

Given the challenges facing Ukrainian agricultural enterprises, it is important to develop long-term strategies aimed at ensuring environmental safety and sustainable development. The introduction of precision farming technologies, the use of renewable energy sources, organic production, and the circular economy should become the basis for the development of environmentally friendly agricultural production [3].

The results of strategic analysis allow us to form sound management decisions regarding the implementation of innovative agroecological practices, optimization of resource provision, and increasing the competitiveness of the enterprise in domestic and foreign markets. Thus, strategic analysis is a key tool for ensuring the sustainable development of an environmentally friendly agricultural enterprise.

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IMPROVING THE RESEARCH MANAGEMENT SYSTEM IN UKRAINIAN HIGHER EDUCATION INSTITUTIONS UNDER DIGITAL TRANSFORMATION

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Abstract

Digital transformation has become a decisive factor reshaping research governance and management in higher education institutions worldwide. Universities are increasingly required to operate as data-driven organizations capable of integrating digital infrastructures, research information systems, and responsible research assessment frameworks. For Ukrainian higher education institutions (HEIs), these challenges are intensified by the need to modernize fragmented research management practices and align them with European research governance standards.

This paper analyzes conceptual approaches to improving research management systems in Ukrainian HEIs under conditions of digital transformation. Based on recent studies on digital transformation in higher education, national and institutional research information systems, and responsible research assessment, the paper substantiates the transition from administratively fragmented models toward integrated digital research management ecosystems. Special attention is paid to the role of Current Research Information Systems (CRIS), research analytics, and responsible research assessment principles as key instruments for evidence-based decision-making and strategic governance.

Keywords: research management, higher education institutions, digital transformation, CRIS, responsible research assessment.

Introduction

The role of universities in contemporary knowledge-based societies extends far beyond education, encompassing research production, innovation, and societal engagement. As a result, the effectiveness of research management systems has become a critical determinant of institutional competitiveness and sustainability. Digital transformation fundamentally alters how research activities are planned, monitored, and evaluated, enabling universities to shift from reactive administrative control toward proactive and strategic governance [1].

In Ukraine, research management systems in higher education institutions remain largely fragmented and underdeveloped. Research-related data are dispersed across multiple unintegrated platforms, limiting their analytical value for institutional decision-making. The growing emphasis on integration into the European Research Area further highlights the urgency of reforming research management structures and practices [2].

Recent international developments in responsible research assessment challenge traditional metric-dominated evaluation models and emphasize qualitative judgment, transparency, and societal relevance of research outputs [5–7]. These trends require research management systems capable of handling multidimensional performance data and supporting responsible governance practices.

Digital Transformation of Research Management: Conceptual Background

Digital transformation in higher education is not limited to the introduction of new technologies but involves deep organizational and cultural changes in governance and management processes [1]. In the research domain, this transformation is closely associated with the development of integrated research information infrastructures that support the entire research lifecycle.

Current Research Information Systems (CRIS) and Research Information Management (RIM) systems have emerged as central components of modern research management. They enable the aggregation of data on publications, projects, funding, collaborations, and research outputs into unified analytical environments [3; 4]. Such systems enhance transparency, reduce administrative burden, and provide a reliable evidence base for strategic decision-making.

The Ukrainian experience demonstrates initial steps toward building a national research information infrastructure, but institutional adoption remains uneven and

limited in scope [2]. This highlights the need for systematic integration of digital tools into research management practices at the university level.

Challenges of Research Management in Ukrainian HEIs

Empirical evidence indicates that research management in Ukrainian HEIs faces several structural challenges. First, the lack of integrated digital infrastructures prevents universities from developing comprehensive research profiles and monitoring performance across disciplines [2]. Second, digital tools are often used primarily for formal reporting rather than for analytical and strategic purposes.

Third, research evaluation practices continue to rely heavily on quantitative bibliometric indicators, which may distort research priorities and undervalue diverse forms of scholarly output [4]. This situation contradicts contemporary European policy frameworks advocating responsible research assessment and multidimensional evaluation approaches [5].

Finally, insufficient digital competencies among research administrators and academic leaders constrain the effective use of digital systems and limit institutional capacity for data-driven governance.

Responsible Research Assessment and Digital Research Management

Responsible research assessment has become a key normative framework guiding reforms in research governance across Europe. It emphasizes the appropriate use of indicators, contextual evaluation, and recognition of diverse research contributions [5; 7].

Digital research management systems provide the technical foundation for implementing responsible assessment principles in practice. By integrating CRIS data with qualitative information on research processes, openness, collaboration, and societal impact, universities can move beyond narrow metric-based evaluation models [4; 6].

Recent studies demonstrate that responsible monitoring frameworks, such as SCOPE, require institutional infrastructures capable of collecting and interpreting diverse research performance data [6]. Without such digital capacities, responsible research assessment remains largely declarative rather than operational.

Directions for Improving Research Management Systems

Improving research management systems in Ukrainian HEIs requires a comprehensive approach combining digital infrastructure development, governance reform, and capacity-building. First, universities should prioritize the implementation of integrated CRIS-based ecosystems that connect research planning, monitoring, and evaluation functions [2-4].

Second, research management should be reoriented toward evidence-based and data-driven decision-making, supported by analytical dashboards and research performance profiling tools. Third, responsible research assessment principles should be embedded into digital management systems, ensuring alignment with European policy frameworks and international best practices [5-7].

Finally, the development of digital competencies among research managers and academic leaders is essential for sustaining digital transformation and fostering a culture of responsible research governance.

Conclusions

The digital transformation of research management represents a strategic opportunity for Ukrainian higher education institutions to enhance the effectiveness, transparency, and international integration of their research activities. The analysis demonstrates that integrated digital research management systems, combined with responsible research assessment frameworks, constitute a key foundation for modern university governance.

Aligning institutional research management practices with contemporary European standards will enable Ukrainian HEIs to move beyond fragmented and metric-driven models toward sustainable, data-informed, and impact-oriented research governance.

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