

## DEVELOPMENT OF HUMAN CAPITAL IN MODERN ENTERPRISES IN THE ERA OF CHANGING ECONOMY

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**Purpose:** The main aim of this paper is to present the importance of human capital and the areas of investment that determine its development. This is followed by the presentation of empirical research results that attempt to answer the following questions: Do the surveyed companies engage in human capital development? Are internal employee development programs adapted to employees' expectations, interests and needs? What areas are companies investing in to increase the value of human capital?

**Design/methodology/approach:** Analysis of literature and website reports related to the topic under study, Conducted empirical research targeting managers of large and medium-sized enterprises in Lubusz Voivodeship. The survey was conducted in 2024 during the months of August-September. The research method was a diagnostic survey, the tool was an electronic survey questionnaire.

**Findings:** Human capital in the era of changing economy is a key element that affects the competitiveness of modern companies, and therefore there should be continuous investment in the areas which determine its development in order to achieve market success.

Most of the companies surveyed are involved in human capital development, but not all internal programs are adapted to employees' expectations, interests or needs. The most important areas affecting human capital development in the surveyed companies are: education and training, talent-based management and modern technology.

**Research limitations/implications:** Research will be conducted to verify the rate of change in the area of future competencies in modern companies.

**Practical implications:** The presented results constitute a valuable source that shows whether the surveyed companies are following the right direction in human capital investment.

**Originality/value:** The paper can contribute to increasing managers' awareness of how to effectively develop and use of employees' potential.

**Keywords:** human capital, development, areas of investment, competencies of the future.

**Category of the paper:** Research paper, literature review.

## 1. Introduction

In recent years, thanks to the knowledge-based economy, the importance of intangible resources, which have a significant impact on the functioning of modern companies, has been greatly emphasized. One such resource is human capital, which through effective management, based, among others, on continuous development, becomes the most valuable asset, affecting the competitive position of enterprises. In the era of changing economy, where in terms of technology or socio-economics the pace of change is rapid, companies need to be more flexible in responding to new challenges. One such challenge is a different view about the management of people, who play a special role these days. Therefore, the main purpose of this paper is to present the importance of human capital and the areas of investment that determine its development. This is followed by the presentation of the results of an empirical study aimed at senior managers of medium and large enterprises in Lubusz Voivodeship. The study attempts to answer the following questions:

1. Do the surveyed companies engage in human capital development?
2. Are internal employee development programs adapted to employees' expectations, interests and needs?
3. What areas are companies investing in to increase the value of human capital?

## 2. The importance of human capital in modern companies

The development of human capital dates back to the 1960s. Its creators were T.W. Schultz and G.S. Becker (Niklewicz-Pjaczynska, Wachowska, 2012). In the subject literature, we can see many definitions of this issue, which are considered in a broader or narrower sense. According to T.W. Schultz and G.S. Becker, human capital is a person's innate qualities, educated skills, knowledge and professed values and attitudes. In a slightly broader sense, the authors also included the health of employees and their vital energy (Niklewicz-Pjaczynska, Wachowska, 2012).

Human capital is the values hidden in employees that are reflected in their abilities to perform their work. It is a key element of intellectual capital, a stimulant of the formation and functioning of its other components (Gawron, Myjak, 2019). It is a set of human qualities in formal terms, which can include various learning activities, and informal terms, i.e. skills, talent or competencies, which form the bottom line of the enterprise (Francik, Kot-Radojewska, 2020).

According to E. Skrzypek, human capital consists of knowledge, practical skills, entrepreneurship, ability to make improvements, aspirations and motivation (Skrzypek, 2009). On the other hand, A. Mazurkiewicz points to an additional composition of qualities, such as a person's energy, commitment, loyalty, active learning and sharing of knowledge and information resources, and the ability to respond and adapt to new situations (Mazurkiewicz, 2010).

Human capital is the psychophysical attributes of an individual, which include: innate abilities, competencies, active attitude in the economic and social spheres, and culture (Grzybowska, 2015).

According to B. Kaczmarek and W. Walczak, human capital is a set of knowledge and skills owned by employees. If they have valuable knowledge, they can become a stimulator of innovation processes that affect the attractiveness of modern enterprises, but only if organizations provide employees with the right environment to use their individual potential (Kaczmarek, Walczak, 2009, p. 239).

Human capital is a mobile resource. It is difficult to measure due to its intangible nature and its inability to be copied by competitors. It has the capacity for accumulation, where used knowledge multiplies its value, while unused knowledge weakens (Grzybowska, 2015). Human capital "is the driving force behind the creation and distribution of knowledge" (Brzeziński, 2018, p. 22).

In summary, human capital is a key resource, consisting of knowledge, skills, experience, creativity and abilities of employees. They are the property of an individual, not the company, but by effectively using the potential of employees in cooperation and continuously investing in their development, it becomes a shared value (Kaczmarek, Walczak, 2009).

### **3. Areas of investment in human capital**

Modern enterprises faced a very volatile and unstable environment, which forces continuous investment in employee development.

The development of human capital is in other words a process aimed at all activities, affecting the enrichment of knowledge, development of skills, creativity or innovation, which should lead to an increase in its potential. C.A. Coleman stresses that the development of human capital should be in line with the personnel development strategy and takes into account: the importance of human capital in the company, valuing the activities of employees, considering their diversity, awareness of the importance of investing in development and in the talents of employees. In addition, adaptation of development projects to the employee's individual interests and needs (Żukowska, Wardzińska, 2020).

In order to adapt to new challenges, modern companies should place great emphasis on areas that support the development of human capital, such as (Francik, Kot-Radojewska, 2020; Pocztowski, 2016):

- creation of a personnel strategy, which is an important component of the company's overall strategy. It indicates the areas of involvement in the development of human capital;
- education and training, i.e., investing in various forms of education, such as external and internal training, degree programs, conferences, webinars and e-learning training, which become an important element in the era of digital transformation;
- talent-based management focused on attracting talent, retaining and developing employees with unique competencies;
- flexible employment models, i.e. changes in the way work is organized. Remote or hybrid work requires new skills in team management, effective communication and self-reliance;
- organizational culture that shapes a friendly atmosphere in the workplace and is based on respect, trust and openness;
- workplace sustainability – comfortable and safe working conditions, fair treatment of all employees, and attention to physical and mental health,
- measures to increase employee involvement – appreciation, praise, support, etc.;
- modern technologies, such as artificial intelligence, the Internet of Things and robotics, which change the nature of current work;
- appropriate system of motivating employees, encouraging development;
- coaching and mentoring program;
- work-life balance – or work-life balance;
- knowledge management, which facilitates the collection, dissemination and use of knowledge and the development of acquired competencies or the creation of new ones (Bednarczyk, 2022);
- diversity management – having a diverse team in the company, influences to increase creativity, ingenuity and approach on a larger scale to problems and ways of solving them (Gross-Golacka, 2018).

Orientation to the above-mentioned areas promotes the formation of an appropriate working environment for the development of human capital (Francik, Kot-Radojewska, 2020). Conscious investment in people is an integral part of the effective functioning of any modern enterprise (Chojnacka, 2021).

#### 4. Competencies of the future – new challenges

Nowadays, the range of knowledge and information absolutely needed to perform specific tasks in specific positions is constantly expanding. In the decision-making process, a much larger number of data sources and quantities of information must be analyzed. The pace of change in information processing also continues to increase. Technological evolution has resulted in the computerization of processes in modern companies in many areas, which forces the adaptation of employees' competencies to the new conditions in which companies have been and will be operating in the era of changing economy (Graczyk-Kucharska, 2020). Today, digital competencies are even required for proper functioning, “they are defined as a set of skills, knowledge and attitudes that enable critical and responsible use of digital technologies” (Motylińska, 2020, p. 203). Digital innovations such as big data, artificial intelligence, the Internet of Things, data analytics, neural networks, robotics or machine learning cause a revolution in the market (Graczyk-Kucharska, 2020). Automation and digitalization reshape the nature of current work. Gradually, the role of employees will change toward collaboration with robots. This correlation will amplify productivity through effective decision-making by the employee with the precision of robots. These changes will not only apply to manufacturing processes, but also to managerial or administrative-office processes. Employees alone will be required to have greater soft skills, i.e. creativity and innovation, or effective communication with the use of modern technologies, high activity in the organization of their own work and ingenuity (Graczyk-Kucharska, 2020). According to the *Infuture Hatałska Foresight Institute* report, the so-called STEM (*science, technology, engineering, math*) sciences will also be important, stimulating mathematical abilities and analytical thinking skills. According to the report, worldwide we have and will continue to have a shortage of skilled employees in this field. These skills lead to a noticeable 24.4% increase in employment of people with such skills in the US, while other industries recorded an increase of only 4.0%. According to the report, such specialists as programmers are and will continue to be in high demand in the labor market in Poland as well. It should be remembered that such skills, according to the report, should be supported by the so-called soft competencies mentioned earlier, which will distinguish us from artificial intelligence and machines. Key competencies of the future, according to the *Infuture Hatałska Foresight Institute* are: active education, critical thinking, creativity and innovation, communication skills, ability to share knowledge and information, problem-solving skills, teamwork skills, design thinking, entrepreneurship, emotional intelligence and empathy (Infuture Hatałska Foresight Institute Report, 2019).

In summary, companies will need to invest in upskilling and reskilling to allow faster adaptation. However, it is necessary to first identify the gap in the company between the competencies it has and those required in the future, then focus on the fundamental areas that determine the development of the most important competencies of the future.

## 5. Development of human capital in the surveyed companies

Part of the survey, the results of which are presented below, was conducted in medium and large enterprises in Lubusz Voivodeship. The sample selection was random in order to provide each enterprise with a chance to participate in the survey. The survey was conducted in 2024 during the months of August-September. The research method was a diagnostic survey, and the tool was a survey questionnaire, which was addressed to senior managers. The survey included 96 respondents, 76 men (75.84%) and 20 women (20.16%). The survey attempted to answer the following questions:

1. Do the surveyed companies engage in human capital development?
2. Are internal employee development programs adapted to employees' expectations, interests and needs?
3. What areas are companies investing in to increase the value of human capital?

The results are shown in Tables 1, 2 and 3 below.

**Table 1.**  
*Enterprise involvement in employee development*

Does the company engage in human capital development?	Quantity (in pcs.) N = 96	Percentage of responses
Definitely yes. Continuous employee development is a key element in the company's strategy	51	53,1
Yes, but these are irregular activities	35	36,5
No	10	10,4
Total	96	100

Source: own elaboration based on surveys conducted.

According to the survey, 53.1% of managers indicated that the company engages in human capital development and it is a key element of the company's strategy, 36.5% believe that these activities are occasional, while 10.4% believe that the company does not engage in employee development. Unfortunately, the results are not very optimistic, because in modern times, the continuous development of human capital should become a priority for companies that want to succeed in the market in the future.

**Table 2.**  
*Employee development programs*

Are employee development programs adapted to employees' individual expectations, interests and needs?	Quantity (in pcs.) N = 96	Percentage of responses
Yes	40	41,7
Not always	56	58,3
No	—	—
Total	96	100

Source: own elaboration based on surveys conducted.

The survey showed that 41.7% of managers indicated that internal employee development programs are adapted to the individual expectations and needs of employees, which will certainly affect their effectiveness, commitment and job satisfaction. In contrast, 58.3% of managers felt that they are not always. This means that some decisions are ill-considered and may lead to a decrease in employee motivation, which may be associated with weaker commitment and a decrease in work efficiency.

**Table 3.***Investment in human capital*

What areas are companies investing in to increase the value of human capital? N=96	Variable with multiple responses	
	Quantity	Percentage of cases
Education and training	82	85,4
Talent-based management	58	60,4
Knowledge management	51	53,1
New flexible work models – remote, hybrid work	35	36,5
Organizational culture conducive to learning	48	50,0
Sustainability in the workplace	46	47,9
Diversity management	46	47,9
Modern technologies	63	65,6
Appropriate system of motivating employees	40	41,7
Other, which ones?	–	–

Source: own elaboration based on surveys conducted.

The surveyed companies invest the most in training and education – 85.4%, which are conducted by internal specialists or external trainers. Training in the form of e-learning is also popular. Another area is modern technology 65.6%, which develops digital competencies that are so important in an ever-changing economy, and talent-based management 60.4%, which allows to effectively attract, develop and retain employees with special competencies. Other areas identified by the managers are knowledge management – 51%, which allows to develop and use the acquired knowledge, and organizational culture, which should shape an environment of trust, loyalty, openness and encourage employees to learn. The surveyed companies are least invested in an incentive system that stimulates employees to develop, and flexible work models that require and at the same time teach new skills in team management, effective communication and self-reliance.

The presented research results indicate that the majority of companies are consciously involved in the development of human capital. This investment will certainly affect the efficiency and innovation of the surveyed enterprises, which will translate into a sustainable competitive advantage in the future. Unfortunately, there is a group of enterprises that do not recognize the need for continuous human capital development, and their activities are irregular or nonexistent. The research also shows that employee development programs are not always adapted to their individual needs and expectations, which can certainly affect the reduction of employee engagement, lack of willingness to learn and assimilate the acquired knowledge. The most important areas affecting the development of human capital in the surveyed

companies are: education and training, modern technology and talent-based management. The surveyed companies should invest more in diversity and creating an inclusive environment that increases the creativity of teams and the attractiveness of companies.

## 6. Conclusions

The development of human capital in a changing economy is one of the key challenges for modern companies. Development process is a long-term activity that requires the commitment of managers and employees. Adaptation of programs to the employees' individual needs, interests or goals allows the development of key competencies in a rapidly changing economy. Areas such as training, education, organizational culture, incentive system, talent management programs, knowledge management processes, workplace sustainability, diversity or new technologies determine the development of human capital, which becomes a recipe for success of an individual as well as a company. The results of this research indicate that not all surveyed companies appreciate the presented areas of investment in human capital. Selected ones follow the right direction in the development of employees, while others need to change this direction or adapt to the prevailing realities. Adequate management and development of human capital in the era of changing economy is a key factor affecting the competitiveness of modern companies and prepares them for the upcoming changes and challenges of the competencies of the future.

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