АКТУАЛЬНІ ПИТАННЯ ЕКОНОМІЧНИХ НАУК

Management

UDC 005.5:004.8:005.72

DOI https://doi.org/10.5281/zenodo.20764061

AI-native as an integrative level of digital transformation in business process management

Sergii Lysenko,

PhD student, Department of Management, National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine,

https://orcid.org/0009-0004-3720-5285

Accepted: 19.05.2026 | Published: 30.05.2026

Abstract: The purpose of the study is to substantiate AI-native as an integrative level of business process digital transformation, at which separate artificial intelligence solutions cease to operate as isolated tools and begin to form a cross-cutting logic of process design, execution, monitoring, control and improvement. **Methods.** The study uses comparative conceptual analysis of recent studies and professional sources devoted to AI-native systems, AI-enabled solutions, AI-augmented business process management systems, intelligent business process management suites, algorithmic management, agentic business process management, artificial intelligence capability and digital transformation. The sources are grouped according to their common analytical position in order to show how different research lines gradually converge into a process-oriented interpretation of AI-native. **Results.** The article shows that the term AI-native originated mainly in computer and telecommunication discourse, where it denotes the architectural embeddedness of artificial intelligence into a system, product or workflow. In business process

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

management, the concept obtains managerial meaning when artificial intelligence is embedded not in a single function but in the whole process logic. AI-enabled describes local functions, AI-augmented business process management systems explain the strengthening of process-aware systems, intelligent business process management suites represent the platform basis, algorithmic management covers automated managerial coordination, and agentic business process management explains autonomous process participants. AI-native does not replace these concepts; it integrates their separate effects into an end-to-end transformation of process logic. The article also identifies the main advantages of AI-native, including process architecture integrity, adaptability, preventive control, stronger process mining and feedback-driven improvement. At the same time, it outlines risks related to blurred responsibility, data dependence, algorithmic opacity, excessive automation, platform lock-in, ethical constraints and governance complexity. **Conclusions.** AI-native may be interpreted as an integrative level of business process digital transformation when artificial intelligence becomes a normal element of process logic rather than an external instrument. Its value for management lies in explaining the transition from fragmented automation to coordinated human-AI process governance.

Keywords: artificial intelligence; algorithmic management; digital transformation; enterprise platforms; business process management.

AI-native як інтегруючий рівень цифрової трансформації в управлінні бізнес-процесами

Сергій Миколайович Лисенко

Аспірант кафедри менеджменту, Національний технічний університет «Харківський політехнічний інститут», м. Харків, Україна,

https://orcid.org/0009-0004-3720-5285

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

Анотація. Метою дослідження є обґрунтування AI-native як інтегруючого рівня цифрової трансформації бізнес-процесів, на якому окремі рішення штучного інтелекту перестають функціонувати як ізольовані інструменти та починають формувати наскрізну логіку проєктування, виконання, моніторингу, контролю й удосконалення процесів. **Методи.** У дослідженні використано порівняльний концептуальний аналіз сучасних наукових праць і професійних джерел, присвячених AI-native системам, AI-enabled рішенням, AI-augmented системам управління бізнес-процесами, інтелектуальним платформам управління бізнес-процесами, алгоритмічному менеджменту, агентному управлінню бізнес-процесами, AI-спроможностям та цифровій трансформації. Джерела згруповано відповідно до їхньої спільної аналітичної позиції, що дає змогу показати, як різні дослідницькі напрями поступово зближуються у процесно-орієнтованому трактуванні AI-native. **Результати.** У статті показано, що термін AI-native виник переважно в комп'ютерному та телекомунікаційному дискурсі, де він позначає архітектурну вбудованість штучного інтелекту в систему, продукт або робочий процес. В управлінні бізнес-процесами це поняття набуває управлінського змісту тоді, коли штучний інтелект вбудовується не в окрему функцію, а в усю процесну логіку. AI-enabled описує локальні функції, AI-augmented системи управління бізнес-процесами пояснюють підсилення процесно-орієнтованих систем, інтелектуальні платформи управління бізнес-процесами становлять платформну основу, алгоритмічний менеджмент охоплює автоматизовану управлінську координацію, а агентне управління бізнес-процесами пояснює автономних учасників процесу. AI-native не замінює ці поняття, а інтегрує їхні окремі ефекти в наскрізну трансформацію процесної логіки. У статті також визначено основні переваги AI-native, зокрема цілісність процесної архітектури, адаптивність, превентивний контроль, посилення процесної аналітики та вдосконалення на основі зворотного зв'язку. Водночас окреслено ризики, пов'язані з розмитістю відповідальності, залежністю від даних, алгоритмічною непрозорістю, надмірною автоматизацією, платформною

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

залежністю, етичними обмеженнями та ускладненням управління. **Висновки.** AI-native може тлумачитися як інтегруючий рівень цифрової трансформації бізнес-процесів тоді, коли штучний інтелект стає звичайним елементом процесної логіки, а не зовнішнім інструментом. Його цінність для менеджменту полягає в поясненні переходу від фрагментарної автоматизації до скоординованого людино-орієнтованого та AI-підтримуваного управління бізнес-процесами.

Ключові слова: штучний інтелект; алгоритмічний менеджмент; цифрова трансформація; корпоративні платформи; управління бізнес-процесами.

Problem statement. The diffusion of artificial intelligence in enterprise information systems changes the nature of digital transformation. At earlier stages, AI was usually added to existing systems as a function for forecasting, classification, text generation or recommendation. Today, many enterprise solutions are increasingly designed so that AI becomes part of the product architecture, workflow and user interaction logic. This is commonly described through the term AI-native.

For business process management, this shift is especially important. BPM has traditionally relied on modelling, standardization, automation, monitoring and continuous improvement of processes. However, AI-enabled solutions, AI-augmented BPMS, iBPMS, algorithmic management and agentic BPM already show that AI can influence not only isolated operations but also the way processes are designed, executed and controlled. The problem is not to prove that the term AI-native exists; it is to explain its managerial meaning for BPM.

The relevance of the study is determined by the transition from fragmented AI tools toward platforms and processes where AI is connected with data, workflow, analytics, agents, task management, control, audit trail and feedback. Under these conditions, AI-native begins to describe a new configuration of digital transformation in BPM, affecting strategic, managerial, operational, control and continuous improvement processes.

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

Analysis of recent research and publications. The origin of AI-native should first be considered through computer and telecommunication research. Among the sources analysed, one of the early explicit scientific formulations is the work by Wu et al., where AI-native network slicing for 6G is presented as an architectural principle of embedding AI into the controller and network nodes rather than treating it as an external optimization module [1]. The work by Letaief et al. provided an important foundation by discussing 6G as an AI-empowered infrastructure [2]. IBM and Ericsson later extended this understanding to products, workflows, system design, operation and maintenance [3; 4].

In BPM literature, the closest academic analogue is AI-augmented BPMS. Dumas et al. define such systems as process-aware information systems that use trustworthy AI to become adaptive, proactive, explainable and context-sensitive [5]. Fettke and Di Francescomarino show that AI is entering different phases of the BPM lifecycle, including modelling, analysis, redesign, implementation and monitoring [6]. Rosemann et al. argue that the age of AI requires a reconsideration of classical BPM assumptions [7]. Weinzierl et al. systematize machine learning in BPM as prediction, process discovery, decision support and resource allocation [8].

Generative AI and large language models form another important research stream. Grohs et al. show that LLMs can perform selected BPM tasks [9]. Vidgof et al. analyse opportunities and challenges of LLMs for the BPM lifecycle [10]. Kampik et al. introduce the idea of large process models, which demonstrates the move from isolated models to process-level semantics [11]. Kourani et al. and Bennoit et al. confirm that LLMs are increasingly applied in business process modelling and analysis [12; 13].

Agentic BPM demonstrates the next step in involving AI in processes. Calvanese et al. define this stream as an extension of BPM for governing autonomous agents executing processes in organizations [14]. Dumas, Milani and Chapela-Campa describe agentic BPMS as systems in which autonomous agents can act within explicit process frames [15]. This direction is important for AI-native, but it does not exhaust

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

it because AI-native also includes data, platforms, monitoring, control, feedback loops and managerial coordination.

Algorithmic management reveals the managerial dimension of AI. OECD studies show that software and AI systems are increasingly used for task allocation, scheduling, monitoring and evaluation [16; 17]. The European Parliamentary Research Service additionally emphasizes risks related to transparency, responsibility and labour rights [18]. These studies show that AI changes not only the technical execution of operations but also management functions.

Sources on AI capability, AI business value and digital transformation explain why AI-native cannot be reduced to a technological product. Zebec et al. link AI business value with BPM capabilities [21]. Mikalef and Gupta show that AI capability is the ability of an organization to orchestrate AI-specific resources [22]. Enholm et al. argue that AI business value emerges through organizational mechanisms rather than through algorithms alone [23]. Raisch and Krakowski explain the automation-augmentation paradox [24], while Jöhnk et al. analyse AI readiness [25]. Verhoef et al., Wessel et al. and Dwivedi et al. interpret digital transformation as broad organizational change rather than simple IT-enabled improvement [27–29, 33]. The differentiation of the related AI concepts is summarized in Table 1, and the grouped research lines that form the evidence base for AI-native BPM are presented in Table 2.

Table 1

Differentiation of related AI concepts in BPM

Concept	Main meaning	Level of impact	Relevance for AI-native logic
AI-enabled	Separate AI function or tool	Task, operation, isolated decision	Creates an initial level of AI impact but does not provide cross-cutting BPM redesign.
iBPMS	Platform for intelligent process automation	BPM platform, integration, workflow, analytics	Can be a technological basis for AI-native, but is not equal to transformation of process logic.

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

AI-augmented BPMS	BPM system strengthened by trustworthy AI	Adaptability, proactivity, explainability, context	The closest academic analogue, but mainly system-focused.
Algorithmic Management	Automation of managerial functions	Work coordination, task allocation, control, evaluation	Explains the managerial dimension of AI but not the entire business-process map.
Agentic BPM	AI agents as process participants	Autonomous execution, reasoning, actionability	Explains autonomy, but AI-native is broader than the agentic scenario.
AI-native	AI as embedded process logic	Cross-cutting process logic: planning, execution, monitoring, control, improvement	Integrates previous approaches at the level of BPM digital transformation.

Source: compiled by the author based on [2; 3; 14; 16; 17]

Table 2

Formation of AI-native BPM as an integrative level of digital transformation

No.	Source group	Shared view	Role in substantiating AI-native BPM
1	Technological origin of AI-native: Wu et al. [1], Letaief et al. [2], IBM [3], Ericsson [4]	AI-native is interpreted as embeddedness of AI in system architecture, operations and lifecycle.	Provides the basis for transferring the concept from computer architecture to BPM process logic.
2	AI in BPM lifecycle: Dumas et al. [5], Fettke & Di Francescomarino [6], Rosemann et al. [7], Weinzierl et al. [8]	AI is associated with adaptability, proactivity, prediction, process discovery, decision support and monitoring.	Shows that AI already affects different BPM phases; AI-native generalizes these fragments as a cross-cutting level.
3	Generative AI and LLMs in BPM: Grohs et al. [9], Vidgof et al. [10], Kampik et al. [11], Kourani et al. [12], Bennoit et al. [13]	LLMs support process modelling, process descriptions and BPM lifecycle use cases.	Explains the transition toward process intelligence and AI working with process semantics.
4	Agentic BPM: Calvanese et al. [14], Dumas et al. [15]	AI agents are treated as autonomous participants able to perceive, reason and act within process frames.	Adds autonomy but does not exhaust AI-native, which also includes monitoring, control and improvement.
5	Algorithmic Management: OECD [16; 17], EPRS [18]	Software and AI systems automate or support managerial functions such as task allocation and monitoring.	Explains the managerial dimension of AI-native.

ISSN 3041-2129
Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

6	Platform integration: IBM iBPMS [19], Gartner [20]	BPM platforms combine workflow, automation, integration, analytics and AI capabilities.	Shows the technological foundation but not the full transformation of process logic.
7	AI capability and business value: Zebec et al. [21], Mikalef & Gupta [22], Enholm et al. [23], Jöhnk et al. [25]	AI value depends on readiness, BPM capabilities and orchestration of AI resources.	Shows that AI-native requires organizational and process capabilities.
8	Management and digital transformation: Raisch & Krakowski [24], Borges et al. [26], Verhoef et al. [27], Wessel et al. [28], Dwivedi et al. [29], Lysenko & Makovoz [33]	AI changes managerial practices, digital strategy and organizational transformation.	Supports the interpretation of AI-native as a level of digital transformation.
9	Governance and risk management: NIST [30], ISO/IEC 42001 [31], EU AI Act [32]	AI requires trustworthiness, accountability, risk management and compliance.	Defines the boundaries and risk conditions of AI-native BPM.

Source: compiled by the author based on [1-33]

Identification of previously unresolved parts of the general problem. Existing literature explains separate aspects of AI in processes: AI-enabled describes local functions; AI-augmented BPMS explains process-aware systems; iBPMS provides platform integration; algorithmic management covers automated managerial coordination; and agentic BPM explains autonomous process participants. However, these concepts do not always show the point of convergence, where AI stops being a fragment and becomes a cross-cutting logic of the entire business process. This unresolved part is central to the study. In computer discourse, AI-native is associated with architectural embeddedness of AI. In BPM, it requires a managerial interpretation: AI affects the connection between strategy, planning, operational execution, control and improvement. Therefore, the question is not whether AI-native exists as a term, but how it becomes an integrative level of BPM digital transformation.

Formulation of the article objectives (task statement). The purpose of the article is to substantiate AI-native as an integrative level of digital transformation in

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

business process management, where separate AI approaches converge into a cross-cutting process logic.

The objectives are:

- to clarify the origin of the AI-native concept;
- compare it with related BPM concepts;
- show how these concepts converge into AI-native logic;
- present a conceptual scheme of AI-native impact across process levels;
- summarize the advantages and risks of AI-native BPM transformation.

Presentation of the main material of the study. The main material proceeds from the origin of the term to its managerial interpretation. AI-native should not be identified with an isolated AI module or a platform. In BPM, its meaning appears only when AI affects the interconnection between strategic, managerial, operational, control and continuous improvement levels of the process. The first result is the differentiation of related AI concepts in BPM (Table 1). This is necessary to avoid terminological duplication. AI-native does not reject existing concepts; it shows how they may converge into a higher level of digital transformation of business processes. The logic of this convergence is further supported by the grouped research streams presented in Table 2. The analysis makes it possible to formulate the key result of the study: AI-native in BPM should be understood as an integrative level of digital transformation at which separate AI approaches cease to exist in isolation and begin to form cross-cutting process logic.

AI-native is a vertical cross-cutting layer. This means that AI-native is not only a strategic choice or a management function. Strategic processes define the direction and boundaries of AI transformation, but the real AI-native effect emerges only when managerial, operational, control and improvement processes are also changed. The scheme is important because it removes a common misunderstanding: AI-native is often treated as a product or platform property. For BPM this is not enough. A product may be AI-native, while the process remains traditional if the organization uses it only as an instrument. AI-native BPM emerges when AI approaches are integrated across

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

all process levels. This convergence of related concepts into AI-native BPM logic is summarized in Table 3.

Table 3

Convergence of related concepts into AI-native BPM logic

Concept	Main object	Type of impact	Place in AI-native logic
AI-enabled	Separate task	Local impact	Can be part of AI-native if integrated into a broader process cycle.
AI-augmented BPMS	BPM system	Systemic impact within process-aware system	Provides the basis for AI-native, but does not cover the whole organizational level.
iBPMS	Platform	Technological enabler	Supports automation and integration but does not guarantee process-logic change.
Algorithmic Management	Managerial functions	Coordination of work and control	Explains the managerial part of AI-native.
Agentic BPM	Autonomous agents	Autonomy in process execution	Explains the agentic dimension, but AI-native is broader.
AI-native	Cross-cutting process logic	End-to-end transformation	Integrates previous levels into a single logic of BPM digital transformation.

Source: compiled by the author

The advantages of AI-native appear where AI changes the interconnection between process levels: strategic decisions reach operational execution faster, monitoring returns information to management faster, control becomes preventive, and process mining with KPI analysis becomes part of a continuous feedback loop. These advantages are structured by business-process levels in Table 4. The first advantage is overcoming the fragmentation of AI implementation. Many organizations start with separate AI tools such as text generation, demand forecasting, customer-request analysis or automatic task allocation. These tools may be useful, but they are often disconnected. AI-native logic turns local AI functions into an integrated process loop.

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

The second advantage is management adaptability. In classical BPM, processes are often described through stable models and checkpoints. In a digital environment, this stability is conditional. AI-native allows the process to adjust priorities, routing and scenarios according to data. The third advantage is preventive control. In traditional processes, control often takes place after the fact. AI-native makes it possible to identify weak signals, anomalies and risks before they become critical. The fourth advantage is continuous improvement, where process mining, KPI analysis, customer feedback, audit trails and operational logs become sources for continuous redesign.

Table 4

Advantages of AI-native by business-process levels

Business-process level	Potential advantage	Managerial effect
Strategic processes	Scenario planning, risk analysis, adaptive roadmap	Strategy can be updated using data and forecasts.
Managerial / tactical processes	Resource coordination, prioritization, work-queue management	Managers receive scenarios and recommendations for action.
Operational processes	Contextual routing, recommendations, adaptive execution	The process changes its trajectory according to events and data.
Control and compliance	Anomalies, risks, compliance, audit trail	Control moves from post-factum checks to preventive logic.
Continuous improvement	Process mining, KPIs, redesign, feedback loop	Improvement becomes a permanent mechanism rather than a periodic project.

Source: compiled by the author

AI-native should not be presented as an unambiguously positive stage of digital transformation. Its strength is also a source of risks. If AI is embedded into the entire process logic, an error in data, model, algorithmic decision or governance may spread end-to-end. The main risk groups and the corresponding mitigation conditions are presented in Table 5. The first risk is blurred responsibility. In a traditional process it is easier to determine who made a decision and who controlled the result. In an AI-native process, decisions may emerge from interaction between a model, data,

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

platform, agent and human. The second risk is dependence on data quality. Incomplete or fragmented data may distort planning, execution, monitoring and control. The third risk is algorithmic opacity. In BPM it is important not only to obtain a result but also to explain why the process followed a certain path. If AI recommendations have no explanation or audit trail, compliance, trust and managerial control are weakened. The fourth risk is excessive automation, which may undermine human judgement in high-impact decisions. The fifth risk is platform dependence when process flexibility is constrained by the architecture of a vendor ecosystem.

Table 5

Main risks of AI-native BPM and mitigation conditions

Risk	Problem	Required condition
Blurred responsibility	Human-AI decision loops complicate accountability.	Clear process ownership, human approval, decision logs.
Data dependence	Poor data quality spreads errors across process logic.	Data governance and source control.
Model opacity	AI recommendations may be hard to explain.	Explainability, audit trail, documentable reasoning.
Excessive automation	Critical human judgement may be lost.	Human-in-the-loop for high-impact decisions.
Platform dependence	Processes depend on vendor architecture.	Open integration, data portability, modularity.
Ethical and labour risks	Algorithmic management may limit worker autonomy.	Transparency, explanation rights, impact assessment.
Security and compliance risks	Data, integrations and agents increase exposure.	AI risk management and compliance-by-design.
Conceptual inflation	Any AI solution may be called AI-native.	Clear criterion: end-to-end embedded process logic.

Source: compiled by the author

AI-native creates new opportunities only when an organization is able to transform AI into governed process logic. If AI-native is used merely as a promotional product label without changing process architecture, its managerial value is limited.

On the one hand, AI-native can strengthen BPM through end-to-end integration of data, models, platforms and managerial decisions. On the other hand, the deeper AI is embedded in the process, the stronger the requirements for governance, data quality,

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

explainability, security and responsibility. Therefore, AI-native should not be described as the best form of BPM without conditions. The balance between potential advantages and disadvantages is summarized in Table 6.

Table 6

Balance of advantages and disadvantages of AI-native BPM

BPM dimension	Potential advantage	Potential disadvantage
Process design	Processes are designed around data, AI models and feedback loops.	The process may become excessively dependent on the initial digital architecture.
Execution	Execution becomes adaptive and context-sensitive.	Automated routes may be wrong without control and explanation.
Monitoring	Monitoring moves toward real-time process awareness.	False positives and false negatives may create distrust or overload.
Control	Control becomes preventive and risk-oriented.	Opacity of AI decisions complicates audit.
Improvement	Process mining and KPIs become part of the feedback loop.	Redesign may become technocratic without understanding the human context.
Management	The manager moves from administrator to process orchestrator.	Dependence on system recommendations and loss of critical judgement may arise.

Source: compiled by the author

The analysis shows that AI-native should not replace the concepts already used in BPM and management. Its strength lies in making their convergence visible. AI-enabled describes the initial level of AI use; AI-augmented BPMS describes the process-aware system; iBPMS describes the platform; algorithmic management describes managerial functions; agentic BPM describes autonomous agents; AI-native describes their integration into cross-cutting process logic. This also explains why IT service companies offer AI-native not merely as a product feature. At the product level, AI-native means that AI is the core of the architecture. At the process level, it means that AI changes execution and management. At the business level, it means that AI becomes a driver of digital transformation across the value-creation cycle. AI-native should be considered not as a general company characteristic but as a way of redesigning different levels of business processes. In computer discourse, AI-native

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

means architectural embeddedness. In BPM, the same principle obtains managerial meaning: data, models, recommendations, agents, control rules and feedback become part of normal process functioning.

At the strategic level, AI-native changes the formation of decisions. At the managerial level, it affects coordination and resource allocation. At the operational level, it changes the behaviour of workflows. At the control level, it moves management from post-factum control to preventive logic. At the improvement level, it creates feedback-driven process redesign. The key argument is that AI-native does not create an isolated branch of BPM theory. It names the moment of convergence. Earlier concepts described separate areas: a tool, a system, a platform, a managerial function or an autonomous agent. Modern digital services increasingly combine these areas in one enterprise solution.

Thus, AI-native answers not which technology is used, but how deeply AI is embedded into process logic. A company with a chatbot or a forecasting model does not automatically have AI-native BPM. AI-native emerges when AI connects strategy, management, execution, control and improvement into one process cycle.

The proposed interpretation does not claim that every company using an AI-native product already has AI-native business processes. Product-level AI-native architecture creates an opportunity for process transformation, but it does not guarantee it. A company may use an AI-native platform only as an advanced tool for separate tasks. Future research may empirically verify whether AI-enabled functions, BPM systems, agents, process logs, KPIs, control loops and improvement mechanisms are connected into an end-to-end cycle. If these elements exist separately, the process is not yet AI-native. If they form a governed end-to-end cycle, it is possible to speak about movement toward AI-native BPM.

Conclusions. The article substantiates that AI-native already exists as a concept in computer and service discourse, but its scientific value for BPM lies not in the direct transfer of the term. It becomes meaningful for business process management when it

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

describes the transition from separate AI tools to cross-cutting process logic. AI-native is not a replacement for AI-enabled, AI-augmented BPMS, iBPMS, algorithmic management or agentic BPM. Each of these concepts explains a separate level of AI influence: a function, a system, a platform, managerial coordination or autonomous agents. AI-native integrates these levels when AI becomes an embedded element of the whole business-process logic. The main result of the article is the presentation of AI-native as an integrative level of BPM digital transformation. This level covers strategic, managerial, operational, control and continuous improvement processes. Therefore, AI-native cannot be reduced to a product or platform property. A product may be technically AI-native, but the BPM effect emerges only when AI changes the process architecture of the organization. The advantages of AI-native BPM include overcoming fragmentation, adaptability, preventive control, stronger process mining, faster managerial decisions and feedback-driven improvement. The risks include blurred responsibility, data dependence, algorithmic opacity, excessive automation, platform dependence, ethical and labour risks, and the possible inflation of the AI-native label. Future research may move from conceptual substantiation to empirical verification through comparisons of organizations by AI embeddedness, analysis of process mining logs, expert assessment of process maturity, study of human-AI decision loops and governance mechanisms for AI-native BPM.

References

1. Wu W., Zhou C., Li M., Wu H., Zhou H., Zhang N., Shen X., Zhuang W. AI-Native Network Slicing for 6G Networks. IEEE Wireless Communications. 2022. Vol. 29(1). P. 96–103. DOI: 10.1109/MWC.001.2100338.

2. Letaief K. B., Chen W., Shi Y., Zhang J., Zhang Y.-J. A. The Roadmap to 6G: AI Empowered Wireless Networks. IEEE Communications Magazine. 2019. Vol. 57(8). P. 84–90. DOI: 10.1109/MCOM.2019.1900271.

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

3. IBM. What is AI native? IBM Think. 2026. URL: https://www.ibm.com/think/topics/ai-native.

4. Ericsson. A detailed study of the AI Native concept. Ericsson White Paper. 2024. URL: https://www.ericsson.com/en/reports-and-papers/white-papers/ai-native.

5. Dumas M., Fournier F., Limonad L., Marrella A., Montali M., Rehse J.-R., Accorsi R., Calvanese D., De Giacomo G., Fahland D., Gal A., La Rosa M., Völzer H., Weber I. AI-Augmented Business Process Management Systems: A Research Manifesto. ACM Transactions on Management Information Systems. 2023. Vol. 14(1). Article 11. DOI: 10.1145/3576047.

6. Fettke P., Di Francescomarino C. Business Process Management and Artificial Intelligence. KI – Künstliche Intelligenz. 2025. Vol. 39. P. 67–79. DOI: 10.1007/s13218-025-00891-y.

7. Rosemann M., vom Brocke J., Van Looy A., Santoro F. Business process management in the age of AI – three essential drifts. Information Systems and e-Business Management. 2024. Vol. 22. P. 415–429. DOI: 10.1007/s10257-024-00689-9.

8. Weinzierl S., Zilker S., Dunzer S., Matzner M. Machine learning in business process management: A systematic literature review. Expert Systems with Applications. 2024. Vol. 253. Article 124181. DOI: 10.1016/j.eswa.2024.124181.

9. Grohs M., Abb L., Elsayed N., Rehse J.-R. Large Language Models can accomplish Business Process Management Tasks. arXiv preprint. 2023. URL: https://arxiv.org/abs/2307.09923.

10. Vidgof M., Bachhofner S., Mendling J. Large Language Models for Business Process Management: Opportunities and Challenges. arXiv preprint. 2023. URL: https://arxiv.org/abs/2304.04309.

11. Kampik T., Warmuth C., Weber B., et al. Large Process Models: Business Process Management in the age of Generative AI. Preprint. 2024.

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

12. Kourani H., et al. Evaluating large language models on business process modeling. Software and Systems Modeling. 2025. DOI: 10.1007/s10270-025-01318-w.

13. Bennoit C., et al. Identifying Use Cases for Large Language Models in the Business Process Management Lifecycle. 2024 IEEE 26th Conference on Business Informatics (CBI). 2024.

14. Calvanese D., Casciani A., De Giacomo G., Dumas M., Fournier F., Kampik T., et al. Agentic Business Process Management: A Research Manifesto. arXiv preprint. 2026. URL: https://arxiv.org/abs/2603.18916.

15. Dumas M., Milani F., Chapela-Campa D. Agentic Business Process Management Systems. arXiv preprint. 2026. URL: https://arxiv.org/abs/2601.18833.

16. Milanez A., Lemmens A., Ruggiu C. Algorithmic management in the workplace: New evidence from an OECD employer survey. OECD Artificial Intelligence Papers. 2025. URL: https://www.oecd.org/en/publications/algorithmic-management-in-the-workplace_287c13c4-en.html.

17. OECD. How widespread is algorithmic management in workplaces? OECD Policy Paper. 2025.

18. European Parliamentary Research Service. Digitalisation, artificial intelligence and algorithmic management at work. European Parliament. 2025.

19. IBM. What makes an iBPMS stand above the rest for process management. IBM Think. 2025. URL: https://www.ibm.com/think/insights/intelligent-business-process-management-suite-ibpms.

20. Gartner. Business Process Management Platforms Reviews and Market Definition. Gartner Peer Insights. 2026.

21. Zebec A., Štemberger M. I., et al. Creating AI business value through BPM capabilities. Business Process Management Journal. 2024. Vol. 30(8).

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

22. Mikalef P., Gupta M. Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. Information & Management. 2021. Vol. 58(3). Article 103434. DOI: 10.1016/j.im.2021.103434.

23. Enholm I. M., Papagiannidis E., Mikalef P., Krogstie J. Artificial Intelligence and Business Value: A Literature Review. Information Systems Frontiers. 2022. Vol. 24. P. 1709–1734. DOI: 10.1007/s10796-021-10186-w.

24. Raisch S., Krakowski S. Artificial Intelligence and Management: The Automation-Augmentation Paradox. Academy of Management Review. 2021. Vol. 46(1). P. 192–210. DOI: 10.5465/amr.2018.0072.

25. Jöhnk J., Weißert M., Wyrtki K. Ready or Not, AI Comes—An Interview Study of Organizational AI Readiness Factors. Business & Information Systems Engineering. 2021. Vol. 63. P. 5–20. DOI: 10.1007/s12599-020-00676-7.

26. Borges A. F. S., Laurindo F. J. B., Spínola M. M., Gonçalves R. F., Mattos C. A. The strategic use of artificial intelligence in the digital era: Systematic literature review and future research directions. International Journal of Information Management. 2021. Vol. 57. Article 102225.

27. Verhoef P. C., Broekhuizen T., Bart Y., Bhattacharya A., Dong J. Q., Fabian N., Haenlein M. Digital transformation: A multidisciplinary reflection and research agenda. Journal of Business Research. 2021. Vol. 122. P. 889–901. DOI: 10.1016/j.jbusres.2019.09.022.

28. Wessel L., Baiyere A., Ologeanu-Taddei R., Cha J., Blegind-Jensen T. Uncovering the Difference Between Digital Transformation and IT-enabled Organizational Transformation. Journal of the Association for Information Systems. 2021. Vol. 22(1).

29. Dwivedi Y. K., Hughes L., Ismagilova E., Aarts G., Coombs C., Crick T., et al. Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges,

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license

opportunities, and agenda for research, practice and policy. International Journal of Information Management. 2021. Vol. 57. Article 101994.

30. NIST. Artificial Intelligence Risk Management Framework (AI RMF 1.0). National Institute of Standards and Technology. 2023. DOI: 10.6028/NIST.AI.100-1.

31. ISO/IEC. ISO/IEC 42001:2023 Artificial intelligence – Management system. International Organization for Standardization. 2023.

32. European Parliament and Council. Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). Official Journal of the European Union. 2024.

33. Lysenko, S., & Makovoz, O. (2025). ICT-driven advancement as a key element in implementing EU sustainable development values in Ukraine. European Journal of Sustainable Development, vol. 14(2), p. 677. DOI: https://doi.org/10.14207/ejsd.2025. v14n2p677.

Увесь контент ліцензовано за умовами Creative Commons BY 4.0 International license