INTERNATIONAL SCIENTIFIC AND EDUCATIONAL COOPERATION: HISTORICAL EXPERIENCE OF UKRAINE

Abstract. The peculiarities of international scientific and educational relations in the Soviet period of Ukraine’s history are revealed. The political causes and long-term consequences of intellectual autarky are identified. The necessity and possibility of development of international cooperation on the basis of increase of academic mobility are argued.

Keywords: economic history, international scientific and educational cooperation, state policy, academic mobility.

The development of the information society and digital globalization, the formation of the knowledge economy place demands on national systems of education and research. At the same time, the process of internationalization of this sphere acquires a new quality. Ukraine has historical features regarding the conditions and forms of scientific-educational and scientific-technical international cooperation.

The Soviet scientific and educational space was formed and developed in conditions of self-isolation, when many barriers to academic freedom and mobility were created. The scientific and educational sphere was focused on the demands of the so-called «Socialist construction». During the 1920s, the Ukrainian Academy of
Sciences was nationalized. The process of forming the Soviet system of higher education was subordinated to the priorities set by the political elite, and not to the demands of society. The Soviet government, on the one hand, provided the opportunity to receive higher education free of charge, and on the other - did not allow participation in the achievements of world science, free intellectual exchange, freedom of choice. The curricula, structure and content of the courses were subject to ideological narratives and party tasks and did not provide for a departure from the approved «canons», acquaintance with Western and any alternative sources of information.

In the Soviet Union, there was a well-developed structure of international bilateral and multilateral relations in the field of higher education. At the time of the collapse of the USSR in 1991, it had the character of a stable system of education of foreign students, retraining of foreign specialists, internships, as well as scientific and pedagogical exchange. International cooperation in the field of education mainly covered countries and so-called «Socialist commonwealth» and «non-capitalist orientation». During the history of the USSR, about one million people studied in its civilian and military educational institutions, in various courses of training, retraining, advanced training, and training and internships.

The Soviet system of interstate educational cooperation functioned in several directions. The first is the organization of short-term exchanges of students and teachers within the CMEA (Council for Mutual Economic Assistance) member countries. Secondly, there was a mass enrollment of foreign nationals from CMEA countries and countries in Asia, Africa and Latin America. Third, in some developing countries, and some countries of the socialist camp established universities, provided their equipment, organization of educational process and mission for this purpose a large number of teachers from the USSR. Most of those who received higher education in the USSR were citizens of Eastern Europe (GDR, Bulgaria, Poland, Czechoslovakia ) and Asia (Vietnam, Mongolia, China, Afghanistan). Mongolia, Afghanistan, Cuba, and Bulgaria were leaders among countries that sent their students to Soviet universities in the last years of the Soviet
Union. The number of students enrolled in educational institutions at the time of the collapse of the Soviet Union was (in thousands): Mongolia – 8.8, Vietnam – 6.7, Afghanistan – 6.1, Cuba – 6.1, Bulgaria – 5.4, Syria – 5, Yemen – 3.6, Ethiopia – 3.5, Lebanon – 3.4 [1, p. 3.301–3.403].

Such cooperation in the field of education gave fruitful results for the partner states of the USSR. The Soviet system of international educational cooperation in the 1980s covered 150 countries of the world community. The international coordinators of the USSR’s cooperation in the field of education were UNESCO and CMEA. Educational services were provided at the expense of the host party with the help and support of friendly countries. The political basis for such interaction was the strengthening of the so-called «Socialist camp», expanding the geopolitical field of influence of Soviet ideology and demonstrating the benefits of an alternative market economic system.

Scientific and technical cooperation of the USSR in its development has gone through several stages. In the 1920s and 1930s, the basis of cooperation was bilateral agreements on scientific and technical cooperation on a commercial basis [2, p. 30–35]. After the Second World War, when the world community was divided into two military-political blocs (1949 – NATO was established, 1955 – the Warsaw Pact), and the economic space – into two socio-economic systems, scientific and technical cooperation was localized mainly within the so-called «Socialist camp». At the same time, the active borrowing of the achievements of Western science continued (both in a legal commercial way and through pirated copying, industrial espionage, etc.). Cooperation between the socialist countries took place in the following forms: exchange of scientific and industrial experience, division of labor and cooperation in research and design work, cooperation in the field of scientific and technical information, training of scientific personnel. The principle of free travel for specialists to transfer and borrow scientific, technical and industrial experience was enshrined in the CMEA decision in 1949.

The establishment of international scientific and technical centers (for example, the Joint Institute for Nuclear Research, 1956) began in the 1950s, and multilateral cooperation was developed (mainly within the framework of the CMEA standing
commissions). Since 1964, bilateral and multilateral coordination of scientific and technical research has begun. This allowed, on the basis of plans of mutual interest, to share scientific results, reduce duplication of research. Cooperation on the basis of long-term agreements on joint research, the practice of mutual sale of licenses have been developed since the mid-60s of the twentieth century in connection with the deployment of STR. This has increased the effectiveness of international partnerships. Scientific and technical integration of the CMEA countries ensured the formation of a coordinated scientific and technical policy of these countries, the development of integrated forms of cooperation. An international system of scientific and technical information was formed, cooperation in the field of invention and patent business, training of scientific personnel, and material support of research was developed.

However, the government’s fear of the so-called «Capitalist environment», the realization that people can be kept in the «socialist camp» only by force, led to the establishment of state bans, restrictions on free movement, which prevented the emigration of specialists, scientists, skilled workers, but also prevented the diffusion of new ideas in science. In fact, the autonomy of universities was eliminated, their role as centers of research work and the formation of practical skills of scientific work in promising youth was leveled. At the same time, the model of research universities as the core of the creation of intellectual and innovative products, the main driver of scientific and technological progress has been successfully implemented in the West.

The localization of international scientific and educational cooperation and its limitation by countries with non-market economic models of development, the lack of real scientific and socio-economic competition have weakened the position of domestic science. This was especially acute in the field of social sciences, which existed within the so-called «Marxism-Leninism». There was a rupture of ties with world science, intellectual isolation on the basis of ideological bias and political opposition of Soviet economics and economic practice to world trends and achievements. Scientific developments were aimed at solving internal, specific problems of «socialist construction», in which the formation of a new type of socio-
economic relations had priority over the balanced and sustainable development of the economy and the growth of national welfare. Only in the late 1960s – 1980s, in the context of finding ways out of the systemic crisis of the administrative-command economy, substantiating reforms, is there a partial «rehabilitation» of market categories; the dogmas of the political economy of socialism are called into question; begins the study of Western theory (within the «critique of bourgeois concepts») and the practice of market relations (in particular, corporate finance, taxation, etc.).

The development of science and education presupposes the existence of economic freedom, free exchange of ideas and the opportunity to choose topical issues of research in the context of global development of science. A totalitarian political regime has long prevailed in Ukraine as part of the USSR. Scientists, students, intellectual young people do not have access to foreign sources. They could not travel freely, get acquainted with other models of economy and social life. Specialists were restricted in accessing foreign scientific literature. They could not evaluate their achievements in relation to the research and results of foreign colleagues. Such conditions lasted for more than seven decades. Several generations of scientists have changed. This had a negative impact on the development of science and education. It was common practice to select candidates for foreign research trips on the principles of «reliability», loyalty to the Soviet power, and guarantees that these people would return. In addition, the composition of delegations was overloaded with curators from state security agencies. The control over scientific contacts and communication between specialists was of a party-ideological nature.

The consequence of the development of scientific research in the conditions of autarky was the scientific and technical lag in certain areas of research and the total lag in the implementation of innovative developments in production. This, in turn, has led to technological and structural import dependence of the economy, which is a problem for Ukraine in modern times of its history.

At the same time, since the end of the last century, post-Soviet countries, including Ukraine, have become powerful donors of intellectual personnel. The fall of the Iron Curtain released the accumulated emigration potential [3, p.66]. The
spread of migration trends among scientists and engineers was also facilitated by the destruction in the early 1990s of the unified system of scientific institutions of the USSR, the restructuring of the higher education system, and the reduction of budget funding for science and education in the absence of alternative sources.

The urgent tasks today are the revival of universities as centers of research, the creation of financial, organizational, technical and institutional conditions for the implementation of the model of research universities. It is not only about updating the material and technical base, increasing funding and ensuring academic mobility as the main directions of state policy in the field of innovative economic development. An important area is the commercialization of scientific results and accordingly, copyright protection, development of methods for evaluating the activities and results of academic and university research centers [4, p. 32–44], the system of stimulating research activities of students, support of promising academic youth.

In Ukraine, the idea of integrating education and science is spreading not only at the university level, but also on the development of research potential of students, the formation of a new generation of young people capable of setting and solving innovative problems. In particular, the experience of implementing the concept of scientific education in Ukraine meets the challenges of the Industry 4.0 economy. The potential of this educational strategy to promote human capital development and the establishment of an innovative economy is positively assessed [5, p. 149–150]. The introduction of scientific education is one of the strategies for reorienting the system of training future personnel for the modern global labor market, knowledge-intensive and technologically rich agenda of human development. This concept meets the objectives of Ukraine’s integration into the global educational and scientific space.

Changing the model of international scientific, technical and scientific-educational cooperation, the establishment of academic freedom should normalize our relations with the world scientific community. Expanding cooperation will help overcome the effects of information isolation and intellectual autarky. One of the
directions of development of educational and scientific integration, which has its advantages and risks, is the growth of academic mobility. This area of scientific and educational integration today is one of the priorities at the state level, the National Academy of Sciences and at the level of individual educational institutions. Research of opportunities and threats of internationalization and commercialization of education, analysis of challenges caused by increasing academic mobility and involvement of specialists in remote employment in international research projects are promising areas for further research.

References: