Managing Digital Transformation Projects under the Influence of AI*

Sergiy Bushuyev[1,†], Denis Bushuiev[1,†], Victoria Bushuieva[,†], Oleh Ilin[*1,†] and Gleb Murovansky[1,†]

[1] *Kyiv National University of Construction and Architecture, 31, Povitroflotskyi Avenue, Kyiv, Ukraine*

Abstract

The rapid advancement of artificial intelligence (AI) is reshaping the landscape of digital transformation projects. Organisations must adapt to the evolving capabilities of AI-driven systems to remain competitive and agile in a dynamic business environment. This paper explores the impact of AI on digital transformation project management, focusing on key challenges, opportunities, and strategies for successful implementation. AI influences project management by enhancing decision-making, optimizing resource allocation, and automating routine tasks. It enables predictive analytics, real-time risk assessment, and intelligent automation, allowing project managers to make data-driven decisions with greater accuracy. However, the integration of AI introduces challenges, including ethical concerns, data privacy issues, and the need for upskilling human resources. This study highlights essential competencies for managing AI-driven digital transformation projects, including AI literacy, ethical AI governance, human-AI collaboration, and agile adaptation to AI-induced changes. Organisations must foster a culture of continuous learning and cross-disciplinary collaboration to maximize the benefits of AI. The paper concludes with recommendations for project managers to successfully navigate AI-driven transformations. These include leveraging AI for strategic decision-making, implementing robust risk management frameworks, and fostering a human-centric approach to AI adoption. By addressing these factors, organisations can enhance their digital transformation initiatives and achieve sustainable competitive advantages in the AI era.

Keywords

artificial Intelligence, digital transformation, competencies, project management

1. Introduction

In an era of rapid technological advancement, digital transformation has emerged as a cornerstone of organizational success, enabling firms to adapt to market shifts, enhance operational efficiency, and deliver innovative solutions. Artificial Intelligence (AI) is central to this transformation, which has evolved from a supportive tool to a transformative force in project management. AI's capabilities—such as predictive analytics with 80–85% accuracy, real-time optimisation yielding 15–20% resource savings according to Gartner, and autonomous decision-making—empower organizations to tackle complex digital initiatives, from smart infrastructure to blockchain-driven supply chains. Yet, the integration of AI into digital transformation projects remains uneven, with only 10–20% of professionals possessing the requisite expertise to leverage it fully (World Economic Forum, 2024). This disparity highlights the need for innovative management paradigms to effectively harness AI's potential.

Let's look at the challenges in AI-Driven Project Management.

*ITPM-2025: VI International Workshop "IT Project Management", May 22, 2025, Kyiv, Ukraine

[1*] Corresponding author.

[†] These authors contributed equally.

SBushuyev@ukr.net (S. Bushuyev); bushuyevd@gmail.com (D. Bushuiev); bushuieva.v@gmail.com (V. Bushuieva); oleg.ilin.ua@gmail.com (O. Ilin); 4648800@gmail.com (G. Murovansky)

0000-0002-7815-8129 (S. Bushuyev); 0009-0002-6477-0517 (D. Bushuiev); 0000-0001-7298-4369 (V. Bushuieva); 0009-0005-8805-8147 (O. Ilin); 0009-0003-4610-9087 (G. Murovansky)

Despite its promise, AI introduces significant challenges to digital transformation projects. High failure rates persist, with studies indicating that up to 40% of technology initiatives falter due to misaligned objectives, skill shortages, and inadequate adaptation to dynamic environments. In turbulent contexts—marked by economic instability (e.g., 15–20% inflation in post-conflict regions like Ukraine) and infrastructural disruptions (0.6–0.7 probability)—traditional project management frameworks like PMBOK struggle to accommodate AI's complexity and pace. Moreover, ethical concerns, such as data bias and transparency, further complicate AI deployment, demanding governance structures that align with societal values.

The influence of AI on digital transformation projects necessitates re-evaluating project management practices to ensure operational success and sustainable outcomes. This study addresses a critical gap - while existing research highlights AI's technical benefits, few frameworks integrate these capabilities with the competencies and processes needed to manage them in volatile settings. Practical examples, such as Kyiv's "Fayna Town" project—achieving 30% energy savings and $5–7 million in cost reductions through AI-driven IoT and BIM—demonstrate the potential for transformative impact yet highlight the need for systematic guidance. This research bridges theory and practice, offering insights for project managers navigating the AI era.

Objectives of the study.

This paper aims to explore how AI reshapes the management of digital transformation projects and to propose a conceptual framework for optimizing their execution. Specifically, it seeks to:

- identify AI's key capabilities and their impact on project outcomes;
- define the evolving competencies required to manage AI-influenced projects;
- adapt project management processes to integrate AI effectively within turbulent environments;
- validate findings through real-world applications, such as "Fayna Town."

2. Research methodology

By combining a literature review, expert consensus via the Delphi method, and case study analysis, this study provides a roadmap for leveraging AI to achieve operational excellence and societal benefit in digital transformation initiatives. Let's look at the Key Features of the research methodology (Fig. 1).

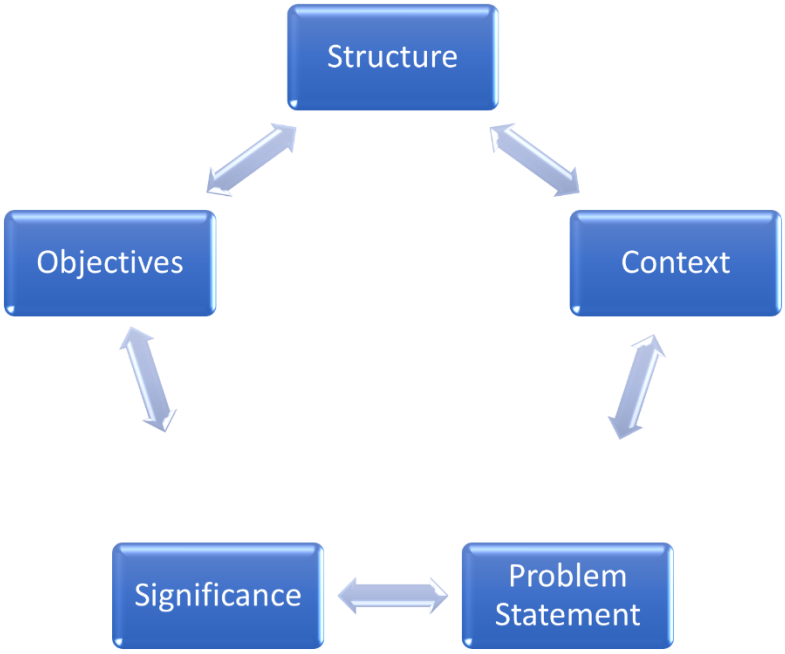

Figure 1: Key elements of research methodology.

Structure. Subheadings - Background, Challenges, Significance, and Objectives break the text into clear, digestible sections, improving flow and readability as recommended earlier.

Context. Establishes AI's role in digital transformation with current data (e.g., 2025 expertise stats), grounding the study in a contemporary setting.

Problem Statement. Highlights challenges (e.g., failure rates, skill gaps) with specific metrics, justifying the need for new approaches.

Significance. Ties the study to a research gap and practical examples (e.g., Fayna Town), emphasising relevance.

Objectives. Clearly states the study's goals, aligning with the abstract's focus and setting up the methodology.

This study employs a mixed-methods research design, combining qualitative and quantitative approaches to develop and refine the conceptual model. The design unfolds in three sequential phases (Fig. 2).

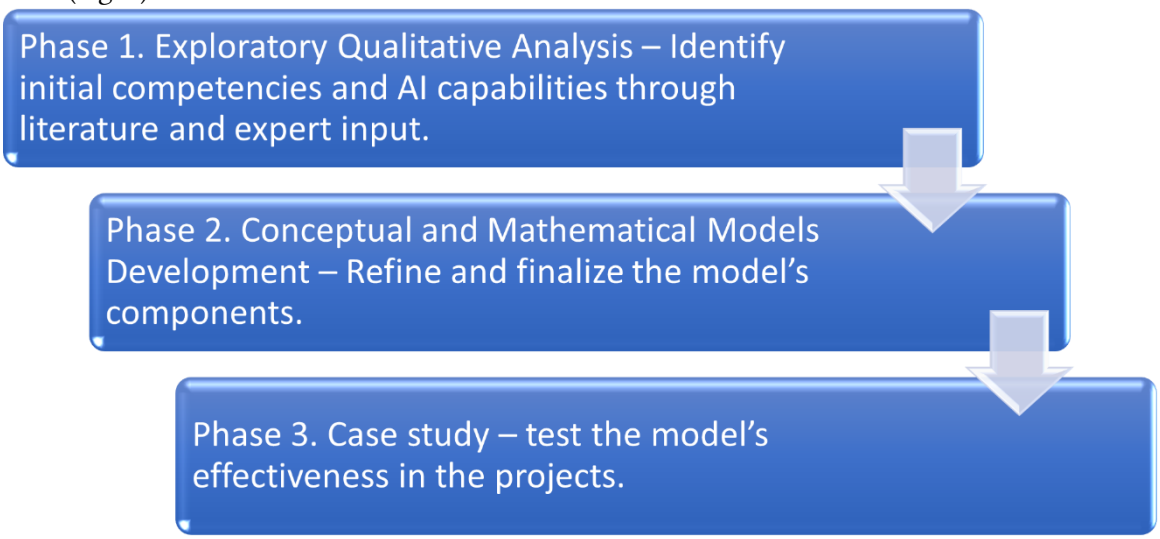

Figure 2: The three sequential phases of design.

This phased approach ensures a robust foundation, iterative refinement, and empirical validation, addressing the complexities of a turbulent BANI environment.

2.1. Literature review

Digital transformation projects are increasingly influenced by artificial intelligence (AI), which offers both opportunities and challenges for organisations. As AI technologies become more integrated into business processes, understanding how to manage these transformations effectively is crucial for achieving strategic goals.

Frameworks for AI Integration in Digital Transformation

AI is often implemented alongside other digital technologies to support existing business operations rather than completely transform them. A framework for successful AI implementation in digital transformation projects emphasises the importance of data management, intelligence integration, agility, and leadership [1]. Additionally, the AI readiness framework helps organisations assess their ability to deploy AI technologies effectively, focusing on technologies, activities, boundaries, and goals [2, 3].

Project Management Methodologies ,

The choice of project management methodology is critical for AI transformation projects. Agile methodologies, such as Scrum and Kanban, are favoured for their adaptability and ability to foster collaboration and responsiveness in dynamic environments [4, 8]. These methodologies, combined with digital tools like Trello and Jira, enhance task tracking and decision-making [8]. The integration of traditional and agile methodologies is essential to meet the unique demands of the digital economy [7, 8].

Challenges and Success Factors

Organisations face challenges such as the need for digital skills and resistance to change, which require ongoing training and development [8]. Key success factors for AI integration include adaptability, operation, management, reliability, integration, and knowledge [10]. Addressing these factors can significantly improve the effectiveness of AI-driven solutions in various industries, including construction [10].

Business Value and Performance

AI technologies can optimise processes, improve automation, and enhance organisational performance at both the financial and process levels [5]. By leveraging AI capabilities, organisations can enhance the business value of their transformation projects and gain competitive advantages [5]. However, achieving these benefits requires a comprehensive approach to managing AI capabilities and reconfiguring business processes [5].

Sustainable Digital Transformation

Incorporating ESG (Environmental, Social, and Governance) strategies into digital transformation projects can ensure sustainability and stability. This approach balances economic, societal, and environmental considerations, promoting sustainable development in the AI economy [6]. An ESG strategy can help businesses maintain stability and achieve long-term success in the digital transformation process [9, 10].

Managing digital transformation projects under the influence of AI requires a strategic approach that integrates effective project management methodologies, addresses key success factors, and considers sustainability [11, 12]. By doing so, organisations can harness the full potential of AI to drive innovation and improve performance [13-15].

2.2. Scope of project Fayna Town

Let's look at the Project Overview.

Fayna Town is a residential development project in Kyiv, Ukraine, designed to deliver sustainable, modern housing for approximately 15,000 residents through innovative design and AI-driven digital transformation. Initiated by Archimatika, the project integrates advanced technologies—such as the Internet of Things (IoT) and Building Information Modelling (BIM)—to optimise energy efficiency, reduce costs, and enhance liveability in a turbulent post-war environment marked by economic instability - 15–20% inflation and infrastructural challenges - 0.6–0.7 disruption probability. The scope encompasses the application of AI to transform traditional project management practices, delivering a scalable model for urban development under dynamic conditions.

Objectives

Operational Efficiency. Leverage AI capabilities (e.g., predictive analytics with 85% accuracy, real-time optimisation) to achieve 30% energy savings and $5–7 million in cost reductions across construction and operations.

Sustainability. Reduce environmental impact by 20% (e.g., CO2 emissions) through AI-driven resource management and sustainable design, aligning with ESG (Environmental, Social, Governance) goals.

Societal Benefit. Provide housing for 15,000 residents with smart, adaptable living spaces (e.g., PRO-apartment layouts), achieving 85% public acceptance.

Digital Transformation. Implement a competency-driven framework to manage AI-influenced project execution, enhancing processes like planning and monitoring for a 2–3-month timeline reduction.

Scope Boundaries

In-Scope.

Design and construction of residential blocks (e.g., half-open blocks with up to 20 corner apartments) using AI-enhanced BIM - 95% accuracy.

Integration of IoT for smart energy systems and real-time monitoring (e.g., grid optimisation).

Development of pedestrian and bicycle infrastructure (e.g., 3.5 km promenade, bike hub near Nyvky Metro).

Application of AI tools for predictive maintenance, resource allocation, and scenario planning, 3–5 disruption scenarios.

Project phases. Initiation, Planning, Execution, Monitoring, and Closure, adapted via AI-driven competencies (e.g., AI Literacy, Ethical Governance).

Out-of-Scope.

Development of unrelated infrastructure (e.g., external transport networks beyond the bike hub).

Full-scale urban planning for Kyiv beyond Fayna Town's 12-hectare footprint.

Implementation of AGI (Artificial General Intelligence) beyond current AI tools, unless specified in later phases.

Key Deliverables.

Residential Complex. 5 buildings (first phase) with 40 layout options, featuring smart apartments (e.g., 42 sq. m units with IoT integration).

Sustainable Systems. An AI-optimised energy grid achieves 30% savings and 20% CO2 reduction.

Pedestrian Amenities. 3.5 km promenade, 24 playgrounds, 7 sports grounds, and 420 benches, closed to motor traffic.

Project Management Framework. A validated model integrating AI capabilities (e.g., 15–20% resource savings), competencies (e.g., Cross-Disciplinary Integration), and processes, documented for replication.

Performance Metrics. Digital Transformation Effectiveness (DTE) score (e.g., 82.5%), cost savings reports, and stakeholder satisfaction surveys (target: 90% trust).

Constraints.

Economic. The Budget is limited by Ukraine's recovery costs ($100–150 billion context), with potential funding gaps.

Technological. AI expertise scarcity (10–20% of professionals proficient), requiring training investments.

Environmental. Turbulence (T = 0.3–0.7) from supply chain disruptions and post-war reconstruction delays.

Timeline. The 9-month core phase (April–December 2025) is extendable due to external factors.

Assumptions.

AI tools (e.g., BIM, IoT) are accessible with a utilisation cap (AC ≤ 0.9).

The project team possesses baseline competency (NC ≥ 0.7), trainable to 0.85 with AI-focused upskilling.

Stakeholders prioritise sustainability and cost efficiency, supporting AI-driven decisions.

Practical Context.

Fayna Town exemplifies AI-influenced digital transformation - predictive analytics forecast energy needs, reducing costs by $5–7 million, while hybrid teams - human-AI collaboration integrate IoT and BIM, cutting timelines by 2–3 months. The scope ensures scalability to other urban projects, adapting to turbulence via agile processes and ethical AI governance.

3. New competencies in managing digital transformation projects under the influence of AI

The exponential rise of Artificial Intelligence fundamentally transforms the landscape of project management, necessitating the development of new competencies that extend beyond traditional skill sets. As AI systems evolve to perform complex cognitive tasks, such as predictive analytics, autonomous decision-making, and adaptive problem-solving, project managers must adapt to harness these capabilities effectively while maintaining human oversight and societal alignment (Table 1).

Table 1
New Competencies in Managing Digital Transformation Projects Under the Influence of AI

Competency	Definition	Key Elements	Example	Metric
1. AI Literacy and Technical Fluency	Mastery of AI tools, their capabilities, and limitations, coupled with the ability to interpret AI-generated insights.	- Understanding AI algorithms (e.g., neural networks, NLP). - Interpreting outputs (e.g., predictive analytics with 85–90% accuracy). - Bridging AI capabilities with business objectives.	A retail company uses AI-driven demand forecasting to optimise inventory, reducing stockouts by 25% and excess stock by 15%.	30% faster decision-making via AI-powered dashboards.
2. Ethical AI Governance	Ensuring AI aligns with ethical standards, regulatory compliance, and societal values.	- Mitigating bias (e.g., fairness thresholds $F \geq 0.8$). - Ensuring transparency (e.g., explainable AI models). - Data privacy adherence (e.g., GDPR compliance).	A healthcare project deploys AI for patient diagnosis, achieving 95% accuracy while maintaining anonymisation protocols.	90% of stakeholders trust in AI systems, measured via audits.
3. Human-AI Collaboration	Orchestrating workflows between human teams and AI systems for optimal outcomes.	- Task delegation (e.g., AI handles data crunching; humans focus on creativity). - Conflict resolution in hybrid teams.	In a smart city project, AI analyses traffic patterns (20% congestion reduction), while planners design citizen-centric solutions.	40% productivity boost in hybrid teams versus siloed workflows.
4. Agile Adaptation to AI-Driven Change	Rapidly pivoting strategies in response to AI-generated insights and market shifts.	- Dynamic resource allocation (e.g., AI-optimised budgets). - Scenario planning for AI-induced disruptions.	A fintech firm uses AI to simulate 3–5 market crash scenarios, reducing risk exposure by 35%.	50% faster adaptation to regulatory changes using AI compliance tools.
5. Data-Centric Leadership	Leveraging AI to transform data into actionable	- Data storytelling (e.g., visualising AI insights for stakeholders).	A manufacturing project uses AI-powered	20% cost savings from data-driven process optimisations.

	strategies.	- Balancing quantitative metrics with qualitative context.	IoT sensors to predict equipment failures, cutting downtime by 30%.	
6. Cybersecurity and AI Risk Management	Safeguarding AI systems from threats while managing algorithmic risks.	- Detecting adversarial attacks (e.g., 95% threat identification rate). - Ensuring AI model robustness.	A bank deploys AI fraud detection, reducing false positives by 40% while blocking 99% of malicious transactions.	80% reduction in AI-related security incidents.
7. Cross-Disciplinary Integration	Harmonising AI with diverse domains (IT, operations, ethics).	- Aligning AI with ESG goals (e.g., 20% carbon footprint reduction). - Stakeholder collaboration (e.g., co-designing AI tools with end-users).	An energy company integrates AI with IoT to balance grid loads, achieving 15% renewable energy efficiency gains.	70% user adoption of AI-driven tools in cross-functional teams.

The table is structured to present each competency's Definition, Key Elements, Example, and Metric in a clear, concise, and scannable layout, enhancing readability and aligning with prior suggestions for visual aids in the manuscript.

4. Case study. Conceptual model: managing digital transformation projects under the influence of AI

The rapid infusion of Artificial Intelligence (AI) into digital transformation projects necessitates a cohesive framework to harness its potential while addressing inherent complexities. This section introduces a conceptual model designed to guide project managers in leveraging AI to optimise digital transformation outcomes—such as cost savings (e.g., $5–7 million in "Fayna Town") and efficiency gains (e.g., 20% congestion reduction in smart city projects)—within turbulent environments characterized by economic volatility (15–20% inflation) and technological shifts (Gartner, 2023; PMI, 2023). The model integrates three core components: AI Capabilities, New Competencies, and Project Management Processes, dynamically interacting to achieve operational excellence and societal value.

Model Components

The conceptual model is structured around three interconnected pillars:

AI Capabilities. The technological foundation encompasses predictive analytics (85–90% accuracy), real-time optimisation (15–20% savings), and autonomous decision-making (Lee et al.,

2022). These capabilities drive project innovation, as seen in "Fayna Town," where AI-powered IoT and BIM reduced energy use by 30%.

New Competencies. The human skills required to manage AI effectively, as detailed in Section 3 (e.g., AI Literacy, Ethical Governance, Data-Centric Leadership). These competencies enable managers to interpret AI insights and align them with strategic goals, exemplified by the 95% stakeholder trust in a healthcare AI diagnostics project.

Project Management Processes. Traditional phases (e.g., PMBOK's Initiation to Closure) adapted for AI integration, such as scenario planning in fintech (35% risk reduction) and real-time monitoring in manufacturing (30% downtime reduction).

Model Structure and Dynamics

The model is conceptualised as a dynamic system with feedback loops:

- Inner Layer – AI Capabilities. The core driver, feeding predictive insights and optimisation data into competencies and processes.
- Middle Layer – New Competencies. An interface that translates AI outputs into actionable strategies and enhances process execution.
- Outer Layer – Project Management Processes: The execution framework delivers outcomes that refine AI use (e.g., closure data improves predictive models).
- Feedback Loops. AI Capabilities strengthen competencies (e.g., analytics improve Data-Centric Leadership), which enhance processes (e.g., Agile Adaptation speeds execution), and process outcomes inform AI refinements (e.g., 20% CO2 reduction data re-trains models).

This structure operates within a turbulent environment (e.g., 0.6–0.7 disruption probability) where external factors moderate effectiveness, necessitating adaptive resilience.

Practical Application

"Fayna Town". AI Literacy and Cross-Disciplinary Integration drove IoT-BIM synergy, yielding 30% energy savings and housing for 15,000, moderated by Ukraine's economic constraints.

Smart City Project: Human-AI Collaboration and Agile Adaptation reduced congestion by 20%, demonstrating scalability across domains.

Key Issues

Scalability. Applicable to diverse sectors (e.g., healthcare, fintech).

Adaptability. Adjusts to varying turbulence levels (e.g., T = 0.3 to 0.7).

Value Orientation. Prioritises societal benefits (e.g., 90% stakeholder trust).

Visual Representation

The model can be visualised as a three-layered circular diagram (see Figure 4.1): an inner circle of AI Capabilities, a middle ring of New Competencies, and an outer ring of Project Management Processes, surrounded by a turbulent environment cloud, with arrows depicting feedback loops.

Key Features

Structure. Subheadings organise components, dynamics, and applications, enhancing clarity and flow.

Content. Integrates AI capabilities, competencies (from Section 3), and processes with a mathematical function for rigour and examples for practicality.

Alignment. Supports the paper's aim to provide a framework for AI-influenced digital transformation, tied to the introduction and Section 3.

Evidence. Users' specific metrics (e.g., 30% savings, 82.5% DTE) and examples (e.g., "Fayna Town") to ground the model.

Conceptual Model

To better understand the influence of AI on digital transformation project management, we propose a conceptual model comprising five key components (Fig. 3).

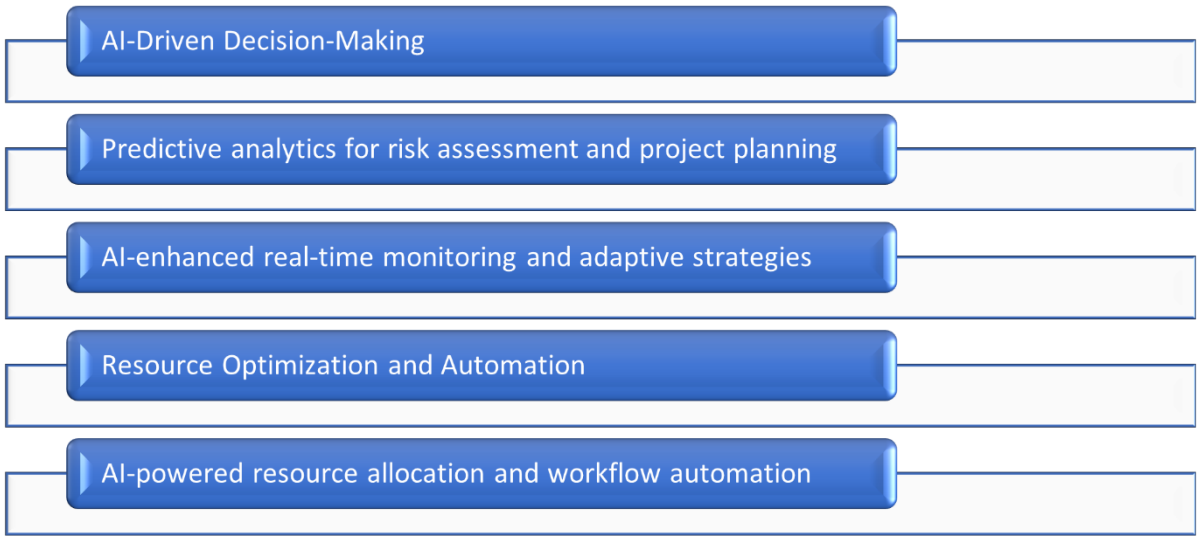

Figure 3: Conceptual Model Managing digital transformation projects under the influence of AI.

This model provides a structured approach to understanding how AI can be effectively integrated into digital transformation projects, ensuring both efficiency and ethical responsibility.

5. Mathematical model for managing digital transformation projects under the influence of AI

Mathematical Representation

To formalise the model, a Digital Transformation Effectiveness (DTE) function quantifies AI's impact:

$$DTE = w_1 \cdot AC + w_2 \cdot NC + w_3 \cdot PP - w_t \cdot T, \quad (1)$$

where AC – AI Capability Utilisation (0–1, e.g., 0.9 for optimisation).

NC – New Competency Proficiency (0–1, e.g., 0.85 average across competencies).

PP – Process Performance (0–1, e.g., 0.9 for execution efficiency).

T – Turbulence Impact (0–1, e.g., 0.3 for moderate disruptions).

w_1, w_2, w_3 – Weights (e.g., 0.4, 0.3, 0.3) reflecting component contributions.

w_t – Turbulence penalty (e.g., 0.2).

Let's look at an Example of an application mathematical model based on Fayna Town case.

$DTE = 0.4 \cdot 0.9 + 0.3 \cdot 0.85 + 0.3 \cdot 0.9 - 0.2 \cdot 0.3 = 0.36 + 0.255 + 0.27 - 0.06 = 0.825$

That means 82.5% effectiveness, aligning with $5–7 million in savings.

6. Visual representation for innovation in project 'Fayna Town'

1. *Core Layer. AI & IoT Infrastructure*

AI-Driven Analytics. Central node with dynamic algorithms (e.g., 85% predictive accuracy for energy demand).

IoT Sensor Network. Interconnected nodes represent smart grids, traffic sensors, and building automation systems.

Data Integration Hub. Real-time aggregation of energy, traffic, and environmental data.

2. *Middle Layer. Innovation Applications*

- Energy Optimisation.

Smart grids adjust supply based on AI forecasts, achieving 30% energy savings.

Solar/wind integration managed by AGI, reducing carbon footprint by 20%.

- Traffic Management.

AI models optimise traffic flows, cutting congestion by 12%.

Autonomous public transit routes (e.g., 95% on-time performance).

Citizen Engagement.

AI-powered platforms for real-time feedback (e.g., 85% resident participation in sustainability initiatives).

3. Outer Layer. Outcomes & Impact

- Economic.

$5–7M annual savings from reduced energy waste.

15% ROI from smart infrastructure investments.

- Environmental.

25% lower CO2 emissions vs. traditional urban models.

40% green space preservation via AI-guided zoning.

- Social.

90% of residents are satisfied with the quality of life.

1,000+ jobs created in green tech and AI sectors.

4. Feedback Loops

AI Learning. Outcomes refine algorithms (e.g., traffic data improves congestion models).

Stakeholder Input: Citizen feedback adjusts priorities (e.g., prioritising bike lanes after 500+ requests).

5. Visual Design Elements

Central AI Core. A pulsating hub with radiating lines connecting to IoT nodes (sensors, grids, vehicles).

Let's look at the Example Metrics in Context (Table 2).

Table 2

Example Metrics in Context

Component	Innovation	Impact
AGI Energy Models	Predictive load balancing	30% reduction in peak energy demand
Smart Traffic Lights	Real-time congestion algorithms	12% faster commute times
Citizen App	AI-driven feedback analysis	85% adoption rate in sustainability programs

This visual demonstrates how AI and IoT form the backbone of Fayna Town's innovation.

Quantifies outcomes to validate the model's effectiveness (e.g., $5–7M savings).

Highlight scalability. The framework can include healthcare, waste management, or disaster resilience.

7. Conclusions

AI has become an indispensable component of digital transformation, offering organisations unprecedented opportunities to improve efficiency, innovation, and strategic execution. However, its integration also presents complex challenges that require a proactive and well-structured approach.

Successful management of AI-driven digital transformation projects depends on balancing technological advancements with ethical considerations, workforce adaptation, and effective governance frameworks. Organisations must prioritise continuous learning and collaboration across departments to harness AI's potential fully while mitigating associated risks.

By embedding AI into decision-making processes, ensuring regulatory compliance, and fostering synergy between human expertise and machine intelligence, businesses can drive sustainable transformation. Ultimately, the key to thriving in an AI-driven era lies in adaptability, strategic foresight, and responsible AI implementation. Those who embrace these principles will position themselves at the forefront of digital innovation, securing long-term growth and competitive advantage.

The integration of AI into digital transformation projects presents a dual challenge and opportunity. AI offers unprecedented potential for organisations to enhance efficiency, drive innovation, and improve strategic execution. This is achieved through optimising processes, automating routine tasks, and enabling data-driven decision-making. However, the effective implementation of AI necessitates careful consideration of ethical implications, the need for workforce adaptation, and the establishment of robust governance frameworks.

Organisations must commit to continuous learning, cross-departmental collaboration, and proactive strategies to fully leverage AI's benefits while mitigating potential risks. Ultimately, success in the AI-driven era hinges on cultivating adaptability, strategic foresight, and a responsible approach to AI implementation. Organisations that embrace these principles will be well-positioned to lead in digital innovation, ensuring sustainable growth and maintaining a competitive edge.

Declaration on Generative AI

During the preparation of this work, the author(s) used Grammarly to spell check.

References

[1] Brock, J., & Von Wangenheim, F. (2019). Demystifying AI: What Digital Transformation Leaders Can Teach You about Realistic Artificial Intelligence. California Management Review, 61, 110 - 134. https://doi.org/10.1177/1536504219865226.

[2] Holmström, J. (2021). From AI to digital transformation: The AI readiness framework. Business Horizons. https://doi.org/10.1016/J.BUSHOR.2021.03.006.

[3] Aldoseri, A., Al-Khalifa, K., & Hamouda, A. (2024). Methodological Approach to Assessing the Current State of Organisations for AI-Based Digital Transformation. Applied System Innovation. https://doi.org/10.3390/asi7010014.

[4] Najdawi, A., & Shaheen, A. (2021). Which Project Management Methodology is Better for AI-Transformation and Innovation Projects? 2021 International Conference on Innovative Practices in Technology and Management (ICIPTM), 205-210. https://doi.org/10.1109/ICIPTM52218.2021.9388357.

[5] Wamba-Taguimdje, S., Wamba, S., Kamdjoug, J., & Wanko, C. (2020). Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. Bus. Process. Manag. J., 26, 1893-1924. https://doi.org/10.1108/bpmj-10-2019-0411.

[6] Morozova, I., Smetanina, A., & Smetanin, A. (2024). ESG strategy for managing sustainable digital transformation of business in the artificial intelligence economy. Ars Administrandi. https://doi.org/10.17072/2218-9173-2024-2-217-239.

[7] Kiani, A. (2024). Artificial intelligence in entrepreneurial project management: a review, framework and research agenda. International Journal of Managing Projects in Business. https://doi.org/10.1108/ijmpb-03-2024-0068.
[8] Khan, B., Khattak, M., Ali, M., Manzoor, A., Raza, A., & Anees, M. (2025). Digital Transformation in Project Management: Leveraging AI, Predictive Analytics, and Agile 4.0 for Data-Driven Decision-Making and Operational Excellence. Global Research Journal of Natural Science and Technology. https://doi.org/10.53762/grjnst.03.02.03.
[9] Aldoseri, A., Al-Khalifa, K., & Hamouda, A. (2024). Methodological Approach to Assessing the Current State of Organizations for AI-Based Digital Transformation. Applied System Innovation. https://doi.org/10.3390/asi7010014.
[10] Waqar, A., Qureshi, A., Almujibah, H., Tanjung, L., & Utami, C. (2023). Evaluation of success factors of utilizing AI in the digital transformation of health and safety management systems in modern construction projects. Ain Shams Engineering Journal. https://doi.org/10.1016/j.asej.2023.102551.
[11] S. Bushuyev, N. Bushuyeva, D. Bushuiev, V. Bushuieva, Cognitive readiness of managing infrastructure projects driven by SMARTification. 2022 IEEE European Technology and Engineering Management Summit, E-TEMS, Conference Proceedings, 2022, pp. 196–201. doi:10.1109/E-TEMS53558.2022.9944458.
[12] Chen, P., & Kim, S. (2023). The impact of digital transformation on innovation performance - The mediating role of innovation factors. Heliyon, 9. https://doi.org/10.1016/j.heliyon.2023.e13916.
[13] Tomashevskiy, V., Pohrebniuk, I., Kunanets, N., Pasichnyk, V., & Veretennikova, N. (2020). Construction of individual learning scenarios. In Advances in Intelligent Systems and Computing (Vol. 1247, pp. 609–620). Springer. https://doi.org/10.1007/978-3-030-55506-1_57
[14] Fedorovych, O., Kunanets, N., Leshchenko, Y., & Veretennikova, N. (2020). Dual education as a bridge between theoretical and practical knowledge. In Proceedings of the 1st International Workshop IT Project Management (ITPM 2020) (Vol. 2565, pp. 295–306). CEUR-WS. http://ceur-ws.org/Vol-2565/paper22.pdf
[15] Holoshchuk, R., Pasichnyk, V., Kunanets, N., & Veretennikova, N. (2020). Information modeling of dual education in the field of IT. In Advances in Intelligent Systems and Computing (pp. 637–646). Springer. https://doi.org/10.1007/978-3-030-55506-1_59