

THE ROLE OF HUMAN POTENTIAL OF INTEGRATED STRUCTURES IN THE FORECASTING OF SOCIO-ECONOMIC DEVELOPMENT OF THE REGION

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Abstract

This article considers the problem of development and activation of human potential. One of the most important factors for effective and competitive functioning of the region is the human potential of integrated structures. The article deals with the optimal conditions of realization of human potential in integrated structures with the goal of developing programs and forecasts of socio-economic development of the region.

Thanks to the development of the human potential through continuous education and getting the resources for a decent standard and quality of life in the integrated structures of economic entities to achieve a high level of welfare of the population of the region. This requires investments in its development. Ensuring adequate flow of investment is one of the priorities of any region, and is a prerequisite for the resumption and maintenance of sustainable regional socio-economic growth. The labor potential, as a component of the human potential is the factor in the investment potential of the region, therefore, its effective use depends on the possible extent of and directions of investment activity of the region.

In modern conditions the human potential allows to innovate, to adapt to the main trends in the development of the world economy, where the man that develops his potential, eventually becoming a source of development of society, becoming its main competitive advantage. On the other hand, human potential is one of the most important factors in the efficient and competitive functioning of the region. It is a quality component of socio-economic development of the region.

This article describes and classified factors influencing on the human potential development in various formations, with the purpose of socio-economic development of the region. The main types of organizational structures, which are the prerequisites for maximum disclosure and development of the human potential. It is offered directions of strategy of development of the human potential of the integrated structures in the system of socio-economic development of the region.

Keywords: Human potential, integration, integrated structures, factors of socio-economic development, region, economic growth

1. INTRODUCTION

In the modern post-industrial society, the society of knowledge and information, during the period of strengthening of globalisation knowledge is becoming the most important resource of the development of any country as human beings are knowledge holders, producers, and consumers. Human potential of the country is the main competitive advantage which gives a possibility to master the innovations, achieve high competitive ability of both the country and the region.

It is necessary to note that not only is the quantity of human potential of the region important, but social and economic conditions are important as well as they are necessary for its formation and implementation.

The regions of Russia are in great need of the development of scientifically grounded decisions for the efficient use of labour force which provides for a full-fledged implementation of innovative development and modernization of Russian economy. It will allow providing high quality of life of the population of the region.

In existing market conditions the study of factors influencing the development of human potential in different formations aimed at social and economic conditions of the region is an acute issue of research. It is due to the development of human potential (at the expense of lifelong learning and acquisition of resource of adequate level and high quality of life) in the integrated structures and other forms of economic management it is possible to achieve a high level of prosperity of the population of the region. Investments in its development are necessary for this purpose. One of the priority tasks of any region is the provision of sufficient inflow of investments which serves as a necessary condition of the renewal and support of sustainable regional social and economic growth.

2. HUMAN POTENTIAL AS A FACTOR OF SOCIAL AND ECONOMIC DEVELOPMENT OF THE REGION

The United Nations Development Programme (UNDP) that was presented in the World Report on Human Development for 1990 for the first time considered the development of human potential as a final goal and a criterion of social progress, i.e. at the level of society in the whole. Human Potential Development Index (before 2013) or Human Development Index (HDI) is calculated with the aim to compare social and economic state of the nation according to the UN Programme. The calculation (according to UNDP before 2010) took into account the following indices: longevity index (based on life expectancy), education index (based on literacy rate and rate of students aged 7 to 24), and income index (based on purchasing power parity (PPP) GDP per capita). HDI calculation has included new indices since 2011: duration of training, expected duration of training, PPP gross national income per capita.

According to the data of the Report on Human Development, Human Development Index in the Russian Federation (Golyashev, Lobanova, 2016, p. 285) takes into account regional differences, thus, HDI in Russia in 2014 was 0.874 (50th place in the world): income index 0.924, longevity index – 0.766, education index – 0.933. HDI in Russia in 2015 was 0.804 – high HCM – 49 place among 188 countries; HDI in Norway, for comparison, (1st place) in 2015 was 0.949.

Central Federal District (CFD) takes the first place among federal districts in Russia with HDI of 0.882; Volga Federal District (VFD) in its turn has an average HDI of 0.860 that is the fourth place among federal districts in Russia.

HDI components (human development resources) in VFD are presented in Table 1, the higher these indices are, the more opportunities for human potential implementation there are. Thus, HDI in the Mari El Republic was 0.835 (60th place in Russia): income index – 0.837, longevity index – 0.740, education index – 0.929.

Table 1. Human Development Index of VFD subjects.

Place of the subject in VFD in 2014 according to HDI	VDF subject	Income index	Longevity index	Education index	HDI 2014
1. Developed regions					
1.1 With diversified economy					
1	Republic of Tatarstan	0.955	0.786	0.942	0.894
3	Samara Region	0.908	0.744	0.942	0.865
7	Nizhny Novgorod Region	0.886	0.742	0.933	0.854
1.2 Based on mining industry					
4	Perm Territory	0.913	0.734	0.943	0.863
6	Republic of Bashkortostan	0.892	0.746	0.929	0.855
2. Regions with medium-level development					
2.1 Industrial and agricultural					
5	Udmurt Republic	0.887	0.751	0.949	0.862
2.2 Agricultural and industrial					
2	Orenburg Region	0.931	0.729	0.937	0.866
8	Penza Region	0.848	0.777	0.921	0.849
9	Saratov Region	0.853	0.766	0.930	0.849
10	Republic of Mordovia	0.838	0.773	0.934	0.848
11	Ulyanovsk Region	0.843	0.756	0.929	0.843
12	Kirov Region	0.812	0.760	0.952	0.841
13	Chuvash Republic	0.820	0.760	0.936	0.839
14	Mari El Republic	0.837	0.740	0.929	0.835

The Mari El Republic takes the 14th place among VFD subjects in HDI, the 13th place in education index outscoring the Penza Region, and the 12th place in the rate of students aged 7 to 24 outscoring the Penza Region and the Republic of Bashkortostan.

Among VFD subjects the 1st place in HDI is given to the Republic of Tatarstan (with diversified economy) – 0.894, the 2nd place – to the Orenburg Region (agricultural and industrial region) – 0.866, the 3rd place – to the Samara Region – 0.865, the 4th place – to the Perm Territory (region based on mining industry) – 0.863. Average HDI in VFD developed regions is 0.8662, in the regions with medium-level development – 0.848.

On the other hand, to transform human potential into human capital which is a source of income of an individual and the society in the whole, it is necessary to create maximum favourable conditions, including a sufficient level of government expenditures invested into a social sphere, as well as being accompanied with equitable distribution of resources in the economy of the region. Table 2 presents the data for the countries leading in HDI list in 2015 which have high government expenditures from the consolidated budget for public health service, education, and social protection.

Table 2. Government expenditures for public health service, education and social protection and Human Development Index.

Country	The structure of government expenditures from the consolidated budget by functional type, % (data for 2013)			HDI 2013	place in the ranking 2013 HDI	HDI 2014	place in the ranking 2014 HDI	HDI 2015	place in the ranking 2015 HDI
	health service	education	social protection						
Norway	16.8	12.2	40.2	0.944	1	0.944	1	0.949	1
Australia	15.6	9.8	42.0	0.933	2	0.935	2	0.939	2
Switzerland	6.6	16.1	39.3	0.917	3	0.930	3	0.939	3
Germany	15.8	9.7	42.7	0.911	6	0.916	6	0.926	4
Denmark	15.3	12.3	43.9	0.900	10	0.923	4	0.925	5
Russia	8.1	10.0	30.7	0.778	57	0.798	50	0.804	49

According to the data of (Russia and countries of the world'2016: Statistical pocketbook, 2016).

Therefore, we can make a conclusion that human potential is an important factor of social and economic development of the region.

3. METHOD OF COMPREHENSIVE ASSESSMENT OF HUMAN POTENTIAL OF THE MARI EL REPUBLIC

At present time the issues of forming, implementing, and developing human potential are touched upon in most of works of Russian and foreign scholars. Among the works of foreign scholars we may point out the works of such authors as A. Sen, K. Griffin, M. Morris, Mahbub-ul-Hak, D. Bell, K. Rihardson, etc. Among the Russian scholars working on this issues there are O.I. Genisaretsky, N.A. Nosov, B.G. Yudin, A.G. Vishnevsky, B.G. Solntseva, G.L. Smolyan, L.O. Evdokimova, A. Abdalhussein, M.S. Santalova, T.I. Zaslavskaya, etc. (Sadovin, Kokotkina, Barkalova, Tsaregorodsev, 2016, p. 10636).

In spite of a big quantity of works devoted to this issue of both Russian and foreign scholars, the problem of improvement of human potential quality in the integrated structures and other business patterns as a factor of social and economic development is studied insufficiently, that is why it requires further investigations and elaborations taking into account regional peculiarities.

Let's calculate Human Potential Integrated Index of the Mari El Republic (HPII) in 2013-2015 using the method of comprehensive assessment of human potential of the region developed by E.V. Chuchulina (2010). Table 3 presents HPII in 2013-2015 and the forecast for the HPII of the Mari El Republic till 2020 using the inertial and modernized versions.

Table 3. Human Potential Integrated Index of the Mari El Republic (HPII).

HPII Index	2013	2014	2015	2020 1 version	2020 2 version
1. Human potential capacity of the region	0.12403	0.1194	0.1206	0.1179	0.1299
Number of newborns in the region per year, thou. people	10.088	10.081	9.915	9.855	10.1
Level of professional education in the region	33.0	30.6	31.1	29.6	35.25
- number of students of secondary education, thou. people	10.2	10.2	11.5	11.9	12.0
- number of students of higher education, thou. People	22.8	20.4	19.6	17.7	23.25
Number of economically active population in the region, thou. people	347.4	340.7	340.0	335.3	349.0

2. Human potential capacity in the region	0.1598	0.1581	0.1618	0.1615	0.1706
Number of newborns in the region per year, thou. people	10.088	10.081	9.915	9.855	10.1
Number of children studying at schools in the region per year, thou. people	67.0	68.0	70.0	71.1	72.0
Number of students of secondary education per year, thou. people	10.2	10.2	11.5	11.9	12.0
Number of students of higher education per year, thou. people	22.8	20.4	19.6	17.7	23.25
Total number of population in the region, thou. people	688.7	687.4	685.9	684.5	688.0
3. Investments into human potential of the region	0.0948	0.0972	0.0952	0.0941	0.1031
Number of people involved in health care and social service in the region, thou. people	21.2	20.9	20.2	19.7	21.0
Number of people involved in agriculture, hunting and forestry, as well as in food production in the region, thou. people	18.5	19.0	20.2	20.8	21.9
Number of people involved in education in the region, thou. people	25.6	26.9	24.9	23.9	28.0
Total number of population in the region, thou. people	688.7	687.4	685.9	684.5	688.0
Level of quality of human potential of the region	0.933	0.9136	0.8998	0.9085	0.9355
Total number of labour forces responsible immediately for quality of labour force in the region (involved in education and health care), thou. people	46.8	47.8	45.1	43.6	49.0
Average criterion of work distribution on difficulty levels in the region	0.4416	0.4420	0.4411	0.4410	0.4450
Number of people involved in economy in the region (economically active population excluding those involved in education and health care)	300.6	292.9	294.9	291.7	300.0
Total number of population in the region, thou. people	688.7	687.4	685.9	684.5	688.0
Quality level of human potential in average in the country	0.5	0.501	0.505	0.5	0.5
Human potential integrated index of the region	0.2046	0.2023	0.2022	0.2009	0.2151

According to the data of (Russia'2016: Statistical pocketbook, 2016).

Human Potential Integrated Index in the region (HPIIR) is multifactor as it includes the constituent indices of reserve, flow, investments, and quality of human potential in the region. This index reflects both economic and social parts of the development of the region.

In 2015 HPIIR was 0.2022; it shortened by 0.0024 or 1.17% in comparison with 2013, which is connected with the decreasing of its constituent parts: the number of newborns in the region per 2015 in comparison with 2013 declined by 1.71 %, the number of students of higher education per 2015 in comparison with 2013 declined by 14.04% or by 3.2 thou. people, the number of labour forces responsible immediately for the quality of labour force in the region (involved in education and health care) declined by 1.7 thou. people or by 3.63 %.

Table 3 presents the forecast for the Human Potential Integrated Index of the Mari El Republic till 2020 using the inertial and modernized versions. According to the modernized version HPIIR is going to increase by 6.38 % in 2020.

4. RESULTS

The forecast of social and economic development of the region was developed based on HPIIR indices.

The inertial version of the forecast supposes absence of any changes in the quality of human potential development in the region. The parameters of this scenario may be considered as the lower limit when assessing possible development pathways of regional economy until 2020.

The modernized version supposes that social and economic development of the region is driven by organization structures based on integrative cooperation which have prerequisites for maximum opening and development of human potential. This forecast was composed taking into account the Development Strategy

of the Mari El Republic, as well as taking into account Development Road Map of MarSU as a flagship higher educational institution of the Mari El Republic.

This analysis has shown that investments into education improve the level of the development of science which eventually influences success and results in production increasing GRP. The effect of integration of education, science, and production appears in this (Mamaeva, Mamaev, 2015, p. 241). Integrated structures have competitive advantage over other structures as every element of the system gets maximum results at minimum expense due to the synergistic effect (Mamaev, Shvetsov, Mamaeva, Lebedev, 2015, p. 395). It is characterized by maximum reward from the invested efforts as it is the integrated structures that collect maximum human potential with specific qualitative and quantitative characteristics.

Integrated structures play a great role in the creation of regional GDP; and education is an engine in this chain (Mamaeva, Mamaev, 2015, p. 234). The Flagship University of the Mari El Republic will be able to give an impetus to the development of future human potential of the region. This will give the chance for the Mari El Republic to take a rightful place among the three VFD leaders in HPI. To implement the modernized forecast it is necessary to have close relationships not only with schools, but also with preschool educational institutions which will choose the most prospective children.

It is important to note that in modern conditions human potential allows applying innovations to adapt to the main development trends of the world economy where a human being who his perfecting his/her potential eventually becomes a source of social development, becomes its main competitive advantage.

On the other hand, human potential is one of the most important factors of efficient and competitive functioning of the region being a qualitative element of social and economic development of the region.

According to the Concept of Social and Economic Development of Russia till 2020 (2008) human potential development in Russia includes systemic changes of two types: directed to improving competitiveness of human resources, labour force, and social sectors of economy; improving quality of social environment and living conditions of people.

Human potential of integrated structures and other business patterns in agricultural sector has a huge positive influence on social and economic development of the region. It happens due to the presence of higher educational and research institutions in the republic which form production and educational cluster of agricultural sector.

Due to the development of human potential, lifelong learning, as well as integrated structures and other business patterns allowing maximum use of the existing resources it is possible to reach a high level of population wellbeing of the region.

5. CONCLUSIONS

The process of research has established that the distinct feature of management philosophy for human potential of integrated structures is the fact that the state of human potential at the individual level is considered as a repeatable resource of integration with the coordination of human potential factors and environment of its implementation.

As distinguished from the concept of labour potential, strategic management of human potential at the level of integrated structures in the model of human potential shall be aimed at reproduction of mobile employees able to realize their full potential in labour, professionals of high level, competence, and responsibility.

Thus, it is possible to make a conclusion that the influence of human potential of integrated structures and other business patterns in agricultural sector is of great importance for social and economic development of the region aimed at achieving a high level of its wellbeing.

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