The interrelation of the problems of the youth labour market and the "brain drain"

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Abstract. The paper considers the problem of "brain drain" in conjunction with the problem of young specialists' employment and directions for the displacement of the "brain drain" process towards "brain circulation". The low level of commercialization of intangible property leads to the fact that an employer cannot pay high salaries to employees who produce intellectual output which ultimately leads to "brain drain". The problem of shortage of medical personnel in the Republic of Tatarstan has been analyzed in the article. The problem of "brain drain" is considered as a factor influencing on information and economic security. The system of social stratification in the information economy has also been considered. Some measures for the displacement of the "brain drain" process towards "brain circulation" have been proposed.

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Introduction

In the modern society youth is considered to be a large socio-demographic group of people aged from 16 to 35 years, although age limits were narrower (16-25) until recently. One of the characteristic features of this social community is a high level of mobility, i.e. young people react to changes in policy, economy, legal relations and so on sooner than other social groups. Besides young people are well socialized, progressive and they use intellectual abilities actively. If to consider youth as a period of the human life cycle, it can also be highlighted that it is characterized by social formation, i.e. the period of profession choice, economic independence achievement etc.

The following trends for youth can be highlighted in the labour market:

- 1. The high level of unemployment (the unemployment rate for people aged 15-29 amounted to 13,7% according to Rosstat data, 2010) [1];
- 2. A large percentage of peple with higher education;
- 3. The complexity of the primary employment;
- 4. Low competitiveness on the labour market:
 - 5. High proportion of people with nonstandard types of employment (freelance, work at home, work at request).

Commercialization of intangible property

One of the characteristic features of the people is the ability to create objects of intangible

property such as software, know-how, inventions, recipes, etc. The possibility of creating intangible values is directly proportional to the level of education on the basis of which it can be concluded that young people, among whom there is a large percentage of persons with higher education, are a potential carrier of intangible property. Under intangible property we understand relations concerning property which does not have a material shell or the shell negligible, but the property itself has potential value or an ability to generate income.

The facilities intangible assets include intangible assets, intellectual property and unidentifiable objects of intangible property [2]. Unidentifiable objects of intangible assets are those objects, which according to the norms of accounting cannot be assigned to intangible assets and intellectual property, relate to intangible property by essential characteristics and form an economic resource in the information economy: synergetic effects in the organization, existence of relationships between specialists, clients, positive corporate culture, information, etc. [3].

Today, the low level of commercialization of leads to a number of missed opportunities. Under the commercialization of intangible property we understand the involvement of intangibles in the economic activities of enterprises. In case when the object of intangible property is commercialized, it is recorded on the balance sheet in the "intangible assets", thus, the intangible assets are commercialized objects of intangible property rights (licenses, patents and other). According to the Federal state statistics service, the, of intangible

assets in the asset structure in 2012 amounted to 0.21% of [4].

$$\frac{\sum x_i}{\sum y_i} (1)$$

 $\boldsymbol{\chi}_i$ - intangible assets, $\boldsymbol{\mathcal{Y}}_i$ - total assets.

The information sector of Russia produces only 5-7% of the GDP, that is 0,3-0,5% of global GDP [4]. There is an obvious underestimation of the total goodwill by domestic management, the lack of any meaningful effect of intangible values on financial and economic activity of Russian companies. In the investment structure the share of intangible accounts to less than 0.5% [3]. These figures testify that in Russia intangible property is not recognized as a full resource which is able to make a profit and provide a competitive advantage. As a consequence, the producers of intangible objects (scientists, physicians, inventors) are not paid wages competitive with the Western labour market.

In conditions of developing integration processes and high mobility of the population these circumstances lead to the problem of "brain drain".

Scientific capacity of Tatarstan Republic and staff deficit

Tatarstan Republic of possesses a powerful scientific potential and is one of the scientific centers

of Russia. Such scientific schools as chemical, mechanical, physical, biological, etc. formed in the region are well developed and known all over the world. Scientific personnel potential of the Republic more than 1500 doctors of Sciences and about 6,000 candidates of Sciences [3]. The Republic has a wide base for student training and formation of personnel potential within the region. Tatarstan has over 210 thousand students in total, including those who came from other republics.

Despite the positive reputation of the region, high scientific potential, the system of personnel training in the system of higher education, high levels of socio-economic development among the regions of Russia there is still a shortage of staff in a number of areas in Tatarstan. The deficit of human resources in production and construction increased in recent years and all-over-Russia trend of shortage on working specialties also exists in Tatarstan. The staff shortage in healthcare system intensifies both among doctors and paramedical personnel: nurse, physician assistants, laboratory technicians etc. The average provision of paramedical personnel in the Russian Federation amounts to 92.4 per 10,000 people in 2011 [5].

Table 1. The number of doctors per 10 thousand of the population [5]

Region	The number of doctors per 10 thousand of the population			
	2008	2009	2010	2011
Russian Federation	43,8	44,1	44,1	43,4
Central Federal district	47,3	47,9	48,2	46,6
The city of Moscow - the capital of Russian Federation - Federal city	68,6	70,3	71,9	66,3
City of Saint Petersburg, a city of Federal importance	74,6	75,5	78,4	73,9
Kabardino-Balkar Republic	38,5	39,2	39,3	41,1
Republic Of North Ossetia-Alania	64,4	65,8	66,4	66,6
Volga Federal district	41,4	41,5	41,3	41,5
Republic Of Bashkortostan	37,9	38,7	38,5	38,9
Republic Of Mari El	31,8	31,7	30,7	30,8
Republic Of Mordovia	46,7	46,6	47,1	46,4
The Republic Of Tatarstan (Tatarstan)	39,3	39,2	39,6	39,1
Udmurt Republic	53,2	53,8	53,3	53,2
Chuvash Republic	45	43,5	43,7	44,8
Perm region	48,2	48,5	46,8	47,6
Kirov region	40,7	40,2	40,3	41,3
Nizhny Novgorod region	38,9	39	38,9	38,7
Orenburg region	45,5	45,7	45,9	46,6
Penza region	33,7	33,7	34,1	34
Samara region	41,7	42,6	42,3	42,4
Saratov region	43,1	42,7	42	42,6
Ulyanovsk region	32,5	32,6	32,6	33,1
Ural Federal district	37,5	37,3	38,3	39,2
Siberian Federal district	44,4	44,2	44,2	45,7
Far Eastern Federal district	46,8	46,4	46,4	46,7
Chukotka autonomous district	79,6	76,8	77,4	75,5

The coefficient of personnel provision is calculated as:

$$\frac{\sum a_i}{10000} (2)$$

[alfa i] - medical personnel in the region.

The similar index for the Republic of Tatarstan equals to 95.4 medical employees per 10,000 people, which is 3 points higher than the total index of Russia, but Tatarstan is on the 38th place among the subjects of the Russian Federation by this indicator.

The availability of doctors per 10,000 persons in the Republic of Tatarstan in 2011 ranks 56th place among subjects of the Russian Federation; this figure is 39,1 doctors per 10 thousand people (see table 1).

The social stratification of a society

In the modern information economy the social stratification of a society changes a lot. For the formation of adequate idea about the possibilities of effective participation of Russia in the information economy, it is worth considering that today the top of the world economy pyramid occupy persons- and companies-founders of lifestyles and symbols of success, behaviours and consumption standards, products of mass culture. The second level includes scientists, researchers and experts elaborating new technological and creating principles technologies, as well as management consultants, engineering, finance, law, architecture, design and advertising.

The lower level of the world hierarchy occupies the production of traditional industrial type ranging from high-tech companies to raw materials. Nowadays the share of the information sector in the USA accounts to 60% - 75% of the country's GDP, the structure of employment in the global market is distributed as follows: 37% of the EU countries, 33% - USA, 15% - Japan and 15% to other countries [6]. British economists R. Brown and A. Julius on the basis of the conducted research claim that by 2020 the proportion of workers in the sphere of material production will be less than 10% of the total employment figures [7].

The highest levels of the social hierarchy in the developed countries are occupied by producers of intangible goods, but they have not yet occupied the highest positions in the structural hierarchy of Russian society, thus the migration of highly qualified and educated personnel is understandable and is caused by a wish for better wages and improving of the quality of life.

The youth is more subject to the process of migration, because this category of population is the highly mobile.

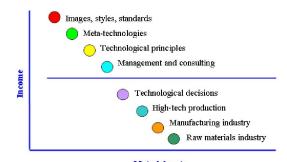


Fig. 1. Modern hierarchy of global business [2]

Many countries such as Dominican Republic, El Salvador, Mexico, Guatemala and Jamaica, Iran currently faced the problem of migration of highly skilled personnel. More than two-thirds of the educated population have left these countries [8]. This process also exists in developed countries.

In the conditions of a globalizing economy, many researchers discuss about naturalness of the "brain drain" process. Some negative effects it causes cannot be ignored though. There is no deficit of qualified personnel in Russia which usually accompanies "brain drain" in small countries. The most urgent problem in Russia is the erosion of the middle class. One of the reasons for this effect was the intensive migration in the 90s [2]. In addition, the "brain drain" can be also considered as a loss of the scientific elite.

The "brain drain" can also be considered from the macro-economic point of view. In such scale this problem creates preconditions for the emergence of threats to information security. The information security is usually understood as the level of protection of the state against external threats, caused by disclosure. Emigrants are a valuable source of information, especially if to consider people engaged in intellectual work, often associated with scientific and technical developments. Information security is in turn an integral part of economic security. Economic security of the country is a state of the national economy, which minimizes the negative influence of external factors.

However, a number of researchers highlight some positive effects of the "brain drain"; some countries even contribute to this phenomenon, if a person cannot find a job in their home country, as emigration partially relieves the problem of unemployment and stimulates capital inflow to the country [9]. Besides that the "brain drain" has a beneficial influence on the process of sharing information. This process existed almost always; people left their countries to master the profession, due to which the exchange of scientific developments was provided, which ultimately contributed to scientific and technical progress. It would be wrong not to recognize the positive role of the "brain drain" globally; we believe that we need to keep the right balance between national and global interests, i.e. only really "excessive" intellectual resources should leave.

It is unacceptable to use such measures as prohibiting the departure of people with higher education; this measure is incompatible with the principles of the information society in the era of globalization. However, to occupy the niche of provider of intangible resources in the world division of labor is considered to be another extreme. There is no fundamental difference in changing of the role of the energy supplier to role of the provider of goodwill; the problems of rising unemployment and lack of own production facilities will arise, which will eventually lead to a threat to economic security [10]. Migration in Russia has been growing for the recent years; however, the structure of migration is heterogeneous: mainly people with higher education emigrate and unintellectual human resources come to Russia.

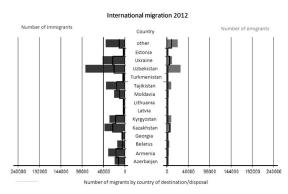


Fig. 2. The structure of international migration in Russia [1]

We consider it to be expedient to make efforts for the development of the Institute intangible property, which will allow its commercializing and getting a competitive advantage on the market, creating a methodology of accounting and evaluation of intangibles. It will become more liquid and will rotate more freely on the market, which will allow its creators to receive additional income or pay the competitive salaries in comparison with labour markets in developed countries [11, 12].

In addition, we offer to establish state-level mechanisms of labour market adaptation of the youth. Largely link practice and theory studied in universities while practicing during the learning process. Upgrade the educational standards and curricula in accordance with the requirements of the labour market. For the areas in which the percentage of job placement during the first year after graduation remains below the average there is a possible return to the Soviet practice of the distribution. Ideally the process of "brain drain" must change to the process of "brain circulation". "Brain circulation" is a mechanism catalyzing scientific and technical progress, thanks to which the positive sides of the brain drain remain and the negative reduce. It involves trainings abroad for students, postgraduates and young scientists with their subsequent return and spreading of knowledge. Traditionally it is considered that this process is only possible when countries have approximately equal level of economic prosperity, but we believe that this exchange is rational between countries with a comparable potential for scientific development.

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