



ISSUE  
№52



EUROPEAN OPEN  
SCIENCE SPACE

COLLECTION OF SCIENTIFIC PAPERS



5<sup>TH</sup> INTERNATIONAL  
SCIENTIFIC  
AND PRACTICAL  
CONFERENCE

EVOLVING SCIENCE:  
THEORIES, DISCOVERIES  
AND PRACTICAL  
OUTCOMES

SEPTEMBER 8-10, 2025, ZURICH, SWITZERLAND





**EUROPEAN OPEN  
SCIENCE SPACE**

---

Proceedings of the 5<sup>th</sup> International Scientific  
and Practical Conference  
**"Evolving Science: Theories, Discoveries and  
Practical Outcomes"**  
September 8-10, 2025  
Zurich, Switzerland

**Collection of Scientific Papers**

**Zurich, 2025**

UDC 01.1

Collection of Scientific Papers with the Proceedings of the 5<sup>th</sup> International Scientific and Practical Conference «Evolving Science: Theories, Discoveries and Practical Outcomes» (September 8-10, 2025. Zurich, Switzerland). European Open Science Space, 2025. 157 p.

ISBN 979-8-89704-958-5 (series)  
DOI 10.70286/EOSS-08.09.2025



The conference is included in the Academic Research Index ReserchBib International catalog of scientific conferences.



The conference is registered in the database of scientific and technical events of UkrISTEI to be held on the territory of Ukraine (Certificate №546 dated 16.06.2025).



The materials of the conference are publicly available under the terms of the CC BY-NC 4.0 International license.

The materials of the collection are presented in the author's edition and printed in the original language. The authors of the published materials bear full responsibility for the authenticity of the given facts, proper names, geographical names, quotations, economic and statistical data, industry terminology, and other information.

ISBN 979-8-89704-958-5 (series)

## CONTENT

### **Section: Agricultural Sciences**

*Черно О., Попов К., Усатюк О.*

ВПЛИВ МЕТЕОРОЛОГІЧНИХ УМОВ І ГУСТОТИ СТОЯННЯ  
РОСЛИН НА ПРОДУКТИВНІСТЬ СОНЯШНИКА У  
ПРАВОБЕРЕЖНОМУ ЛІСОСТЕПУ ..... 8

*Musiienko L.A.*

OPTIMAL CONDITIONS OF MINERAL NUTRITION FOR  
SOYBEAN..... 10

### **Section: Architecture and Construction**

*Chudyk I., Dobryanskyi I., Dobryanska L.*

WATERPROOFING OF SURFACES OF BUILDINGS AND  
STRUCTURES..... 13

### **Section: Art History and Literature**

*Звенігородський Л.А., Радченко А.О., Валко О.С.*

ПРОЄКТНО-ГРАФІЧНЕ МОДЕЛЮВАННЯ. МАТЕРІАЛИ ТА  
ІНСТРУМЕНТИ..... 18

### **Section: Automation and Robotics**

*Ostrovskyy O.*

CURRENT TRENDS AND PROMISING DIRECTIONS FOR THE  
INTERNET OF THINGS INDUSTRY DEVELOPMENT..... 23

### **Section: Biology and Microbiology**

*Дрегваль І., Матвієнко Б.*

БІОІНДИКАЦІЯ ЯКОСТІ ПОВЕРХНЕВИХ ВОД РІЧКИ ДНІПРО В  
МЕЖАХ МІСТА ДНІПРО..... 28

*Дрегваль І., Семенова У.*

МІНЛИВІСТЬ МОРФОЛОГІЧНИХ ОЗНАК ТРИГРАНКОВИХ  
МОЛЮСКІВ В ЗАЛЕЖНОСТІ ВІД ВАРІАБЕЛЬНОСТІ УМОВ  
ЗОВНІШНЬОГО СЕРЕДОВИЩА..... 32

## **Section: Economy**

***Гранчак М.***

МЕТОДОЛОГІЧНІ ПІДХОДИ ДО ПРОГНОЗУВАННЯ М&А УГОД:  
ТЕОРЕТИЧНІ ОСНОВИ, ОБМЕЖЕННЯ ТА ШЛЯХИ  
УДОСКОНАЛЕННЯ..... 37

***Жигилій О.Г.***

ВПЛИВ ПРЯМИХ ІНОЗЕМНИХ ІНВЕСТИЦІЙ НА ЗМІЦНЕННЯ  
ЕКСПОРТНОГО ПОТЕНЦІАЛУ АГРАРНОГО БІЗНЕСУ УКРАЇНИ... 39

***Melnyk A.***

INNOVATIVE APPROACHES TO THE MANAGEMENT OF  
ORGANIZATIONS IN THE ERA OF DIGITALIZATION..... 42

***Данило С., Цап О., Сегеда А., Лисканич Р.***

ПІДПРИЄМНИЦТВО ТА ТОРГІВЛЯ: СУЧАСНИЙ СТАН ТА  
ОСОБЛИВОСТІ РОЗВИТКУ..... 45

***Прінець В.***

СОЦІАЛЬНО-ЕКОНОМІЧНІ ТА ІНСТИТУЦІЙНІ НАСЛІДКИ  
МІЛІТАРИЗАЦІЇ: ЗАГРОЗИ ТА МОЖЛИВОСТІ ДЛЯ СТАЛОГО  
РОЗВИТКУ..... 49

***Кишакевич Б., Демедюк Б.***

РОЛЬ ЦИФРОВОЇ ТРАНСФОРМАЦІЇ У ПІДВИЩЕННІ  
КОНКУРЕНТОСПРОМОЖНОСТІ МСП В УМОВАХ  
ЄВРОІНТЕГРАЦІЙНИХ ПРОЦЕСІВ..... 52

***Немашкало К.Р., Гурський А.С.***

СОЦІАЛЬНА ВІДПОВІДАЛЬНІСТЬ БІЗНЕСУ В УМОВАХ  
ЦИФРОВОЇ ТРАНСФОРМАЦІЇ ТА ПОВОЄННОГО ВІДНОВЛЕННЯ 54

***Белій М.***

СОЦІАЛЬНО-ЕКОНОМІЧНІ ТА ІНСТИТУЦІЙНІ НАСЛІДКИ  
МІЛІТАРИЗАЦІЇ: ЗАГРОЗИ ТА ПІДХОДИ ДО ОЦІНКИ  
BUDGETARY POLICY OF INVESTMENT DEVELOPMENT..... 62

## **Section: Finance and Banking**

***Tsybulnyk O.***

GLOBAL PRACTICES OF FORMATION AND IMPLEMENTATION OF  
BUDGETARY POLICY OF INVESTMENT DEVELOPMENT..... 62

# **INNOVATIVE APPROACHES TO THE MANAGEMENT OF ORGANIZATIONS IN THE ERA OF DIGITALIZATION**

**Melnyk Anton**

PhD, Associate Professor

Department of Management, Business and Administration  
Simon Kuznets Kharkiv National University of Economics

Digitalization today not only modernizes management tools but also changes the basic rules for the functioning of organizations. In a dynamic and technologically saturated competitive environment, traditional hierarchical models prove to be inert. Instead, there is a growing need for approaches that provide flexibility, facilitate rapid rethinking of business processes, strengthen customer focus, and foster an innovative organizational culture [1]. It is digital transformation that opens opportunities for such an update, setting new standards for productivity and quality of management decisions.

The challenges of the digital economy require constant adaptation of management to technological changes and the widespread use of big data analytics, artificial intelligence, cloud services, and integrated platforms [2, 3]. Innovative management approaches in these conditions serve a dual function: they enhance current efficiency while also forming long-term competitive advantages, thereby rebuilding the decision-making architecture and the logic of value creation.

Management in the digital age is acquiring new characteristics. Along with financial and tangible assets, data is becoming increasingly strategically important, and the ability to quickly transform it into actionable managerial knowledge is also becoming increasingly important. This strengthens the role of big data, machine learning, and artificial intelligence in strategizing, planning, and control: from prompt access to data sets and in-depth analytics to trend forecasting and decision support at all management levels. Hence, the emphasis is on data infrastructure, quality, and the ethics of its use, as well as on the analytical literacy of personnel [4].

At the same time, digitalization is transforming organizational structures: from rigid hierarchies, they are evolving to networked, cross-functional, and more "flat" configurations. Such structures shorten the decision-making cycle, increase sensitivity to environmental changes, and intensify internal innovation activity. The studies [5] confirm the effectiveness of agile management, design thinking, and project management in the digital environment, as well as the principles of open innovation, which form a circuit of continuous improvement and involve staff in co-authoring management decisions.

The technological foundation of these shifts is formed by cloud services and integrated information systems (CRM, ERP, BI), which ensure the integrity of processes and data availability regardless of place and time [2]. Their combination with digital financial instruments and new business models creates economies of scale,



accelerates communication, supports remote work, and fosters virtual teams. In practice, this means transitioning from disparate operations to a unified digital control loop, where data circulates seamlessly without delay or loss of context.

The new organizational culture is founded on readiness for change, entrepreneurship, openness to experimentation, and data-driven thinking, supported by the principle of lifelong learning [6]. The role of the manager is evolving accordingly: from a controller and coordinator to a change leader and facilitator of team interaction, who combines technological capabilities with market needs and synchronizes strategic and operational decisions. The experience of Ukrainian companies during periods of turbulence demonstrates that it is precisely such cultural shifts that enhance the resilience and adaptability of businesses.

As a result, the management of organizations goes beyond traditional models and appears as a multidimensional system that integrates technological, social, and economic factors. This opens up new horizons of development, but at the same time puts forward increased requirements for flexibility, rapid adaptation, and strategic vision. Accordingly, modern management practice is based on several innovative approaches (Table 1), which enable not only a timely response to the challenges of the digital economy but also the systematic formation of sustainable competitive advantages through technologies, methodologies, and new data-driven practices.

Table 1 Key Innovative Approaches to Organizational Management in the Age of Digitalization

Innovative approach	Essence	Expected result
Agile Management	Agile management focused on rapid adaptation to change, short planning cycles and team involvement	Increase decision-making speed, increase productivity, and staff engagement
Design thinking	Creative problem-solving methodology based on a deep understanding of the client's needs	Development of innovative products and services, growth of customer focus
Open innovation	Use of external and internal ideas and resources for the development of the organization	Faster development, reduced costs for innovation, partnership and cooperation
Data-driven management	Management based on big data analysis, predictive analytics and digital indicators	Informed decisions, minimizing risks, increasing the efficiency of business processes
Artificial intelligence and digital platforms	Use of machine learning algorithms, process automation and integrated systems	Management automation, personalization of customer experience, strategic forecasting

Source: systematized by the author.

Digitalization radically transforms the paradigm of organizational management, causing a shift in emphasis from hierarchical structures to adaptive, flexible, and decentralized models. Digital technologies – in particular, big data analysis tools, artificial intelligence algorithms, and cloud services – play a leading role in this, which are key determinants of the next generation of managerial rationality. Data is becoming

a strategic asset that provides not only retrospective analytics but also the ability to predict the dynamics of the external environment.

Under such conditions, the importance of flat, horizontally oriented organizational structures that facilitate quick decision-making and effective cross-functional interaction is growing. In this context, innovative management practices that foster an environment of experimentation, adaptability, and high employee engagement are of particular importance.

At the same time, digital transformation is not limited to the technological dimension – it is accompanied by a shift in the role of managers and a change in organizational culture as a whole. A new generation manager is not only an administrator, but also a change agent and an innovation facilitator who builds trust, stimulates team autonomy, and supports a culture of continuous learning. Employees, in turn, acquire the status of full-fledged subjects of the management process, which contributes to the generation of new ideas, increased responsibility, and intensification of internal innovation dynamics.

In general, modern management appears as a holistic integrated system that synthesizes technological capabilities, innovative management tools, and data-centric thinking. Such a system not only allows organizations to respond to external challenges quickly but also to form sustainable competitive advantages in the high-turbulence global environment.

## References

1. Панкратова О. Цифровізація як сучасний тренд розвитку менеджменту. Економіка та суспільство. 2021. № 33. URL: <https://doi.org/10.32782/2524-0072/2021-33-55>.
2. Дончак Л., Погрішук О., Сисоєва І. Стратегічний менеджмент у цифрову епоху: виклики та можливості. Економіка та суспільство. 2024. № 70. URL: <https://doi.org/10.32782/2524-0072/2024-70-63>.
3. Особливості процесів цифровізації малого та середнього бізнесу в Україні/ О. І. Решетняк та ін. Бізнес Інформ. 2024. Т. 6, № 557. С. 79–93. URL: <https://doi.org/10.32983/2222-4459-2024-6-79-93>.
4. Прохорова В. В., Юхман Я. В., Янчак Ю. О. Управління трансформацією підприємств на основі цифрової когерентності. Бізнес Інформ. 2024. Т. 6, № 557. С. 104–111. URL: <https://doi.org/10.32983/2222-4459-2024-6-104-111>.
5. Сойма С., Білоусько Т., Вдовічена О. Цифровізація антикризового менеджменту підприємства в умовах війни. Економіка та суспільство. 2022. № 44. URL: <https://doi.org/10.32782/2524-0072/2022-44-115>.
6. Блакита Г. В., Багацька К. В., Сусіденко В. Т. Цифровізація як драйвер стійкості підприємств в європейському векторі. Бізнес Інформ. 2025. Т. 2, № 565. С. 135–142. URL: <https://doi.org/10.32983/2222-4459-2025-2-135-142>.