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# A COMPARATIVE ANALYSIS OF DIGITAL TRANSFORMATION MANAGEMENT FRAMEWORKS AND A CONTEXT-FIT SELECTION MATRIX

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**Herman Ya. Ye., Mazorenko O. V. A Comparative Analysis of Digital Transformation Management Frameworks and a Context-Fit Selection Matrix**

*Digital transformation is increasingly understood as enterprise-wide change in value creation, operating arrangements, and organisational capabilities, not simply technology adoption. The aim of the article is to provide a comparative analysis of widely used digital transformation frameworks (Gartner, McKinsey 7S, BCG, Deloitte, MIT, Cognizant) and to develop an instrument that supports an evidence-based choice of a framework depending on the conditions and needs of a particular organisation. The study is conducted as a qualitative comparative synthesis: the material is drawn from recent academic publications and authoritative practitioner descriptions, and the comparison is performed using shared criteria that ensure a consistent basis for analysing models of different types. The main result is the conclusion that the examined frameworks differ primarily in managerial logic and focus: some emphasise coherence among organisational elements, whereas others emphasise phased change and maturity assessment, coordination of change across domains, the development of digital capabilities and leadership, or the modernisation of the technological foundation as a condition for scaling. On this basis, a selection matrix is proposed that links typical organisational manifestations and constraints to an appropriate framework and specifies which additional components should be incorporated for more comprehensive transformation management. The study is limited by the predominance of secondary sources; further work should test the proposed instrument on empirical material and refine suitability criteria for different industries and maturity levels. The practical significance lies in improving the quality of managerial decisions regarding the selection and combination of frameworks, supporting more coherent planning, better controllability of change, and higher effectiveness of digital initiatives. The scientific novelty of the study lies in the systematic comparison of frameworks of different origins on a shared set of criteria and in formalising the results in the form of an applied selection instrument.*

***Keywords:*** *digital transformation; digital transformation frameworks; digital maturity; strategic management; management frameworks; organisational alignment.*
***Tabl.:*** *4.* ***Bibl.:*** *22.*

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***Герман Я. Є., Мазоренко О. В. Порівняльний аналіз фреймворків управління цифровою трансформацією та матриця вибору з урахуванням контекстної відповідності***

*Цифрова трансформація дедалі частіше трактується як загальноорганізаційна зміна способів створення цінності, операційних механізмів і спроможностей, а не лише впровадження технологій. Метою статті є порівняльний аналіз поширених фреймворків цифрової трансформації (Gartner, McKinsey 7S, BCG, Deloitte, MIT, Cognizant) і розроблення інструмента, що підтримує обґрунтований вибір фреймворку залежно від умов і потреб конкретної організації. Дослідження виконано як якісну порівняльну синтезу: матеріал зібрано із сучасних наукових публікацій і авторитетних описів практик, а зіставлення здійснено за спільними критеріями, що забезпечують однакові підстави для аналізу різних за типом моделей. Основний результат полягає у висновку, що розглянуті фреймворки відрізняються насамперед управлінською логікою та фокусом: одні підкреслюють узгодженість організаційних елементів, інші – поетапність і оцінювання зрілості, координацію змін між доменами, розвиток цифрових спроможностей і лідерства або модернізацію технологічної основи як умову масштабування. На основі цього запропоновано матрицю вибору, яка пов'язує характерні організаційні прояви та обмеження з відповідним фреймворком і окреслює, які додаткові компоненти доцільно залучати для повнішого управління трансформацією. Обмеження дослідження пов'язані з переважанням вторинних джерел; подальші роботи мають перевірити запропонований інструмент на емпіричних матеріалах і уточнити критерії придатності для різних галузей і рівнів зрілості. Практичне значення полягає в підвищенні якості управлінських рішень щодо вибору та поєднання фреймворків, що сприяє більш узгодженому плануванню, кращій керованості змін і вищій результативності цифрових ініціатив. Наукова новизна роботи полягає в системному зіставленні фреймворків різної природи на спільній критеріальній основі та у формалізації результатів у вигляді прикладного інструмента вибору.*

***Ключові слова:*** *цифрова трансформація; фреймворки цифрової трансформації; цифрова зрілість; стратегічне управління; управлінські фреймворки; організаційна узгодженість.*
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In the contemporary era, digital transformation (DT) has emerged as a critical strategic imperative for organisations seeking to maintain a competitive edge in a hyper-digitalized market. Driven by the rapid advancement of technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), Big Data, and cloud computing, this shift represents the Fourth Industrial Revolution, which fundamentally reshapes production, consumption, and organisational value delivery. Despite the high priority placed on these initiatives, a significant gap remains between strategic ambition and practical achievement: studies consistently show that significant of digital transformation initiatives fail to reach their goals due to fragmented execution, lack of clear strategy, or cultural resistance.

**Problem Statement**

The practical significance of this problem is underscored by the magnitude of organisational expenditure on digital transformation and the persistent evidence of inefficiency in its deployment. A substantial share of investment is routinely absorbed by initiatives that fail to translate technology adoption into sustainable business value, most commonly because implementation proceeds without coherent coordination across strategy, governance, operating model, and capability development. Organisations that navigate this journey successfully can achieve increased market share, improved employee morale, and higher revenue, while those that fail risk total obsolescence. From a scientific perspective, there is a notable shortage of rigorous research and validated material regarding the effectiveness of many existing transformation models, as many practitioner-led tools lack a clear research process or scientific validation. Therefore, comparing leading frameworks is a vital task to provide practitioners with an evidence-based roadmap that aligns technology with organisational structure and culture.

**Analysis of recent research and publications**

Recent research converges on the view that digital transformation (DT) is an enterprise-wide reconfiguration of how organisations create and deliver value, not merely the deployment of new technologies. Verhoef et al. [1] consolidate DT research across disciplines and emphasise that DT spans customer-facing change, operational redesign, and business model innovation, which helps explain why many initiatives underperform when treated as isolated IT projects. Complementing this strategic framing, Fernandez-Vidal et al. [2] examine DT from the executive perspective and highlight that senior leadership must navigate simultaneous demands of strategic direction, organisational alignment, and sustained implementation – an emphasis echoed in more practice-oriented syntheses of DT strategy and management [3–5].

A parallel stream addresses the rapid proliferation of DT frameworks. Imbar et al. [6] review DT frameworks as a research object in itself, reflecting the field's shift from defining DT toward structuring it. Reiter [7] advances this by explicitly comparing leading DT frameworks using evaluative criteria, demonstrating growing scholarly interest in framework selection rather than framework advocacy. In addition, the literature increasingly treats DT as measurable. Spremić and Zentner [8] propose and validate a maturity construct for digital business models, while Nguyen and Nguyen and Dang [9] empirically assess DT preparedness, showing that readiness gaps remain significant and uneven across firms – particularly relevant when frameworks implicitly assume mature governance, metrics, and capability baselines, a limitation that is especially evident in small and medium-sized enterprises [10].

More recent work also extends DT debate toward sustainability and resilience. Chavarnakul et al. [11] synthesise research on resilient digital transformation and argue that sustained digital capability depends on organisational conditions such as governance, workforce development, and adaptive routines, not solely on technology choices. Sector-focused contributions further illustrate that "best" frameworks can be context dependent: Attah et al. [12] propose strategic framing for logistics and energy, while Zimnoch [13] shows that transportation DT required explicit consideration of sector constraints when selecting and applying DT frameworks.

**Identification of unresolved gaps**

Despite the expanding evidence base, the literature still leaves a clear methodological gap for this study. First, existing comparisons acknowledge many frameworks but often evaluate artefacts with different intended functions (alignment lenses, maturity

instruments, sector strategies, leadership guidance), which makes direct comparison conceptually unstable [6; 7]. Second, readiness and maturity research demonstrates capability heterogeneity across firms [8; 9], yet the literature provides limited guidance on how such heterogeneity should systematically determine framework choice or predict implementation feasibility. Third, leadership and long-term capability retention are recognised as central to DT outcomes [1; 2], but these insights are not consistently integrated into comparative evaluations of frameworks in a way that yields defensible conclusions about relative benefits, weaknesses, and boundary conditions.

Accordingly, this article addresses the need for a concise, criteria-consistent comparison of leading DT frameworks that links what each framework prioritises to the constraints and organisational conditions highlighted in recent empirical and review literature.

**Formation of the objectives of the article (task statement)**

The aim of the article is to conduct a comparative analysis of leading digital transformation frameworks in order to identify their conceptual foundations, evaluate their strengths and limitations against consistent analytical criteria and propose an instrument to choose one according to needs and goals of particular company.

**Methodological provisions**

Digital transformation can be understood through three closely connected concepts: digitization, digitalization, and digital transformation in the strict sense. Digitization denotes the technical conversion of analogue information into digital form, making it possible to represent, store, and process data in computational systems. Digitalization extends beyond this technical layer to the socio-technical adoption of digital technologies in order to redesign routines, workflows, offerings, and, in some cases, business models. Digital transformation represents the broader organisational shift that emerges when such technologies and redesigned practices become embedded across the enterprise, leading to substantive changes in operations, customer interaction, and the mechanisms through which value is created and captured [14; 15].

These distinctions are not purely terminological: they imply that successful digital transformation requires coordinated change across multiple organisational layers [11]. In line with contemporary DT research, transformation outcomes depend on how effectively technology-enabled initiatives are integrated with operating-model redesign, customer-facing value creation, and – in more advanced cases – business model renewal. Accordingly, a framework is valuable not because it "lists technologies," but because it provides an organising logic for aligning strategic intent, organisational design, capability development, and measurable outcomes under conditions of uncertainty and resistance.

A digital transformation framework is a structured guide for managing major, organisation-wide change in operations, value delivery, and the use of digital technologies. It does not list tools; it provides a common language, sets priorities, and clarifies how change should be coordinated and sequenced across the organisation [6; 12].

Based on this definition, the main contribution of the paper is a structured comparison of leading frameworks. The core point is simple: frameworks differ mainly in what they treat as the main barrier to successful transformation. Some emphasise measuring and realising value, others focus on internal alignment, sequencing and maturity, enterprise-wide orchestration, leadership capability, or legacy and platform renewal. By analysing each framework on its own terms – i. e., what it assumes causes failure and what it prioritises in response – the section identifies each framework's key strengths and its most common blind spots.

On this basis, the comparative analysis is organised around the mechanisms that frameworks use to prevent well-intended digital initiatives from fragmenting into disconnected projects. Specifically, the study evaluates each framework by: (i) its implied causal explanation of transformation failure/success; (ii) the organisational prerequisites it assumes (governance, measurement discipline, leadership attention, delivery capacity); and (iii) the practical consequences of these assumptions, expressed as characteristic strengths and blind spots. This structure allows heterogeneous frameworks (diagnostic, maturity-based, capability-based, and modernisation-focused) to be compared without treating them as if they were the same type of tool.

For the purposes of this comparative analysis, six widely used digital transformation frameworks were selected on the basis of documented prominence in practitioner and institutional landscape reviews and analytical distinctiveness, i. e., each framework foregrounds a different primary constraint on transformation success (alignment, value/measurement, sequencing and maturity, enterprise-wide orchestration, capability–leadership co-evolution, or legacy/platform renewal).

**Main material of the study with substantiation of the research results**

The selection includes five consultancy-origin frameworks and one research/advisory-origin frame-

work (Gartner), which is retained because it represents a distinct value-realisation and measurement logic that is central to contemporary DT practice [7; 16]. Accordingly, the frameworks compared in this study are the following:

- The Gartner digital transformation framework;
- The McKinsey digital transformation framework;
- The BCG digital transformation framework;
- The Deloitte digital transformation framework;
- MIT Sloan digital transformation framework;
- Cognizant digital transformation framework.

This study applies a qualitative comparative synthesis based on structured content analysis of recent peer-reviewed DT literature and authoritative practitioner framework descriptions. The selection of the six frameworks (Gartner, McKinsey 7S, BCG, Deloitte, MIT-Capgemini digital mastery, and Cognizant) was guided by two principles: (i) prominence in widely cited practitioner and institutional landscape reviews, and (ii) analytical distinctiveness, such that each framework foregrounds a different mechanism assumed to determine transformation success.

To ensure comparability across heterogeneous framework types (diagnostic alignment models, maturity and benchmarking models, enterprise orchestration models, capability-leadership models, and modernisation pathways), the analysis used a common template for each framework:

1) the framework's implied causal logic (what it treats as the main reason transformations succeed or fail);
2) the organisational prerequisites implied by that logic (e. g., governance capacity, measurement capability, portfolio delivery capacity, technology-estate readiness);
3) substantiated strengths (what the framework supports particularly well);
4) characteristic limitations or blind spots (what it tends to under-specify).

Finally, the cross-framework findings were synthesised into a constraint-driven selection instrument. This instrument maps observable organisational "challenge signals" (e. g., misalignment and cultural resistance; limited value evidence; need for phased momentum; enterprise reinvention requirements; legacy/platform constraints) to the framework whose causal logic most directly addresses the dominant constraint, while indicating complementary lenses required to mitigate predictable omissions.

Framework-by-framework comparative analysis:

**1.** The McKinsey 7S model conceptualises digital transformation challenges primarily as an organisational alignment problem arising from the interdependence of seven elements – strategy, structure, systems, shared values, skills, style, and staff. Its core explanatory claim is that transformation efforts frequently stall when adjustments in the "hard" elements (strategy, structure, systems) are not matched by corresponding shifts in the "soft" elements (shared values, skills, style, staff), or when cultural and people-related change is pursued without compatible structural and systems redesign. The framework is therefore best understood as a diagnostic lens rather than a step-by-step implementation roadmap: it is designed to surface where misalignments – often cultural or structural – are likely to undermine adoption and execution. Consistent with this logic, contemporary interpretations commonly begin analysis with shared values, which are placed at the centre of the model to signal their foundational influence on the coherence of the remaining elements and, consequently, on the feasibility of sustained organisational change. Recent McKinsey publications continue to reference the 7-S elements as a foundational alignment lens in operating-model design; contemporary teaching-oriented summaries likewise emphasise the centrality of shared values to coherence across the remaining elements [2].

***Substantiated strengths.*** As a diagnostic instrument, 7S is empirically attractive because it renders "culture" and "people" analysable as interacting organisational variables rather than residual explanations. 7S provides a socio-technical coherence test: transformations fail when organisational components do not co-evolve.

***Substantiated limitations.*** Precisely because it is an alignment model, 7S is weaker as a delivery architecture: it does not, by itself, specify sequencing, portfolio governance, or metrics design at the granularity required for staged implementation and cost control. This limitation is inherent to the model's purpose (diagnosis and alignment), not a defect of execution.

**2.** In contemporary practitioner descriptions, BCG's approach is distinctive in treating transformation as a time-phased capability build that must balance quick results with deeper reinvention. This logic could be summarized through three layers: quick wins (0–12 months), business transformation (12–24 months), and business model transformation (24+ months). The implied causal mechanism is that early gains create momentum and learning, but long-run advantage requires operating-model and business-model shifts [17].

BCG operationalises its maturity logic through the Digital Acceleration Index (DAI), which it presents as a global, multiyear research and benchmarking stream used to characterise how digitally leading firms build repeatable innovation capacity and link operating-model design to speed and value creation. In this framing, maturity assessment is not a stand-alone

scorecard but a diagnostic that informs prioritisation and the design of the organisational "learning loop" BCG associates with sustained digital delivery at scale [18]. Complementary, high-credibility practitioner reporting (Google Cloud summarising BCG research) describes the DAI as comprising multiple dimensions/categories that measure areas such as digital strategy and governance, platforms, security, and analytics – reinforcing that the instrument is intended as a multi-dimensional maturity baseline rather than a single KPI [9; 19].

***Substantiated strengths.*** Two benefits follow directly from the sources: BCG provides sequencing logic (phased horizons) that many alignment-only models lack; and the DAI supplies an empirical diagnostic baseline to prioritise interventions and compare against peers, linking maturity to organisational learning and repeatable innovation capacity.

***Substantiated limitations.*** The same design implies resource intensity: phased programmes plus maturity benchmarking presume data availability, cross-functional delivery capacity, and the ability to run multiple initiatives as a managed portfolio – conditions that are uneven across organisations. (This is also why some practitioner guides explicitly frame DAI as diagnostic and requiring follow-on execution frameworks.)

**3.** Deloitte's framework is explicitly "end-to-end," defined through six dimensions: Digital Strategy, Business Model Innovation, Customer Experience, Workforce Enablement, Operational Efficiency, and Technology Infrastructure. The core causal story is orchestration: transformation succeeds when these domains are jointly designed rather than optimised independently [20].

*Tbl. 1* shows that the Deloitte approach frames transformation as multi-domain orchestration rather than a single-stream technology programme. The explicit inclusion of workforce enablement and operational redesign aligns with socio-technical findings that adoption and capability development are central determinants of transformation sustainability. At the same time, the breadth of the model implies higher coordination and assessment overhead, which becomes a practical boundary condition for organisations with limited analytical capacity or weak portfolio governance.

This orchestration logic can be anchored more explicitly in Deloitte's Digital Maturity Index, which operationalises digital maturity via a structured assessment (reported as multiple parameters and maturity archetypes), thereby supporting comparative diagnosis and capability roadmapping rather than ad hoc domain-by-domain optimisation [20]. Moreover, recent applied research illustrates the practical uptake of Deloitte-branded maturity thinking through five maturity levels, used to evaluate and differentiate organisations' digital status (e. g., placing lower-ranked entities at earlier levels and higher-ranked entities at later levels) [9].

***Substantiated strengths.*** Deloitte's principal contribution (as evidenced by the sources) is scope completeness: it makes "workforce enablement" and operating efficiency co-equal with strategy, experience, and infrastructure – thereby aligning with socio-technical findings that transformation requires changes to skills and operating routines, not only systems.

***Substantiated limitations.*** The trade-off is assessment and coordination overhead: multi-dimensional models impose analytic workload and require multi-year, cross-functional programme management capacity. This is implied by the framework's breadth and reinforced by the way maturity-level implementa-

**Table 1**

**Deloitte framework domains**

| Domain | Analytical emphasis |
|---|---|
| Digital Strategy | Establish strategic intent for transformation, translate it into an actionable roadmap, and align senior leadership around priorities, governance, and accountability |
| Business Model | Reconfigure value creation and capture through new offerings, platform/ecosystem participation, and revised revenue and operating logics |
| Customer Experience | Design integrated, omnichannel customer journeys that leverage data and real-time insight to enable personalisation and consistent service quality |
| Workforce Enablement | Develop workforce capability and adoption by providing enabling tools, automation support, and systematic skills development aligned to new ways of working |
| Operations | Redesign processes and workflows to improve efficiency and scalability, while embedding agile practices and continuous improvement routines |
| Technology | Build a flexible, secure, and future-ready architecture (e. g., cloud foundations, API-based integration, AI enablement, and resilient security controls) to support enterprise-wide change |

**Source:** adapted by the authors.

tions are used as comparative evaluation instruments rather than lightweight checklists.

**4.** The MIT Sloan stream conceptualises digital transformation through a capability-based lens, treating "digital maturity" as the extent to which an organisation converts technological innovation into enterprise digital capabilities and simultaneously leads the organisational integration required to embed those capabilities in routines, structures, and culture. Within this perspective, capability development is commonly articulated across three core domains – customer experience, operational processes, and business models – which are repeatedly treated as central loci through which digital initiatives translate into operational improvement and value reconfiguration.

Recent peer-reviewed work operationalises this MIT-oriented stream as a capability–leadership duality and uses it to classify organisations into maturity profiles (e. g., distinguishing technology-heavy versus leadership-embedded transformation patterns), which supports comparative diagnosis beyond narrative description. Building on this duality, organisations can be positioned in maturity profiles such as Beginners, Conservatives, Fashionistas, and Digirati (Digital Masters), enabling systematic comparison of how "digital masters" construct and manage digital competence and linking higher maturity to superior performance outcomes in the underlying research tradition [2; 9].

*Tbl. 2* operationalises the MIT capability lens by identifying where digital initiatives must accumulate into organisational capability rather than remain project-level artefacts. The model's diagnostic value lies in making leadership and change capability an explicit co-determinant of performance: intensive digitisation without corresponding transformation management capability predicts unstable adoption and limited business impact. However, because the framework remains intentionally high-level, it typically requires translation into concrete governance routines, sequencing logic, and measurement mechanisms during implementation.

***Substantiated strengths.*** The model's research value is theoretical parsimony: it reduces a sprawling phenomenon into an empirically tractable two-dimensional construct, enabling comparative diagnosis (e. g., distinguishing technology-heavy "fashionistas" from leadership-and-capability-strong "digirati"). In explanatory terms, the framework foregrounds leadership intensity and change capability as causal, not peripheral.

***Substantiated limitations.*** Because the model is intentionally high-level, it typically requires translation into operational governance, portfolio sequencing, and measurement systems – areas where frameworks such as Gartner (metrics/value realisation) or Deloitte (multi-domain orchestration) provide more explicit scaffolding. The need for operational translation follows from the framework's abstraction level, not from a lack of empirical grounding.

**5.** The Gartner approach operationalises transformation as an enterprise programme that must be continuously tethered to measurable value. In the practitioner formulation the framework is organised around five domains – Vision & Strategy, Customer Experience, Operating Model, Technology Core, and Metrics & Value Realization – explicitly positioning measurement as the mechanism that prevents "digital ambition" from decoupling from realised outcomes. Gartner's publicly available survey reporting indicates that fewer than half of digital initiatives meet or exceed intended business outcome targets, reinforcing the framework's emphasis on value realisation disciplines and outcome-linked governance rather than technology deployment alone) [7; 9].

*Tbl. 3* consolidates the framework's five-domain logic into an analytical form. Importantly, the domains are not independent checklists: the model assumes that the operating model and technology core must be redesigned in service of an explicitly stated value logic, which is then governed through outcome-oriented metrics. This strengthens accountability and reduces

**Table 2**

**MIT framework domains**

| Domain | Analytical emphasis |
|---|---|
| Customer Experience | Use data-driven insight to enable personalisation, support consistent omnichannel journeys, and improve customer value delivery |
| Operational Processes | Redesign internal processes through automation and real-time data use, strengthening cross-functional coordination and execution efficiency |
| Business Models | Develop digitally enabled offerings and revenue logics, including platform-based models and participation in broader ecosystems |
| Employee Experience | Extend transformation to work design by making employee experience more human-centred, reducing friction in daily work, and strengthening adoption of digital practices |

**Source:** adapted by the authors.

Table 3

**Gartner framework domains**

| Domain | Analytical emphasis |
|---|---|
| Vision and Strategy | Articulate digital ambition in continuity with corporate strategy and the value proposition, anchoring priorities in explicit customer and business outcomes |
| Customer Experience | Design and govern digitally mediated customer journeys and touchpoints to improve perceived value, engagement quality, and satisfaction across channels |
| Operating Model | Reconfigure operating arrangements – process architecture, governance and decision rights, roles, and capability portfolios – to enable sustained digital delivery and adoption |
| Technology Core | Build a resilient, scalable, modular technology foundation (e.g., cloud infrastructure, API-based integration, automation, AI enablement) to support interoperability, iteration, and reuse |
| Metrics and Value Realisation | Institutionalise outcome-oriented measurement by linking initiatives to business KPIs and explicit value-realisation mechanisms beyond IT-centric metrics |

**Source:** adapted by the authors.

"digital activity without impact," but it also creates a threshold condition: if an organisation lacks reliable KPIs, data quality, or cross-functional ownership, the measurement layer risks becoming symbolic rather than steering decisions.

***Substantiated strengths.*** The framework's design advantage is methodological discipline: it forces ex ante specification of business KPIs, clarifies how the operating model must change to deliver them, and treats the "technology core" as a scalable architectural substrate rather than a project-specific toolset. In governance terms, this is a control-and-accountability theory of transformation: outcomes improve when value hypotheses are made explicit and tracked.

***Substantiated limitations.*** The same logic implies a capability threshold: to execute Gartner's model as described, organisations require mature performance measurement and cross-functional governance capacity; otherwise, the metrics layer risks becoming symbolic rather than decision-relevant. This is not a minor operational nuance: it marks a structural dependency that mid-capability firms often lack, which can lead to "metric theatre" rather than value steering.

**6.** Cognizant: legacy/platform modernisation and AI-readiness as the binding constraint. Cognizant's approach is anchored in the proposition that legacy technology constraints increasingly determine transformation speed – particularly under AI-driven timelines. In Cognizant's recent executive survey reporting, 85% of respondents indicated plans to accelerate their use of AI and automation over the next two years, and 79% stated that their organisations need to modernise their technology infrastructure to keep pace with the growing demand for AI. The same source frames modernisation as a "flywheel" (Modernize-and-Transform) with phases spanning modernisation, data/architecture simplification, AI enablement, and scaling – presenting transformation as an engineering-and-operating-model pathway rather than a purely strategic exercise [19; 21; 22].

***Substantiated strengths.*** Cognizant's advantage is constraint realism: it centres platform renewal, data foundations, and automation at scale, thereby directly addressing technical debt as a limiting factor for AI-era transformation.

***Substantiated limitations.*** The approach is most applicable where legacy complexity is genuinely binding; in lower-legacy contexts, its technology-centred emphasis may under-specify cultural alignment and leadership capability issues relative to frameworks such as 7S or MIT. This boundary condition is implicit in the framework's problem framing (legacy/modernisation mandate) and the kinds of transformation scenarios it highlights.

The framework comparisons above indicate that each model is optimised for a different dominant failure mechanism. To translate these findings into an applied contribution, *Tbl. 4* presents a constraint-driven selection matrix that links observable organisational signals to a primary framework choice. The purpose of the matrix is not to rank frameworks, but to improve fit: it recommends the framework whose causal logic most directly addresses the dominant barrier, and it specifies complementary lenses required to mitigate predictable blind spots.

Read as a decision aid, Table 4 implies two practical principles. First, framework choice should begin with diagnosis of the dominant constraint (alignment, value evidence, sequencing, orchestration, capability/leadership, or legacy). Second, robust programmes are often hybrid by necessity: the primary framework should be complemented by the minimum secondary lens needed to cover what the primary framework under-specifies (e. g., pairing value-realisation logic with alignment diagnosis, or pairing modernisation pathways with capability and adoption design).

Table 4

**DT framework selection matrix**

| Dominant diagnostic signal | Primary framework | Core mechanism foregrounded | Complement to reduce blind spots |
|---|---|---|---|
| Adoption stalls due to misalignment between structure/systems and values/skills/behaviours | McKinsey 7S | Socio-technical alignment across "hard" and "soft" elements; shared values as coherence anchor [16; 17] | Add sequencing/maturity lens (BCG or Deloitte) for roadmapping and portfolio pacing [18; 19; 20] |
| Legacy/platform constraints block scaling (integration debt, data fragmentation, AI readiness gaps) | Cognizant | Modernisation-first logic; platform and data foundations as prerequisites for automation/AI scaling [21] | Add alignment/capability lens (7S or MIT) for adoption and operating-model redesign [9; 16; 17] |
| Value cannot be evidenced (weak KPIs/ROI, outcome ambiguity, "activity without impact") | Gartner | Value realisation discipline; initiative-to-KPI linkage across enterprise domains [7; 16; 17] | Add 7S (alignment) or Deloitte (enterprise orchestration) after measurement baseline [16; 17; 20] |
| Enterprise-wide reinvention required (multi-domain change across CX – ops – workforce – tech) | Deloitte | Multi-domain orchestration; maturity framing for coordinated capability roadmaps [20] | Add BCG (phased momentum) or MIT (leadership-capability co-evolution) [9; 18; 19] |
| Need rapid wins while preserving longer-term reinvention intent | BCG | Time-phased delivery and DAI benchmarking to prioritise levers and sustain speed [18; 19] | Add Deloitte (institutionalisation) or 7S (alignment to prevent adoption stall) [16; 17; 20] |
| Digital initiatives exist, but capabilities do not institutionalise (pilot-to-scale gap; uneven leadership intensity; weak adoption routines) | MIT Sloan | Co-evolution of digital capability and transformation/ leadership capability; capability accumulation across CX – operations – business models [9] | Add Gartner (value/KPIs) for measurable outcomes and Deloitte/BCG for orchestration and sequencing at portfolio level [7; 19; 20] |

**Source:** adapted by the authors based on [7; 9; 16–21].

## CONCLUSIONS

Digital transformation constitutes a strategic and organisational challenge that cannot be addressed through technology adoption alone. Recent DT scholarship frames transformation as an enterprise-wide reconfiguration of value creation, operating arrangements, and capabilities, which helps explain why initiatives frequently underperform when pursued as fragmented projects rather than coordinated change programmes. This paper responded to that gap by treating "digital transformation frameworks" not as universal recipes but as structured lenses that guide coordination, sequencing, and institutionalisation of change.

The central result of the study is a comparative synthesis showing that widely used frameworks differ primarily in the constraint they treat as decisive for success. Alignment-oriented logic (McKinsey 7S) foregrounds socio-technical coherence across "hard" and "soft" organisational elements; phased and benchmark-oriented approaches (BCG) emphasise momentum and prioritisation across time horizons; enterprise orchestration models (Deloitte) prioritise cross-domain coordination; capability-based perspectives (MIT digital mastery) stress the co-evolution of digital capabilities and transformation management capability; and modernisation pathways (Cognizant) treat legacy/platform constraints and AI-readiness as binding conditions for scaling. In practical terms, these frameworks are therefore best understood as complements that address different failure mechanisms, rather than as substitutes competing for a single "best" position.

To translate this insight into a usable instrument, the paper proposed a constraint-driven selection matrix that links observable organisational signals (e. g., misalignment and silos; weak value evidence; need for staged momentum; enterprise reinvention requirements; legacy bottlenecks under AI pressure) to an appropriate primary framework and identifies what should be complemented to mitigate predictable blind spots. This decision logic is consistent with broader evidence that organisations differ substantially in preparedness and capability baselines, and that these differences shape what forms of transformation can be executed and sustained.

The findings also underscore the importance of executive leadership and governance that can integrate strategy, alignment, and sustained execution. Research on transformation "from the top" indicates that DT creates distinctive managerial demands and requires active senior involvement to steer priorities, manage organisational tensions, and institutionalise new routines. Accordingly, the paper's selection matrix should be read not as a purely technical decision aid but as a governance tool: it clarifies what an organisation must be able to coordinate (and what it must be willing to change) for a chosen framework to be more than a descriptive label.

Future research should prioritise empirical validation of the proposed selection logic. In particular, comparative longitudinal studies could test whether "constraint-aligned" framework choice improves value realisation and the resilience of digital capabilities over time – an issue that recent systematic review work identifies as central to sustaining transformation beyond initial implementation waves. Further work is also needed to specify sectoral boundary conditions, since the dominant constraint – and thus the best primary framework – may vary systematically by industry structure, regulation, and competitive dynamics.

In conclusion, the strategic management of digital transformation requires framework choice that is contingent, diagnosis-driven, and capability-aware. The study's main contribution is to show that transformation frameworks encode different causal assumptions about failure and success, and to operationalise that insight into a structured selection instrument that helps organisations align their goals and constraints with an appropriate transformation logic. ■

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# ЗБАЛАНСОВАНЕ AI-УПРАВЛІННЯ ВІДДАЛЕНИМИ IT-КОМАНДАМИ: КОНЦЕПТУАЛЬНА МОДЕЛЬ ІНТЕГРАЦІЇ АЛГОРИТМІЧНОГО МОНІТОРИНГУ ТА КОМАНДНОЇ ЗГУРТОВАНОСТІ

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**Ільчук П. Г., Горейко Д. Я. Збалансоване AI-управління віддаленими IT-командами: концептуальна модель інтеграції алгоритмічного моніторингу та командної згуртованості**

*У статті досліджено трансформацію моделей управління IT-проєктами в умовах поширення віддалених форматів роботи та активної інтеграції систем штучного інтелекту в управлінські процеси. Актуальність дослідження зумовлена зростанням складності координації діяльності розподілених IT-команд у цифровому середовищі, що характеризується високою невизначеністю, нелінійністю процесів та підвищеним рівнем організаційної турбулентності, які описуються концепцією BANI (Brittle, Anxious, Nonlinear, Incomprehensible). У таких умовах традиційні підходи до управління проєктами, засновані на ієрархічному контролі та ручному аналізі інформації, поступово втрачають ефективність, що актуалізує необхідність використання алгоритмічних інструментів підтримки прийняття управлінських рішень. Водночас надмірна алгоритмізація управління може створювати ризики зниження довіри, автономії працівників та психологічної безпеки в командах, що зумовлює потребу формування збалансованих моделей інтеграції штучного інтелекту в управлінські практики. Метою статті є теоретичне обґрунтування та розроблення концептуальної моделі збалансованого AI-управління IT-проєктами, яка інтегрує алгоритмічний моніторинг продуктивності з механізмами підтримки командної згуртованості віддалених IT-команд. Методологічну основу дослідження становлять методи системно-структурного аналізу наукових джерел, порівняльного аналізу традиційних і алгоритмічних підходів до управління проєктами, а також методи узагальнення та концептуального моделювання. У межах дослідження проаналізовано сучасні наукові підходи до алгоритмічного менеджменту, соціотехнічної інтеграції цифрових систем управління та використання аналітики даних у середовищі віддаленої співпраці. У результаті дослідження систематизовано інструменти алгоритмічного моніторингу за трьома взаємопов'язаними рівнями: операційним, прогностичним і соціально-комунікаційним. Операційний рівень охоплює аналіз показників продуктивності процесів розробки програмного забезпечення, прогностичний – алгоритми прогнозування ризиків виконання проєктів та управління ресурсами, а соціально-комунікаційний – інструменти аналізу командної взаємодії, комунікаційних мереж і психологічного стану учасників команди. На основі цієї систематизації запропоновано концептуальну модель збалансованого AI-управління IT-проєктами, що поєднує ядро оцінювання продуктивності (Performance Core) із шаром аналізу командної згуртованості (Cohesion Layer). Модель доповнена системою етико-правових запобіжників використання алгоритмічних систем та принципом Human Override, який забезпечує збереження пріоритету людської інтерпретації результатів алгоритмічного аналізу. Практичне значення дослідження полягає в розробленні поетапного алгоритму впровадження запропонованої моделі в систему управління IT-проєктами, що передбачає аудит цифрової зрілості організації, налаштування метрик алгоритмічного моніторингу, інтеграцію інструментів аналізу командної взаємодії та розвиток управлінських компетенцій у сфері інтерпретації алгоритмічних даних. Запропонований підхід сприяє підвищенню операційної стійкості IT-проєктів, покращенню якості управлінських рішень у віддалених командах і формуванню балансу між технологічною ефективністю цифрових систем управління та соціальною стійкістю організаційного середовища.*

***Ключові слова:*** *віддалені IT-команди; управління IT-проєктами; штучний інтелект; алгоритмічний менеджмент; алгоритмічний моніторинг; командна згуртованість; BANI-середовище.*

***Рис.:*** *1.* ***Табл.:*** *1.* ***Бібл.:*** *14.*