

JEL A22

e-mail: nateco@meta.ua

Kholiavko NataliiaDoctor of Economics, Professor
Chernihiv Polytechnic National University
(Ukraine)

ORCID: 0000-0003-2951-7233

Dubyna MaksymDoctor of Economics, Professor
Chernihiv Polytechnic National University
(Ukraine)

ORCID: 0000-0002-5305-7815

JEAN MONNET MODULE “ARTIFICIAL INTELLIGENCE IN THE EU FINANCIAL INSTITUTIONS”

Summary. A modern tendency of digitalization is becoming of more global character and includes different spheres of a person’s life. Since 2023 Chernihiv Polytechnic National University (Ukraine) implements the project - Jean Monnet Module “Artificial Intelligence in the EU Financial Institutions”. General objective of the project is popularization and formation by students a complex system of actual knowledge and practical skills on the introduction of the European best practices on the use of the technologies of AI in the operation of financial institutions in Ukraine.

Key words: digitalization; Artificial Intelligence; Module; student.

The 21st century is characterized by active introduction of modern digital technologies practically in all processes of social life. Moreover, most of the operations of economic entities and relationships between partner organizations have been digitized. The modern technological world is a result of industrial revolution. The fourth industrial revolution Industry 4.0 marked the beginning of the rapid digitalization of economy.

2030 Digital Compass [1] determines digital intentions of the EU until 2030, namely: digital education of the population and training of educated professional in digital technologies (at least 80% of all adults should have basic digital skills); development of safe, effective, and protected digital infrastructure (all households should be provided with gigabit communications, and all populated areas should be covered by 5G network); digital development of business (three out of four companies must use “cloud” computer services, big arrays of data and means of artificial intelligence, not less than 90 percent of small and medium enterprises should achieve at least the basic level of intensity by using computer technologies); digital

development of the public sector (all key civil services must be available online, at least 90 percent of Europeans should use means of digital identification).

In 2020, due to COVID-19 pandemic, financial institutions were forced to radically transform their activities, increasing digitalization aspects of their work and processes of services providing to population. Modern financial institutions are actively implementing digital technologies in their activity to increase the competitiveness level on account of the business processes optimization, the communication process modernization and simplifying processes of financial services provision. Of particular interest in this context is the experience of the European Union, which financial institutions generate fintech innovations based on the latest technologies in artificial intelligence, the Internet of Things, 3D printing, big data, blockchain, and cloud technologies. One of the most relevant and powerful tools of digitalization today is artificial intelligence. Artificial intelligence technologies are used by European banking institutions to advise customers (virtual assistants), inform about new products (chatbots), automate branch processes (new terminals and ATMs), staff training (special algorithms for advanced training of call-centers employees), detection of suspicious activities using the card (antifraud), as well as to study investor's behavior, credit risks analysis, assessment of financial stability, customer's profile before deciding on their lending (Big Data).

Ukraine is currently in the process of implementing digital technologies in the activities of financial institutions. Along with this, new fintech initiatives are being actively created in Ukraine, which significantly contribute to accelerating the pace of digitalization of the domestic financial services market. The relevance of digitalization and its role in ensuring international competitiveness is difficult to overestimate, so the study of the European experience will allow to students to identify world best practices and adapt them to Ukrainian socio-economic realities.

The special role of financial institutions' digitization is being realized today during the war that is ongoing in Ukraine and has led to the following consequences for the financial services market of Ukraine: departure of a significant number of citizens abroad; closure of branches of banking and non-banking institutions in the occupied territories; loss of bank payment infrastructure; review of business models for the financial institutions' development. However, the active use of innovative technologies in the functioning of Ukrainian banks and other companies made it possible not to stop their work, to ensure the operation of the country's payment system, and gave the state the opportunity to make social payments to the injured, internally displaced persons. It was the active use of digital technologies in the work of financial institutions that allowed them to fully resume their work in the field of lending, provision of deposit services, settlement and cash services after only three months. At the same time, a significant number of citizens who went abroad, using digital innovations of financial institutions, were also able to manage their own accounts in Ukraine, make payments, transfers, pay for goods and services to those who remained in the country. Thanks to the active use of innovations in the payment system of Ukraine, the entire system of charitable support for the military in the country, the

purchase of weapons by private individuals for the defense of the country, became possible.

Thus, it can be argued that during the period of the greatest threat to Ukraine during the entire period of its independence, in fact, the processes of the country's financial system digitalization became an integral component of ensuring the national economic security of the state and played a key role in preventing a systemic crisis in the work of financial institutions and the state's payment system. This determines the importance of rethinking the role of digital technologies in the development of banking and non-banking technologies, actualizes the need for further development of such technologies using new ideas and concepts. This, in turn, requires a change in approaches to the training of specialists for work in modern financial institutions, improving their digital literacy, and generally ensuring an increase in the level of digital literacy of citizens in the country. It is possible to implement what has been outlined in Ukraine exclusively through the introduction of foreign experience of those countries that have real achievements in the field of training highly qualified specialists to work in the areas of financial institutions' digital development.

Chernihiv Polytechnic National University (Ukraine) implements the project - Jean Monnet Module "Artificial Intelligence in the EU Financial Institutions" (within the Erasmus+ program). The Module will bring Ukrainian students as close as possible to the realities of the functioning of EU financial institutions, equip them with relevant knowledge about peculiarities of digitalization of the financial sector of the leading European countries. The project focuses on the study of artificial intelligence technologies, because they are one of the main prospects for the development of financial institutions, which meets the priorities of both Ukrainian [2-5], and European [6; 7] digitalization programs.

The project has an interdisciplinary character, which is manifested in a combination of the project team (specialists on economic, management, technical sciences, etc.) and in structural blocks of the Module (technical, economic and managerial blocks). Students after learning the Module will acquire the following competencies: ability to think critically; ability to articulate the own position and thought; ability to search and treat big arrays of statistic and analytical information about the operation of financial institutions; ability to determine actual tendencies of digitalization of the financial services market and trends by the artificial intelligence use in the operation of financial institutions; ability to make logic, interconnected conclusions, determine causal relationships; ability for teamwork; ability for self-learning and knowledge deepening [8].

During March-May 2024, students of different educational levels were trained in the Module at the Chernihiv Polytechnic National University. 76 students registered for the course "Artificial Intelligence in EU Financial Institutions". According to the selection results, two groups of students enrolled in the course (JM-231 and JM-232) were formed among the registered persons. For each of the groups, five project teachers taught a course consisting of 24 hours of lectures and 16 hours of practical classes (a total of 80 academic hours). 44 students received certificates after successful completion of the Module.

On May 24, 2024, the colloquium "New Ideas: Student Analytical Projects with AI in Finance" was held online at Chernihiv Polytechnic National University. At the colloquium, analytical projects developed by students within the Module "Artificial Intelligence in EU Financial Institutions" were discussed. Stakeholders from various sectors of the economy, who participated in the colloquium, highly appreciated the student work. According to the results of the event, students deepened their soft skills. The next call for the course under the Module "Artificial Intelligence in EU Financial Institutions" will be announced in late 2024 - early 2025 at Chernihiv Polytechnic National University (Ukraine).

It is expected that the implementation of the proposed project will help to solve two problems that hinder the development of the FinTech industry in Ukraine, namely: 1) the project will increase the qualification level of financial professionals by developing their professional knowledge and competencies in the implementation of innovative digital technologies (primarily, artificial intelligence) in the work of financial institutions; 2) the project will increase the level of financial literacy of the population – consumers of financial services.

Acknowledgement. Funded by the European Union. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

References

1. 2030 Digital Compass URL: https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en
2. Digital Agenda Ukraine. URL: <https://ucci.org.ua/uploads/files/58e78ee3c3922.pdf>
3. Ukraine 2030E. URL: <https://strategy.uifuture.org/kraina-z-rozvinutoyu-cifrovoyu-ekonomikoyu.html>
4. Strategy of the fintech development in Ukraine until 2025. URL: <https://bank.gov.ua/ua/files/DDWIAwXTdqjdClp>
5. Strategy of the financial sector development of Ukraine until 2025. URL: https://bank.gov.ua/admin_uploads/article/Strategy_FS_2025.pdf
6. Digital Agenda for Europe. URL: <https://www.europarl.europa.eu/factsheets/en/sheet/64/digital-agenda-for-europe>
7. Digital Single Market. URL: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52015DC0192>
8. AIFEU project. URL: <https://stu.cn.ua/en/international-activity/international-programs-and-projects/aifeu-rroject/>