

DEVELOPMENT EFFICIENCY OF THE ORGANIZATION'S HUMAN CAPITAL

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Abstract

This article analyses the formation and efficiency of human capital within an organization. It examines the approaches of scientists to the essence of human capital in foreign and domestic sources. It emphasises that existing deficiencies complicate the management and practical implementation of human capital in companies, which can distort the perception of its value and productivity. Effective human capital management requires the development of a system that considers both current and anticipated organizational needs. This system should cover the development of adaptive competencies, the training and integration of new personnel, and the use of modern technologies in personnel management. The article presents a set of formulas intended for use within the framework of an organization's human capital development management system.

Keywords: human capital, organization, management, efficiency, components, factors, indicators, approaches

I. Introduction

There is an intense interest in human capital in modern economic theories and management practices. This is due to the need to develop and apply effective methods of its management to achieve strategic goals and promptly solve problems at different stages of an organization's development.

This fact makes it necessary to identify the characteristics and productive abilities of employees, as well as to assess the effectiveness and their work efficiency, which are manifested through the formation and implementation of the organization's human capital.

Scientific research defines human capital as a set of knowledge, skills, abilities, talents and other qualities that contribute to personal, social and state well-being. This is a key element that

determines the successful development of an organization's economy under the post-industrial society.

Human capital is the most valuable asset, surpassing all others in importance, including natural resources. It is human capital, and not property or production capacity, that is the basis of economic progress, productivity and competitiveness.

For the majority of the working population, this is the main asset that determines the results of activities, success and social status. Effective human capital management is a key factor in creating a sustainable competitive advantage.

II. Methodology

A lot of time has passed since the beginning of active research on human capital (the 60s of the twentieth century, works by G. Becker, T. Schulz, etc.). Nevertheless, many key methodological and practical questions remain open. They include the vagueness of concepts, the composition of elements, the conditions of formation and implementation, the features of reproduction, the methods of assessing the results and efficiency. Many Russian scientists have pointed this out (M. N. Arnaut, A. A. Bulov, A. I. Dobrynin, Yu. A. Korchagin, etc.).

The theory of human capital is based on the provisions of neo-Keynesian, neoclassical and institutional economic theories, as well as a number of other areas of economic thought. These theories recognize people as the most important resource of society, equal in value to physical capital such as machinery and equipment. According to this theory, regions with a high level of human capital development, i.e., educated and qualified population, have an advantage in attracting and accumulating material and financial resources. At the same time, even a large population will not bring economic prosperity if it does not have a sufficient level of knowledge and skills formed over a long historical period.

In the 20th-21st centuries, foreign researchers began to study the influence of social factors and technologies on human capital. Thus, D. Heckman noted that human capital includes not only formal education, but also social skills that are important for successful work activity [16]. Other authors, such as T. Davenport, have emphasized the role of digital technologies in the transformation of human capital [15].

Modern foreign scientists are interested in various aspects of the influence of human capital on the performance indices of companies, including the influence of capital on the competitive advantages of companies [14], flexible working hours [11], work organization and working efficiency of employee [12; 18].

In Russian science, the study of the essence of human capital has also undergone long stages of evolution. Some authors considered human capital as a set of knowledge, practical skills and certain motivations that determine the results of labor activity [2]. Later, human capital began to be considered as a key resource for increasing the competitiveness of organizations [20].

Modern Russian researchers focus on the role of digitalization in the transformation of human capital [5], ensuring personnel competence [9], connection with information technologies [6], etc.

A critical analysis of foreign and Russian approaches to the definition of human capital has shown both similarities and differences in understanding its content. The common feature is the emphasis on the belonging of knowledge, skills and health as mandatory and attributive components of this concept. At the same time, foreign researchers prefer to focus on issues of economic return on investment in human capital. For Russian scientists, the peculiarities of the mutual influence of human capital and the socio-economic state of society and the economy are of greater interest.

III. Results

Human capital is a key aspect of successful functioning and a factor in ensuring the competitiveness and profitability of an organization, which requires effective management of the processes of its formation and implementation in accordance with the goals and strategic directions of its development.

The uniqueness of human capital lies in the creative potential of employees and their ability to find solutions to complex production problems. This allows the company to adapt more quickly to unfavorable changes in the market and maintain stability in the face of tough competition.

To operationalize and systematize work with human capital in the company's management system, a corresponding subsystem built into its organizational structure must be identified, all documents regulating this area of activity must be compiled and formalized. For management purposes, the composition of human capital can be represented as the sum of the sets of its components, presented as:

$$HC = \sum_{i=1}^n \sum_{j=1}^m C_{ij}, \quad (1)$$

where HC is the human capital of the organization; C is the component of human capital.

Each component of human capital also represents a complex structure, as a set of characteristics and properties of a person in the form of independent groups of knowledge, abilities, skills, professionalism, production experience, motivation, labor potential, etc., considered and reflected in the organization's management system.

For each component included in the human capital of the organization, indicators must be developed to keep track of the results of their implementation, as well as accounting of costs (expenses) for their provision and development. Without a clearly substantiated system of indicators reflecting the state and movement of elements of human capital, it is impossible to determine its cost, analyze the state and changes over a certain period, determine the effectiveness of investments, and develop measures for further development.

Human capital management should be aimed not only at maintaining its proper condition according to the current goals of the organization's activities. Of no less importance is the management of changes in human capital, which should be synchronized with the existing trends of the external environment and reflect the directions associated, for example, with changes in the requirements for the composition or content of human capital components, leading to their renewal or replacement. Thus, the emergence of new professions or the complication of existing ones requires adjustments to the set of components that determine the knowledge of the organization's personnel. The basic volume of knowledge that employees of a certain specialty currently possess may in the very near future cease to satisfy the needs of the organization, which will require its improvement in individual components or complete replacement.

The introduction of effective innovative technologies, such as digitalization, creates promising opportunities for business development and improving financial performance. However, digitalization requires personnel to have new knowledge and skills, which requires mandatory training or retraining.

Another direction in the development of the human capital of the organization is the development of soft skills, which are not directly related to a particular specialty, but characterize the personal qualities of employees, including communication, intellectual, volitional, and leadership. These skills also directly or indirectly affect the efficiency of the organization's human capital. In this regard, an important direction for the development of human capital is the system of professional training, which guides the organization's personnel to acquire new knowledge and skills.

In the set of measures for the development of human capital, the company should use approaches that allow influencing the efficiency of personnel management. For this purpose, it is necessary to ensure the achievement of planned measurable goals through the formation of a highly qualified and motivated team focused on the final result and trained in line with the relevant human resources (HR) strategy.

In addition, it is necessary to achieve the company's business goals with minimal costs for the formation and development of human capital, ensuring the necessary balance between economic feasibility and efficiency.

In the most general case, the efficiency of using the organization's human capital in a period of time t (E_{HCT}) can be determined according to the following traditional scheme:

$$E_{HCT} = \frac{R_{HCT}}{C_{HCT}}, \quad (2)$$

where R_{HCT} is the result of the organization's activities obtained through the use of human capital in period t ; C_{HCT} is the organization's costs (expenses, investments) for the formation and development of human capital in period t .

However, for planning or detailed analysis purposes, efficiency must be determined for individual components of the organization's human capital. To do this, the organization must establish detailed accounting of results and costs for each element of human capital.

By modifying the approach proposed by O. G. Vaganyan [6], it is possible to determine the value of the coefficient of efficiency of human capital of the organization (CEI_{HC}) for the corresponding period using the following formula:

$$CEI_{HC} = \frac{VHC_2 - VHC_1}{I_2}, \quad (3)$$

where VHC_2 and VHC_1 denote the value (or assessment) of human capital, respectively, for the periods under study: previous (1) and subsequent (2); I_2 is the amount of investment in human capital in period 2.

When $CEI_{HC} > 1$, the investment efficiency in period 2 is positive (growing).

When $CEI_{HC} < 1$, the investment efficiency in period 2 is downward (growing), which requires appropriate measures from the company's management system.

In a similar way, it is possible to determine the amount of capital return from the implementation of investments in the human capital of an organization based on the return on capital (ROC) indicator for the corresponding period using the following formula:

$$ROC = \frac{\Delta NP}{C}, \quad (4)$$

where ΔNP is the increase in net profit (or net income); C is the amount of capital investments (or capital expenditures) that caused the increase in net profit.

At the same time,

$$\Delta NP = NP_2 - NP_1, \quad (5)$$

where NP_1 and NP_2 are the amount of net profit of the organization at the beginning and end of the period under study, respectively.

The organization must establish a system for selecting and applying the most effective methods and tools for personnel management that can take the effectiveness of work processes to a new level, ensuring synergy between strategy and execution.

The result of the company's human capital management is aimed at maximizing the efficiency of personnel activities based on a specific strategic perspective.

$$HCM = ECP \rightarrow \max, \quad (6)$$

where HCM is the result of the company's human capital management; ECP is the efficiency of the company's personnel.

Investments directed into the formation and development of human capital should become an indispensable condition for ensuring the future state of the organization, determining the goals

and results of its functioning. Management of the effectiveness of investment in human capital should be carried out through the implementation of appropriate policies within the framework of achieving the goals of the organization's activities [4].

In addition to labor costs, in the course of determining the indicators of economic efficiency of investment in improving the management of the company's personnel, it is important to consider the overall result of such an investment. The improvement of human capital of both the entire team and individual employees, as well as the result of implementing management decisions, must be taken into account and serve as a supplement to the indicators and results of the production activities of the entire company.

The result of investing in improving the company's human resources management system should reflect the state of its human capital in dynamics, which requires the use of an appropriate system of indicators and metrics. The effectiveness of the organization's human capital management should be demonstrated in all priority areas, including:

- growth in production and sales volumes due to increased productivity, quality of labor and products, improvement of the organization, including marketing, innovation, etc.;

- increasing the level of employee motivation, attractiveness and prestige of the company, which contributes to increasing the stability of the workforce, reducing the loss of working time, etc.;

- reducing financial costs for training personnel by reducing the duration of their training and the correct selection of qualified specialists, which will increase the overall level of the company's labor capital;

- improving corporate culture and strengthening team spirit, which contributes to the creation of a favorable working atmosphere. This, in turn, increases employee engagement, their loyalty to the company and readiness for innovation. Management focused on the development of corporate values, helps to form stable connections between employees and management, which minimizes conflicts and improves communication;

- optimization of the adaptation processes for new employees, which allows them to be integrated into the work process more quickly and reduce the period of time it takes for them to achieve full productivity. An effective adaptation system includes not only professional training, but also familiarization with corporate standards, which helps reduce errors and improve the quality of work;

- development of an assessment and feedback system which allows timely identification of weaknesses in management and their prompt elimination. Regular assessment of the results of work and professional growth of employees helps to maintain a high level of motivation and stimulates them to continuous improvement;

- the introduction of modern technologies in human resources management, such as the automation of HR processes and the use of analytical tools, which increases the accuracy of decision-making and reduces the administrative burden on management.

The overall final result of the company's activities is usually presented in its reporting documents as a set of all its results (revenue, profit from sales, etc.). It can also be reflected through the sum of individual effects arising from the implementation of specific measures carried out, for example, by the HR department and affecting the state of human capital.

IV. Conclusions

Modern attention to human capital in management and economic theory is due to the need for effective management of this resource to achieve the strategic goals of organizations. Human capital includes a number of components, including the knowledge, skills and talents of

employees, that contribute to the well-being of both individuals and society as a whole. In the conditions of post-industrial society, human capital becomes a key factor determining the competitiveness and economic progress of organizations.

Currently, there are many approaches to the concept of human capital. The multifunctionality of understanding the essence of human capital complicates its operationalization in companies, which can lead to difficulties in managing development processes and distortion of the assessment of its value and effectiveness. It is important to develop clear indicators for recording and analyzing the state of human capital.

Effective human capital management requires the creation of a system that takes into account both the current and future needs of the organization. This includes developing soft skills, training and onboarding new employees, and introducing modern technologies into HR management. Investments in human capital should be aimed at maximizing its effectiveness, which in turn contributes to increased productivity, improved corporate culture and reduced training costs.

CONFLICT OF INTEREST.

Authors declare that they do not have any conflict of interest.

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