

# FORMATION PREREQUISITES AND TENDENCIES OF THE ENTERPRISE'S HR CAPACITY DEVELOPMENT

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**Abstract.** Human resources are the basis for the functioning of any company in the world, regardless of its size or industry. Human resource management through the development of human potential is a way to increase the competitiveness and productivity of employees and leads to an increase in the company's profits. The *purpose* of the article is to analyse the conditions for the formation of the human resource potential and possible trends of its development in the future in the conditions of innovative changes in the economy. The aim of the article is to identify the key factors that shape and influence human resource potential, as well as the trends in the labour market and education that will shape the trends of its further development. The study uses a general scientific *methodology*: analysis, synthesis, systematisation, and comparison. The data used for the calculations are those of the State Statistics Service of Ukraine, which are publicly available. *Results.* The analysed materials of foreign and Ukrainian scientists made it possible to determine the key factors that are the main components in the formation of personnel potential, and the study of statistical data of the labour and education market of Ukraine revealed the general trends of its further development. The *practical significance* of this article lies in the calculation of modern socio-economic factors, which have the greatest impact on the development of human resources potential. Due to several serious crises in the country, the current situation on the labour market is very difficult, and due to a full-scale war, Ukraine in the future will face the biggest crisis in the entire history of its independence. On the other hand, it can have a positive impact on the development of human potential, as people will often have to think outside the box and learn new professions. The *value* of this work lies in the separation of the theoretical bases of the development of the personnel potential and the review of the statistical information, which will become the basis for further analysis of the ways of increasing the personnel potential of the Ukrainian enterprises. In further studies it is planned to reveal the existing ways and methods of assessing the human resource potential of enterprises and to explore possible ways of increasing it.

**Key words:** human resources, personnel potential, personnel development, innovative thinking, personnel costs, human capital, education.

**JEL Classification:** J20, J24, M12

## 1. Introduction

In the conditions of innovative changes in the economy, the formation of the personnel potential of enterprises and its effective use is the key to sustainable economic development. Recent trends of economic transformations cause the growth of the role of the human factor in management and significantly increase the approaches and methods of formation and development of the personnel potential of enterprises.

New trends in economic development and the growing role of the human factor significantly expand the opportunities for developing human resources. Investments in human capital and the growing need of industrial production for experienced and qualified specialists determine the need to train employees with innovative thinking for the revival and intensive development of the Ukrainian economy. In the field of human resources management, human resources

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potential is a key factor in the competitiveness of enterprises.

The issue of retaining and developing human resources should become a priority strategic task for Ukraine in the coming years. A high level of human resource potential creates employee satisfaction, sets promising benchmarks for organisational culture, and increases the desire to further improve staff competence and motivation. This, in turn, leads to an increase in the efficiency, adaptability and competitiveness of the organisation and the economic system overall.

An analysis of the elements of modern human resource management systems shows that people and their talents are becoming the most valuable resources of an organisation in the context of innovative changes in the economy. Human resource management is becoming a strategic task, and the formation and development of human resources is turning into an investment rather than a cost, as in traditional management approaches. Among the most relevant current factors affecting the formation and development of human resources are the following: increased investment in human capital, the growing need for skilled workers in the industry, the need for employees with innovative thinking, and the need for intensive production development.

## 2. Theoretical Background

Increased investment in human capital is considered to be one of the most influential factors in the development of human resources. Thus, in the study by Tochylna Yu. Yu, investments in human capital are considered as a key factor in the development of the national economy (Tochylna, 2019), and increased investment in human capital provides the economy with more qualified specialists. Nosyk O. M. believes that investment in human capital helps to attract and adapt employees to work in a particular enterprise, ensures labour mobility and contributes to the professional development of employees (Nosyk, 2015). In the study of Shevchenko D. V. it is stated that the expediency of investments in human capital lies in the growth of labour productivity of personnel and the multiple payback of these investments due to the growth of profits, as well as the potential increase of competitiveness of the enterprise (Shevchenko, 2021). Kraievskyi V. M. believes that investment in human capital is the key to strategic

economic growth and will help the country survive the crisis period (Kraievskyi, 2011). In turn, Melnichuk L. S. in her study reflects investment in the development of human capital as the most promising direction of investment from the socio-economic point of view (Melnichuk, 2013).

For example, Vasylychenko V. S. and Ghrycenko A. M. note certain tendencies of the surplus of experts in economic and legal specialties, which led to the shortage of engineering and technical personnel (Vasylychenko, Ghrycenko, 2005). Ghoncharov Y. V., Fedoryak R. M. and Berezhna Y. B. consider the development of personnel potential as a decisive factor of competitiveness and efficiency of enterprises (Ghoncharov, Fedoryak, Berezhna, 2017), and without qualified personnel the enterprise is threatened with high personnel turnover, decrease in personnel productivity and stagnation. Kir'jan V. A. sees the possibility of innovative development of the industry precisely in providing production with highly qualified personnel of engineering and technical and other specialties (Kir'jan, 2005). In turn, Andybur A. P. notes that the insufficient supply of industry with qualified personnel is connected with insufficient understanding of the management of enterprises of the importance of continuous personnel development and use of personnel potential (Andybur, 2016).

In the context of innovative transformations of the modern economy, it is also worth paying attention to a factor such as innovative thinking. Zaika Yu. A. notes the influence of innovations and innovative thinking of the management on the activity of enterprises from the point of view of their competitiveness and adaptability to changes, which leads to the increase of efficiency of economic activity of enterprises (Zaika, 2022). Strilets' S.I. explains the importance of developing and implementing innovative thinking by the need for modern qualified specialists to be able to solve work tasks quickly and effectively in a constantly changing economy, to use non-standard approaches to work and to strive for constant self-development (Strilets', 2012). Sobolieva S. M. proposes to interpret innovative thinking as a set of certain personal characteristics, including the use of a creative method of problem solving, focus on the result, application not only of professional

knowledge and skills, but also imagination and intuition, responsiveness and adaptability, etc. (Sobolieva, 2020). According to Khrystenko O. V. and Symonenko A. M., special attention should be paid to the innovative thinking of managers who should implement personnel policy taking into account the creative potential of each employee, stimulate and interest them in innovative activities, which will help to increase the overall human resources potential of the enterprise (Khrystenko, Symonenko, 2016). In other words, innovative thinking is closely linked to the potential capabilities of employees – the human resource potential.

### 3. Formation of Personnel Potential

In the near future, Ukrainian industry will face complex challenges and serious crises. The full-scale invasion of Ukraine by the Russian Federation has triggered the strongest migration outflow in the country's history, with dozens of businesses, especially in developed industrial regions, being occupied, damaged or destroyed. To survive the industrial crisis, including in the upcoming post-war period, businesses must intensify the use of their most valuable resource – their employees.

In their study, Deineko L. V. and Sheludko E. I. identify the following existing problems of developing the human resources potential of industrial enterprises: massive reduction in production, significant staff losses (due to migration, mobilisation, death, reduction in the attractiveness of industrial vacancies), migration processes, mismatch of education with modern requirements of professions, and so forth (Deineko, Sheludko, 2022). Researchers emphasise the preservation and development of human resources to meet the requirements of European integration and innovative changes in the economy. Mosiichuk I. V. notes the role of the use and development of human resources as a condition for the enterprise to achieve leadership positions in the market and consolidate them (Mosiichuk, 2011), and the efficiency of production activities directly depends on the active development of human resources. In the work of Drachuk Yu. Z. and Savjuk L. O. it is noted that employees of industrial enterprises must adapt to changes and meet modern labour requirements, especially in the conditions

of European integration: industry must be ecological and safe, production equipment and work process methods must be modernised, and the range of products must be changed in accordance with modern norms and standards (Drachuk, Savjuk, 2018). This is where the use of human resources should come to the fore: training, retraining and development of personnel, their ability to work effectively in new conditions (Kaczmarek, 2019), the ability to adapt to changes and think outside the box will help Ukrainian industry survive the post-war crisis and transform into a modern European industry.

Taking into account all these factors, it can be concluded that the human resources potential of an enterprise is the basis of its competitiveness and allows it to increase its adaptability to constant changes in the economy and business environment (Espina-Romero, Franco, Dworaczek Conde, 2023).

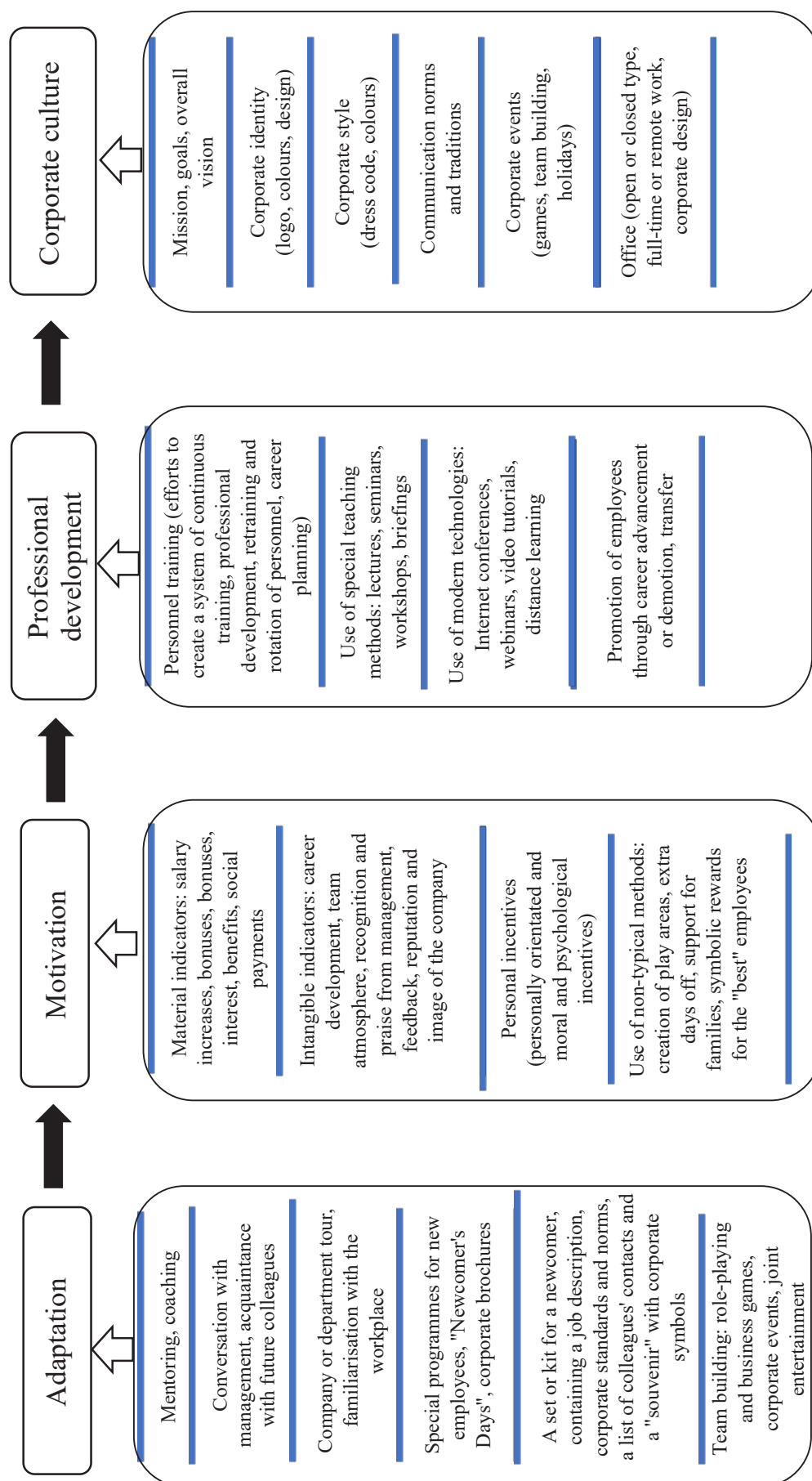
The human resources potential of an enterprise characterises the possible professional and personal abilities of the staff already available in the organisation (Reddy, Reddy, Srikanth, 2020). The fundamental principles of human resources development include a detailed analysis of employees' personal and qualification competences and the creation of a system of continuous professional development that will improve the efficiency of each employee's duties (More, Miller, 2011).

In Figure 1 (Supplementary materials), the authors systematise the main directions of building the organisation's human resources potential. The following factors should be the basis for the formation of human resources potential:

- Personnel structure should be in line with production factors;
- number of employees and their qualifications should be commensurate with the scope and complexity of the work performed;
- creation of a system of continuous professional development;
- maximisation of efficiency in the use of working time (Shubala, 2020).

In order to comprehensively study the prerequisites for the formation of human resources and trends in its development, it is advisable to analyse the current state of the Ukrainian labour market. To analyse the

## SUPPLEMENTARY MATERIALS



**Figure 1. Stages of human resources development at an enterprise**

Source: created by authors based on (Bykova, Paranko, 2016; Voloshan, 2019; Banit, 2015; Hratsiotova, Stepanova, 2015)



labour market of Ukraine, the authors have chosen such socio-economic categories as the cost of education of the population, personnel costs of enterprises and innovative activity of personnel.

#### 4. Analysis of Education Costs

The satellite (auxiliary) education account (according to the State Statistics Service of Ukraine) for 2017–2020 shows (Table 1) that education spending in Ukraine is gradually increasing every year, as is the share of public sector funding, but the analysis also shows that the growth in spending is gradually decreasing every year (Figure 2).

In 2018, compared to 2017, education spending increased by 16.95%, in 2019 by 12.81%, and in 2020 by only 4.75% compared to the previous period.

This is reasonable, as, firstly, the pandemic has largely shifted the education sector to remote work, and, secondly, the annual decline in the growth rate of education spending is in line with general demographic trends: Ukraine's population

is constantly decreasing every year, as shown in Figure 3.

While in the first year of independence, in 1991, the population of Ukraine was 51944400, ten years later, in 2001, the population was 48923200 (i.e., a decrease of 5.82%). In turn, over the next ten years, the population of Ukraine decreased by another 6.43% and amounted to 45778534 people. The following decade dealt an extremely heavy blow to Ukraine's demographics: financial crises, the first phase of the armed conflict with the Russian Federation in 2014 and the occupation of part of the country's most populous region, the COVID-19 pandemic, and the constant excess of deaths over births reduced the country's population by another 9.15% over the decade, so that by the end of 2021, there were 41588354 people living in Ukraine.

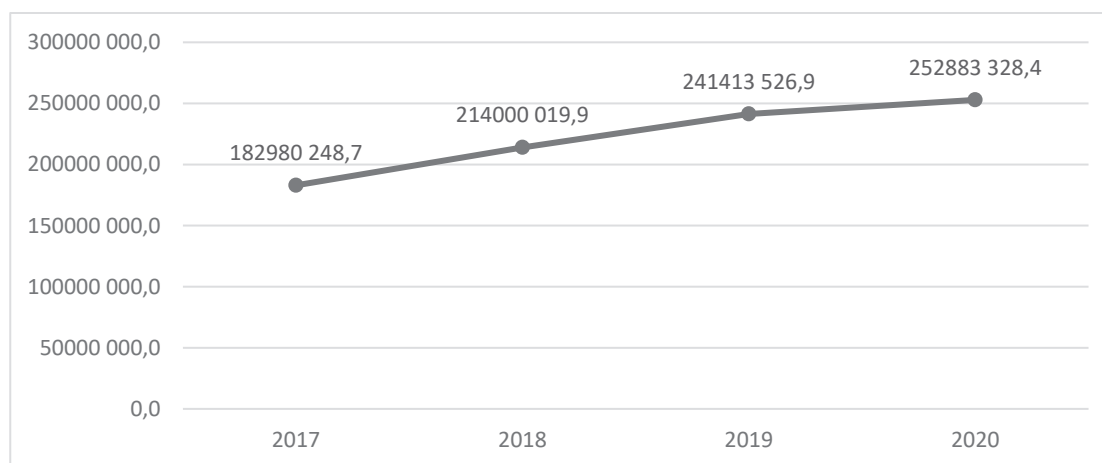
It is currently impossible to estimate the percentage decrease in the country's population due to a full-scale invasion of Ukraine by the Russian Federation, but it is safe to say that this will be the biggest demographic problem for Ukraine since its independence, and the country

Table 1

**Dynamics of education spending in Ukraine in 2017–2020, thousand UAH**

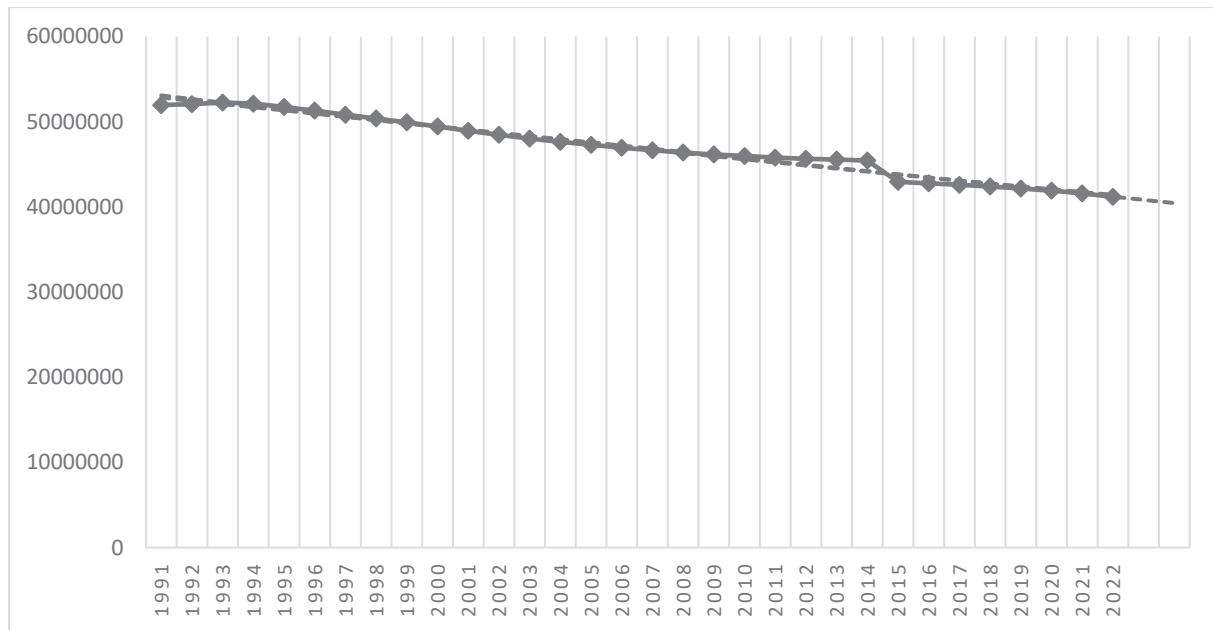
Year	Total	Public sector (central and regional/local authorities)	Private sector (private firms and households)	Role of the public sector in financing education	Growth rates of education spending
2017	182 980 248,7	161 495 385,0	21 484 863,7	88,26	-
2018	214 000 019,9	189 405 224,6	24 594 795,3	88,51	16,95
2019	241 413 526,9	216 411 206,2	25 002 320,8	89,64	12,81
2020	252 883 328,4	227 242 827,1	25 640 501,3	89,86	4,75

Source: created by authors based on State Statistics Service of Ukraine



**Figure 2. Graphical representation of the dynamics of education spending in Ukraine in 2017–2020, thousand UAH**

Source: created by authors based on State Statistics Service of Ukraine



**Figure 3. Population of Ukraine in 1991–2022, persons**

*Source: created by authors based on State Statistics Service of Ukraine*

will feel its consequences for many years to come. This will certainly have a major impact on the development of the human resources potential of Ukrainian enterprises, because, on the one hand, a sharp decline in population and the war will provoke a huge crisis, but on the other hand, people's potential will be revealed more often and deeper: people will have to work harder, look for ways to optimise working hours and the labour process, think creatively and outside the box to survive the new crisis and the shortage of "labour", learn new professions, etc.

### 5. Analysis of business entities' personnel costs

According to official statistics, personnel costs at Ukrainian enterprises are constantly growing, including both labour costs and social benefits. The survey data is presented in Table 2 (Supplementary materials).

The study shows that the only case of a decrease in personnel costs was in 2014, i.e., the beginning of the armed conflict in Ukraine and the occupation of certain parts of Donetsk, Luhansk oblasts and Crimea. It can also be noted that there was a certain "drop" in 2020 due to the COVID-19 pandemic, as small and medium-sized businesses suffered significant losses and were forced to suspend their business activities

due to the quarantine. The general trend (Figure 4) is upward, meaning that staff costs will continue to increase, but the main factor affecting this is the economic crisis and inflation: prices are rising, the minimum wage and the number of benefits are also increasing, so salary costs will continue to rise, but unfortunately, this is not an indication of an effective HR policy, but of rising inflation and the crisis in the country.

The main disadvantage in the study of personnel costs is that the statistical service divides costs only in terms of salaries and social benefits, because the category of personnel costs includes many more items: professional development and training, costs of motivational measures, various types of activities for staff development and unlocking their potential, etc.

### 6. Analysis of personnel innovation activity

As for the analysis of the personnel involved in innovation activities, the overall dynamics is negative – the number of innovatively active employees is constantly decreasing every year (Table 3, additional materials). The analysis shows that, on average, about 69.8% of the total number of employees involved in innovation activities are researchers, about 9.6% are engineers, and about 20.6% are support personnel.

Table 2  
Total staff costs of business entities (excluding banks) and separately in industry in 2013–2021

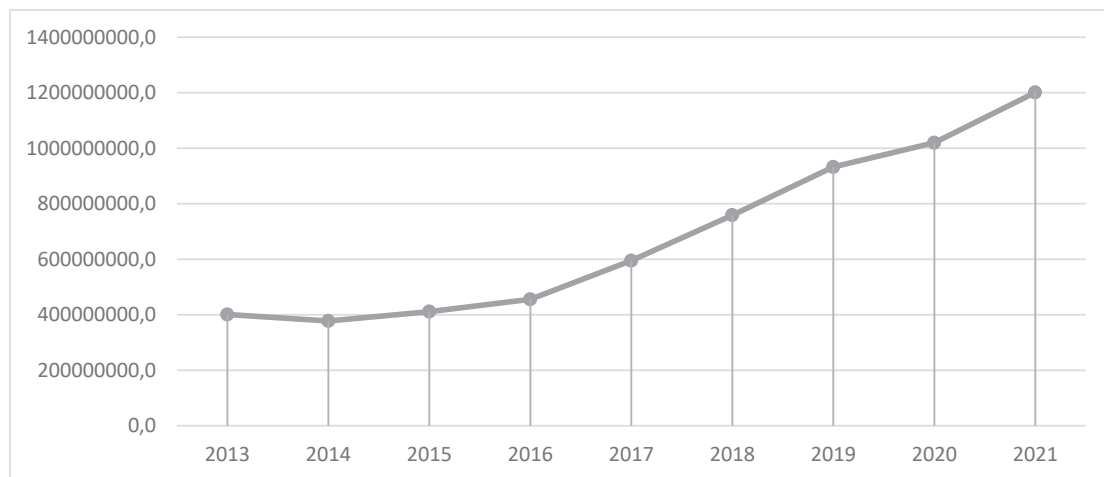
Year	Personnel costs				Including							
					salary expenses		social contributions					
	total, thousand UAH	growth rates, %	of them in industry, thousand UAH	in % to the total indicator	total, thousand UAH	growth rates, %	of them in industry, thousand UAH	in % to the total indicator	total, thousand UAH	growth rates, %	of them in industry, thousand UAH	in % to the total indicator
2013	400796757,0	-	178977891,0	44,7	294660007,4	-	129671776,8	44,0	106136749,6	-	49306114,2	46,5
2014	377452430,6	-5,8	160557674,9	42,5	278356692,3	-5,5	116887644,2	42,0	99095738,3	-6,6	43670030,7	44,1
2015	411262344,3	9,0	171447588,9	41,7	309481477,6	11,2	127635203,3	41,2	101780866,7	2,7	43812385,6	43,0
2016	455473766,3	10,8	184507068,7	40,5	375804726,4	21,4	151927443,0	40,4	79669039,9	-21,7	32579625,7	40,9
2017	594872722,4	30,6	233514302,3	39,3	490989427,5	30,7	192545766,5	39,2	103883294,9	30,4	40968535,8	39,4
2018	758739505,6	27,5	292647654,6	38,6	624778812,3	27,2	241073726,3	38,6	133960693,3	29,0	51573928,3	38,5
2019	932378289,6	22,9	345294136,5	37,0	769729596,1	23,2	284928326,3	37,0	162648693,5	21,4	60365810,2	37,1
2020	1019815149,6	9,4	367366663,6	36,0	841311311,4	9,3	303280597,2	36,0	178503838,2	9,7	64086066,4	35,9
2021	1200751364,9	17,7	419571320,0	34,9	988150749,4	17,5	345894910,4	35,0	212600615,5	19,1	73676409,6	34,7

Source: created by authors based on State Statistics Service of Ukraine

Table 3  
Analysis of the number of employees engaged in innovation activities in 2010–2020, people

Year	Number of employees involved in research and development – total, persons	Growth rate, %	researchers			Including engineering			support personnel		
			persons	growth rate, %	in % of the total number of employees engaged in research and development	persons	growth rate, %	in % of the total number of employees engaged in research and development	persons	growth rate, %	in % of the total number of employees engaged in research and development
2010	182484	-	133744	-	73,3	20113	-	11,0	28627	-	15,7
2011	175330	-3,92	130403	-2,50	74,4	17260	-14,18	9,8	27667	-3,35	15,8
2012	164340	-6,27	122106	-6,36	74,3	15509	-10,14	9,4	26725	-3,40	16,3
2013	155386	-5,45	115806	-5,16	74,5	14209	-8,38	9,2	25371	-5,07	16,3
2014	136123	-12,40	101440	-12,41	74,5	12299	-13,44	9,0	22384	-11,77	16,5
2015	122504	-10,00	90249	-11,03	73,7	11178	-9,11	9,1	21077	-5,84	17,2
2016	97912	-20,07	63694	-29,42	65,1	10000	-10,54	10,2	24218	14,90	24,7
2017	94274	-3,72	59392	-6,75	63,0	9144	-8,56	9,7	25738	6,28	27,3
2018	88128	-6,52	57630	-2,97	65,4	8553	-6,46	9,7	21945	-14,74	24,9
2019	79262	-10,06	51121	-11,29	64,5	7470	-12,66	9,4	20671	-5,81	26,1
2020	78860	-0,51	51427	0,60	65,2	7117	-4,73	9,0	20316	-1,72	25,8

Source: created by authors based on State Statistics Service of Ukraine



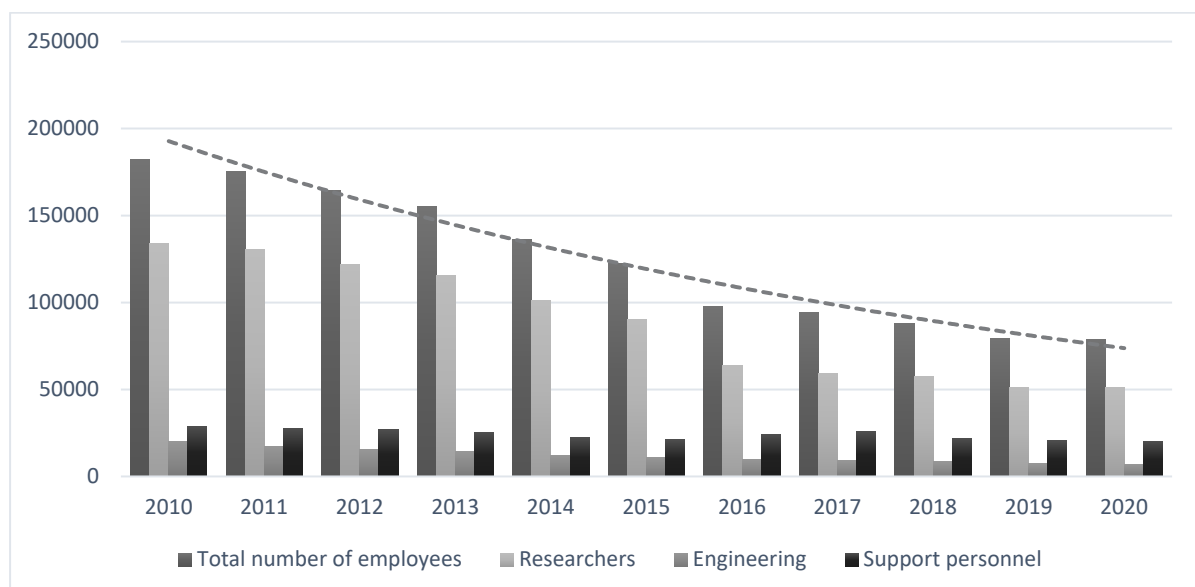
**Figure 4. Dynamics of personnel costs in Ukraine in 2013–2021, thousand UAH**

Source: created by authors based on State Statistics Service of Ukraine

Between 2010 and 2020, the total number of employees involved in innovation activities was steadily decreasing. The lowest outflow of innovative personnel was observed at the end of the study period, i.e., from 2019 to 2020, so in peacetime, one would expect the number of innovatively active personnel to gradually increase in the future, but this trend may change after the outbreak of a full-scale war. The overall dynamics is shown in Figure 5. It should be noted that since 2016, the data are presented without taking into account academic staff who did not perform research and development:

## 7. Conclusions

The study of Ukraine's labour market shows that the country has faced major labour crises twice, namely at the beginning of the anti-terrorist operation in 2014 and during the COVID-19 pandemic in 2020–2021. The country has been gradually restoring its labour force, but the full-scale invasion of the Russian Federation in 2022, active warfare and a large number of occupied territories have caused the largest complex crisis in Ukraine since its independence. It is currently impossible to calculate the losses in the labour market, but



**Figure 5. Dynamics of the number of employees involved in innovation activities by category from 2010 to 2020**

Source: created by authors based on State Statistics Service of Ukraine



they are significant, and Ukraine has a difficult and long way to go to recover.

Further trends in the development of personnel and human resources seem to be heterogeneous: on the one hand, during a full-scale war and after the victory, business priorities will lie in other areas (post-war reconstruction, surviving the upcoming crisis, slow recovery of resources). However, since the

country has already lost and will lose even more of its economically active population in the future (dead, seriously wounded, displaced persons, etc.), and since everyone else will have to learn new professions, effectively use and optimise their working time, and think outside the box when working in the post-war period, the human resource potential of the population will increase and be used more frequently and efficiently.

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