

Conceptual Framework for Management of Development and Formation of Human Capital

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Abstract

The recognition of the decisive role of education in the development of society and man was the basis of the theory of human capital, which at the time became the theoretical prerequisite for the emergence of the concept of human development and its most important component. The theory of human capital represents a fundamentally new, qualitatively new approach to the social function of education. In many theories, education was considered either as a factor in increasing labor productivity or as a driving force for scientific and technical progress, but in all cases it was assigned a secondary, auxiliary role. Kasym-Jomart Tokaev pointed out the importance of developing human capital in the country at the plenary session of the Majilis on March 30, 2023. The President stated that it is necessary to consistently and systematically improve the quality of human capital. Only considering knowledge as capital, society could truly appreciate it, and it was the most valuable and reliable capital. Certain prerequisites for the concept of human capital were laid in classical political economy, Marxism and other currents of world economic thought, but it received a complete and clear formulation only in the 20th century. The scientific and public recognition of the theory of human capital and its development was significantly influenced by the participation of Peter Drucker, an outstanding representative of economic, managerial and social science of the 20th century. His article "Knowledge Revolution" caused a wide resonance in the scientific and political sphere. In it the author writes: "Education is modern real private capital. The development of state education is the most important tool for creating capital, and the number of educated people, the quality of their education and the use of this knowledge are the most important indicators of the country's ability to produce wealth"

Keywords: man, human capital, economy, living conditions, working conditions, lifestyle, salary.

1. Introduction

Human capital, possessing the same characteristics as any other type of capital, has significant differences. Leading Russian specialist in the theory of human capital S.A. Dyatlov highlighted the following features of this phenomenon:

1. The profitability of investments in human capital is directly related to the life expectancy (duration of labor activity) of its owner. The sooner the investment is made in a person, the faster the return. However, it should be remembered that higher-quality and long-term investments give higher and more stable results.

2. Human capital is not only subject to natural and moral wear and tear, but also capable of accumulation and increase. The wear and tear of human capital is determined, firstly, by the degree of natural wear and tear of the human body and psychophysiological functions inherent in it, and secondly, by the degree of moral (economic) wear and tear that occurs as a result of depletion of knowledge or changes



in the value of acquired knowledge. Replenishment of human capital occurs in the process of retraining and accumulation of production experience of employees. If this process proceeds smoothly, then depending on the degree of use of human capital, its qualitative and quantitative characteristics (quality, volume, cost) improve and increase.

3. Depending on the degree of depletion of human capital, its profitability increases up to a certain limit, limited by the upper limit of the active labor force (ARS), and then sharply decreases.

4. When creating capital, there is a "stick with two ends". Its essence is that in the process of training, the characteristics and abilities of not only the student, but also the teacher develop and strengthen, which subsequently increases the profit of both the former and the latter.

5. Not all investments in a person are equally recognized as investments in human capital, only those that serve social goals and economic needs are subject to such investments. For example, expenses related to criminal activity are not considered investments in human capital, since they are socially undesirable and harmful to society.

6. The nature and types of harm caused to a person are determined by historical, national, cultural features and traditions. For example, the level of education and the choice of a child's profession are largely determined by family traditions and the level of education of parents.

7. Compared to investments in other forms of capital, investments in human capital are more profitable both individually and collectively .

Human capital is both individual and social capital. It has a decisive influence on the status of an individual person and the level of development of society as a whole. Before the emergence of the theorist of human capital, education was considered in economic terms only as a means of creating a workforce, training personnel and improving their qualifications. The theorist of human capital first raised the question of general economic returns from education (Melnik & Karintseva, 2012)

According to A. Smith, educated labor can repeatedly pay off the cost of education and bring higher profits than ordinary labor.

D.Ricardo basically confirmed the opinion of A. Smita. Ricardo also highly valued the role of education. He considered the country's backwardness in economic development to be, among other reasons, "a lack of education among all groups of the population." J. K. Mill, on the contrary, considered human abilities as a factor of labor productivity, and labor associated with education and training is related to productive activity. J. K. Mill was the first to point to education as an example of "market failure", that is, the inefficiency of the market mechanism (Vyvarets, 2012).

K. Marx also paid great attention to the creative abilities of a person in his economic theory. K. Marx considered abilities "the most important accumulated wealth, the preserved significant result of labor spent in living labor." Also K. Marx emphasized the necessity of certain knowledge for the formation of readiness and skills of a person in a certain sphere of work, as well as the cost of acquiring this knowledge. Marx used the concept of capital in a special sense as applied to labor power, emphasizing that the economy of working time in the immediate process of production can be considered as the main producer of capital. Here the economist chose a person as the main capital. However, the main idea of the system of views of K. Marx is far from the theory of human capital. According to him, labor power is the wealth of labor, and capital in the hands of his buyer-capitalist turns into variable capital. Among the main components of human capital, it is possible to distinguish mentality (internal culture of the population), education, health and accumulated skills. Qualified specialists, the use of knowledge and innovations, as well as the development of entrepreneurial resources contribute to the growth of human capital. When all components are in constant interaction and constantly improved, the quality of the capital increases. The absence of one of the

components of human capital disrupts the functioning of the entire system. At the same time, reverse synergistic (non-linear) and multiplicative effects arise.

Analyzing the views of the above-mentioned representatives of classical political economy, it is possible to come to the following conclusions:

1. Research shows that human qualities are an important factor in production efficiency;
2. Important human qualities are formed through education and training;
3. Formation costs as much as the ability;
4. Human abilities are recognized as an element of capital;
5. Education directly contributes to economic growth (Government of the Republic of Kazakhstan. (2010).

Further, in the late 19th and early 20th centuries, the introduction of the concept of "human capital" into economic analysis was based on the works of such economists as Fisher, J. Clark, A. Marshall, L. Walras, V. Pareto et al.

For the first time in the works of these economists, there was a wise theoretical basis for the need to consider individuals or their productive abilities as capital. The following reasons serve as the basis for considering a person or his productive abilities as capital: firstly, productive abilities can be used and form a reserve; secondly, the costs of education and training are recognized as real investments; thirdly, funds spent on the formation and development of human abilities are productive in nature, which, in turn, increases future income, labor productivity and national wealth.

Factors forming human capital can be divided into 4 groups:

1. Genetically, each person is born with certain natural abilities, which are transmitted from parents through genes;
2. Time and resources spent on raising children are very important. The level of education of parents has a significant impact: women with higher education spend 1.4 times more time than women with special education, and 1.6 times more than women with secondary education;
3. The level of education and the family's income determine a child's access to education.
4. Human capital is regulated as a result of individual expenses, state and corporate investments (Pipiya, 2013).

Currently, human participation in the production process requires deep education. Human capital must meet the requirements of modern innovative production. Only then will it be possible to receive benefits in the form of high-quality services and products from investments in human capital.

Only in the process of creative consumption of knowledge does a person increase his productivity. Therefore, we consider all education costs as a factor in the development of human capital. According to Grayson, "the success of Japan is due not only to the high quality of its production, but also to the ability of Japanese people to learn." Japan pays great attention to education from birth to death, at school, at work, in life."

The entrance of any country to the world market increasingly depends on the general level of education of its citizens. Therefore, raising the level of national education is not only a condition of economic and political stability of the country, but also a way of its entry into the world economic community. Therefore, all countries of the world strive to increase the amount of financing of the education sphere. However, it is unclear which level of education (primary, secondary, higher) should be given more attention.



As a result of comparative studies, it was revealed that countries rich in natural resources are more prone to the development of material and physical capital, while countries with less resources are more prone to the development of human capital. A country capable of developing the knowledge and skills of its citizens and increasing the efficiency of their use is more likely to produce and develop only one product at a time.

Human health also requires significant efforts to regulate and develop human capital. In general, the health of a person characterizes the psychophysiological possibilities of his physical condition. Deterioration of health is a threat to productivity. World experience and the experience of the CIS countries in the field of effective use and development of human capital allow us to draw the following conclusions: the person is a vital factor in the national economy; the acquired abilities of a person constitute the basis of the wealth of the whole society; the qualitative qualities of a person directly depend on the system of upbringing and education.

Summing up our arguments, we understand human capital as a certain fund of knowledge, skills, abilities, health and motivations, which are formed and maintained as a result of investments, purposefully used in any sphere of public production or in civil life, are a source of future human satisfaction and future profit, as well as a key factor of public production and economic growth.

The new paradigm of sustainable development of the social and economic system required the understanding of human resources as a means of social development, raising the standard of living, as well as the main value and goal of economic modernization.

Table 1. Formation of views on the concept of "human resources"

Foreign economists	
1	2
A.Smith	Basic capital includes tools, buildings, land, as well as "useful abilities possessed by all residents and members of society." These abilities are an integral part of a particular person and, therefore, become part of the wealth of the society in which this person lives.
G.Becker, T.Schultz	Human capital is an assessment of a person's potential earnings, abilities, knowledge, qualifications and skills of individual employees.
R.McIntyre	Human resources in a broad sense describe the skills, professional qualifications, talents and knowledge of people that are available or can be used in the production of goods and services.
Russian economist	
S.A.Kapelyushnikov	Human resources are a set of knowledge, skills and motivations possessed by each person, which constitute capital, the formation of which requires the allocation of funds at the expense of current consumption and serve as a source of labor productivity growth.
G.G.Melikyan, R.P.Kolosova	Human resources, as well as material, reflect the country's economic development. These are people who, on the one hand, produce material goods, and on the other - are recognized as their consumers.
Kazakh economists	
B.L.Tatibekov, M.K. Meldakhanova	Socio-economic aspect: Human resources are people with a high level of education, professional and entrepreneurial skills, which are considered an important strategic resource of the country. Economic aspect: Human resources are a part of the population that is available or can be used to influence the economic growth and development of the country. These include the labor resources of foreign states, the entire

	population (with the exception of disabled people of groups I and II),
A.A. Gorkopko	Human resources is a general social category that represents a set of natural, economic (production), social and political qualities of the population..
Author's definition	
Human resources are a certain level of innate, acquired and developed knowledge, skills, abilities, motivations, experience of a particular person, group of people, and society as a whole. They are purposefully used in a certain sphere of production in society, and their formation requires costs from a person, enterprise and society as a whole.	
Source: Systematized by the author based on theoretical sources.	

This is largely due to the integration and convergence of the instrumental and sociological approaches to the concept of man, which dominated global economic science in the 20th century. The theory of human resource development emerged from the synthesis of these approaches through the application of theoretical knowledge from various social sciences (Nguyen & Schuessler, 2013).

The concept of "human resources" is one of the fundamental branches of economic science. This concept is associated with solving large-scale problems of the socio-economic system. Analysis of the topic and problems of "human resources" related to the development, management, and employment of human resources is particularly relevant in the context of sustainable development. The theory of the conceptual principle of human resources assumes that the most important priority, the main subject, and the primary goal in the development of modern post-industrial society are humans.

Human resource development is a process of continuous, sustainable expansion of human capabilities, adapted to changes in the external environment. Currently, at every stage of human development, three main opportunities are recognized: free access to resources that ensure a decent standard of living; a full, healthy, and long life; and obtaining the necessary professional education throughout life. These concepts form the foundation of human resource development theory and shape the progressive social dimensions of society (Taylor, 2013).

An analysis of the concept of human resources led the author to the conclusion that this concept is aimed at improving the quality of life, ensuring the development of society and its socioeconomic self-sufficiency, as well as the internal strengths, opportunities, and abilities of the individual in implementing the social program of a market economy, including health, education, intellectual potential, labor, creativity, sociopolitical factors, and cultural and humanitarian values aimed at improving the quality of life and ensuring the socioeconomic self-sufficiency of the population. This allowed us to determine whether the indicator assessing internal and external conditions in the circle will serve as an indicator of the social process (Table 1).

Human resources, possessing a dual social and material-natural balance, have a number of advantages over material resources, which allows them to be identified as the main factor in the sustainable development of the country (Table 2).

Human resource development is based on the following fundamental principles:

-All people should have equal opportunities, therefore, it is necessary to eliminate restrictions based on gender, religion, nationality, and place of residence;

-All citizens should have the opportunity to increase their productivity, fully participate in the income-generating process, and receive fair monetary compensation for their work;

-Access to opportunities should be ensured not only for the present but also for future generations, therefore, the continuous production of all types of capital (material, human, and environmental) must be ensured in an appropriate manner;

-Development should be driven by people's own efforts. Citizens should be fully involved in the



decision-making process that affects their lives;

-The quantitative and qualitative development of human resources must correspond to the main development priorities of the state; - Human resource development should be aimed at increasing their competitiveness. That is, it is necessary to rely on international standards in the training and retraining of personnel (Rink et al., 2013)

We agree that these principles continue to expand, but the following three fundamental opportunities for citizens must remain unchanged: free access to the resources necessary to ensure a quality standard of living; the ability to live a long, healthy life free from disease; the need to obtain desired and necessary professional education throughout life.

According to the above characteristics, human resources can be classified as follows: educational resources, healthcare resources, and labor resources; social and cultural resources serve as the basis for development.

Table 2. Characteristics of Human Resources

1	It is formed by each individual and is an integral part of his personality.
2	Their formation occurs throughout life and requires certain material costs for both the individual and society as a whole.
3	The level of use and impact depends on their responsibility, demand, willingness to pay attention, high appreciation, as well as general worldview and culture.
4	Abilities, health, talents, knowledge, skills and experience are viewed as assets that require constant development and maintenance.
5	The family, the individual, the workplace, social institutions, and the state all contribute to the development of human resources, but their effectiveness depends on the strengths and development potential of the individual.
6	The quality and efficiency of human resources are becoming a key factor in economic growth, competitiveness and production efficiency.
7	Effective use of human resources has many benefits: economic, social, psychological, cultural and ideological.
8	They are subject to natural wear and tear (aging of the human body, improper development of the body, deterioration of health, death).
Source: Compiled by the author as a result of theoretical research	

The above-mentioned connection implies the development of human resources, the expansion of human choice, and the improvement of human well-being. These priorities are the fundamental concerns of every member of modern society, and their resolution depends on the following factors: income level, education level, and life expectancy at birth. As noted by Kazakh economist Yu.K. Shokamanov, people are not only the means or source of economic development, but also the goal of economic development. Consequently, the essence of the concept of human development is that economic development should serve the benefit of people.

Human resource development is considered in conjunction with the process of human development. This is due to the fact that the concept of human development also aims to ensure that all residents of our country enjoy a quality life, a decent income, education, and health, as well as environmental protection (Bouvier & Nisar, 2013).

The process of human resource development is influenced by many factors, the driving forces of which are economic and social phenomena and trends.

Due to the specific nature of this process, human resource development factors can be divided into

direct (internal) and indirect (external). Factors that directly influence human resource development and correspond to basic human needs include demographic conditions, healthcare and education, material conditions, employment, and crime rates in society. The author considers indirect or external factors to include natural, technical, economic, environmental, informational, and regional institutional conditions that facilitate the development of human capabilities and their subsequent manifestation in various life activities. The process of managing regional human resource development arises from the influence of state conditions on these factors.

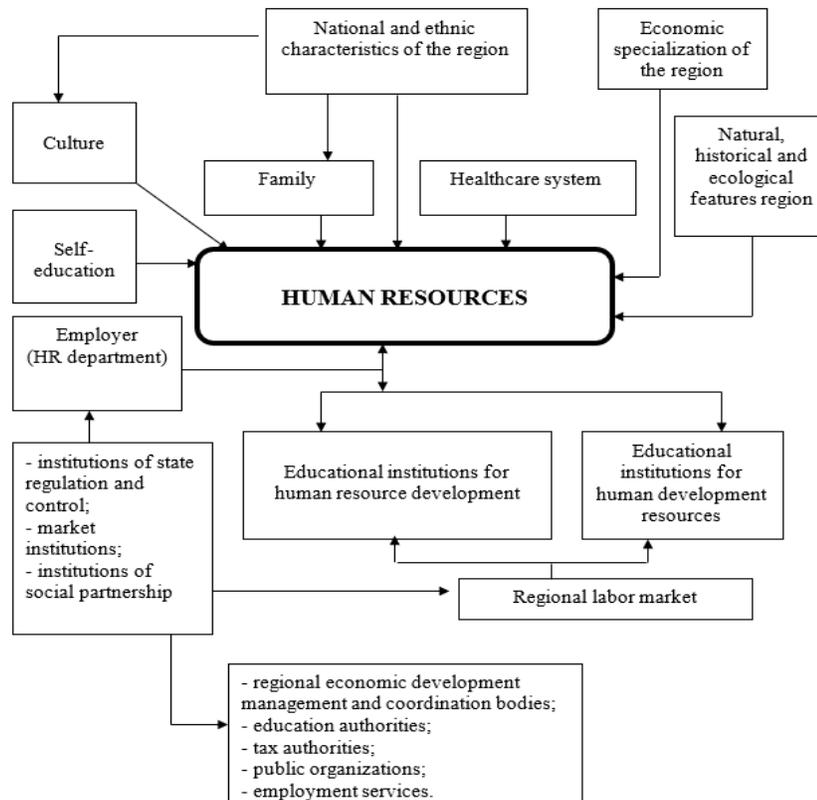


Figure 1. Conceptual model of human resource development and regional development with the participation of government institutions.

Source: Compiled by the author based on research.

Sustainable human resource development in this context is a continuous process that ensures the achievement of goals and the expansion of the range of opportunities for each individual in various fields of activity without harming the external environment and the surrounding environment, resulting in positive changes in their natural, socio-psychological, and intellectual abilities. Implementing this process requires the interaction not only of the individual but also of local governments, government agencies, and public institutions at various levels in the development of human resources (Figure 1).

Sustainable human resource management is a process of systematic and targeted influence on human resources, ensuring the improvement and preservation of accumulated potential. A prerequisite for sustainable human resource management is an accurate assessment of the state of their development (Guo et al.,2013).

2. Conclusion

An enterprise's human resources are the health, knowledge, skills, and experience of an individual used to obtain labor for its production activities. The continuous development of an enterprise's production process and human resources is linked to the development of the labor market and employee investment in their



own human capital. A region's labor force is the totality of the labor force of enterprises of all types of ownership who are actually employed and can be used in production. They possess socio-demographic, professional, and qualification characteristics. They are constantly involved in the production process, and their development depends on the socio-economic development and investment activity of the region and its enterprises.

While there is no single, practically applicable method for assessing human resource development, it is crucial that research in this area be based on a prospective assessment of the quantitative and qualitative parameters characterizing the state of human resources. Such a comprehensive assessment system allows for a comprehensive analysis of the socio-economic situation in the region, identifying challenges for further human resource development, as well as goals and methods for addressing them.

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