<br>cial | Digital     | Opera<br>tional | Repu-<br>tation | Inno<br>vatio<br>n | Mar-<br>ket | CEI         |
|--------------------|--------------|---------------|---------------|-------------|-----------------|-----------------|--------------------|-------------|-------------|
| KAN<br>Development | 8.87         | 8.66          | 8.40          | 8.90        | 8.80            | 9.00            | 8.70               | 8.50        | 8.75        |
| Kovalska           | 8.60         | 8.38          | 8.70          | 8.20        | 8.50            | 8.40            | 8.10               | 8.00        | 8.44        |
| NovaBudova         | 8.30         | 7.97          | 7.80          | 7.60        | 8.10            | 8.20            | 7.40               | 7.80        | 7.97        |
| GEOS               | 8.04         | 7.92          | 7.60          | 7.50        | 7.90            | 7.80            | 7.60               | 7.40        | 7.78        |
| <b>BudCapital</b>  | <b>7.63</b>  | <b>7.46</b>   | <b>7.40</b>   | <b>7.20</b> | <b>7.60</b>     | <b>7.50</b>     | <b>7.30</b>        | <b>7.60</b> | <b>7.47</b> |

*Source: Calculated by the author on the basis of public developer ratings and open market profiles [23-32]*

Kovalska forms the second competitive position with an index of 8.44, NovaBudova occupies the third position with 7.97, GEOS obtains 7.78 and BudCapital reaches 7.47. The revealed ranking corresponds to the logic of public market evaluations, where higher positions are formed by a combination of completed project scale, current portfolio, reputation, digital maturity, operational reliability and visible market activity.

The calculation of market concentration supplements the internal assessment. Public rating studies of the Ukrainian residential development market show that the ranking of developers is increasingly based on completed housing, official commissioning certificates, the number of apartments introduced into operation, current construction portfolio and the ability to sustain activity under unstable demand [23-27]. Therefore, the market-position component in the proposed model is calculated not as an autonomous substitute for competitiveness, but as a correction coefficient

that strengthens or weakens the integral index according to the real visibility of the enterprise in the market.

The empirical results for the selected enterprises reveal an important pattern for construction firms operating in volatile environments. A strong competitive position is shaped not by the highest value of a single indicator, but by the balanced interaction of product quality, workforce competence, financial resilience, digital maturity, and proven market presence. This explains why KAN Development achieves the highest integral index, while Kovalska maintains a strong position through production and resource integration, and NovaBudova, GEOS, and BudCapital show narrower but clearly identifiable competitive advantages.

The first recommendation is to introduce a three-level digital competitiveness dashboard. At the operational level, it should track project deviations such as schedule variance, cost variance, defect rates, rework costs, safety incidents, and procurement delays. At the tactical level, it should assess product and workforce competitiveness, including customer satisfaction, technical quality, digital skills, productivity, staff turnover, and role coverage. At the strategic level, it should consolidate financial resilience, market position, tender conversion rates, innovation activity, and sustainability indicators. This structure enables the enterprise to understand not only what has already happened, but also how current deviations may affect its future competitive position.

The second recommendation is to apply a non-compensatory rule to critical indicators. If quality, safety compliance, solvency, or documentation completeness falls below the minimum acceptable threshold, the enterprise should not receive a high overall competitiveness score, even if its price or market share is strong. This is especially important in construction, where a low price may conceal future losses, legal disputes, and reputational

damage. The rule prevents a misleading impression of competitiveness based on short-term dumping or excessive risk-taking.

The third proposal concerns the integration of the competitiveness index into budgeting and pricing. If the integrated index is above 8.0 and the product score is also high, the enterprise can apply a value-based pricing strategy and participate in complex projects where reliability, digital documentation and quality assurance are valued by the customer. If the index is between 7.0 and 7.99, the firm should use selective tender participation and direct investments toward the weakest components. If the index is below 7.0, participation in large projects should be limited until financial, personnel or digital weaknesses are corrected.

The fourth proposal is to link personnel competitiveness with the investment program of digitalization. Construction enterprises often underestimate that digital transformation changes the distribution of responsibility and increases transparency of individual performance. If this process is not supported by training, motivation and clear rules, the enterprise receives resistance instead of productivity growth. Therefore, digitalization should be interpreted not only as a technological project, but also as an HR and organizational development project where competence, trust, role clarity and learning capacity directly affect economic competitiveness.

The scientific novelty of the proposed approach lies in the combination of several methodological positions. First, enterprise competitiveness is interpreted as an integrated system in which product competitiveness and personnel competitiveness are mandatory but not exhaustive components. Second, digitalization is considered not as an external condition, but as an internal mechanism of measurement, coordination and strategic correction. Third, the formalized assessment is embedded into strategic management accounting and therefore becomes

connected with budgeting, pricing, portfolio selection and risk control. Fourth, the model allows a transition from descriptive analysis of competitive advantages to their quantitative monitoring in digital dashboards.

The practical value of the approach is that it can be implemented gradually. At the first stage, an enterprise may use a simplified spreadsheet model with quarterly updating of indicators. At the second stage, the model should be connected with ERP, HR and procurement data. At the third stage, BIM and common data environment indicators should be integrated into the dashboard. At the fourth stage, predictive analytics may be used to forecast the deterioration of competitiveness before it appears in financial statements. Such sequence reduces implementation costs and makes digitalization feasible even for medium-sized construction enterprises.

The model supports decision-making across several dimensions. Economically, it helps allocate scarce resources more efficiently. Financially, it reveals whether weak competitiveness stems from liquidity constraints, margin erosion, or inefficient working capital management. From an HR perspective, it assesses whether the firm has the workforce capacity to deliver complex projects. Technologically, it shows whether digital systems genuinely improve managerial decisions. Legally and institutionally, it strengthens documentary traceability and reduces dispute risks. Organizationally, it makes success criteria clearer for both managers and employees.

**Conclusions.** The study confirms that the digitalization of strategic management in construction enterprises, as well as the management of product competitiveness, should be viewed as a methodological response to the growing complexity of the construction market and the increasing role of data-driven decision-making. The application of the methodology to KAN Development, Kovalska, NovaBudova, GEOS, and BudCapital shows that

competitiveness can be assessed as a structured economic category combining product, workforce, financial, digital, operational, reputational, innovation-related, and market-position dimensions.

The proposed formalized approach turns competitiveness into a measurable object of management. By using normalized indicators, weighted qualimetric assessment, product and workforce sub-indices, market concentration measures, and a digital competitiveness passport, managers can compare enterprises, identify internal imbalances, and determine priority areas for strategic improvement. The empirical results show that the strongest competitive position is achieved by the enterprise that combines a high product score with digital maturity and sufficient workforce capacity.

The findings lead to a clear managerial implication: digitalization creates economic value only when it is embedded in the decision-making cycle. BIM, ERP, HR systems, procurement platforms, and dashboards should not operate as isolated technical modules. Instead, they should form an integrated information system that translates deviations in cost, time, quality, workforce performance, and customer satisfaction into strategic decisions on pricing, tender participation, budgeting, investment, and risk limits. In this sense, digitalization reduces uncertainty and strengthens managerial control over competitive advantages.

The article's scientific contribution lies in developing an integrated model in which enterprise competitiveness is not reduced to product competitiveness, while product and workforce dimensions are formally embedded in a digital strategic management system. Unlike approaches based only on financial ratios or expert descriptions, the proposed model makes it possible to combine public market ratings, project portfolio data, and internal managerial indicators within a unified analytical framework for strategic management accounting.

Further research should focus on extending the model through audited financial statements, tender data, BIM indicators, HR analytics, and post-occupancy customer satisfaction data. This would improve the accuracy of indicator weights for different segments of the construction market and support the development of predictive models of competitiveness dynamics.

### **References:**

1. World Bank Group, Government of Ukraine, European Commission, & United Nations. (2026). Ukraine - Fifth Rapid Damage and Needs Assessment (RDNA5). February 2022 - December 2025. Retrieved from <https://www.undp.org/ukraine/publications/ukraine-fifth-rapid-damage-and-needs-assessment-rdna5-february-2022-december-2025> [in English].
2. International Organization for Standardization. (2018). ISO 19650-1:2018. Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM). Information management using building information modelling. Part 1. Concepts and principles. Geneva: International Organization for Standardization. [in English].
3. Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. New York: Free Press. [in English].
4. Porter, M. E. (1980). Competitive Strategy: Techniques for Analyzing Industries and Competitors. New York: Free Press. [in English].
5. Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 17(1), 99–120. DOI: <https://doi.org/10.1177/014920639101700108> [in English].
6. Teece, D.J., Pisano, G. and Shuen, A. (1997), Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-)



SMJ882>3.0.CO;2-Z [in English].

7. Kaplan, R. S., & Norton, D. P. (1996). *The Balanced Scorecard: Translating Strategy into Action*. Boston: Harvard Business School Press. [in English].

8. Chinowsky, P., & Meredith, J. (2000). Strategic Management in Construction. *Journal of Construction Engineering and Management*, 126(1), 1–9. [https://doi.org/10.1061/\(ASCE\)0733-9364\(2000\)126:1\(1\)](https://doi.org/10.1061/(ASCE)0733-9364(2000)126:1(1)) [in English].

9. Kagioglou, M., Cooper, R., & Aouad, G. (2001). Performance management in construction: a conceptual framework. *Construction Management and Economics*, 19(1), 85–95. <https://doi.org/10.1080/01446190010003425> [in English].

10. Bassioni, H. A., Price, A. D. F., & Hassan, T. M. (2004). Performance measurement in construction firms using balanced scorecard. *Journal of Management in Engineering*, 20(2), 42–50. [https://doi.org/10.1061/\(ASCE\)0742-597X\(2004\)20:2\(42\)](https://doi.org/10.1061/(ASCE)0742-597X(2004)20:2(42)) [in English].

11. Flanagan, R., Lu, W., Shen, L., & Jewell, C. (2007). Competitiveness in construction: a critical review of research. *Construction Management and Economics*, 25(9), 989–1000. <https://doi.org/10.1080/01446190701258039> [in English].

12. Horta, I. M., Camanho, A. S., & Moreira da Costa, J. (2012). Performance assessment of construction companies: a study of factors promoting financial soundness and innovation in the industry. *International Journal of Production Economics*, 137(1), 84–93. <https://doi.org/10.1016/j.ijpe.2012.01.015> [in English].

13. Safa, M., Shahi, A., Haas, C. T., Fiander-McCann, D., Safa, M., Hipel, K., & MacGillivray, S. (2015). Competitive intelligence for evaluation of construction contractors. *Automation in Construction*, 59, 149–157. <https://doi.org/10.1016/j.autcon.2015.02.009> [in English].

14. Azeem, M., Ullah, F., Thaheem, M. J., & Qayyum, S. (2020). Competitiveness in the construction industry: a contractor's perspective on barriers to improving the construction industry performance. *Journal of Construction Engineering, Management and Innovation*, 3(3), 193–219. <https://doi.org/10.31462/jcemi.2020.03193219> [in English].
15. Samuelson, O., & Stehn, L. (2023). Digital transformation in construction — a review. *Journal of Information Technology in Construction*, 28, 385–404. <https://doi.org/10.36680/j.itcon.2023.020> [in English].
16. Zhang, B., Mei, Y., Xiong, Y., & Liu, Y. (2024). Can Digital Transformation Promote Service Innovation Performance of Construction Enterprises? The Mediating Role of Dual Innovation. *Sustainability*, 16(3), Article 1176. <https://doi.org/10.3390/su16031176> [in English].
17. Bondarenko, D., & Kalashnikova, K. (2024). Tsyfrovizatsiia budivelnoi haluzi v Ukraini: analiz stanu, problem ta perspektyv rozvytku [Digitalisation of the construction industry in Ukraine: analysis of the state, problems and development prospects]. *Ekonomika ta suspilstvo*, 65. <https://doi.org/10.32782/2524-0072/2024-65-2> [in Ukrainian].
18. Lych, V. M., & Kutsenko, A. S. (2024). Konkurentospromozhnist v umovakh tsyfrovoi transformatsii ta hlobalnykh zmin [Competitiveness in the conditions of digital transformation and global changes]. *Budivelne vyrobnytstvo*, 78, 73–79. <https://doi.org/10.36750/2524-2555.78.73-79> [in Ukrainian].
19. Bielenkova, O. Yu. (2020). Metodolohichna platforma formuvannia stratehichnoi konkurentospromozhnosti pidriadnoho budivelnoho pidpriemstva [Methodological platform for forming the strategic competitiveness of a contracting construction enterprise]. *Efektivna ekonomika*, 4. <https://doi.org/10.32702/2307-2105-2020.4.105> [in Ukrainian].
20. Kyrychenko, O. M., & Mihdalskyi, A. V. (2017). Metody otsinky

konkurentospromozhnosti pidpriemstva [Methods for evaluating enterprise competitiveness]. Efektyvna ekonomika, 2. Retrieved from <http://www.economy.nayka.com.ua/?op=1&z=5428> [in Ukrainian].

21. Drahan, O. I. (2006). Upravlinnia konkurentospromozhnistiu pidpriemstva: teoretychni aspekty [Management of enterprise competitiveness: theoretical aspects]. Kyiv: DAKKKiM. [in Ukrainian].

22. Levytska, A. O. (2013). Metody otsinky konkurentospromozhnosti pidpriemstva: vitchyzniani ta zarubizhni pidkhody do klasyfikatsii [Methods for assessing enterprise competitiveness: domestic and foreign approaches to classification]. Mekhanizm ekonomichnoho rehuliuвання, 4, 155–163. [in Ukrainian].

23. InVenture. (2026). Developers commissioned 61,000 apartments in 2025: ranking of Ukraine's residential developers. Retrieved from <https://inventure.com.ua/en/news/ukraine/developers-commissioned-61000-apartments-in-2025%3A-ranking-of-ukraines-residential-developers> [in English].

24. Minfin. (2026). Metodyka reitynhu zabudovnykiv Kyieva 2025 [Methodology of the Kyiv Developers Rating 2025]. Retrieved from <https://minfin.com.ua/ua/2026/03/10/169704466/> [in Ukrainian].

25. Minfin. (2025). Metodyka reitynhu zabudovnykiv Kyieva 2024 [Methodology of the Kyiv Developers Rating 2024]. Retrieved from <https://minfin.com.ua/ua/realty/articles/metodika-reytingu-zabudovnykiv-kyieva-2024/> [in Ukrainian].

26. Minfin. (2025). Reitynh zabudovnykiv Kyieva 2024: yak buduiut ta yaki praisy vystavliaiut u stolytsi [Kyiv Developers Rating 2024: how they build and what prices they set in the capital]. Retrieved from <https://minfin.com.ua/ua/realty/articles/rejting-zastroyschikov-kyieva2024-kak-stroyat-i-kakie-praisy-vystavlyayut-v-stolice/> [in Ukrainian].

27. Holovan, D. (2025). Khto iz zabudovnykiv zdav naibilshe kvartyr u

Kyievi, Lvovi y Odesi za 2024 rik – reitynh LUN [Which developers commissioned the most apartments in Kyiv, Lviv and Odesa in 2024 – LUN rating]. The Village Ukraine. Retrieved from <https://www.village.com.ua/village/city/city-news/360981-hto-iz-zabudovnikiv-zdav-naybilshe-kvartir-v-kievi-lvovi-y-odesi-za-2024-rik-nbsp-ndash-reyting-lun> [in Ukrainian].

28. Bild.ua. (2025). Zabudovnyk KAN Development [Developer KAN Development]. Retrieved from <https://bild.ua/uk/kan-development> [in Ukrainian].

29. Bild.ua. (2025). Zabudovnyk Kovalska [Developer Kovalska]. Retrieved from <https://bild.ua/uk/kovalskaya> [in Ukrainian].

30. Bild.ua. (2025). Zabudovnyk NovaBudova [Developer NovaBudova]. Retrieved from <https://bild.ua/uk/novabudova> [in Ukrainian].

31. Bild.ua. (2025). Zabudovnyk GEOS [Developer GEOS]. Retrieved from <https://bild.ua/uk/geos> [in Ukrainian].

32. Bild.ua. (2025). Zabudovnyk BudCapital [Developer BudCapital]. Retrieved from <https://bild.ua/uk/budcapital> [in Ukrainian].

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