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PERSONNEL MANAGEMENT OF INDUSTRIAL ENTERPRISES UNDER PRESERVATION OF HUMAN CAPITAL

Summary. The article considers trends of human capital management systems development at the enterprises of the industrial sector of the economy. The main features and characteristics of modern approaches to work with management of personnel development systems are determined. The basis of the research carried out from the statistical data and methodological foundations of the process of formation and development of human capital at industrial enterprises in the conditions of overcoming crisis phenomena in the economy. The ways of existing approaches perfection and the development of complex human capital management systems are offered.

Keywords: human capital, innovative development, personnel management system, corporate strategy.

Problem statement. Ukraine's industry sphere remains the basis of the national economy, which not only promotes our country in foreign markets, but also plays an important role in its domestic economy by creating new jobs, providing employment for the local population and making the foundations for economic security of the state. The current situation of the domestic industry is marked by the needs to optimize the input and output resource flows of enterprises, the introduction of tight saving duty of operating costs for reaching the maximum efficiency of the working capacity due to high competition in some foreign markets.

In the works of both recognized classical scientists and some modern domestic and foreign authors dealing with the issues of increasing the efficiency of an industrial enterprise, more attention is paid to the elements of human resource management, since industrial activity refers precisely to those high-tech sectors of the domestic economy, whose enterprises suffer primarily from the shortage of high skilled personnel, resulting in a decrease in labor productivity, rising current expenditures on staff retention and development [1, p. 63-65, 2, p. 272-273, 3].

In order to analyze the current state of human capital management in industrial enterprises and its role in the production process and management measures it is necessary to consider their current working conditions just to research in more detail the management measures for the formation and usage of human capital, to achieve a comprehensive management approach of the rational realization of current human potential abilities in the industry sphere.

Analysis of recent research and publications. The problem of the human capital formation and development for sure is being not new for the modern science, but the current state of its research keeps constant development due to the progressive growth of production technologies, scientific and technological researches, changes for the requirements of legislation and legal foundations of functioning, expansion and integration to the global, regional and localized markets, etc.

It should be noted about the works of the outstanding scientists of the latest century such as T.W. Schultz and G.S. Becker,

who made a significant contribution to the development of modern science by giving the definition of human capital its concrete and practical meaning, revealing its main properties and influential factors. Human capital, by definition, was the main catalyst of economic growth, which was especially important for emerging economies. Their contribution to the development of modern concepts of human capital is invaluable in terms of creating a basis for the new scientific innovations and ideas. The main directions of the classic concept of human capital in western science include two scientific schools, based on the social and labor nature kind of human capital, whose representatives were B. Bejkhov, E. Denison, A. Marshall, F. Machlup J.S. Mill, H. Sidgwick and others, and the schools of natural human capital provenance, which includes the works of L. Walras, J. McCulloch, J. Kendrick and others.

The current flows of the formation and saving of human capital is a modern and topical issue that is also considered by many Ukrainian scientists, the practical approach to human capital management is presented in works by V. Antonyuk, B. Danylyshyn, O. Grishnov, O. Golovin, S. Grinkevich, O. Ilyash, S. Klymenko, V. Licha, N. Lukyanenko and many others.

Selection of previously unsettled parts of the general scientific problem. Despite the fact that issues of human capital management have become quite widespread in modern science, the problem of finding effective solutions in the industrial sector remains quite relevant. The use of human potential in production can be a key factor for the success of domestic enterprises in the global market as also increasing their labor productivity and reducing basic operating costs. The article is aimed at finding possible options for the implementation of integrated human capital management models for industrial enterprises.

The purpose of the article. The main purpose of this research is to analyze the existing approaches to human capital management at the enterprises of the industrial sector of Ukraine, to find rational ways of its development and to strengthen the competitiveness of enterprises by optimizing management influence on the human capital development by forming a comprehensive model of human capital management.

The main part. The first steps in the development of the theory of human capital begin in the middle of the twentieth century, when one of the first American scientists Theodore William Schultz identified the role and practical place of human capital as one of the key factors of the effective management of the state and enterprise economics. According to the prominent scientist, one of the key elements of the increasing growth of the economy of most developed and developing countries is the shift in the balance between the roles of material means of production and intangible factors in the form of human knowledge, skills and experience in favor of the latter [1, p. 54-55].

Domestic scientists [2, p. 36-38], in particular, note the general tendencies towards the formation of three methodological approaches to the understanding of human capital:

- the level of personality, that combines the quality of the worker acquired during his training or practical development and ability to bring additional income at the level of traditional forms of capital, satisfying certain remuneration requirements;
- the level of organization or micro level, which is already the result of cooperation between the employee and a particular enterprise or industry as a whole, as a result of which the qualitative state of his business has changed, additional benefits or benefits from his employment have been obtained which can be assessed separately as an increase in human capital;
- the level of the economy or the country as a whole, reflecting the potential of the working population to create and multiply the benefits of their own work as an integral part of the national treasure of the state, which combines all sectors and all economic objects, as well as all citizens of the state.

Human capital can be considered as a multidimensional qualitative state of the labor potential of the recipient formed by the state, enterprise or the conditions of its environment on the basis of natural or physiological, mental, psycho-motor and other data. The higher the quality of human capital, the more opportunities the enterprise receives from its use in production activities and strengthening its own market positions. However, for modern domestic practice, the issue of human capital management in industry is a rather painful problem due to taking place of the crisis phenomena and being a long and difficult path to transition from an administrative-command to a socially-oriented management model of industrial enterprises that this process badly needs. Larger economic benefits from human capital resources providing firms with greater pricing flexibility and this pricing flexibility can provide a greater opportunity to develop larger profits than competitors [3].

From financial efficiency point, the management of human capital provides a much greater return to comparison with other areas only if the presence of key factors in its formation is observed. This explains the high interest of entrepreneurs in the management of human capital and ways to optimize current spending in order to maximize profits [4].

To create favorable conditions for the formation of human capital there are many factors being counted, the most important of which are:

- active social policy of industrial enterprises in the field of training and development programs of their own personnel;

- creation of a highly productive internal staff development system, making training, retraining and advanced training, ensuring conditions for the effective transfer of knowledge, skills and competences among generations of employees, human capital programs provided on enterprises;
- ensuring the practical implementation of human capital in terms of production and sales activities, technical and logistical and applied processes;
- economic incentives for employees to accumulate and preserve human potential as theoretical and practical knowledge, skills and abilities [1].

Today, there are several areas of research that combine together the theory of human and social capital. Exploring the peculiarities of the formation of human capital as a factor in production should also be noted that there is a certain social effect, as people developing their own abilities and skills also improve their own living conditions and the lives of others, which in turn leads to a sustainable social effect [5, pp. 32-36]. Thus, the development of human capital has an impact not only on the economic development of the state, but also on the development of its cultural, historical and social way of life.

The development of human capital on the basis of domestic industrial enterprises is gradual, and as a rule, is not a priority task, since, accordingly to State Statistics Service of Ukraine, only one of five enterprises is characterized by the presence of their own innovation, staff development programs and the social environment are greatly reduced due to the need to reduce production costs [6].

In recent years, indexes of industrial production in Ukraine have been at a low level, as evidenced by statistical data both for the industry as a whole, and for certain industries, in particular, metallurgy and machine building. (Figure 1)

However, 2016 became the first year to observe the growth rate of industrial production was at the level of 102.8%, which gives grounds for determining positive changes in the industry's development. The leading industries of the domestic industry, such as metallurgy and machine building, also showed positive changes in the form of 106.8 and 102%, respectively. At the same time, volumes of industrial products sells in 2013-2016 were growing rapidly, as shown by the economic statistics for industry in general – 163.2%, metallurgy – 153.5%, machine building – 115.3%, respectively. The growth of economic activity of domestic industrial enterprises cre-

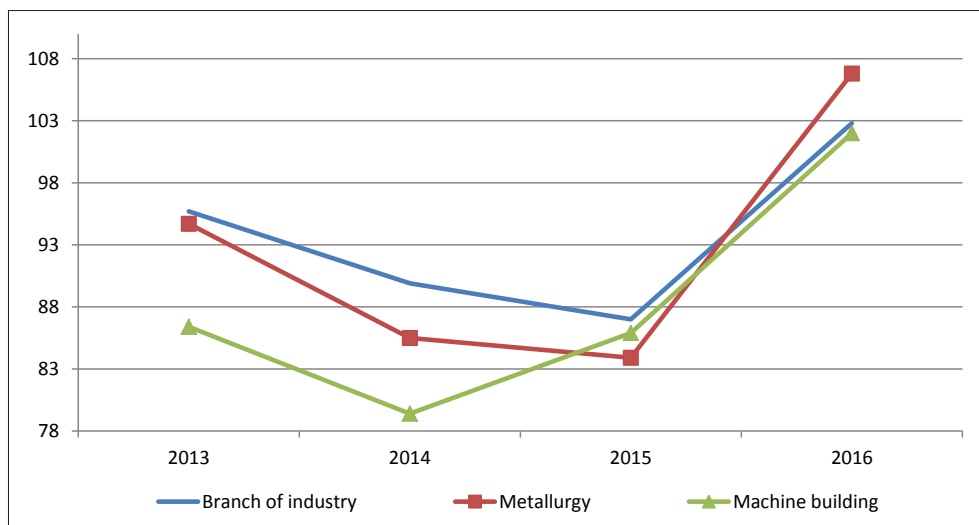


Figure 1. Index of Industrial Production in Ukraine in 2013-2016 [6]

ates preconditions for their rapid development and increases current economic returns from production.

However, the creation of effective conditions for the further growth of human potential is impossible without the development of proper operational infrastructure and the improvement of the internal environment state of industrial enterprises. As one of the key factors mentioned above is the significant role of economic stimulation, it is expedient to analyze the wage dynamics of the employees of the leading industrial enterprises in relation to general trends in the industry (Table 1).

As can be seen from Table 1, the current dynamics of wages in the metallurgical industry fully corresponds to the rates at which wages increase in the economy as a whole and is at the level of about 20% per year. Average nominal wages of full-time employee of enterprises, institutions and organizations in December 2016 were amounted to 6475 UAH, which is 4 times higher than the minimum wage (1600 UAH) for that period. Compared to November 2016, wages increased by 19.8%, and in the last 12 months (compared to December 2015) – by 23.8%. Average nominal wages of the full-time employee of enterprises, institutions and organizations in January 2017 amounted to 6008 UAH, which is 1.9 times higher than the current minimum wage (3200 UAH). Compared to December 2016 wages had been decreased by 7.2% (in January 2016, compared to December 2015, the decrease was 16.6%), but these trends can be explained by the special conditions contribution for calculating wages at the end of the year, which includes various forms of bonuses. Thus, it can be argued that the state of financial incentives for workers in the metallurgical industry stays at

an appropriate level compared to the general trends of economic development, but does not outstrip them [6].

Given the formation of a single concept of human capital management of industrial enterprises, employment management is a source of providing incoming labor flows. The dynamics of the employment rate of individual economic sectors also indicates proportional changes in the employment of the employed in the general structure of employment in the country as a whole (Figure 2).

In 2012-2016 there was a gradual decrease in the number of employed in industry by 21.8%, however, the total number of people employed in the domestic labor market has also changed – at 15.5%. Higher rates of reduction in the number of people employed in the industry take place due to economic difficulties, which lead to a reduction in the number of employees to a large extent, resulting in a loss of human capital.

The high rate of redundancies in the industry leads to the following consequences:

- the average workload for an employee constantly increases;
- human capital is being lost as an professional experience, there is a lack of workers' ideas and skills;
- competition in the field of personnel is increasing, which leads to the need for rapid and systematic implementation of advanced training programs;
- optimization need of the staff structure leads to a gradual change in the management model of an enterprise working in a dynamic environment, which includes some additional risks in a view of the need.

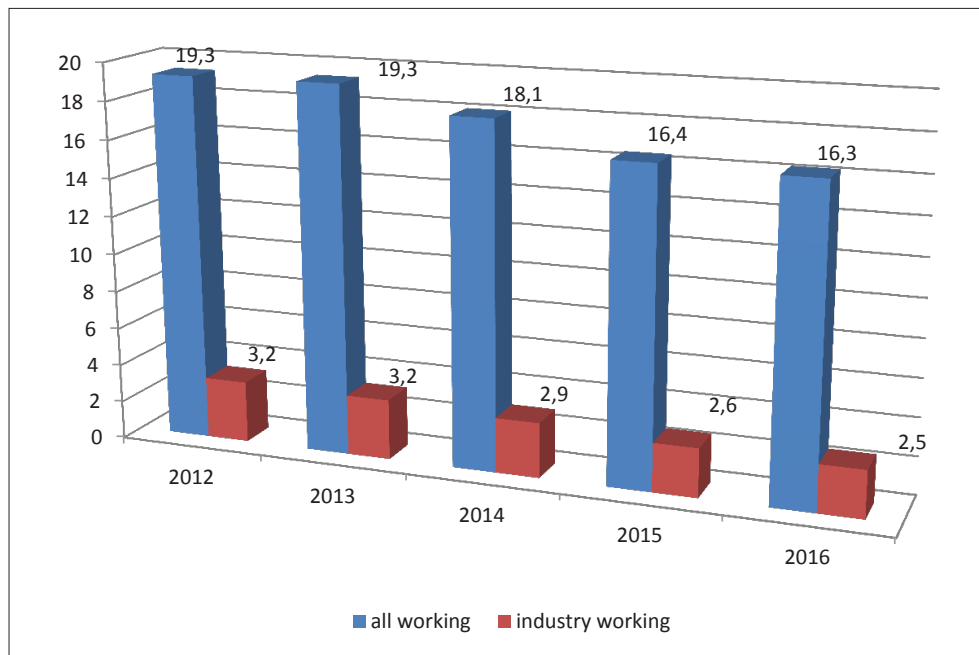


Figure 2. Dynamics and ratios of employment rates for the economy of the whole and the industrial sector of Ukraine in 2012-2016, mln. pers [6]

Table 1

Dynamics of wages of industrial workers of Ukrainian enterprises in 2014-2017, UAH/person [6]

	12.2014	12.2015		12.2016	
By types of economic activity in general	4023	5230	130%	6475	123,8%
Industry of Ukraine in general	4616	5766	124,9%	7172	124,4%
Metallurgical industry	5166	6014	116,4%	7328	121,8%

* According to the State Statistics Service of Ukraine

Domestic industrial enterprises implement different methods of working with human capital that're aimed at increasing the efficiency of its use in production activities. The most successful example among domestic enterprises can be the bits of the system of internal training and development of personnel "Azovstal Iron & Steel Works" PJSC, "Zaporijstal" JSC, Dneprospetsstal PJSC. Among the main achievements of these enterprises in the field of human capital management is the introduction of modern international standards ISO 9001, ISO 14001, OHSAS 18001 and LLC "Technical and management services" to the requirements of international standards ISO 50001. Among others, one of the most priority directions of the integrated systems management development at the enterprises remains to ensure safe working conditions of the personnel, minimizing the impact on the environment, protecting the health of the population living in the region [7, 8, 9].

Also, as an example of using an integrated approach the activities of the leading industrial group Metinvest Holding can be examined. In addition, in partnership with international student organization AIESEC, a Language Club for staff at Northern GOK and a Summer Camp project was organized, during which international trainees gave classes on science and machinery for employees' children. During the 2016 year 31 122 employers participated in internal staff training programs on the following directions: mandatory basic courses for managers – 19,5% lower than previous year, specialized courses for managers – increases at 66,2%, and modular courses for workers – incr. in 6,5 times more than in 2015. The Group also expanded problem-oriented training for engineers and technical staff, such as "Schools for Experts", where workshops dedicated to learning from specific production incidents are devised and implemented. Some 13 schools designed to handle 104 incidents across 18 shops were introduced at five enterprises. Also it was unveiled additional programmes to improve the skills and qualifications of ourtrainers [9, p. 50-51].

Thus, the situation regarding the expansion of the range of measures for managing human capital of industrial enterprises is significantly improved, these trends are not typical for all enterprises. During 2014-2016, the whole share of innovative enterprises in Ukraine was at 18.4%. Regarding industry sphere, the share of enterprises introducing innovative technologies was at 22%, which is slightly higher than the country's average, including technological and non-technological innovations being implemented by 9% of enterprises, but only non-technological innovations made by just

6.4% of them. Taking into account the experience of the leading economically developed countries, these indicators are at a very low level, which can not affect the pace of development of domestic industry [6].

According to some modern researchers, the development of integrated human capital management strategies at the company level offers greater benefits and a significant increase in labor productivity [10, 11, p. 72-76]. The corporate policy of the enterprise provides a comprehensive and efficient management of human capital in the long period (Figure 3).

It is important to note that the great potential and selection of provided events by the enterprises are implemented in some innovative approaches. The economic efficiency of these approaches is determined by the level of labor productivity, volumes of production and the dynamics of expenses for operating activities. Human capital acts in the conditions of maintaining the balance of managerial influence in the internal environment and simultaneous use of key strategic advantages of the enterprise. For the accumulation of human capital, modern industrial enterprises must not only create conditions for its formation, but also implement the real algorithms of its application. This is also one of the most up-to-date problems that needs to be considered. It is impossible to assess the effectiveness of human capital management in the absence of practical support and promotion of the most productive workers.

Conclusions and perspectives. Thus, within the framework of this article, existing approaches to human capital management at Ukrainian industrial enterprises were analyzed and the need for a comprehensive organization of work with personnel was determined. Stability of wage growth in the industrial sector, increase of volumes of sales of industrial products was noted, which testifies to the unconditional recovery of the industry. At the same time, the indicator of innovation activity of domestic enterprises is at a rather low level, there is a reduction of social expenditures and expenses for personnel training. Economic stimulation of labor is the basis of maintaining staffing but is not capable of creating the proper conditions for the future development of human capital in itself. Therefore, it is necessary to carry out a number of socially oriented measures, conducting educational programs, developing professional competence, working with social environment and labor safety. The interest in the development of human capital as a component of corporate policy by leading industrial enterprises of Ukraine provides the basis for the further formation of this concept within the frame-

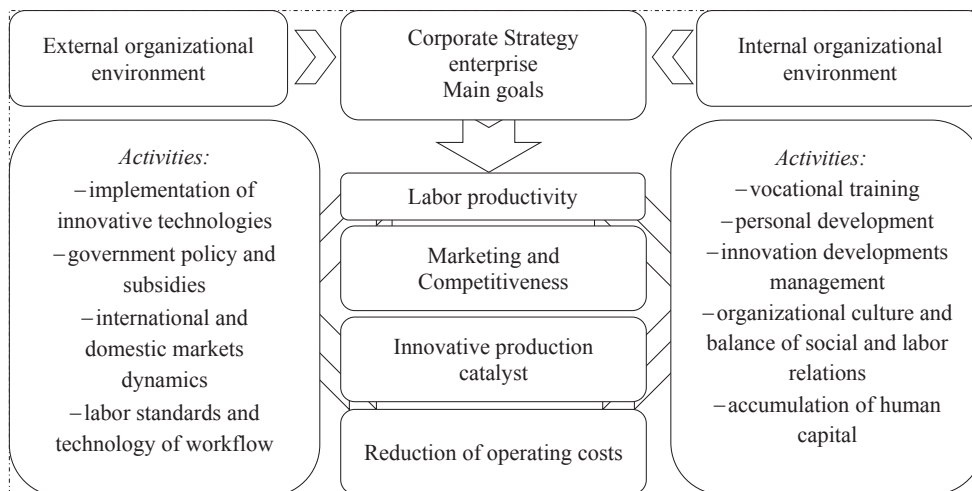


Figure 3. Activities and goals of corporate governance in the field of human capital management of industrial enterprises

work of the industry standard and one of the components of the competitiveness of domestic industry.

The set of modern methods of human capital management in industry is quite broad, but can be divided into measures that are formed under the influence of the internal and external environment of the enterprise. The objectives of human capital management are to improve the internal and external efficiency of using the personnel of the enterprise. The complex of measures should be balanced, focused on the features of specific enterprises and their capabilities. Only in these circumstances, the process of formation and preservation of human capital will correspond to the strategic development of the enterprise and its corporate policy.

References:

1. Schultz T.W. Investing in People / T.W. Schultz – University of California Press, 1981.
2. Ilyash O. I. Economics of Labor and Social-Labor Relations: Teach. Manual / O. I. Ilyash, S. S. Grinkevich. – K.: Knowledge, 2010. – 476 p. + CD. ISBN 978-966-346-808-2
3. Corine B. Integrating strategic human capital and strategic human resource management / B. Corine, R. Eckardt, D.P. Lepak, P. Bose-lie. – Journal The International Journal of Human Resource Management, 2017.
4. Gimmon E. Instrumental Value Theory and the Human Capital of Entrepreneurs / E. Gimmon, J. Levie. Journal of Economic Issues Vol. 43, Iss. 3, 2009.
5. Burton-Jones A. The Oxford handbook of Human capital / A. Burton-Jones, J.-S. Spender. – Oxford University press, 2011. – P. 32-36.
6. Official site of the State Statistics Service of Ukraine [Electronic resource] – Access mode: <http://www.ukrstat.gov.ua/>, 2017.
7. Official site of “Zaporizhstal” JSC [Electronic resource] – Access mode: <http://www.zaporizhstal.com/en/>
8. Official site of “Zaporizhstal” JSC [Electronic resource] – Access mode: <http://www.dss-ua.com/eng/>, 2017.
9. Annual Report and Accounts 2016. Metinvest Holding [Electronic resource] – Access mode: <https://www.metinvestholding.com/en>
10. Kong G. Corporate governance, human capital, and productivity: evidence from Chinese non-listed firms / G. Kong, D. Kong. – Journal Applied Economics Volume 49, 2017 – Issue 27.
11. Becker G.S. Investment in Human Capital: A Theoretical Analysis / G.S. Becker // Journal of Political Economy, Vol.70, No.5, Part 2, 1962, pp. 9-49.

Перепадя Ф.Л. Управління персоналом промислових підприємств в умовах збереження людського капіталу

Анотація. У статті розглянуті тенденції розвитку систем управління людським капіталом на підприємствах промислового сектору економіки. Визначено основні риси та характеристики сучасних підходів до організації систем розвитку персоналу на виробництві. До основи проведеного дослідження покладено статистичні дані функціонування галузі, досвід провідних підприємств та визначено методичні засади процесу формування і розвитку людського капіталу в умовах подолання кризових явищ в економіці. Запропоновано шляхи вдосконалення існуючих підходів і розвитку комплексних моделей управління людським капіталом промислових підприємств.

Ключові слова: людський капітал, інноваційний розвиток, система управління персоналом, корпоративна стратегія.

Перепадя Ф.Л. Управление персоналом промышленных предприятий в условиях сохранения человеческого капитала

Аннотация. В статье рассмотрены тенденции развития систем управления человеческим капиталом на предприятиях промышленного сектора экономики. Определены основные черты и характеристики современных подходов к организации систем развития персонала на производстве. В основу проведенного исследования положены статистические данные функционирования отрасли, опыт ведущих предприятий и определены методические основы процесса формирования и развития человеческого капитала в условиях преодоления кризисных явлений в экономике. Предложены пути совершенствования существующих подходов и развития комплексных моделей управления человеческим капиталом промышленных предприятий.

Ключевые слова: человеческий капитал, инновационное развитие, система управления персоналом, корпоративная стратегия.