

# Factors of Formation and Development of Human Capital in Rural Areas

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**Abstract**—This article is devoted to the study of factors that determine the formation and development of human capital in rural areas. Systemic changes in modern society and its informational character require new approaches to understanding the “human capital” category. The authors focus on objective and subjective factors in the formation of human capital: type of society, demographic situation, development level of social infrastructure institutions, development level of the agro-industrial sector, high level of awareness when investing resources in education, advanced training, health, raising the culture level, sustainable positive human motivation. Special attention is given to education as a factor in the formation of human capital; its fundamental character and potential for training competitive, highly qualified specialists are emphasized. Consistency, comprehensiveness, and continuity of education make it possible to form specialist qualities such as activity, creativity, interest in the results of his work, the desire for continuous personal and professional improvement, the ability to analyze a large amount of material and navigate the information flow.

**Keywords**—*human capital, social infrastructure, rural areas, globalization, migration, education.*

## I. INTRODUCTION

In modern conditions, conditions of globalization, a new look at the formation and development of human capital is required. This is due not only to the challenge of modern times, but also to new opportunities that the world opens up before one. The study of the factors of formation and development of human capital in the context of systemic changes in society will maximize the organization of work that contributes to the sustainable development of rural areas.

## II. LITERATURE REVIEW

There are several approaches to the category of “human capital” in modern economic science. The most common is the following: human capital is a certain stock of health generated by investments and accumulated by a person, knowledge, skills, abilities, motivation that lead to an increase in employee qualifications, are expediently used in a particular area of social reproduction, contribute to productivity growth and the quality of his work and thereby lead to an increase in the earnings of this person [1]. We, following A.A. Khokonov, propose to understand human capital as a complex synthetic factor, which includes a combination of socio-economic, psychological and other parameters of human resources, namely: level of education, stress resistance, cognitive and creative abilities, work experience, degree of freedom, managerial and

entrepreneurial abilities, mentality, level of culture, quality of work, state of health, adaptive qualities, ability to self-organize [2].

According to A.A. Ermolenko, interest in human capital arises long before global changes (the modern approach to understanding human capital was formulated in the works of T. Schultz and G. Becker in the 1960s). However, his broad understanding and high expectations led to the deformation of this concept: the formation and development of human capital is beginning to be directly dependent on financial investments in the social sphere, the institutions of which are aimed at personality development [3].

Today, issues, related to the formation and development of human capital, are especially relevant and are the subject of research by scientists of various scientific areas: economists, sociologists, political scientists, psychologists and others. Researchers focus on the various facets of the identified problem. So, for example, I.P. Artyukhov, N.A. Gorbach, M.A. Lisnyak consider investment in human health as one of the foundations for the formation of human capital [4]. Scientists are most interested in the role of human capital in the development of the economy [5-10]. Another aspect of the problem that has received wide coverage in the work of researchers is the analysis of general approaches to understanding the category of “human capital” [11-20].

## III. RESEARCH METHODOLOGY

The main research methods include the abstract-logical, economic-statistical, calculation methods. In addition, the authors used methods of sociological research: questionnaire and survey. An integrated approach to the selection and application of methods has allowed a comprehensive study of the stated problem.

The study of issues related to the category of “human capital” is one of the most difficult, since today there is no clearly defined approach to the quantitative assessment of its parameters, while researchers use both monetary and natural estimates. In this study we focus on sociological methods of studying human capital as a resource for the development of society in general and rural areas in particular. The economic approach, in our opinion, narrows the scope of the stated problem and limits it to only one direction.

## IV. RESULTS

Being a complex category, human capital has a complex internal structure, represented by various levels:

- micro-level: human capital of an individual or enterprise;
- meso-level: human capital of large corporations or regions;
- macro-level: total human capital in the global economy [21].

The presented structure can serve as a basis for determining the factors of formation and development of human capital, which we propose to divide into objective and subjective. The first is the type of society. So, a post-industrial society entails a change in the sectoral proportions of the economy: high-tech industry, the service sector, and information technology are replacing industrial sectors. The transition to a post-industrial society entailed, on the one hand, a change in the labor market and, on the other, a new approach to the selection of specialists. Today, competitive specialists must have knowledge of a foreign language, computer programs, be mobile, able to work in conditions of multitasking and constant change. In this regard, much attention is paid to the system of continuing education, as a means of forming human capital in the context of systemic changes in society.

The formation of human capital occurs throughout a person's life. This is facilitated by government policy, expressed in support of the continuing education system; and the policy of individual campaigns, which is expressed in the implementation of a continuing education system and creating conditions for the implementation of corporate culture.

One of the reasons for the need for a continuous process of formation of human capital is its wear, both physical and moral. The knowledge and professional experience that a person owns become obsolete and require constant updating. In the information society, this problem becomes even more urgent. The organization of the system of continuing education courses, professional retraining programs, and the organization of training sites is aimed at its solution. An important fact is also the interest of the employee himself in improving his professional status, acquiring new professional competencies.

Another factor determining the formation and development of human capital is the demographic situation. Analyzing the demographic situation, three aspects should be noted: a decrease in the birth rate, an increase in the mortality rate and migration processes. In the context of the problem under consideration, we are primarily interested in the third aspect. The speed of migration flows depends on a number of circumstances. The main ones can be called comfortable working conditions, the degree of development of social and cultural infrastructure, the level of remuneration, the possibility of self-realization, including the material and existential component.

The problem of migration flows is especially relevant for the village and, in many respects, due to the poor social infrastructure of rural settlements. Namely, the level of social infrastructure guarantees the satisfaction of the needs of the population in almost all areas of his life, from working and living conditions to education, medical services, leisure, etc. The deterioration of social infrastructure, expressed in a reduction in the number of schools and kindergartens, facilities culture and sports, poor and irregular medical care,

poor trade services of small settlements are the main problems that impede the development of human capital of rural territories.

We have analyzed the level of development of institutions of the social infrastructure of the region on the example of the Tarsky district [22-23]. Tarsky municipal district, with a regional center in the city of Tara, is located in the north of the Omsk region and is the center of the northern economic region. 45.1 thousand people live in the district, with 42% of the population living in rural districts. The basis of the economy of the Tara region should be allocated agriculture, forestry and woodworking industry.

The social infrastructure of the district is represented by educational institutions at all levels, healthcare institutions, leisure and consumer services institutions. Analysis of the current situation showed the following. In 2018, 1995 children attended pre-school educational institutions, including 1305 children in the city and 690 in the village, and there is a steady shortage of places in the field of preschool education. The number of students in secondary and basic schools and, accordingly, the number of educational institutions is steadily decreasing: in 2016, 28 general education schools operated in the district and in 2018 – 26. District health institutions are mainly represented by paramedical-obstetric centers. The rural population can use the medical services of narrow-profile specialists or undergo a diagnostic examination only in a district or regional center.

The level of organization of the sphere of leisure remains problematic: 36 cultural houses, 29 libraries and 5 museums function in the region.

Particularly acute problems are facing the population of rural settlements on the right bank of the Irtysh River, due to impassability. It is in these settlements that schools, trade objects are first of all closed (over the past year the number of outlets has decreased by 2.2%), libraries. Ultimately, this leads to the resettlement of villages and their disappearance from the map of the district [24-26].

Along with the reduction of social infrastructure in rural areas, the average radius of their transport accessibility is increasing. Roads of regional and inter-municipal significance pass on the territory of the district; they are used for communication with settlements of rural settlements.

The length of public roads of local importance owned by the municipality is 824.8 km, including roads with improved pavement – 126.9 km, with ordinary pavement – 155.5 km. Analyzing the data, we can conclude that currently only 51.7% of the population of the rural territories of the Tara municipal region have high and medium accessibility of social and household facilities, depending on the type of road surface. 40 settlements have low accessibility (54.8%).

The analysis of changes taking place in the social infrastructure indicates that an ambiguous and contradictory situation has developed within its framework. Along with certain positive developments, many negative phenomena have become stagnant, and some problems have worsened and have become a serious danger for maintaining social stability and harmony in society.

One of the factors in the development of human capital in rural areas is the level of development of the agro-industrial sector and agriculture. The scientific literature analyzes the

regressive dynamics of the social burden of agricultural enterprises.

In the Tarsky district, the main specialization in agriculture is livestock production (63% of the total agricultural output). Analysis of the current state of the region allows us to state the fact that the financial situation of agricultural producers in the region in recent years has changed in the negative direction and remains difficult. The low level of technological equipment of agricultural enterprises makes it difficult for young people to develop an interest in the profession in the agricultural sector and, as a result, update the staffing of the industry.

One of the main subjective factors in the formation of human capital is a high level of consciousness when investing resources in education, advanced training, health, and raising the culture level. Special attention should be paid to the formation of sustainable positive motivation. The formation of motivation is a complex and lengthy process where all social institutions of society participate. Often it is motivation that underlies self-improvement, both personal and professional, determines a person's attitude to work and guarantees a quality product, as its result. The efforts of not only the state, but also society as a whole and the immediate environment of a person in particular should be directed towards the formation of sustainable positive motivation.

We can note that motivation can be considered not only as a factor in the formation of human capital, but also as its structural element. This is confirmed by modern approaches to understanding the category of "human capital". So, for example, G.I. Bondarenko under human capital means the stock of knowledge, skills and motivations, which is formed as a result of investment and reflects a complex of physical, intellectual and psychological qualities of a person [27].

A special place among the factors in the formation of human capital should be given to such a social institution as education. It is impossible to unambiguously determine to which group of factors the named institution belongs – objective or subjective. On the one hand, the state poses certain tasks for education in the format of a social order. Forming a specialist with demanded professional and personal qualities, the institution of education determines the vector of the formation of human capital. On the other hand, the process of obtaining education is purely personal and depends, first of all, on the possibilities and desires of the person himself. The author of the modern basic theory of human capital, G. Becker, identifies knowledge, skills and motivation in human capital. In his opinion, investments in the education of highly qualified specialists are no less promising than investments in machinery.

Considering education as a factor in the development of human capital, it is important to note the consistency, integrity, consistency and complexity in the work on the formation of personal qualities of a person, on the formation of motivation and value orientations of students. We especially note the need for research in the field of studying the socio-cultural conditions in which the modern education system functions. The resource potential of a modern teacher and his psycho-emotional attitude largely determine the position of a modern student as a future specialist [28-29].

The digital transformation of modern education allows the student to form knowledge and skills that will help him to get a profession in demand in the labor market in the future.

At the same time, it is important to focus students on the fact that both specialists in the intellectual sphere and representatives of working professions are equally in demand on the labor market only if they are highly qualified.

## V. SUGGESTIONS

Summarizing the aforementioned, we propose the following measures that will contribute to the formation of competitive human capital.

1. The country's economic development strategy and the national technological initiative should be the key reference point for the formation of the education system as a whole and the development of an individual educational trajectory in particular.
2. Conducting continuous systematic monitoring of the needs of society and the state and the capabilities of specialists in all branches of science and industry for their timely correlation.
3. Maximum use of tools of political, economic and social forecasting for the timely training of highly qualified specialists.
4. Popularization of the continuing education system as a resource for the formation of specialists who meet the challenges of the modern times.
5. Organization of focused work on the provision of social infrastructure facilities, which is especially important for the sustainable development of rural areas.
6. Formation of a positive image of the village in the eyes of young people with the determination of the prospects for its development and role in the life of the state.
7. Definition of the main vectors of cooperation in the system "school – post-school (higher, secondary vocational) – production", focused on the formation of specialists in the modern information society.
8. Organization of "digitalization schools" at universities, which will create a system of continuous professional training for specialists and students in the field of digitalization of science and education.

## VI. CONCLUSION

The state and society need to solve a number of social and economic problems aimed at creating favorable conditions for the formation and development of human capital in rural areas: improving rural living conditions, creating additional jobs and income sources in order to reduce losses in rural migration, raising the level of education and employment of rural residents, development of agricultural production using modern digital technologies, development of rural entrepreneurship, increasing of tax revenues from business entities in agrarian territories, formation of sustainable motivation to learn and work, formation of a new model of human behavior in the context of systemic changes in modern society, organically combining a solution to external challenges and self-improvement.

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