

**“MECHANISMS FOR SYSTEMATIZING HIGHER EDUCATION
MANAGEMENT BASED ON INTELLIGENT INFORMATION SYSTEMS”****Ernazarov Zohid Nazarovich**

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ernazarovzohid011@gmail.com<https://doi.org/10.5281/zenodo.20430098>**Abstract**

This article analyzes the mechanisms for the formation and development of digital management infrastructure in higher education institutions. In particular, the role of electronic document management, automated management platforms, databases, and information security systems in modern university administration is highlighted. The study examines the theoretical and practical aspects of improving management efficiency based on intelligent information systems.

Keywords: digital management, electronic document management, automated management, information systems, databases, information security, higher education, Smart University.

Introduction

In the modern higher education system, the digitalization of management processes has acquired strategic importance. The rapid development of information and communication technologies is shaping new approaches to university management [1]. In particular, organizing management based on intelligent information systems is considered an important factor in improving both the quality of education and administrative efficiency. Digital management infrastructure enables all areas of university activity to be managed through a unified electronic system. Such an infrastructure includes electronic document management, automated management platforms, databases, and information security systems [2].

Digital Management Infrastructure in Higher Education Institutions

Digital management infrastructure is a set of technical, software, and communication systems designed to manage university activities based on information technologies. In modern universities, these systems are used to automate educational processes, rapidly process data, and improve management efficiency [3]. The main components of digital management infrastructure include: electronic document management systems, automated management platforms, databases, information security systems, cloud technologies, and digital monitoring tools.

These systems ensure that university activities are managed within a unified digital environment.

Electronic Document Management Systems

Electronic document management is one of the key elements of modern university administration. This system enables paper-based documents to be converted into electronic formats and managed automatically [4].

The main advantages of electronic document management include:

- rapid transmission of documents;
- reduction of administrative time;
- centralized storage of documents;
- minimization of human-related errors;
- increased transparency of management processes.

Electronic orders, electronic archives, digital signatures, and online appeal systems are widely used in universities. As a result, management efficiency has significantly improved [5]. During the COVID-19 pandemic, the importance of electronic document management systems



increased even further. Under conditions of remote administration, the uninterrupted functioning of universities was ensured precisely through digital technologies.

Automated Management Platforms

Automated management platforms serve to manage all areas of university activity through a single system. Currently, platforms such as ERP (Enterprise Resource Planning), LMS (Learning Management System), and CRM (Customer Relationship Management) are widely implemented [6].

These platforms provide the following opportunities: student registration; management of academic processes; control of financial systems; electronic rating and assessment; organization of distance learning; monitoring of staff activities.

For example, the HEMIS platform is one of the important systems introduced into the higher education system of Uzbekistan to automate educational processes. This system ensures unified digital communication among students, professors, and administrative management [7].

Automated management platforms contribute to the effective allocation of university resources and optimize the process of strategic decision-making.

Databases and Information Security

One of the core elements of digital management infrastructure is the database. All information related to university activities — including students, educational processes, scientific activities, and financial indicators — is stored in centralized databases [8].

The primary functions of databases include:

- storing large volumes of information;
- rapid data processing;
- conducting statistical analysis;
- supporting management decision-making.

At the same time, information security has become an urgent issue. University digital systems may face various cyber threats. Therefore, modern higher education institutions use the following protection measures: user authentication; encryption technologies; antivirus systems; backup creation; network security monitoring.

Ensuring information security is essential for maintaining the digital stability of universities and protecting the confidentiality of information [9].

Conclusion

In conclusion, the systematization of higher education management based on intelligent information systems is one of the key directions in the development of modern universities. Electronic document management, automated management platforms, databases, and information security systems serve as important tools for improving management efficiency. In the future, the complete digitalization of universities based on the Smart University concept and the broad implementation of artificial intelligence technologies in management will remain one of the priority tasks of the higher education system.

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