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FOREIGN EXPERIENCE OF USING DIGITAL TECHNOLOGIES IN SCHOOL EDUCATION MANAGEMENT

Rakhmatova Khurshida Gafurovna,

Master's student in Global Management, Higher School of Business and Entrepreneurship,

gafurovnax@gmail.com

Annotation: This article analyzes foreign experience of using digital technologies in school education management. It covers the analysis of work conducted by foreign scientists, the experience of developed countries, the effectiveness of EMIS and LMS systems, the practice of developed countries, the results of international research, and the possibilities of adapting them to the national education system. It also presents the possibilities of adapting foreign experience to the national system, and the results of the research show that digital management is a strategic tool for improving the quality of education..

Keywords: digital management, educational quality, school education, EMIS, LMS, innovative education.

Digital transformation has become an important factor in the modern education system. The development of information technologies allows to modernize educational management systems, accelerate decision-making processes and improve the quality of education. Research shows that digital management tools in education increase efficiency, transparency and accountability.

In today's global educational space, tools such as EMIS, LMS, analytical platforms, artificial intelligence systems are widely used in schools and universities. These systems optimize not only administrative management, but also pedagogical processes.

The modern education system is not left out of the global digitalization process. The use of information and communication technologies in the management of educational institutions allows to improve the quality of education, enhance management efficiency and rationally use resources. Foreign scientists have conducted extensive research on the scientific substantiation of this process, measurement of efficiency and development of management models.

The effectiveness of educational management information systems has been widely studied in the international scientific literature. Studies show that:

- EMIS systems integrate academic, administrative and infrastructural data, ensuring data-based decision-making.
- Digital management systems develop teachers' lesson design, assessment and analysis activities and improve student outcomes.
- The implementation of EMIS systems has a significant positive impact on the teaching and learning process.

Researchers also emphasize that the success of digital systems in education depends on the technological competence of teachers and the readiness of the infrastructure.



Foreign researchers have extensively studied the theoretical and practical aspects of using digital systems in educational management. For example, in the study of V.Forrester, the advantages and problems of school management information systems (SMIS) were analyzed and a model for data-based decision-making was developed. According to the study, if the quality of data is low, digital systems do not produce the expected results and management efficiency decreases.

This scientific conclusion shows that the implementation of a digital system in education management is not enough, but a quality database and analytical systems are needed.

The data-driven approach to education management has been widely studied in foreign scientific literature. In Priyanka Saini's study, a model for predicting the student admission process was developed by analyzing educational data. This model shows that identifying useful patterns from large volumes of educational data improves management decisions. Thus, digital management systems serve not only as a means of storing information, but also as a strategic planning instrument.

Foreign studies show the effectiveness of the Education Management Information System (EMIS) and School Information Management System (SIMS) systems in education management.

According to the description given by EdTech experts on the Reddit platform: "EMIS is an information system that manages all the processes of an educational institution."

Another source states that the functions of the SIMS system include: "SIMS is a centralized database that manages students, grades, and attendance."

Such systems provide the following capabilities: automation of management processes; real-time monitoring; efficient use of resources; improved communication between parents, teachers, and administration.

Scientific research shows that digital management systems provide positive results in the following areas:

1. Speed of decision-making - real-time information allows leaders to make quick decisions.
2. Transparency - recording all processes in an electronic system reduces corruption and subjective assessments.
3. Resource optimization - the system increases the efficiency of using staff, classrooms, and material resources.
4. Forecasting educational outcomes - using artificial intelligence and analytics tools, students' academic development is assessed in advance.

In the research of foreign scientists, digital education management is studied in three main scientific directions:

Direction	Research content
Technological approach	platforms and system architecture
Pedagogical approach	the impact on educational outcomes
Management approach	strategic decision-making



The integration of these three directions forms the concept of digital education management.

Research conducted by foreign scientists shows that the use of digital technologies in education management is an integral part of the modern education system. In particular, EMIS, LMS and analytical platforms play an important role in improving the quality of education by establishing data-based management. However, the effectiveness of digital systems depends not on the availability of technology, but on the quality of data, personnel qualifications and management strategy.

Digital transformation is one of the main factors in the development of the education system today. In particular, the introduction of information and communication technologies in school education management creates opportunities to optimize the educational process, increase management efficiency, and ensure transparency. The experience of developed countries shows that digital management systems, while improving the quality of education, serve to scientifically substantiate strategic decision-making.

In developed countries, educational management is fully digitalized:

- In the US and European schools, student progress is monitored through a centralized database.
- In South Korea and Singapore, analytical platforms that monitor the educational process in real time are used.
- In Finland, school management, assessment, and communication are carried out through a single electronic system.

Such systems strengthen communication between teachers, administration, and parents and increase the transparency of the educational process.

Educational management in developed countries is organized on the principle of a “digital ecosystem”. In this model, all processes are managed through a single information system: student database; assessment results; teacher activities; financial resources; monitoring of the quality of education.

Such systems provide centralized management and allow management to receive information in real time. Digital management platforms are widely used in the US school system. Schools use systems that automatically analyze students' academic performance, attendance, behavioral indicators, and development dynamics. With the help of these systems: individual development maps are created; problem students are identified early; teaching strategies are adjusted.

As a result, educational efficiency increases and management decisions are based on facts. In European countries, school management is often carried out through national electronic platforms. These platforms provide: monitoring of school activities; state control; electronic communication with parents; generation of statistical reports.



For example, in some countries, the assessment of the quality of education is carried out based on automated indicators. This approach reduces the human factor and increases the objectivity of the assessment.

Countries such as South Korea, Japan, and Singapore use high-tech systems in school management. The following aspects are dominant in their experience: artificial intelligence-based monitoring; digital learning profiles; analytical forecasting systems; online dashboards.

In these countries, school leaders monitor all indicators through a single dashboard and make quick decisions. The experience of developed countries shows that the introduction of digital technologies provides the following results:

1. The speed of management increases - the decision-making process is accelerated.
2. Transparency increases - all information is stored in the system.
3. Resources are optimized - excessive costs are reduced.
4. The quality of education improves - results are constantly monitored.
5. Strategic planning develops - the ability to forecast appears.

Based on the experience of developed countries, the following conclusions can be drawn: the introduction of digital management should be carried out gradually; personnel training is important along with technology; a data security system is necessary; platforms must be integrated; support is required at the state policy level.

In developed countries, the use of digital technologies in school education management has been proven to be an important factor in the modernization of the education system. Digital platforms increase management efficiency, improve the quality of education, and provide a scientific basis for strategic planning. This experience shows that digital management systems are a prerequisite for the sustainable development of the education system. Therefore, adapting advanced international experience to the national education system is an urgent task.

EMIS (Education Management Information System) is a comprehensive management system that covers all activities of an educational institution, which: optimizes resource allocation; provides planning based on statistical analysis; implements performance monitoring.

LMS (Learning Management System) systems are a platform for managing the educational process, and studies show that it has transformed the educational process.

In conclusion, the use of digital technologies in school education management is a global development trend. Adapting foreign experience to the national system is an important condition for the modernization of the education system. However, for this process to be effective, it is necessary to develop technological infrastructure, qualified personnel, regulatory framework, and strategic management mechanisms in a coordinated manner. Only then will digital



management systems significantly increase the quality of education and management efficiency.

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