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EDUCATION AND VOCATIONAL TRAINING AS A KEY VECTOR FOR FORMING HUMAN CAPITAL (NIS.2 AGE)

Abstract: the article reveals the issues of the functioning of human capital in the conditions of the emerging multipolar world based on materials reflecting the activities of the education sector in the EAEU countries. The scale of financing education and healthcare, the formation of a unified approach to organizing the work of the financial infrastructure are presented. Key indicators of the education sector, the features of the development of educational potential in the EAEU member countries are analyzed. Recommendations for improving the performance of the vocational education system, considering the growing interest of citizens from different regions of the world in obtaining vocational education in Russia, have been proposed.

Keywords: movement towards noonomy, integral association of countries, vocational training and professional development, educational potential of the population.

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教育和培训是人力资本形成的关键因素(NIS.2时代)

摘要:以反映欧亚经济联盟成员国教育领域活动的资料为依据,文章揭示了多极世界形成过程中人力资本的作用问题。阐述了教育和卫生领域的投资规模、统一的金融基础设施运行规则的建立问题。分析了学历教育领域的关键指标,指出了欧亚经济联盟成员国教育潜力发展的特点。提出了在世界各地民众对在俄罗斯获得职业教育兴趣提高的前提下改善职业教育系统活动的建议。

关键词:迈向智慧经济、多国一体化联合体、技能培训与提高、民众教育潜力

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Modern geopolitical reality is characterized by a desire for multipolarity. The emergence of this phenomenon is reflective of a special historical transition period, essentially meaning «the beginning of the end of domination of capitalist Western countries» [Bodrunov, Desai, Freeman, 2022, p. 184].

In this context, Russia faces the main problem: «creating internal sources of economic development within a limited time period» [Khubiev, Tenyakov, 2022, p. 7]. Key vectors of Russia's transition to an updated socially oriented economic model include: achieving advanced rates of scientific and technological development, creating import-substituting industries, and establishing NIS.2 institutions. A systematic solution to these objectives is only possible with staffing support for the Russian economy which is transforming in the context of digitalization. However, this area has problems associated with the crisis state of human resources in science and education in different regions of the world.

Creation of a new conceptual vision of the Russian model of economic development actualizes the issues of studying the essential aspects of human capital and the role of university education in its formation. Features of human capital accumulation on the path to the NIS.2 economy are manifested in the process of objective aspirations of the population of different age groups to obtain education of a certain level and qualifications. In the composition of human potential as a fundamental scientific category, human capital takes center-stage position and is substantively related to intellectual capital and education, as the basic area of its formation.

Expansion of scientific knowledge is accompanied by the development of the categorical framework. Thus, the term «noointegration» arose, understood as «integration based on knowledge, common ultimate values (noovalues – eternal values, time-tested and forming the space of noonomy – and their core) and ethical and cultural principles, mutual understanding» [Arkhipova, 2023, p. 44].

Modern period in the functioning of the world economy is characterized by an increase in macroeconomic instability. The overcoming of this instability requires the maximum use of various abilities and components of human creative potential. In a human oriented environment, a person is considered as a multi-talented person, and labor has a creative nature. According to the conclusion of Doctor of Economics, Academician of the Russian Academy of Sciences S.D. Bodrunov, «even before the formation of nooproduction, creative activity that implements knowledge into new technologies actually changes the method of appropriation» [Bodrunov, 2019, p. 291].

Financial support for education and healthcare in the EAEU member countries. Human capital is characterized by indicators of the level of education and qualifications, life expectancy, and the health status of individuals. Financial basis for the formation of human capital in the EAEU countries is government spending on education and healthcare. The level of government spending (as a percentage of GDP) in the EAEU countries varies: on education – from 2.1% in Armenia to 6.1% in Kyrgyzstan; on healthcare – from 1.1% in Belarus to 3.9% in Russia (see Table 1).

Table 1

EAEU countries: government spending on education and healthcare in 2021, as a percentage of GDP

Indicators	Russia	Armenia	Belarus	Kazakhstan	Kyrgyzstan
Spending on education	3.6	2.1	4.5	4.4	6.1
Spending on healthcare	3.9	2.3	1.1	2.7	2.9

Notes: 1. For Russia – expenses of the consolidated budget of the Russian Federation and the budgets of public non-budgetary funds; for foreign countries – domestic government expenditures. 2. Adapted from: *Russia and Countries of the World*. Moscow: Rosstat, 2022. p. 143-144.

The current levels of government spending on education and healthcare in relation to GDP in the represented EAEU states are to a certain extent explained by differences in the composition of the revenue base of state budgets and the priorities of financing social sectors of the national economy of developing countries with market economies. Financial relations and possible areas of their development are the focus of interest for the supranational structures of this integration association [Molchanova, 2022a]. In accordance with the decisions made¹, measures are being taken to form the institutional structure of the EAEU common financial market.

Level of education of the population in the EAEU member countries. The EAEU countries are characterized by a high level of «population coverage with education»² in terms of its certain levels within the framework of ISCED 2011.³ In Belarus and Kazakhstan, at levels 2-3 ISCED 2011 (secondary education), this figure exceeds 100 %⁴. The highest coverage of the population by level of education («primary», «secondary», «tertiary») is typical for Russia. This can be explained by the educational policy consistently pursued by the Russian state and the developed material and technical basis of educational institutions – secondary schools, colleges and universities (see Table 2).

Table 2
EAEU countries: population coverage with education (2020/21 academic year), in %

Indicators	Russia	Armenia	Belarus	Kazakhstan *	Kyrgyzstan
ISCED 2011 Level 1 (primary education)	99	91	94	100	99
ISCED 2011 Levels 2-3 (secondary education)	98	89	105	104	100
ISCED 2011 Levels 5-8 (tertiary education)	88	55	87	54	41
Number of students in tertiary (higher) education programs, 2020 (ISCED 2011 Levels 5-8), per 1000 population	41	37	41	59	48

Notes: 1. «*» – 2019/20 academic year 2. Adapted from: Russia and Countries of the World. Moscow: Rosstat, 2022. p. 151-154.

In Russia and Belarus, there is a high level of population coverage at the levels of tertiary (higher) vocational education (ISCED 2011 Levels 5-8). This confirms that vocational education institutions in these countries have significant personnel, scientific and technological potential. The results of activities of vocational education organizations are manifested in the scale of training of professionals for work in the sectors of the national economies of the EAEU member

¹ See: Resolution of the Supreme Eurasian Economic Council dated October 1, 2019 No. 20 «On the Concept of Forming a Common Financial Market of the Eurasian Economic Union» // Information and Legal System of Regulations of the Republic of Kazakhstan. URL: <https://adilet.zan.kz/rus/docs/H19B0000020> (accessed on: 10.05.2023); Order of the Council of the Eurasian Economic Commission dated April 5, 2021 No. 4 (as amended on January 25, 2023) «On the Action Plan for the Implementation of the Strategic Growth Areas of Eurasian Economic Integration until 2025», clause 1.4 // ConsultantPlus. URL: http://www.consultant.ru/document/cons_doc_LAW_384199/ (accessed on: 10.05.2023).

² Population coverage with education» is the share of the number of students at a certain level of education as a percentage of the total population at the age officially corresponding to this level.

³ ISCED 2011 – International Standard Classification of Education.

⁴ This is explained by the deviation of the actual age of students from the age officially corresponding to a given level of education.

countries – this is information on the number of students in tertiary (higher) education programs per 1000 population (see Table 2).

Priorities of the vocational education system in the EAEU member countries.

The priority areas for training professionals can be judged from information on the distribution of graduates from tertiary (higher) education institutions in Russia, Belarus and Kazakhstan by field of education (see Table 3).

The tertiary school of Russia has retained the teaching staff for the training of engineers and professionals to work in the basic sectors of the national economy, which is of utmost importance during the period of transformation of the sectoral structure of production and the accelerated increase in output of products that are in great demand in the national economy in the context of sanction restrictions on the import of goods and services from «unfriendly» countries.

Table 3

Russia, Belarus, Kazakhstan: distribution of graduates of educational institutions of the tertiary (higher) education system (ISCED 2011 Levels 5-8) by field of education (2020), in %

Field of education	Russia	Belarus	Kazakhstan
Humanities, Arts	4.4	5.2	4.2
Social Sciences, Journalism	11.4	3.4	2.1
Entrepreneurship and Law	27.4	33.0	20.2
Natural Sciences, Mathematics, Statistics, ICT	7.9	7.4	3.9
Engineering, Manufacturing, Construction, Agriculture	24.6	30.1	24.1
Education	8.3	9.8	25.1
Health and Social Security	7.6	6.8	11.9
Service Sector and other areas	8.4	4.3	8.5
Total:	100.0	100.0	100.0

Note: Adapted from: *Russia and Countries of the World*. Moscow: Rosstat, 2022. p. 155.

A priority role in disclosing the results of educational organizations in training professionals is given to the indicator «Number of students per 1000 population»,¹ which is calculated in per mille (see Table 4). Its value indicates the level of development of tertiary education in the country and indirectly characterizes the material, technical and personnel potential of the vocational education system.

Table 4

EAEU countries: number of students per 1000 population

Years	Russia	Armenia	Belarus	Kazakhstan	Kyrgyzstan
2010	65	50	65	68	57
2021	42	37	40	59	50

Note: Adapted from: *Russian Statistical Yearbook*. Moscow: Rosstat, 2022. P. 645.

¹ In Russia – students of vocational educational organizations studying in training programs for mid-level specialists, students of tertiary educational organizations, graduate students, since 2019 – including resident physicians and assistant trainees; for other EAEU countries – students in tertiary (higher) education programs (ISCED 2011 Levels 5-8).

The specific indicators of the number of students in the vocational education system of the EAEU member countries are quite high, despite their slight decrease during the 2010s, which was due to the transition to the Bologna Process of higher education (bachelor's + master's degrees) (see Table 4). In 2022, in the changed geopolitical environment, Russia announced the need for a new stage in the development of the system of vocational, and primarily tertiary, education. The transition to a multipolar world initiates the need to strengthen the fundamentality and other basic principles of training that have historically been inherent in domestic tertiary education. Specialist programs are receiving impetus for development; enrollment for these programs is significantly expanding due to the growing need for engineering personnel. A significant argument in favor of the decision taken is the potential accumulated by Russian tertiary education and the need for its more targeted use to prepare professionals for work in industry and other production sectors of the national economies of Russia and other EAEU member countries, as well as neighboring friendly states in the Eurasian space.

The demand for education at Russian universities by citizens from different regions of the world. A long-range objective for leading Russian universities is to develop strategies to attract citizens of foreign countries to study in Russia. Establishing quotas for the admission of foreign students is practiced. Admission plans of colleges and universities have a tendency to expand the training of citizens of foreign countries. This approach is in line with global practices and long-term development strategies developed by leading universities in different regions of the world, and corresponds to the internationalization of the learning environment and the increasing mobility of youth [Molchanova, 2022b]. The task of Russian tertiary education is to strengthen its influence and strengthen its position in the international educational space.

The goals of public administration and financial regulation are: creating the most favorable conditions for the life of all members of society; the most complete satisfaction of the various needs of students in obtaining education at the appropriate level and field (specialization) of education. This vector of transformations in the training and education of the younger generation poses new challenges for social factors in terms of the reproduction of human capital. Of particular relevance are the issues of implementation by all participants of economic relations of an educational policy that is coordinated and focused on long-term social needs. It becomes obvious that the evolution of the education sector, objectively associated with changes in both domestic and foreign policy conditions, is characterized by a combination of interests of the state, organizations and households, which reflects the diversity of globalization trends and economic development priorities in a multipolar world.

It is necessary to provide professional guidance to students, to create an incentive system and a set of moral and financial incentives for tertiary education teaching staff in order to bring the structure of personnel training in line with the dynamically changing demands of the labor market. It seems timely to develop an updated concept for the development of Russian tertiary education, and focus the creative efforts of academic staff, the entire professional community on the fundamental vectors of the formation and accumulation of human capital.

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