УДК 005.8:004.8
DOI: 10.31673/2415-8089.2026.012301

Kriskun Ivan
Postgraduate student
"KROK" University of Economics and Law

MODEL FOR EVALUATING THE EFFECTIVENESS OF IT PROJECT MANAGEMENT USING ARTIFICIAL INTELLIGENCE

The article substantiates the necessity of rethinking approaches to evaluating the effectiveness of IT project management in the context of digital transformation. Traditional methods based on the "iron triangle" (time, budget, scope) fail to account for the real business value of projects and ignore the impact of artificial intelligence on management processes. The author proposes an original Integrated Matrix of IT Project Management Effectiveness (IMPME) – a three-dimensional model that combines evaluation levels (operational, tactical, strategic), project lifecycle stages, and types of indicators (quantitative, qualitative, AI-based predictive). The model enables the integration of heterogeneous data, provides comprehensive analysis of management effectiveness, and facilitates proactive decision-making. Practical application of the IMPME will contribute to increasing the success rate of IT investments, strategic alignment of project activities with business goals, and effective utilization of artificial intelligence potential in project management.

Key words: *management effectiveness; IT project management; artificial intelligence; performance evaluation; agile methodologies; integrated model.*

Introduction. In today's digital economy, information technologies have become the primary driver of innovation and competitive advantage, making IT project management effectiveness a critical success factor for any organization. However, the unique nature of the IT industry-high dynamics, unpredictable requirements, rapid technological obsolescence, and extreme product complexity-renders traditional project success evaluation methods [1, p.151] not only insufficient but potentially misleading. These methods often capture formal plan compliance while ignoring the actual business value of outcomes, highlighting the need to rethink the very concept of management "effectiveness."

Historically, the dominant approach has been the "iron triangle" (triple constraint) concept [2], defining success through adherence to time, budget, and scope. While this focus on operational outputs provides basic control, it fails to address the critical question of a project's real business impact-a project can be formally successful yet commercially unviable. In response, modern concepts have emerged shifting focus from product creation to value delivery: Value-Based Management (VBM), viewing projects as investments measuring financial contribution, and Benefits Realization Management (BRM), assessing actual business benefit realization after product implementation.

Today, this evolutionary process is significantly accelerated by artificial intelligence, which transforms management fundamentals by automating routine tasks. This necessitates developing fundamentally new metrics and comprehensive evaluation frameworks capable of integrating quantitative data, qualitative factors, and AI's predictive power. This section provides a comprehensive analysis of this evolution, identifies the specifics of IT evaluation, and justifies the need for a new integrated model responsive to contemporary dynamic environment challenges and technological trends.

Statement of the problem. Information technologies are a key driver of business innovation in the digital economy, making the effectiveness of IT project management a critical factor of competitiveness. However, the industry's specific characteristics - high dynamism, requirements uncertainty, and rapid technological obsolescence - reveal significant shortcomings of traditional evaluation methods based on the "iron triangle" (time, budget, scope). These methods focus on operational "outputs" and formal plan compliance, often ignoring the real business value of the project. Concurrently, the transformation of management processes under the influence of AI requires a rethinking of effectiveness criteria and the development of new metrics capable of assessing the synergy between humans and algorithms. Thus, a problematic contradiction arises: between the growing strategic importance of IT projects and the absence of an integrated evaluation model that would adequately account for their specificity, the value creation paradigm, and the transformative impact of AI. Solving this problem is a key scientific and applied task for increasing the success rate of IT investments and ensuring the strategic alignment of project activities with business goals.

Analysis of Recent Research and Publications. An analysis of academic discourse and professional standards reveals a clear evolution from traditional approaches, enshrined in PMBOK [3] and other frameworks, to modern value-oriented concepts [4,5]. Works dedicated to Value-Based Management (VBM) [6] and Benefits Realization Management (BRM) [7] initiated the transition from evaluating "outputs" to measuring "outcomes" and long-term business impact. Research in the field of agile methodologies (Agile, Scrum) [8-10] indicates the need for new metrics, such as team velocity or technical debt, to assess adaptability and process quality in a dynamic environment.

A separate stream of publications on AI-driven Project Management is developing, analyzing the capabilities of AI for risk prediction, resource optimization, and automation of routine tasks, particularly in the technological sphere [11-15]. However, as the analysis shows, there is a methodological gap and a research lacuna. Firstly, there are no established frameworks that systematically integrate classical quantitative, qualitative, and new predictive indicators into a unified evaluation system. Secondly, the issue of evaluating the effectiveness of management itself in the context of human-AI collaboration remains insufficiently researched. This article is dedicated to precisely these unresolved parts of the general problem concerning the development of an integrated multidimensional evaluation model.

Purpose of the Article. The purpose of the article is to develop an integrated model for evaluating the effectiveness of IT project management using artificial intelligence, which would overcome the limitations of traditional approaches and provide a comprehensive analysis at the intersection of operational, tactical, and strategic effectiveness, taking into account the transformative impact of AI.

Research Methods. The theoretical and methodological foundation of this research is based on a systematic approach to analyzing the evolution of project management effectiveness evaluation. The study employs general scientific methods of cognition, including analysis and synthesis to examine existing approaches to IT project management evaluation, induction and deduction to formulate conclusions about the limitations of traditional methods, and abstraction to conceptualize key elements of the proposed model. Comparative analysis was used to identify differences between traditional (iron triangle-based) and modern value-oriented concepts (VBM, BRM), as well as to systematize metrics used in agile methodologies and AI-driven project management.

The methodological framework also includes structural-systemic analysis for developing the three-dimensional architecture of the Integrated Matrix of IT Project Management Effectiveness (IMPME). Methods of classification and typology were applied to differentiate evaluation levels, lifecycle stages, and types of indicators. The study utilized content analysis of academic literature and professional standards to identify research gaps, particularly regarding the integration of quantitative, qualitative, and AI-predictive metrics. The proposed model was developed through logical generalization and conceptual modeling, synthesizing insights from value-based management, benefits realization management, agile methodologies, and contemporary research on AI applications in project management.

Basic material. The IT industry possesses unique characteristics that require adaptation of general management approaches. High requirements volatility, the intangibility of software products, and dependence on the team's cognitive efforts often make rigid adherence to initial plans ineffective.

Key indicators have become team velocity and cycle time, which measure the pace of value delivery to the customer. These metrics allow for assessing the efficiency of work processes, quickly adapting to changes, and increasing the predictability of results in a dynamic environment.

An important quality control tool is technical debt, which reflects the risks associated with code components and architecture. Systematic tracking of technical debt helps avoid the accumulation of problems that may later slow down development, increase maintenance costs, or deteriorate product quality. Ignoring this metric for the sake of short-term speed can lead to serious consequences in the later stages of the project lifecycle.

Another significant measure of success is the user adoption rate, which assesses the real demand for the product among end users. This indicator helps understand how well the developed product meets market needs and provides practical value, directly impacting the project's business outcome.

Thus, the modern approach to evaluating IT project effectiveness shifts the focus from formal plan execution to the team's ability to quickly adapt, maintain high product quality, and ensure its real value for users. This allows organizations not only to successfully complete projects but also to enhance their long-term competitiveness.

The integration of artificial intelligence into management processes (AI-driven Project Management) fundamentally changes the evaluation paradigm [16]. When routine planning and control tasks are transferred to algorithms, the requirements for the manager's role and the criteria for their effectiveness change:

1. **Change in Traditional Metrics:** Whereas previously the accuracy of manual budgeting was valued, in the AI era, the quality of data provided to the algorithm for analysis is valued. Effectiveness is measured not by the fact of risk identification in a report, but by the speed of the management team's reaction to insights generated by AI in real-time [17].
2. **Emergence of New Indicators:**

- Predictability: The ability of the system (team + AI) to consistently achieve predicted results. High predictability becomes more important than peak productivity.

- Adaptability: The speed and efficiency of restructuring processes in response to changes identified by AI analytics, without stopping the production cycle.

Despite the development of methodologies, current evaluation practices in IT face significant limitations:

1. **Insufficient Attention to Qualitative Changes:** Most metrics remain quantitative. Critical "soft" factors are often ignored: team burnout level, knowledge transfer effectiveness, growth of internal expertise ("organizational learning"). These aspects are difficult to digitize, but they determine the long-term viability of an IT company.
2. **Lack of Integrated Evaluation Frameworks for AI-Enhanced Projects:** Currently, there is a methodological gap. There are metrics for evaluating AI models and, separately, metrics for project management. However, established frameworks for evaluating the synergy between humans and AI are absent. For example, how to evaluate the effectiveness of a manager's decision to ignore an AI recommendation? This gap requires further scientific research.

Modern IT project management is undergoing a paradigm shift: from evaluating purely operational parameters (time, budget, scope) to measuring real value and achieved business benefits. In the IT industry context, this requires a focus on adaptability, responsiveness, and continuous value delivery, rather than rigid adherence to an initially, inevitably outdated plan. A powerful catalyst for this transformation has been the introduction of artificial intelligence, which not only automates routine tasks but also changes the very criteria of effectiveness, bringing to the forefront metrics such as result predictability and data quality based on algorithmic insights. By "algorithmic insights," we mean profound, useful conclusions or patterns automatically discovered from large data sets using artificial intelligence and machine learning algorithms, rather than manually by an analyst.

However, the key challenge remains the development of holistic evaluation systems capable of integrating quantitative indicators (including AI analytics data), qualitative aspects of team work, and accounting for the specifics of human-algorithm interaction. It is precisely to overcome this methodological gap that an urgent need arises for the development of a new, comprehensive, and multidimensional model for evaluating the effectiveness of IT project management in modern conditions.

In response to this need, the Integrated Matrix of IT Project Management Effectiveness (IMPME) is proposed. This model is specifically designed considering the specifics of the modern IT industry: high dynamics, hybridization of agile (Agile) and traditional approaches, as well as the growing role of data and artificial intelligence. It offers a transition from one-dimensional evaluation by the "iron triangle" to a multidimensional approach focused on creating sustainable value and process viability.

The IMPME model has a clear three-dimensional architecture built at the intersection of three independent axes:

- evaluation levels,
- lifecycle stages,
- types of indicators.

It is precisely this spatial organization, implemented as an integration matrix, that ensures systematic assessment and allows for comprehensive analysis of management effectiveness at any cross-section of project activity.

Evaluation Levels

This dimension determines the scale of impact of management activities, dividing the assessment into three interrelated levels that correspond to the organizational hierarchy and the logic of value creation. This dimension answers the key question "Where do we evaluate?" and defines the scale of management impact. It structures the assessment across three hierarchical levels corresponding to the logic of management decisions' impact: from operational details to strategic value. This dimension prevents narrow focus on a single level and ensures a balanced assessment that considers both internal process efficiency and the external impact of the project.

At the **operational level**, "project hygiene" is assessed-the internal efficiency of the team, process adherence, speed and quality of current task execution. The key question here is: "Are we doing things right?" This level is the foundation that ensures the project is technically feasible and manageable, but by itself does not determine its business usefulness.

The **tactical level** shifts focus to the product and stakeholders, assessing the success of the created product or increment, customer satisfaction, and requirements compliance. The question at this level is: "Are we doing the right things?" Here, it is determined whether real value is being created for direct users and clients, which is critical for further strategic impact.

The highest, **strategic level**, evaluates the long-term impact of the project on the organization: financial results, alignment with strategic goals, growth in company value. The key question is: "Does this benefit the business?". This level directly connects operational activities with business success, transforming project management from an administrative function into a strategic tool.

This axis determines the temporal sequence of evaluation and answers the question "When do we evaluate?" It transforms assessment from a one-time final report into a continuous cycle of data collection and analysis, allowing not only to state results but also to proactively manage the project throughout all its phases.

Stage A: Preliminary Assessment (Ex-ante / Feasibility) is conducted before the start of the active phase and focuses on assessing feasibility, analyzing risks, and evaluating the readiness of the management infrastructure. This stage sets justified starting conditions and criteria for future success, allowing to avoid launching potentially unprofitable or unrealistic initiatives.

Stage B: Ongoing Monitoring (In-media / Monitoring) occurs during project execution, for example, at the end of each sprint in Agile. Here, progress, process "health," and team dynamics are assessed in real-time. This stage is key for operational course correction, risk management, and maintaining the necessary speed of value delivery.

Stage C: Final Assessment (Ex-post / Closure) is conducted immediately after project completion or a major release and focuses on evaluating the achievement of the project's direct goals (scope, time, budget, quality). It records the formal result and provides an opportunity for lessons learned, but does not yet assess the real business payoff.

Stage D: Deferred Assessment (Post-implementation / Benefits Realization) is the most important for measuring true effectiveness. 3-12 months after implementation, it evaluates the actual use of the product, the achievement of planned business benefits, and long-term impact. This stage closes the feedback loop, proving that project success is determined not by the fact of delivery.

This axis determines the nature of the data used for analysis and answers the question "How do we evaluate?" It ensures methodological completeness by combining heterogeneous sources of information: from objective numbers to subjective assessments and artificial intelligence predictions, forming a holistic picture of effectiveness.

Type I: Quantitative (Hard Metrics) contain objective, clearly measurable numerical data, such as budget variance, schedule adherence, defect count, ROI, or time-to-market. These indicators provide accuracy, comparability, and ease of monitoring, but by themselves often do not reveal cause-and-effect relationships or qualitative aspects of success.

Type II: Qualitative (Soft Metrics) encompass subjective assessments that are difficult to digitize but are critically important for long-term viability: team satisfaction and motivation levels, communication effectiveness, quality of user feedback, organizational learning. These metrics help understand the context, culture, and "human dimension" of management, which directly impacts the company's innovative potential and sustainability.

Type III: Predictive/Hybrid (AI-enhanced) represent a new class of indicators emerging from the integration of artificial intelligence. They are based on the analysis of historical and current data using algorithms to predict future states: probability of missing deadlines, risk of staff turnover, feature adoption trends. These indicators shift management from reactive to proactive mode.

The combination of these three types of indicators within a single model allows overcoming the traditional gap between "hard" data and "soft" factors, as well as integrating the predictive power of AI. This provides not only a description of the past and analysis of the present, but also informed planning of the future, making effectiveness evaluation truly comprehensive and suitable for strategic decision-making.

Below is a matrix demonstrating which specific metrics and methods are applied at the intersection of Evaluation Levels and Types of Indicators. Stages (A-D) are indicated in parentheses next to specific metrics, showing when it is appropriate to collect them.

Practical application of the model begins with profile selection, as not every project requires the full spectrum of metrics. For a small startup or product at an early lifecycle stage, the most critical is the Tactical Level: metrics assessing product-market fit and time-to-market. Conversely, for a large-scale corporate project (e.g., ERP system implementation), the Strategic Level (ROI, alignment with business strategy) and Operational Level (budget control, process compliance, risk management) become priorities. Thus, the model is not a rigid template but a flexible tool that adapts to the specific goals and context of the project.

The key principle for effective use of the model is finding balance among all three evaluation levels. Successful management requires harmony, not local maxima. For example, high operational team efficiency (execution speed, staying within budget) does not guarantee success if the tactical level records low customer satisfaction or the product fails to solve real user problems. Similarly, achieving strategic financial goals (high ROI) can be undermined by the systematic accumulation of technical debt at the operational level, threatening the product's future sustainability. The model clearly demonstrates these disproportions, encouraging managers to conduct comprehensive analysis rather than one-sided focus on a single aspect.

Table 1.

Matrix of IT Project Management Effectiveness Indicators by Levels and Types

	Type I: Quantitative (Hard Metrics)	**Type II: Qualitative (Soft Metrics)**	**Type III: Predictive/Hybrid (AI/Trends)**
Level 1: Operational *(Processes & Team)*	Team velocity per sprint (B)	Presence of actionable improvements after retrospectives (B)	Planned vs. actual velocity completion rate (B, C)
	Task cycle/lead time (B)	Regular team morale/health checks (B)	AI Risk Score: automated task risk assessment based on similar tasks history (A, B)
	Budget/schedule variance (B, C)	Response time to blockers (B)	

	Defect density per module (B, C)		
Level 2: Tactical *(Product & Customer)*	Scope completion rate (C)	Stakeholder/Customer Satisfaction (CSAT) surveys post-release (C)	Churn Prediction: user churn forecast based on usage patterns (D)
	Technical Debt Ratio: refactoring vs. new feature development time (B, C)	Usability feedback qualitative analysis (C, D)	Feature Adoption Forecast: predicting demand for new features (A, B)
	System uptime / performance metrics (C, D)	Quality of requirements change management (C)	
Level 3: Strategic *(Business & Impact)*	ROI / NPV: financial return (D)	Strategic Alignment: management assessment of goal achievement (C, D)	Long-term Value Projection: AI modeling of market share impact (A, D)
	Time-to-Market vs. competitors (C)	Organizational Learning: new knowledge/ technologies acquired (C)	Resource Optimization Trends: portfolio-level resource load analysis (B, C)
	Operational cost reduction post-implementation (D)	Reputation impact on brand (D)	

The most important role is played by dynamic analysis of indicators over time, which transforms the model from a reporting tool into a proactive management instrument. Instead of evaluating only final results, it is necessary to track trends of key metrics throughout the entire project lifecycle, especially during the ongoing monitoring stage. This is where predictive metrics (Type III), based on data analysis using AI, come to the forefront. They allow identifying threatening trends for example, increasing probability of missing deadlines, declining team morale, or predicted decrease in user adoption before these problems become critical and lead to failure. Thus, the model serves not only for "post-mortem" analysis of completed projects, but also as a living early warning system, enabling timely course correction.

Conclusions and suggestions. The conducted research allows drawing several key conclusions. First, the traditional paradigm of evaluating IT project management effectiveness based on the "iron triangle" is insufficient in today's dynamic environment, requiring a shift in focus toward creating real business value, adaptability, and outcomes. Second, the implementation of artificial intelligence technologies acts as a powerful catalyst for transforming effectiveness criteria, bringing to the forefront such new metrics as predictability, data quality for decision making, and speed of response to algorithmic insights. Third, overcoming the methodological gap between quantitative, qualitative, and predictive data requires holistic evaluation systems.

As a result of the research, the Integrated Matrix of IT Project Management Effectiveness (IMPME) was developed, a three-dimensional model that systematically combines evaluation levels (operational, tactical, strategic), project lifecycle stages, and types of indicators (quantitative, qualitative, AI-enhanced). This model enables comprehensive, multidimensional assessment of management effectiveness, integrating data from various sources and ensuring proactive decision-making. It serves as a tool not only for final evaluation but also for continuous monitoring and early risk detection through AI-based predictive analytics. [21]

Prospects for further research lie in several directions. The first direction involves empirical validation of the proposed IMPME model: conducting case studies and pilot implementations in real

IT companies to assess its practical applicability, effectiveness, and to make adjustments. The second direction concerns the development of software tools or dashboards that would automate the collection, analysis, and visualization of data across all three dimensions of the model, significantly simplifying its practical use. The third direction involves in-depth study of ethical and managerial aspects of human-AI interaction in the context of effectiveness evaluation, particularly the development of criteria for assessing the quality of decision-making based on algorithmic recommendations. The implementation of these directions will allow the proposed model to be further developed and will contribute to the formation of new standards for effective IT project management in the context of digital transformation.

References

1. Wysocki, R. K. (2019). Effective Project Management: Traditional, Agile, Extreme. Hoboken, NJ: John Wiley & Sons, In. 656 p.

2. Zybareva, O., Pashnyak, Ye., & Kravchuk, I. (2024). Concepts and models of project-oriented business management. Scientific Bulletin of Polissia, (1 (28)), 434-446. http://nvp.stu.cn.ua/article/download/311978/303082

3. Project Management Body of Knowledge (PMBOK). Project Management Institute. 408 p. https://pmiukraine.org/pmbok7 .

4. Aguilera, R. V., Marano, V., & Haxhi, I. (2019). International corporate governance: A review and opportunities for future research. Journal of International Business Studies, 50, 457- 498. https://doi.org/10.1057/s41267-019-00232-w

5. Ahmed, R., Samar, S., & Philbin, S. P. (2025). Unlocking project success: Investigating how senior management support affects the performance of project management and benefits Management in IT Projects. Engineering Management Journal, 1-14. https://doi.org/10.1080/10429247.2025.2485960

6. Ameels, A., Bruggeman, W., & Scheipers, G. (2002). Value-based management control processes to create value through integration: a literature review. https://repository.vlerick.com/server/api/core/bitstreams/3e8402f0-9c61-4859-bef4-39d074a58261/content (07.03.2026)

7. Vertil, E. (2025). Benefits Realization Management in Agile Project Portfolios (Doctoral dissertation, Capella University) https://search.proquest.com/openview/dd9912ec2f1ed95226d882f88697e8a0/1.pdf?pqorigsite=gscholar&cbl=18750&diss=y

8. Beck, K., et al. (2001). "Manifesto for Agile Software Development." Agile Alliance. http://agilemanifesto.org.

9. Cohen, D., Lindvall, M., & Costa, P. (2004). An introduction to agile methods. Advances in computers, 62(03), 1-66. https://www.cse.chalmers.se/~feldt/courses/agile/cohen_2004_intro_to_agile_methods.pdf

10. Srivastava, A., Bhardwaj, S., & Saraswat, S. (2017, May). SCRUM model for agile methodology. In 2017 International Conference on Computing, Communication and Automation (ICCCA) (pp. 864-869). IEEE. https://ieeexplore.ieee.org/abstract/document/8229928/

11. Bhuddi, A., & Thandavarayan, V. G. (2025). AI-enabled benefits realization management. https://www.diva-portal.org/smash/get/diva2:1979974/FULLTEXT01.pdf (дата звернення: 07.02.2026)

12. Onyao, L. A., Zivak, J., Al Turk, A. (2025). AI-driven project management: Challenges & oppportunities. Journal of Management & Engineering Integration, 18(1), 14-22. https://doi.org/10.62704/10057/30201

13. Dam, H. K., Tran, T., Grundy, J., Ghose, A., & Kamei, Y. (2018). Towards effective AI-powered agile project management (No. arXiv:1812.10578). arXiv. http://arxiv.org/abs/1812.10578

14. Storchak, K. P., Tushych, A. M., & Bondarchuk, A. P. (2018). Cluster data analysis using artificial neural networks. Sviaz [Communication], (6), 36-38. https://con.dut.edu.ua/index.php/communication/article/view/2184/2085

15. Bondarchuk, A., Korshun, N., Dibrivnyi, O., & Spivak, S. (2025). Ai-powered WI-FI access controllers: a new approach to wireless network design. Information and Telecommunication Sciences, 16(2), 27-35. https://infotelesc.kpi.ua/article/view/346532

16. Dima, A. M. (Ed.). (2020). Artificial Intelligence Adoption in Project Management: Main Drivers, Barriers and Estimated Impact. Proceedings of the International Conference on Economics and Social Sciences, 758–767. https://doi.org/10.2478/9788395815072-075

17. Hashfi, M. I., & Raharjo, T. (2023). Exploring the Challenges and Impacts of Artificial Intelligence Implementation in Project Management: A Systematic Literature Review. International Journal of Advanced Computer Science and Applications, 14(9). https://doi.org/10.14569/IJACSA.2023.0140940

18. Jiang, Y. (2021). Application of Data Mining Technology in Field Verification of Project Cost. Advances in Multimedia, 2021, 1–11. https://doi.org/10.1155/2021/3585878

19. Opeyemi Abayomi Odejide & Tolulope Esther Edunjobi. (2024). AI in Project Management: Exploring Theoretical Models for Decision-Making and Risk Management. Engineering Science & Technology Journal, 5(3), 1072–1085. https://doi.org/10.51594/estj.v5i3.959

20. Savio, R. D., & Ali, J. M. (2023). Artificial Intelligence in Project Management & Its Future. Saudi Journal of Engineering and Technology, 8(10), 244–248. https://doi.org/10.36348/sjet.2023.v08i10.002

21. Kriskun, I., & Bondarchuk, A. (2026). Evaluating the effectiveness of project management in the information technology sector. European scientific journal of Economic and Financial innovation, 1(19), 264-274. https://journal.eae.com.ua/index.php/journal/article/view/725

КРИСКУН ІВАН МИКОЛАЙОВИЧ. МОДЕЛЬ ОЦІНЮВАННЯ ЕФЕКТИВНОСТІ УПРАВЛІННЯ ІТ-ПРОЄКТАМИ З ВИКОРИСТАННЯМ ШТУЧНОГО ІНТЕЛЕКТУ. *У статті обґрунтовано необхідність переосмислення підходів до оцінювання ефективності управління ІТ-проєктами в умовах цифрової трансформації. Традиційні методи, засновані на «залізному трикутнику» (час, бюджет, зміст), не враховують реальну бізнес-цінність проєктів та ігнорують вплив штучного інтелекту на управлінські процеси. Запропоновано авторську Інтегровану матрицю ефективності управління ІТ-проєктами (ІМЕУ) – тривимірну модель, що поєднує рівні оцінювання (операційний, тактичний, стратегічний), етапи життєвого циклу проєкту та типи показників (кількісні, якісні, предиктивні на основі ШІ). Модель дозволяє інтегрувати різнорідні дані, забезпечує комплексний аналіз ефективності управління та проактивне прийняття рішень. Практичне застосування ІМЕУ сприятиме підвищенню успішності ІТ-інвестицій, стратегічному вирівнюванню проєктної діяльності з цілями бізнесу та ефективному використанню потенціалу штучного інтелекту в управлінні проєктами.*

Ключові слова: *ефективність управління; управління ІТ-проєктами; штучний інтелект; оцінювання ефективності; гнучкі методології; інтегрована модель.*

Надійшла до редакції: 10.03.2026
Прийнято до друку:19.03.2026
Опубліковано: 27.03.2026