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**STRATEGIC MANAGEMENT OF HUMAN CAPITAL OF
INNOVATIVE ECONOMY**

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Abstract

The article attempts to determine the need for strategic management of human capital as an important factor in the innovative development of the economy. The multiple complication of the external environment, the acceleration of change of impact factors, both direct and indirect, has led to the inability to meet the social needs. The authors argue that human capital plays a crucial role in the development of the state and regional economy of the new innovation-oriented format. The article touches upon the problem of developing a strategy for managing the development and use of human capital. It is concluded that human capital needs adequate and modern management mechanisms that will change the vector of identified negative trends in socio-economic development. The solution to the problem of economic growth, improving the quality of life of the population, increasing human capital is largely in the plane and is determined by budget allocations. The authors analyse the country's budget expenditures by the categories (sections) of the classification, they study their dynamics, focusing on sections related to the social sphere, including “health” and “education”.

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1. Introduction

The formation of market relations in Russia requires the use of fundamentally new approaches and methods of management in all spheres of the economy. The initiators who are responsible for the transition to market relations focused on the need for radical changes in ownership, pricing and tax reform, restructuring of the financial and credit system, which led the Russian society to a deep socio-economic crisis. When choosing a “progressive way of development” or forming and developing the market, the issues of economic management organization were missed. This is especially true of everyday economic practice, when due to the lack of reliable management mechanisms, macroeconomic regulation is alienated from activities at the microeconomic level. The ratio of critical values in the world and the real values of some indicators of the Russian Federation relating to economic relations and the social sphere make it possible to state the negative consequences in these areas. For example, the deindustrialization of the economy, the dependence of the population's life on food imports, the technological backwardness of the economy, the increasing contradictions of social structures, the lack of simple replacement of generations, the deterioration of public health, the loss of scientific and intellectual potential. (Table 1) The change in the indicators indicated in the table has been observed since 1995, which allows us to note a negative trend in almost all positions. (Khosroeva, 2017) In addition, the values of these indicators in many cases exceed the world's extremely critical values by 2 or 3 times, for example, the level of fall (growth) of industrial production, the level of fall (growth) of agricultural products, the level of morbidity per 1000 people. These trends, first of all, negatively affect the state of human capital, its devaluation, and the reduction of its qualitative and quantitative characteristics. The ongoing economic processes have led to the transformation of political and social structures and institutions. (The concept of long-term socio-economic development, 2009), This can be attributed to the fact that Russia was overwhelmed by the growth of crime and "ethnic conflicts", which led Russia in as a whole and, in particular, its south regions to an extreme situation and extreme conditions for the development of market relations. Multiple complication of the external environment, increase of its aggressiveness, and the acceleration of change of impact factors, both direct and indirect, led to the lack of possibility of satisfaction of the social order based on public needs. The situation caused by the “transformation shock” requires a comprehensive approach, scientific validity of the processes of further social development. (SNTR Portal, 2017; State program of the Russian Federation, 2016).

Table 01. The ratio of development indicators

Indicators	Critical limit value in the world	Value in 2015		Likely political, social economic aftermath
		Russian Federation	The Republic of North Ossetia-Alania	
The rate of decline (growth) of industry productions, %	30-40	96.6	91.7	The de-industrialization of the economy
The level of decline (growth) of agricultural products, %	30	102.6	87.9	Dependence of the population's life on food imports
Share in export of raw materials and semi-finished products, %	60	67	85.1	Colonial structure of the economy

Share in export of high-tech products, %	10-15	2.0	0.29	Technological backwardness of the economy
The share of taxes in GDP, %	10-12	11.1	0.8	Fiscal Economics
Income ratio of the richest 10% to the poorest 10%	10-1	14.5-1	12-1	The antagonism of the social groups
Population with incomes below the subsistence minimum, %	10	13.3	14	Lumpenization of the population
Ratio of minimum and average wages	1-3	1-4.5	1-2.6	Dequalification and pauperization of the workforce
Conditional depopulation rate*	1	0.98	1.43	Intensive depopulation, population extinction
Total fertility rate	2.14	1.777	1.93	The lack of simple replacement of generations
Crime rate, number of crimes per 100 thousand people)	5-6 thousand	1.631	0.961	Criminalization of social relations
Level of alcohol consumption, liter of alc. per person per year	8	18	14	Phys. degradation of the population
The level of morbidity per 1000 people, units.	250	778.2	706.8	The deterioration of the health of the population
The share of personnel employed in Research and Advanced Development field, %	15	11	8	Loss of scientific and intellectual potential

2. Problem Statement

The crisis of development can be explained by the crisis of the theory of development, that is, today there is no substantial concept of the management system for the development and use of human capital to be adequate to the modern period, which is very important both for Russia as a whole and for its individual regions. The situation caused by the "transformation shock" requires a comprehensive approach, scientific validity of the processes of further social development. According to collected data, the attenuation of the transition process in the 2010s is characterized by a gradual transition of economic growth rates to the values typical for a stable (non-transitional) economy (in particular, for the Russian economy before the transformation. (Akindinova, Bessonova, & Yasin, 2018)

In 2015, the government of the Russian Federation approved the key areas having the potential to form a new model of economic growth. In the future, according to the forecast of the Ministry of economic development (MED) of Russia, excluding inflation, the GDP growth rate will be in 2018 – 2.1%, in 2019 – 2.2% and in 2020 – 2.3% - and this is a catastrophically low rate. To justify this situation, MED 's projection of socio-economic development of the Russian Federation for 2018 and for the planning period 2019-2020 announced low growth rates of world GDP: "they will not be higher than Russian ones".

At the same time the IMF forecasts the growth rate of world GDP in the next period of the order of 3-3.5%. This means that Russia continues to reduce its share of global GDP. It is known that 2% of budget expenditures on science is considered to be critical for national security. According to the law "On science

and state science and technology policy", the fundamental research and development of advanced technologies and priority technical fields should provide 4% of the Federal budget, in fact, the level of Federal budget funding does not rise above 1.7%-2 %.

The expert opinion of the Institute of Economics of RAS on the draft Federal budget of the Russian Federation 2018-2020 prepared by a group of independent experts led by I. V. Karavaeva: V. I. Pavlova, E. A. Ivanova, S. V. Kazantseva and others indicated that the draft Federal budget of the Russian Federation for 2018-2020 provides for the implementation of 35 state programs, only 8 of which are designed exclusively for the development of industrial production. Of the total expenditure on government programs, these 8 programs account for only about 7%. By financing the Russian industry with such small funds, it is difficult to expect the necessary positive results from it, although these state programs contribute to economic security and scientific and technological development of the Russian Federation. In addition, it should be noted that the Federal budget does not provide for expenditures on the strategy of scientific and technological development of the Russian Federation for the period up to 2030, while funding is provided for the Strategy of environmental safety, since the economic damage from environmental pollution is 3-5 trillion rubles (Karavaeva, Pavlova, & Ivanova, 2017).

The solution to the problem of economic growth, improving the quality of life of the population, increasing human capital is largely determined by the distribution of budget allocations by sections of the classification of budget expenditures and their dynamics in 2018-2020, which is presented in comparable prices. (Table 2).

Table 02. Federal budget expenditures

Indicators	As % of expenses			Dynamics of expenses, %		
	2018	2019	2018	2019	2018	2019
Total, including:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
National issues	7.9%	7.6%	7.9%	7.6%	7.9%	7.6%
National defence	16.8%	17.1%	16.8%	17.1%	16.8%	17.1%
National security and law enforcement	12.8%	13.0%	12.8%	13.0%	12.8%	13.0%
National economy	14.6%	14.5%	14.6%	14.5%	14.6%	14.5%
Utilities sector	0.8%	0.6%	0.8%	0.6%	0.8%	0.6%
Environmental protection	0.5%	0.6%	0.5%	0.6%	0.5%	0.6%
Education	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Culture. Cinematography	0.6%	0.5%	0.6%	0.5%	0.6%	0.5%
Health Care	2.8%	2.6%	2.8%	2.6%	2.8%	2.6%
Social policy	28.5%	29.0%	28.5%	29.0%	28.5%	29.0%
Physical education and sport	0.4%	0.2%	0.4%	0.2%	0.4%	0.2%
Media	0.5%	0.4%	0.5%	0.4%	0.5%	0.4%
Interbudgetary common transfers	5.1%	4.9%	5.1%	4.9%	5.1%	4.9%

As can be seen from the table, the main items of expenditure of the Federal budget are the contributions to social policy, national defence, national economy, national security and law

enforcement, and these are the national issues. In total, about 80% of the budget is allocated for these types of expenses. At the same time, the share of each of these articles is slightly reduced in 2020 (a total of 0.5 percentage points compared to the previous year – 2019). Large objections cause a noticeable (5% in nominal terms compared to 2017) reduction in spending on the national economy. It should be noted, that the draft of the Federal budget does not explicitly imply the economic development.

Also, the share of expenses under the article “Interbudgetary common transfers” is uniformly reduced. In the context of ambiguous (for the budgets of the subjects of the Russian Federation) changes in tax legislation, this decision will certainly affect the strengthening of differentiation of regions. In nominal terms, as it can be seen from the table, budget expenditures as a whole, as well as for some items, increase slightly. However, when given even a small projected inflation rate (4.0 per cent for the entire three-year planning period), the vast majority of expenditure is negative.

In 2018 and 2019, the policy of saving continues, which is evident from the reduction of the total amount of expenses by almost 6%. More than half of this decline (3.2 percentage points) is due to a reduction in social policy spending. In 2015-2016, in the context of a sharp drop in oil and gas budget revenues and a growing deficit, social policy spending did not decline in real terms, but continued to grow. In 2018, it is planned to significantly reduce the spending on the national economy, national defence, utilities and other types of expenses. Real growth is expected only in terms of public debt servicing, inter-budget transfers, national security and law enforcement, as well as education (but here the growth is estimated at only 1.2%, i.e. it will be hardly able to compensate the inflation).

The increase in spending on such items as “education” and “health care”, which is essential for building human capital, is mainly achieved by 2020. In 2019, both items provide for a significant decline in costs. The uneven dynamics of spending on the most important social sectors, mainly financed from the budget, once again confirms the sad tendency to ignore the development of human capital as a factor of economic growth. Thus, the analysis of expenditures by sections of the classification confirms the assessment of the draft budget for 2018-2020 as a budget of austerity, which cannot be a factor in the formation of human capital of a new quality ensuring the growth of the Russian economy.

3. Research Questions

Increase of efficiency of public production; determination of the main directions of socio-economic and scientific-technical development of the country and its regions in the future; digitalization of the economy are designed to provide the strategic management and forecasting. The substantiation of directions and efficiency of scientific and technical economic and social integration on the basis of the analysis and foresight of world tendencies of innovative and social and economic development is provided by various documents of strategic character of the state and regional level, including:

- The concept of long-term socio-economic development of the Russian Federation for the period up to 2020. (Ministry for economic development, 2009)
- Strategy of scientific and technological development of Russia until 2035. (SNTR Portal, 2017)
- Medium-term program of socio-economic development of Russia until 2025 “Growth Strategy”.

- State program of the Russian Federation “Economic development and innovative economy”.
- Information society development strategy in the Russian Federation for 2017-2030 (State program, 2017).
- Program “Digital economy of the Russian Federation” (State program, 2015).
- Strategy of socio-economic development of Federal districts, in particular the North Caucasus Federal district until 2025 (Ministry for economic development, 2017).
- Strategy of socio-economic development of subjects of the Russian Federation, in particular The draft strategy of socio-economic development of the Republic of North Ossetia-Alania until 2030 (Ministry for economic development, 2017).

Each of these programs and strategies has sections related to the development of “human resources”, “human potential”, “human resources”, description of social activities, prognostic prospects of health care, and education. Despite the a wide range of strategies and programs in the field of socio-economic and technological development, informatization and digitalization of the Russian society, it seems necessary to note a number of shortcomings associated with departmental disunity of developers of program documents, some methodological inconsistency, errors and discrepancies in data, inconsistency in priorities. Of course, the later documents of the information society development Strategy, October 2017 and the Draft strategy of socio-economic development of the Republic of North Ossetia-Alania until 2030 (Ministry for economic development, 2017), July 2018 are in a definite way different from the documents of the previous years in terms of ranking of national interests: p. 21. The strategy for the development of the information society states that this Strategy is designed to promote the following national interests: a) human development; b) ensuring the security of citizens and the state; c) increasing the role of Russia in the global humanitarian and cultural space, and so on. Strategies of subjects of the Russian Federation, in some cases (the Republic of North Ossetia-Alania), favourably differ in the presence of sections devoted to human capital and its components. However, when comparing the strategies of different subjects, it is easy to find a lack of uniformity in the structure of the documents, the methods used, which, of course, complicates the possibility of a systematic comprehensive assessment of the strategies developed by the subjects in the context of long-term strategic socio-economic development of Russia.

4. Purpose of the Study

Ways of solving these problems can be found in the development of science-based concept of the management system, capable of organizing the regional economy and the economy of the state as a whole. The need in all of this exists because under the new economic relations, the liability reduces, the rights are ignored, the decay of the system control is observed, the scheme of information interaction are inefficient, as there is no feedback. On the other hand, the structuring of the market is also an irreversible process, because the market is subject to natural regulation, with the flow of human capital in the sphere of trade, financial infrastructure, reducing arms production, industrial construction, etc. It is necessary to understand this logic and build it more rationally, for example: the development of the consumer market; development of resource-saving technologies, environmentally friendly, ensuring competitiveness in key sectors of the economy; a radical change in the current

sectoral structure of the economy; the formation of an effective structure of external relations, the rationalization of the structure of interregional exchange.

5. Research Methods

The opportunities for the development of social production in the future are determined by scientific and technological progress and human capital. The modern level of science and its further development makes new demands on the economy. The evolutionary transition to an innovation-oriented knowledge economy was accompanied by an ever-increasing share of human capital in its total volume. If in the XVII - XVIII centuries the share of human capital in its total mass did not exceed 10%, then in the beginning of XIX century it rose to 33%, and in the second half of XX century, according to the minimum estimates for Western countries-to 57% in 1973 and 70% in 1998 (Rogov, 2005, p. 71). The first decades of the XXI century were marked by the actualization of the research problems of accumulation and use of human capital, strengthening of its importance for the processes of formation of innovative economy. The potential of social and economic development is accumulated in the sphere of accumulation of human capital, the society has in a concentrated form ample opportunities for the deployment of productive forces, which creates a modern technologically equipped human capital. The ability to generate new ideas, implement them, dynamically implement qualitative changes in the economic and social spheres, actualizes the role of man in the reproductive processes, determines today the sustainability of economic development. One of the key directions providing the increase of competitiveness and innovative activity of national social and economic systems is the effective management of resources of national welfare that is the integrated institutional condition of reproduction of the human capital. (Lazareva, 2010; Lazareva, 2016)

It is necessary to generalize the scientific forecast, the main reference points in the selection of the main directions of human capital development, determining the volume of its increment and ways of use. In this case, the use of program-target methods can contribute to ensuring unity in the implementation of state innovation policy, linking goals and objectives of different levels of management and program periods of different duration (Khosroeva, 2015).

In the 20th century, the scientific world has repeatedly experienced a "boom of forecasts", connected among other things with the development of concepts of scientific and technical revolution, with the subordination of forecasting and management, with the ideological struggle of the concept of scientific communism and bourgeois concepts of the future, with the growth of the "ecological wave " and, finally, with the development of the theory of human capital. In fact, by the mid-1970s, the question of a qualitatively new concept of scientific and technological progress as a principle of controlled phenomenon and human capital as a determining factor was formulated. At the same time, the West began intensive development of technological forecasting, based on the development of search and normative forecasting techniques, and the development of an appropriate philosophical base, non-Marxist concepts of the future, such as industrialism, structuralism, convergence theory, etc. A significant part of the Western futurological literature is devoted to theoretical, methodological and methodological and technical issues of further improvement of the tools of forecasting STP, which is currently of great interest.

Analysing the forecasts of society development, created in the West, we can distinguish the two main directions in this area – “technophobia” and “technocracy”. Technophobes predict “total global catastrophe”, seeing progress as a threat to human authenticity. In turn, the optimists argue that science and technology will successfully address all the technical, economic and social problems of humanity, while preserving the local culture, developing a broad range of individual technologies, increasing human capital. Proponents of optimistic concepts are based on the identification of the scientific and technological revolution with the social revolution, and scientific and technological progress is given by them for social progress. A number of scientists give many reasons for optimism. The optimistic version of the concept of social progress sees a panacea for all social ills and the inevitability of social progress in the inevitable development of science, technology and production. The representatives of pessimistic concepts of technology and science act as some “demons – destroyers” in front of which man is powerless. For example, the works of the American sociologist P. Drucker present the statements about the fear that the further development of technology carries the risk of losing control over economic, cultural and spiritual processes (Drucker, 1995).

The main issues in this situation are the following: how to avoid polarity or extremes? How to get away from disaster, and not to strive for utopia? At the same time, at the turn of the 21st century, there was a growing need for a deeper understanding of the nature of the laws and specifics of human capital development, its role in the development of scientific and technological progress. Today, human capital is understood as intelligence, health, knowledge, skills, quality of life – all that depends on the productive and quality of human labour, its contribution to socio-economic development (Aganbegyan, 2017). Despite the obvious achievements in this field, there are still many unsolved problems in the theory of human capital, which complicate the assessment of human capital, its efficiency, its impact on economic evolution, competitiveness of corporations and countries, regulation of this sphere at the national and regional level.

6. Findings

Only on the condition of the presence of an effective system of state and regional strategic management of development and use of human capital is it possible to ensure the formation of the “knowledge economy” to improve the competitiveness of the Russian economy as a whole and its individual territories. The most important feature of the knowledge economy is that it has a significant multiplier effect on the development of all other industries. This largely explains the increasing separation of developed countries from all others. Thus, the solution of problems of social and economic development of Russia is impossible without the primary financing of industries that create human capital (Aganbegyan, 2017).

State and regional strategic management of human capital involves:

- identification of priorities for medium-and long-term activities of state and regional bodies in the field of socio-economic development;
- development of a system of goals and relevant target programs for the development of social and economic spheres of the regions and the state as a whole;
- justification of solutions to long-term tasks to ensure the achievement of the goals;

- development of plans and sub-program documents, projects requiring organizational and resource costs for the implementation of the state socio - economic policy, including in the context of regions;
 - orientation of territories and regions, subjects of the Russian Federation on achievement of the set strategic goals and the solution of tasks according to budget conditions and the period of anticipation;
 - development of territorial strategies in the context of long-term decisions taken in the process of state strategic management;
- control over the implementation of the adopted strategies of the state and regional scale.

7. Conclusion

Strategic management of human capital should become systemic, allowing long-term trends to be linked to medium-term forecasting and short-term plans. The systemic nature of the strategic management of human capital, socio-economic development in General, at the state and regional scales will allow to coordinate the development and implementation of strategies and development programs of various extensions. This applies both to individual territories and regions, sectors of the economy and the social sphere, and the state as a whole, will ensure the alignment of goals, deadlines and activities. The issues of effective functioning of the system of strategic management of human capital acquire special relevance against the background of the Federal budget deficit. It is necessary, first of all, to use the methods of management for the purposes of ensuring the relationship between the allocated budget funds and other resources and the results of the activities of state and regional authorities.

It is essential to work on the development of a number of normative and regulatory legal documents that will become the basis for improving the system of strategic planning of the Russian Federation in terms of the organization of project activities, as well as in terms of the balance of the system of strategic planning on priorities, goals, objectives, indicators, financial and other resources at the Federal, regional and municipal levels. It is necessary to develop measures aimed at the formation of an intelligent system to support management decisions in the field of strategic management of human capital through the development and implementation of intelligent technologies (simulation, big data, artificial intelligence, cloud technology) and mechanisms of the digital state.

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