

Strategizing Soft Skills Resilience: A Holistic Approach to Mitigating COVID-19 Pandemic Impact on Workforce Development

Mariia Vesolovska 1* and Lyubomyr Shved 2

- ¹ Department of Management of Organizations, Lviv Polytechnic National University, 79013 Lviv, Ukraine;
- ² Department of Administrative and Financial Management, Lviv Polytechnic National University, 79000 Lviv, Ukraine;

Corresponding author: e-mail: vesolovska@outlook.com.

ABSTRACT: In today's world, soft skills play a very important role for individuals. They help to be successful in the workplace or simply to be able to find a common language with anyone. They also have a crucial impact on the economy, as the acquisition of soft skills contributes to the more efficient functioning of enterprises and the economy as a whole. However, in the current context, due to the consequences of the COVID-19 pandemic, certain difficulties have arisen in their development in countries around the world. That is why it remains relevant to conduct research in terms of their improvement (in particular, for the human resources potential of employees of enterprises and civil servants). Thus, the aim of the study was to develop a unified framework to help overcome the impact of the COVID-19 pandemic on the soft skills of employees in Ukraine, both in the public and private sectors. The main research methods used were analysis, forecasting, abstraction and the historical method. Thus, the paper investigated the impact of the COVID-19 pandemic on the professional skills of the Ukrainian workforce. The article shows a decrease in the number of working-age population in the Lviv region and highlights various factors contributing to this decrease. It also analyses the correlation between different factors that influence the development of soft skills. Based on this, the paper then offers advice on how to overcome the consequences of the pandemic, and builds a model that summarizes the advice and provides an understanding of how it should be applied. The work will be useful for studying soft skills as such and understanding the possibilities of their recovery after the COVID-19 consequences; it also provides a better understanding of the impact of the pandemic on the development of Ukraine as a whole.

Keywords: Remote Work, Working Environment, Statistical Analysis, Psychological Health, State Policy.

I. INTRODUCTION

Soft skills play a key role in the modern world, where the speed of technology development, work styles and requirements for employees are changing [1]. They are complementary to the technical or hard skills associated with a particular profession or occupation [2]. There are many reasons for this. For example, they contribute to the development of creative thinking and innovative potential of employees, allowing them to find new ways to solve problems and implement ideas [3, 4]. Effective communication, collaboration, and teamwork are key skills in the modern work environment. Soft skills help to establish and maintain successful relationships with colleagues, managers, and clients. Listening, empathy and conflict resolution skills are essential for building effective working relationships. This, in turn, have a positive impact on the functioning of the company or country as a whole. Another component of the importance of soft skills is their connection to leadership and management. Modern leaders must have the



skills to influence, motivate and inspire employees. They must be able to manage change, make decisions, and guide the team to achieve common goals. In turn, they become the basis for successful management and control of any processes in the organization (or even personal life). Soft skills also become key to solving difficulties. In other words, professionals with developed soft skills can respond quickly and effectively to challenges and problems, making a positive impact on the organization's performance and productivity. Given all of the above benefits that the development of these skills brings, it is not surprising that they are beginning to prevail over hard skills.

With the global COVID-19 pandemic affecting every aspect of life, it is impossible not to recognize the significant impact of this crisis on the global economy. One of the main consequences of this pandemic has been the necessary shift towards telecommuting and the use of digital tools. This has changed the way it is mostly thought about work and the skills needed to succeed in the modern world [5]. One of the main effects of the pandemic was to disrupt the global supply chain. Many countries began to restrict international transport and trade to prevent the spread of the virus. Most sales-related industries, such as tourism, hospitality, restaurants, retail, and events, were also affected by the pandemic. The closure of borders and restrictions on the movement of people have led to a decrease in travel and tourist arrivals. Health and medical care sectors, such as pharmaceuticals and medical equipment, have been at the forefront of the fight against the pandemic. In addition, the labor market has also been significantly affected due to the large number of lay-offs in many countries, particularly those working in small and medium-sized businesses. Along with it, the human resources potential changed, taking into account all the features and realities of remote work. Soft skills have played a particularly important role in this context. The pandemic has led to significant shifts in the development of soft skills in the workforce. Changing working conditions, remote work, and labor market instability have caused difficulties in their development. Many companies have faced staff reductions and the need to retrain employees to meet new realities. Thus, an effective mechanism for overcoming the consequences of the pandemic on the soft skills of human resources (both private and public sectors) is becoming an urgent task for companies, government agencies and educational institutions. Therefore, important for analysis and research in academia. For the purposes of this article, the research was conducted in Ukraine, and in particular, in the Lviv region.

A significant number of scholars have studied the problem of soft skills. For example, O. Malykhin et al. [6] described the development of soft skills based on the analysis of theoretical information from scientists around the world. In turn, soft skills as an integral part of modern training were studied by N. A. Dlugunovych [7], paying special attention to their role for technical specialities. An interesting study on what the development of soft skills among individual Ukrainian specialists can be (and should be) was conducted by K. Kolesnik et al. [8]. In turn, A. Dzhurylo et al. [9] studied innovative approaches to the formation and development of soft skills of secondary school students, which is important for understanding the formation of these skills in future generations of workers.

The aim of the study was to develop a comprehensive mechanism to overcome the effects of the COVID-19 pandemic on the soft skills of human resources. In addition, before starting the study, several of its main objectives were set. Firstly, to investigate the impact of the COVID-19 pandemic on the soft skills of the population in Ukraine. Secondly, to make assumptions about what actions can reduce this impact or even eliminate it altogether. Thirdly, to provide recommendations on how to overcome them. This will help ensure the resilience of the economy, increase the competitiveness of employees and ensure their successful functioning in the post-pandemic world. The motivation for these objectives came from the realization that, in the post-pandemic period, soft skills are essential future-proof competencies that are important to a thriving workforce.

II. LITERATURE REVIEW

S. I. Marin-Zapata et al. [3] and colleagues investigate the idea of soft skills. The authors look at definitions and understandings of soft skills in an effort to clear up any uncertainty or ambiguity that may exist around this phrase. They also offer perspectives on the subject of soft skills and the roles they play in a variety of fields. G. Gnecco et al. [10] examine how the pandemic's substantial effects (such as social



distancing, remote work, and altered organizational dynamics) have called attention to the vital role that social soft skills play in a variety of personal and professional contexts. The researchers examine new developments, employer demands, and possible modifications to training curricula to better prepare people for the social soft skills required to succeed in the post-COVID-19 world. The pandemic brought about widespread experiences of sadness, anxiety, and other mental health issues. They were made even worse by social isolation, economic uncertainty, and general disruptions to daily life, as examined by A. Silagadze et al. [11]. The researchers also examine the underlying factors and mechanisms that are causing this widespread depression, as well as how it manifests and affects people individually and as a community.

In order to find out how UAE students felt about the efficacy, difficulties, and general influence of elearning during the COVID-19 pandemic, A. Abudaga et al. [12] performed a survey or collected data. The authors highlight a number of topics, including learning outcomes, student involvement, technology access, and the growth of digital skills among UAE students. A. Brennan et al. [13] look into how the pandemic's effects on learning and practicing soft skills for software engineering students were felt, particularly with regard to the shift to remote learning and modifications to collaborative work environments. The authors hope to gain insight into the difficulties encountered and possible solutions used by compiling and examining the viewpoints of students. L. C. Espina-Romero et al. [4] used the Scopus database to index articles in order to perform a thorough analysis of publications pertaining to soft skills in personnel training. By highlighting gaps and outlining potential areas for future research, the study seeks to give a broad overview of the subjects and disciplines covered in this field. The researchers stress the value of soft skills and their inclusion in employee training programs by reviewing the literature that has already been written. A. H. van Heerden et al. [14] performed surveys to evaluate the existing levels of soft skills among construction professionals and compare them with the desired or expected levels in the sector. In order to provide insights into areas for improvement or focused training programs, the researchers seek to uncover potential gaps or mismatches between the soft skills possessed and those

A learning paradigm intended to encourage creativity in students was put to the test in the real world by L. Tleubekova et al. [15] during the COVID-19 epidemic. In light of the difficulties presented by the pandemic, the authors offer an analysis and findings of this testing. This provided insights into the efficacy of the suggested learning paradigm in fostering students' creative potential. L. Hladkoskok et al. [16] investigate different methods, techniques, and approaches for integrating the development of soft skills into foreign language courses at universities. The academics talk about the value of soft skills in the context of language learning, as well as the potential and problems that come with incorporating them into pedagogical methods and curriculum design. A. Bieńkowska et al. [17] investigate the ways in which companies modified their human resource management (HRM) practices and policies in reaction to the COVID-19 epidemic. This includes initiatives for employee well-being, flexible scheduling, and remote work arrangements. The authors seek to comprehend the ways in which these HRM tactics tailored specifically to COVID-19 affected workers' perceptions of their jobs, taking into account elements like work engagement, organizational commitment, and job happiness. Additionally, they investigate how these attitudes are connected to the job performed overall and how the organization performed during the pandemic.

Previous studies examined how the COVID-19 epidemic affected the development of soft skills and demonstrated the significance of resolving this issue. However, there is a lack of comprehensive plans specifically for overcoming the pandemic's effects on the soft skills of personnel in Ukraine. The majority of research either examined the issue or offered broad suggestions. Few offered comprehensive strategies that took into account the particular difficulties that the Ukrainian public and commercial sectors face. This research attempts to close that gap. It will create a thorough plan to assist businesses and government institutions in Ukraine in lessening the pandemic's detrimental effects on workers' soft skills. The plan will incorporate a number of tactics, including technology use, mentoring, training, and well-being assistance. In an attempt to propose a workable answer, this research presents a comprehensive method that includes these components.



III. MATERIAL AND METHOD

The purpose of the survey was to assess how soft skills have changed among the respondents and to draw conclusions about which variables were most effective in this regard. To evaluate which components of the human resource capacity mechanisms have been most effective in overcoming the consequences of the COVID-19 pandemic, a survey was conducted among a random sample of people. Among the studied variables are the impact of online courses on overcoming the effects of COVID-19 in soft skills. In this case, participants evaluated how much taking online classes contributed to their improvement of soft skills throughout the pandemic. This variable was selected due to the increased prevalence of online learning during the pandemic and the relevance of evaluating its efficacy in building soft skills. Respondents could assign a score from 0 to 10 to each of the above characteristics (where 0 is the least influential characteristic and 10 is the most influential). The total number of participants surveyed was 101, the vast majority of whom were men (54 vs. 47 women). In addition, the respondents were asked what they were doing during the COVID-19 pandemic: thus, the vast majority of them were working (61 vs. 40 who were studying). It was also asked how the respondents assessed their soft skills before, during and after COVID-19. The diagrams of the distribution of answers to these questions are shown and analyzed later in the paper. A detailed analysis was also carried out for all the above questions, which characterized the respondents' opinions on various methods of overcoming the consequences of the COVID-19 crisis in terms of soft skills.

Additionally, participants evaluated how using the newest technology helped them develop their soft skills. The transition to remote work has made it more important than ever to use new technologies for collaboration and communication. This may have an influence on soft skills like digital literacy and flexibility. The importance of taking part in webinars and training courses in improving respondents' soft skills was assessed. During the epidemic, these educational materials might have been selected as possible pathways for skill development. It was evaluated how obtaining guidance and instruction from mentors or coaches was regarded to affect the development of soft skills. Among other things, mentoring and coaching can help people enhance their leadership and interpersonal abilities. In addition, the survey sought to find out how people assessed their own soft skills during the pandemic, before and after it, in order to be able to assess the changes that have taken place in people's soft skills over this period. Figure 1 illustrating the methodology used for the data collection and analysis.

The main hypothesis was that the pandemic's negative effects on personnel soft skills in Ukraine could be effectively mitigated by putting in place a comprehensive mechanism that integrates strategies like online training, technology tools, mentoring, work-life balance initiatives, and psychological support. Secondary hypotheses included the expectations that each of these individual strategies (online courses, leveraging new technologies, training programs, mentoring, flexible work policies, and mental health support) would positively contribute to improving soft skills when applied appropriately. Additionally, it was predicted that organizational acceptance and dedicated application of the suggested all-inclusive mechanism would result in quantifiable improvements in workers' soft skill competency over time, better equipping them for the changing nature of the workplace following the pandemic.



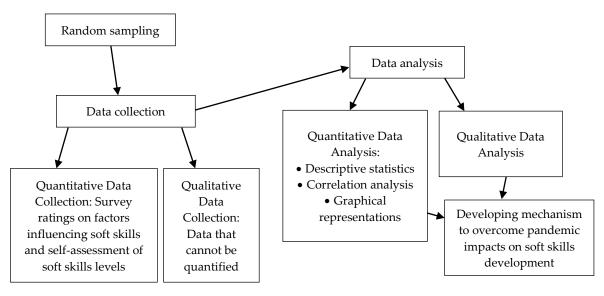


FIGURE 1. Research diagram

1. RESEARCH DESIGN

The framework's initial part involves determining how the pandemic affected workers' and the workforce's development of soft skills. In order to address the identified negative outcomes, possible mitigation techniques were devised in the second component. Creating a comprehensive method that combined these different mitigation techniques into a unified framework was the third component. The application and assessment of the suggested mechanism were the main topics of the fourth component.

The main approach used in this study was a systematic one. It made it possible to assess the possibilities for developing a mechanism to overcome the consequences of the COVID-19 crisis and to form them into a single system. This greatly simplified the possibilities of any modelling in terms of the interaction of factors influencing the human resources potential in Ukraine within the framework of the work. Numerous scientific methods were used in the study. One of them was analysis, which allowed drawing important conclusions based on the available data (both quantitative and qualitative). The historical method was also used. This made it possible to consider certain information in retrospect and understand the reasons for certain trends in human resources on this basis. Abstraction played an important role in limiting the number of factors analyzed in the assessment of the impact on the human resource potential of the population, which simplified the assessment process. Forecasting made it possible to draw conclusions about how the impact of the COVID-19 pandemic on the soft skills of the population may change in the future. Qualitative analysis was used to analyze data that could not be reflected in quantitative indicators.

IV. DATA ANALYSIS

Overall, COVID-19 has had a significant impact on the soft skills of human resources in Ukraine. The reason for this is that the pandemic has caused widespread changes in the working environment, including the shift to remote work and changes in communication processes. Many organizations have switched to remote work or introduced flexible working hours. This has led to changes in the working environment and work-life balance. Employees were attracted by the need to adapt to new working hours, use remote communication technologies and manage their time independently. In addition, the shift to remote work required employees to develop strong communication skills in a virtual environment. Effective communication has become more important than ever, as teams rely heavily on online tools such as video conferencing, email and instant messaging to collaborate and stay connected. The pandemic has also



highlighted the importance of motivation, self-discipline, and self-control. Working from home can blur the lines between work and personal life, making it difficult for employees to maintain concentration and productivity. It is worth noting that some industries, such as tourism, hospitality, and the restaurant sector, have suffered a serious decline due to restrictive measures and the economic impact of the pandemic. Restrictive measures, lockdowns, and reduced demand for services in these industries have led to significant difficulties and challenges for employees. Many businesses have been forced to reduce working hours, lay off employees or temporarily suspend operations, resulting in financial hardship (often lay-offs) and instability for many employees in these industries. The problems in these industries have been particularly severe for workers. All of this has meant that people need to develop new skills, such as time management, prioritization and maintaining a healthy work-life balance, in order to function effectively and thrive in a remote work environment. The same goes for problem-solving, adaptability, and instant decision-making. This was caused by the fact that companies were in a state of uncertainty. The number of problems they regularly faced increased dramatically. Adapting to new circumstances, finding creative solutions and making timely, informed decisions have become critical skills for employees.

Some features of teamwork have also changed. This was caused by physical distances between employees, which made virtual collaboration tools and platforms indispensable in everyday functioning. And while this practice seems commonplace now, at the beginning of the pandemic it was a significant factor in increasing stress and emotional tension among employees. The same applies to other fears that began to arise among the population during this period, namely the fear of contracting the virus, adapting to rapid changes and constantly monitoring their own safety. Thus, resilience building, stress management and self-care have also become vital skills. And these skills have been made possible, in part, by online courses, which have become much more widespread during the crisis. This helped to improve the situation to some extent at a time when it was most needed. However, such training was not only specific to improving soft skills, but also to improving work skills in general. As certain industries are undergoing transformation, new skills have become more in demand. In other words, workers are faced with either retraining or upskilling. The most difficult situation in this case was for those workers who, due to financial difficulties, could not afford the appropriate courses to acquire new skills.

The COVID-19 crisis has also forced many workers to rethink their values. The disruptions caused by the pandemic have forced people to rethink their lifestyles, personal goals and work-life balance. One of the significant changes is a greater emphasis on flexibility in work organization. The widespread adoption of remote working has given employees more control over their schedules and the ability to work from home. The flexibility to adapt working hours to personal needs, such as childcare or personal commitments, is becoming increasingly important. As a result, many workers have come to value jobs that offer flexible work options, such as remote work or flexible schedules, to maintain a better work-life balance. In addition, the pandemic has highlighted the importance of health and well-being. Caring for personal health and well-being of loved ones has become paramount. Workers are now paying more attention to jobs that prioritize worker safety, provide adequate health benefits, and promote a healthy work environment. In addition, the pandemic has highlighted the importance of mental well-being and the need for support in managing stress and maintaining a positive mind-set. Many workers began to pay more attention to their psychological health, and their employers provided them with opportunities to support them. The relationship between the number of labor force in the Lviv region and data on the number of sick, recovered and fatal cases from COVID-19 is shown in Figure 2.



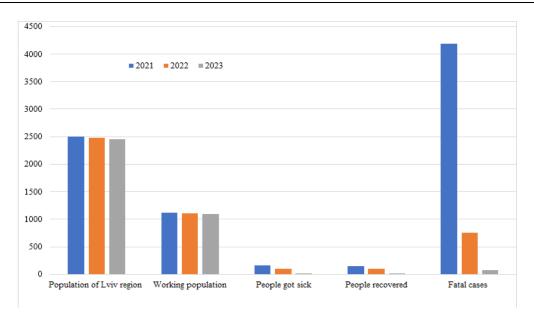


FIGURE 2. Data on the number of sick, recovered and fatal cases of COVID-19 in the period from 2021 to 2023 in the Lviv region in comparison with the number of the population as a whole and, in particular, its working-age population

Source: compiled by the authors based on the Passport of the Lviv Region [18].

As it can be seen from Figure 1, the region's population has been gradually declining, as has the share of its working-age population. At the same time, the number of cases was highest in 2021, which was caused by the lack of any vaccine or protection against the disease. It can be seen that the incidence of COVID-19 can be interpreted as one of the reasons for the decline in the number of working-age people in the country. Although it is far from the only one. Several factors that influence this can be described: demographic (declining birth rates and population ageing), emigration (people leaving the country, which was especially evident during the COVID-19 pandemic), and an increase in health problems (the actual incidence of COVID-19 can also be attributed to this). The war in Ukraine is a rather complex problem. It serves both as a separate factor and as an aggravating component that worsens the situation in terms of all the above problems. A survey was conducted to assess which methods and mechanisms of overcoming the consequences of COVID-19 are the most effective (as shown in the paper above) (Table 1).

Table 1. Distribution of Estimates by Relevant Characteristics of the Impact on Soft Skills

During the COVID-19 Pandemic

I	II	III	IV	V	VI
5	5	5	5	7	5
5	5	5	5	5	5
0	9	7	5	5	5
5	10	10	10	10	10
5	5	5	5	8	8
6	6	5	5	4	3
3	5	5	5	7	7
5	7	6	9	9	7
5	10	0	5	5	5
0	4	3	5	3	5
5	1	5	5	5	5
2	6	6	4	2	5



5	5	5	5	5	5
5	2	5	5	5	5
3	9	2	5	6	7
7	7	4	4	5	5
6	7	7	7	7	7
5	6	5	5	4	3
5	5	5	5	5	5
5	0	5	5	6	5
5	5	5	5	5	5
5	10	5	5		5
				5	
5	5	3	5	7	10
5	5	10	5	5	5
5	5	5	5	5	9
4	8	5	5	5	5
5	5	5	5	5	5
5	5	5	5	5	5
3	8	2	4	7	8
8	7	9	6	8	7
3	7	6	3	7	8
7	4	8	3	7	8
2	7	4	2	7	9
4	6	7	6	6	6
6	6	6	6	6	6
6	6	6	6	6	6
6	6	6	6	6	6
8	8	4	4	4	4
3	8	4	3	4	8
<i>7</i>		6	8	9	8
	6				
6	2	2	2	9	4
8	10	10	10	10	10
5	3	7	2	10	10
8	10	7	2	10	8
2	1	2	3	1	3
7	10	5	5	10	10
3	8	3	0	8	7
7	10	4	0	10	6
9	7	7	0	8	8
7	10	8	2	10	8
5	5	5	5	5	8
6	10	10	9	6	7
6	6	5	8	2	0
4	9	9	7	9	9
1	8	8	7	9	7
6	9	4	1	3	2
4	7	3	4	6	6
6	9	6	6	6	6
6	6	6	6	6	6
2	1	1	2	3	1
6	2	0	2	1	3
6	2	3	0	2	3
4	6	1	0	2	3



3	4	3	3	2	3
4	6	1	6	2	6
6	3	6	2	2	2
0	6	3	2	1	0
2	0	2	1	3	4
1	2	1	6	6	1
2	1	2	7	6	2
2	1	0	4	6	7
1	2	1	0	1	2
1	0	1	0	1	0
4	3	2	4	2	3
1	0	4	3	2	1
1	0	1	2	3	4
1	0	2	4	1	0
2	4	7	6	10	10
2	3	1	0	2	10
4	4	6	6	4	4
4	4	4	4	4	4
4	7	6	6	6	6
6	8	4	4	8	6
5	10	1	2	2	4
1	10	3	4	9	4
4	8	4	4	4	4
3	7	5	6	5	6
10	7	10	0	5	1
4	6	6	4	6	6
3	7	6	6	3	9
4	6	4	4	3	9
4	7	7	4	4	9
6	6	6	1	3	9
6	9	8	8	3	9
9	6	4	5	3	7
7	6	7	2	8	6
6	6	6	6	6	6
3	9	7	4	4	7
6	6	6	6	4	4
7	7	3	3	7	2
5	10	7	10	10	5

Note: I – To what extent did taking online courses help you improve your soft skills during the COVID-19 pandemic?; II – to what extent did using the latest technologies help you improve your soft skills during the COVID-19 pandemic?; III – to what extent did participation in webinars and trainings help you improve your soft skills during the COVID-19 pandemic?; IV – to what extent did mentors or coaches help you improve your soft skills during the COVID-19 pandemic?; V – to what extent did the introduction of individual approaches to work by your organizations help you in improving your soft skills during the COVID-19 pandemic?; VI – to what extent did your organization's support for your psychological and physical health help you improve your soft skills during the COVID-19 pandemic?

From Table 1, it is possible to clearly see how the evaluations were divided among the respondents. As mentioned above in the methodology, a study was conducted as part of the work. The purpose of it was to assess how individual components affected the ability to overcome the consequences of the COVID-19



pandemic in terms of soft skills. In particular, one of the questions was how the respondents assessed the level of their soft skills before, during, and after the pandemic. Data on this is shown below, in Table 2.

Table 2. Soft Skills Survey Data Before, During, and After the Pandemic

Value	Respondents' soft skills assessments before the start of the pandemic	Soft skills assessments of respondents during the pandemic	Soft skills assessments of respondents after the pandemic	
0	1	5	4	
1	6	7	6	
2	5	11	11	
3	12	12	7	
4	12	22	7	
5	14	17	6	
6	19	11	14	
7	14	8	20	
8	9	6	15	
9	4	1	6	
10	4	1	5	
Average	5.3	4.27	5.55	

Thus, the surveyed respondents generally believe that their level of soft skills decreased significantly during the pandemic. Meanwhile, after its end it became even higher than it was at the beginning. In order to show this trend more clearly, it is worth showing the data in the form of three corresponding diagrams in Figure 3.

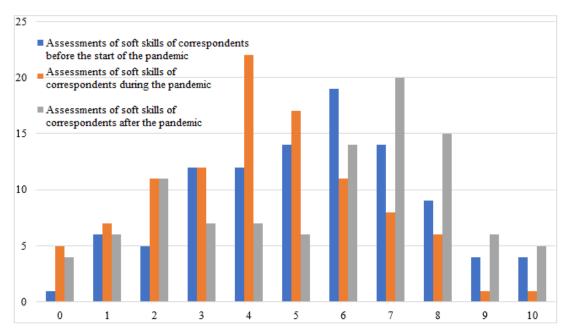


FIGURE 3. Graphic representation of the distribution of respondents' votes regarding the state of soft skills' development during the COVID-19 pandemic



Thus, it can be seen from Figure 2 that although the score configurations are similar and resemble a normal distribution, they nevertheless have different mean values. Therefore, different mean levels of development. The values of the indicators to assess the impact on the change in the state of development of soft skills in Ukraine were as follows: improvement of soft skills from online courses; use of the latest technologies; participation in webinars and trainings; support from mentors and coaches; introduction of new individual approaches to work by companies or organizations; psychological and physical health support from companies or organizations. The value of the correlation between these indicators, as well as the change in the level of soft skills in the period "before the COVID-19 pandemic – after its end" and "during the pandemic – after its end" are shown in Table 3.

Table 3. The Value of the Correlation Between the Level of Growth of Soft Skills in the Population, Depending on Individual Indicators of Influence

Indicator	Assessments of the role of improving soft skills from online courses	Assessments of the role in the role of improving soft skills from the use of the latest technologies	Evaluations of the role in the role of improving soft skills from participation in webinars and trainings	Role evaluations in the role of improving soft skills from support from mentors and coaches	Evaluations of the role in the role of improving soft skills from the introduction of new individual approaches to work by companies or organizations	Assessments of the role of improving soft skills from the implementation of actions aimed at supporting psychological and physical health by companies or organizations
Soft skills before the beginning of the crisis – after it ends	-0.371	0.066	0.617	0.24	0.136	0.141
Soft skills during the crisis – after its end	0.419	0.339	0.425	0.009	0.319	0.368

As can be seen from Table 2, the correlation values between these indicators are quite low, except for participation in webinars and trainings with an increase in the level of soft skills before the beginning of the crisis and after its end. This may indicate a really low relationship between these indicators. Hence, that data processing or collection needs more detailed consideration, which may become an important component for future research.

Taking into account the information analyzed above, it is possible to give a fairly significant list of tips that can be used in order to overcome the consequences of the impact of the COVID-19 pandemic. Encouraging people to participate in online courses and training programs aimed at developing communication skills can be very effective. Both public authorities and entrepreneurs can ensure this in the case of establishing relations with institutions, organizations, or institutions specializing in the provision of services. Long-term cooperation with them will make such training not only effective, but also cheaper. Along with this, it is possible to create mentoring and coaching programs for their development of soft communication skills. Pooling knowledge between professionals and workers can be very beneficial for



both groups, especially if they are both interested in similar activities. Programs that can be offered to workers can include building resilience, managing stress and supporting their own well-being. This can include stress management workshops, mental health support and promoting a positive work environment that values employee well-being. In general, a qualitatively formed policy on the part of the enterprise makes it possible to significantly increase the efficiency of work at the enterprise, increase their involvement in the projects they are forming.

Promoting the use of the latest technologies and tools that facilitate remote work and virtual collaboration also becomes an important component. This can also include the provision of education in terms of this component. The use of such equipment, among other things, will make work more flexible and accessible. In turn, remote work and flexible schedules will allow promoting a better balance between work and private life. Therefore, it will increase the efficiency of the work of employees. This will definitely have a positive effect on their soft skills. In this case, such a method of using the latest technologies becomes not only optional or desirable, but actually mandatory. This is why the state and entrepreneurs should encourage its use among their workers. At the same time, it can be useful to provide the opportunity for professional development. This will not only bring satisfaction to the workers, but also allow them to function more efficiently at the enterprise.

Based on the information provided, the described mechanism for improving soft skills in the conditions of the COVID-19 pandemic may also be relevant and useful for the state bodies of Ukraine. Government agencies, like other organizations, have faced significant changes in working conditions and communication processes due to the pandemic. Training and development programs can be implemented in government institutions, as well as the principles of remote work or the use of the latest technologies. Public employees also, often more than those working for companies, need psychological support due to their greater involvement in communication and work in the role of service (providing services for different population groups or entrepreneurs). In addition, it is especially relevant in the conditions of the full-scale invasion of Russia into Ukraine. Due to this the activities of public sector workers become especially important and stressful in modern conditions. Thus, all the principles described above can in particular be used for state employees.

The huge number of opportunities to overcome the consequences of the COVID-19 pandemic have already been mentioned above. In general, all of them can be described within the framework of the single scheme provided in Figure 4.

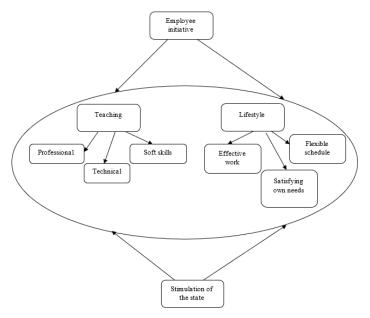


FIGURE 4. Model of the mechanism for overcoming the effects of the COVID-19 pandemic on the soft skills of personnel potential



As can be seen from Figure 3, in the proposed model, it is proposed to divide all the possibilities of reducing the impact of the pandemic into two groups: training and lifestyle. Educational programs in general will allow better adapting to the post-war realities of existence, both from a professional and psychological point of view. Lifestyle (which means leading a healthy lifestyle), like education, will reduce the pressure of the external environment, making a person more resistant to the complexities of the external environment. Such a combination will most effectively ensure the improvement of the level of soft skills of employees.

The survey results provide insightful information about the significant effects of the COVID-19 epidemic on the development of soft skills. The information shows that developing critical soft skills can be extremely difficult when studying and working remotely for extended periods of time. These findings highlight the need for creative ways to include soft skills training into hybrid or online contexts. Engaging in simulated scenarios, virtual team projects, and experiential learning activities can offer crucial opportunities for improving interpersonal skills. Furthermore, the results indicate potential avenues for utilizing technological platforms and collaboration tools in innovative manners to cultivate competencies such as emotional intelligence and adaptability. Organizations may better equip their personnel pipelines with the well-rounded soft skills by proactively addressing the deficiencies made clear by the pandemic.

Finally, it should be noted that the COVID-19 pandemic and its consequences are not the only reason for the deterioration of the level of soft skills in Ukraine. The full-scale invasion of Russia into Ukraine led to a widespread and significant deterioration in the standard of living of the population and problems in terms of psychological health in the country. After this, it can be assumed that this will also lead to the deterioration of soft skills, in particular for representatives of the public sector, whose work at such a time becomes especially important. Thus, the state in modern conditions should pay considerable attention, including to how it is possible to achieve their improvement in military conditions. Nevertheless, a separate study should be conducted on this topic, with a statistical survey of a significant number of employees or available ready-made statistical data on this matter.

V. DISCUSSION

The role of soft skills was described by M. S. Murugan and T. Sujatha [19] in their study. The researchers noted that the importance of communication skills in general is very important in any workplace, and in particular in the service sector. They found that soft skills are more important than technical skills in the selection process, with communication skills being the most important. Attitude and adaptability skills are also crucial for job stability and productivity. The most productive employees tend to be optimistic, have strong communication skills and good domain knowledge. Given that corporations are fully aware of the importance of communication skills; it is not surprising that they regularly provide training for their employees. However, this is often not understood by young people, which can lead to misplaced emphasis when applying for jobs. This highlights the role of spreading the word about the role of soft skills, especially in the current post-COVID-19 environment. The importance of soft skills in his study was also mentioned by B. Bora [20] also wrote about the importance of soft skills in his study. Based on his analysis, he concludes that they should be included in the curriculum to improve personal development. It is also worth noting that such elements in the curriculum would be important for both school and university students.

Research on the impact on the development of soft skills for engineering students was conducted by A. Brennan et al. [13] and also A. F. Hendarman and J. H. Tjakraatmadja [21]. Based on empirical evidence, they have shown that the transition to online learning has affected the acquisition of social skills necessary to adapt to the labor market and an uncertain industrial environment. Thus, after two years of the pandemic, students expressed increased fear of the future, with undergraduate students showing higher levels of fear than postgraduate students. Concerns about employment opportunities and unemployment were prominent among respondents over the age of 26. Students also reported fears related to uncertainty, loss of time, loss of control, potential future pandemics, and lack of trust in the government. However, there were also some positive effects, including increased stress tolerance, empathy, time management and organizational skills. Thus, the study highlights the need for higher education institutions to maintain the



progress made in developing soft skills and mitigate the negative impact of the pandemic. In particular, their development can become one of the components of the university curriculum (to compensate for the lack of skills that students have acquired from full-time education). Although it will not be able to completely replace the lost experience, it will still be able to somewhat mitigate the existing negative effect. In general, this study can be considered quite relevant not only to the realities of students, but also to the working staff of enterprises or organizations that have fully or partially switched to remote work. The role of soft communication skills and employment opportunities in the post-COVID-19 pandemic was studied by A. A. S. Tabieh et al. [22]. The authors note that soft skills (from the employer's point of view) play a very important role in ensuring higher efficiency of enterprises. Thus, there is a positive correlation between the level of productivity among newly hired graduates and the acquisition of in-demand communication skills. Based on this, scholars point out the role of teaching students' soft skills so that they can find a job faster (meeting the requirements of employers) and be effective enough to be involved in the processes at enterprises and organizations.

The emergence of a special need for soft skills after the onset of the COVID-19 pandemic was highlighted in their study by G. Gnecco et al. [10]. They evaluated three scenarios of COVID-19 impact on soft skills and found statistically significant deficiencies in skills such as collaboration, managing work groups, coordinating with others, teamwork, and teaching. In other words, the pandemic has had a negative impact on soft skills (including those shown above). In addition, sectors such as wholesale and retail trade, accommodation and food services, education, healthcare and social services have experienced the greatest shortages of these skills [12, 15, 23, 24]. Younger age groups were more negatively affected by these changes than older age groups [25; 26]. Thus, the study shows that social soft skills need to be updated and improved to adapt to rapid changes in organizational structure and the labor market. To meet these requirements, employees may need special and individualized training. If not addressed in a timely manner, the soft skills' shortage could become a significant challenge for the development of businesses and economies in the future [27, 28]. The need for the development of soft skills was also noted in their study by S. A. Dean and J. I. East [29] and also L. Hladkoskok et al. [16]. They pointed out that the shortage of soft skills had a negative impact on the internal business processes of companies. That is why an important part of the work is to ensure the development of successful programs related to their training (training, development of appropriate internal policies) [11, 30].

A study on changes in approaches to employee development in organizations as a result of the COVID-19 pandemic was conducted by K. Mikołajczyk [31]. In particular, he described the impact of the COVID-19 pandemic on organizational development processes in Poland. The scientist emphasized changes in employee training methods and the need for new development topics, as well as a decrease in employee engagement and increased fatigue. Although the author speaks about the overall importance of digital transformation as such, the use of such technologies must be balanced and have a clear goal in order to be effective. The study emphasizes the need for hybrid learning approaches and the importance of developing effective online development solutions. The author also recommends integrating different systems and tools to improve collaboration, user experience and overall development efficiency. Studies on the formation of HR strategies and improving their effectiveness in the context of COVID-19 were conducted by A. H. van Heerden et al. [14] and A. Bieńkowska et al. [17]. In the articles, the researchers emphasize the need for organizations to adapt their HR strategies to ensure the effective work of employees and their interaction. The papers emphasize the need to consider job security, employee development under budgetary constraints, remote work, digitalization, workplace redesign and communication adjustments. They also emphasize employee well-being and corporate social responsibility [32 - 34]. As can be seen from the study, one of the important components that scientists pay attention to is soft skills, which is not surprising given the negative consequences they suffered during the pandemic (as described above).

The role of soft skills in ensuring the more efficient functioning of enterprises and organizations in the country remains extremely important [35, 36]. And although in the current environment there are various components that negatively affect its state among employees, this does not mean that the state or entrepreneurs should ignore this fact [37, 38]. Based on the model and principles described in the paper above, organizational leaders can ensure a gradual improvement in the level of soft skills among their employees, thereby not only ensuring better functioning of organizations, but also making employees



happier people. The paper brings significant benefits to the development of economic science and can also be used in practice. For example, the paper provides insight into how the pandemic has affected employees' soft skills, particularly in terms of communication, adaptation, problem-solving, and decision-making. This insight can help organizations and individuals identify areas for improvement and develop strategies to enhance their communication skills. It also provides an opportunity to find new ways of addressing the challenges faced by employees, businesses, and governments in the context of the pandemic.

It is also important to acknowledge the limitations of the study. Sample bias is one possible limitation since the random sample of respondents could not be entirely reflective of the country of Ukraine as a whole. The results could be skewed because some demographic groups may have been over or underrepresented in the sample. Response bias is another possibility, in which participants answered questions based more on their perception of what was socially acceptable than on their actual experiences and viewpoints. Soft skill assessments that come from the self are also arbitrary and might not match up with measurements that are objective. Future studies could aim for larger and more diverse sample sizes through focused recruitment efforts in order to lessen these constraints. Along with self-reports, more objective evaluations of soft skills could be included to increase the validity and reliability of the results.

VI. CONCLUSION

In summary, the COVID-19 pandemic has had a significant impact on the soft skills of the human capital in Ukraine. The transition to remote work, changes in communication processes, and economic challenges have contributed to the need for people to adapt and develop new skills. The pandemic has highlighted the importance of effective communication, self-motivation, adaptability, problem-solving, and resilience. The importance of all these components was partially confirmed in the statistical study based on the sample of respondents interviewed. Several strategies can be implemented to overcome the consequences of the pandemic for soft skills. First, online learning and skills development should be encouraged. Collaboration with educational institutions, organizations, and government agencies can provide accessible and affordable online learning opportunities to improve soft skills. Technological advancements and digital literacy should be encouraged to facilitate remote work and virtual collaboration. Providing training and resources to improve digital literacy skills will ensure that employees have the skills to use virtual communication platforms and online collaboration tools. Training in professional and technological skills should be ongoing and continuous to ensure that employees feel comfortable with the active use of the latest technologies in their work.

Support for flexible working conditions and work-life balance is also important. This should be promoted by both the state and entrepreneurs, as it will help both to significantly increase the ability of employees to function and to feel happier in their daily lives. Resilience and stress management programs can be of great help in this regard: stress management workshops, mental health support, and the promotion of a positive work environment that values employee well-being. It is also worth noting that employer support for employees' mental health is very important. Employers should prioritize employee mental health by offering resources such as counselling services, mental health awareness programs and employee assistance programs. It is important to create a supportive and inclusive work environment that addresses mental health issues and promotes work-life balance. The study and assessment of the impact of the COVID-19 crisis on Ukrainian workers concludes that such actions will significantly improve the situation in terms of soft skills' development. It will also improve the efficiency of employees' functioning, their standard of living and make them much happier.

The paper also notes that all of the above principles for improving soft skills of employees can be used for civil servants. Their working conditions, although different in nature, may be similar in terms of the impact on the nervous system and the need for distancing. Nevertheless, in the context of Russia's full-scale invasion, the work of civil servants can be considered even more stressful. Therefore, senior managers of state bodies should pay special attention to the state of their subordinates. If necessary, they should provide them with psychological or any other assistance. It is relevant for further research to assess the possibilities of developing soft skills during the pandemic, both in Ukraine and in the world as a whole. In



addition, it remains important to create opportunities to build the most effective conditions for the use of soft skills in combination with the common principles of remote work. The state's capabilities and its role in strengthening the country's human resources potential should be explored separately, taking into account the impact of COVID-19. In addition, in the current environment, it is important to find ways to overcome the problems arising from other external factors, in particular, the outbreak of Russia's war against Ukraine and its impact on the lives of the local population.

Funding Statement

The authors affirm that no grants, funding, or other forms of assistance were obtained in order to prepare this paper.

Conflict of Interests

The authors have no relevant financial or non-financial interests to disclose.

Acknowledgement

This paper was created within the National Research Foundation of Ukraine project "Assessing the impact of the COVID-19 pandemic on Ukraine's human resources and identifying ways to overcome them" (project registration number 2021.01/0433).

REFERENCES

- 1. Hyder, H., Mahmood, Z., & Hasan, H. (2020). Soft skills: A research study on outdoing academics and conquer the world. PalArch's Journal of Archaeology of Egypt, 17(7), 7805-7815.
- 2. Touloumakos, A. K. (2020). Expanded yet restricted: A mini review of the soft skills literature. Frontiers in Psychology, 11, 2207.
- 3. Marin-Zapata, S. I., Román-Calderón, J. P., Robledo-Ardila, C., & Jaramillo-Serna, M. A. (2022). Soft skills, do we know what we are talking about? *Review of Managerial Science*, 16, 969-1000.
- 4. Espina-Romero, L. C., Franco, S. L. A., Conde, H. O. D., Guerrero-Alcedo, J. M., Parra, D. E. R., & Ramírez, J. C. R. (2023). Soft skills in personnel training: Report of publications in scopus, topics explored and future research agenda. *Heliyon*, *9*(4), e15468.
- Sancho-Cantus, D., Cubero-Plazas, L., Navas, M. B., Castellano-Rioja, E., & Ros, M. C. (2023). Importance of soft skills in health sciences students and their repercussion after the COVID-19 epidemic: Scoping review. *Intenational Journal of Environmental Research and Public Health*, 20, 4901.
- Malykhin, O., Aristova, N. O., Kalinina, L., & Opaliuk, T. (2021). Developing soft skills among potential employees: A theoretical review on best international practices. *Postmodern Openings*, 12(2), 210-232.
- 7. Dlugunovych, N. A. (2014). Soft skills training as a necessary component of it professionals. *Herald of Khmelnytskyi National University*. *Technical Sciences*, 219(6), 239-242.
- 8. Kolesnik, K., Oliinyk, N., Komarivska, N., Kazmirchuk, N., & Imbe, V. (2023). Future-teacher soft skills development in the context of Ukraine's integration into the European higher education area. *Interntional Journal of Learning, Teaching and Educational Research*, 22(2), 413-431.
- Dzhurylo, A., Hlushko, O., & Shparyk, O. (2021). Innovative approaches to formulation and development of soft skills of secondary school students in the context of Ukraine's integration into the European education area. Education: Modern Discourses, 4, 39-49.
- 10. Gnecco, G., Landi, S., & Riccaboni, M. (2024). The emergence of social soft skill needs in the post COVID-19 era. *Quality & Quantity*, 57, 647-680.
- 11. Silagadze, A., Atanelishvili, T., & Silagadze, N. (2022). Covid depression and search for a new paradigm. *Bulletin of the Georgian National Academy of Sciences*, 16(1), 121-126.
- 12. Abudaqa, A., Hilmi, M. F., Almujaini, H., Alzahmi, R. A., & Ahmed, G. (2021). Students' perception of e-Learning during the Covid Pandemic: A fresh evidence from United Arab Emirates (UAE). *Journal of E-Learning and Knowledge Society*, 17(3), 110-118.
- 13. Brennan, A., Dempsey, M., McAvoy, J., O'Dea, M., O'Leary, S., & Prendergast, M. (2023). How COVID-19 impacted soft skills development: The views of software engineering students. *Cogent Education*, 10(1), 2171621.
- 14. Van Heerden, A. H., Jelodar, M. B., Chawynski, G., & Ellison, S. (2023). A study of the soft skills possessed and required in the construction sector. *Buildings*, 13(2), 522.
- 15. Tleubekova, L., Atemova, K., Turebayeva, K., & Kenzhebekova, R. (2023). Development of students' creativity: Results of practical testing of the learning model during the pandemic. *European Journal of Contemporary Education*, 12(2), 655-666.
- Hladkoskok, L., Buhinska, T., Botvinko-Botiuk, O., Tytun, O., & Demianenko, O. (2022). Soft skills formation in professionaloriented foreign language education at higher education institutions. Revista Eduweb, 16(2), 194-207.



- 17. Bieńkowska, A., Koszela, A., Sałamacha, A., & Tworek, K. (2022). COVID-19 oriented HRM strategies influence on job and organizational performance through job-related attitudes. *PLoS ONE*, *17*(4), e0266364.
- 18. Passport of the Lviv Region. Population and migration. 2023. Retrived April 4, 2024, from http://database.ukrcensus.gov.ua/regionalstatistics/regiontree.files/asp_tables_uk/46.htm
- 19. Murugan, M. S., & Sujatha, T. (2020). A study on soft skill and its impact of growth and productivity in service industry. *JAC : A Journal Of Composition Theory*, 13(12).
- 20. Bora, B. (2015). The essence of soft skills. International Journal of Innovative Research and Practices, 3(12), 7-22.
- 21. Hendarman, A. F., & Tjakraatmadja, J. H. (2012). Relationship among soft skills, hard skills, and innovativeness of knowledge workers in the knowledge economy era. *Procedia Social and Behavioral Sciences*, 52, 35-44.
- 22. Tabieh, A. A. S., Abuzagha, H. Y., & Ghou, K. A. A. (2021). In-demand soft skills and employability during and post COVID-19: Evidence from EFL teachers. *Pegem Journal of Education and Instruction*, 11(4), 219-229.
- 23. Abudaqa, A., Al Nuaimi, S., Buhazzaa, H., & Al Hosani, S. (2021). Examining the significance of internal mobility hiring in determining the individual vs organizational outcomes: An empirical investigation from ADNOC FURSA Platform during recent pandemic of COVID-19. Abu Dhabi International Petroleum Exhibition and Conference, ADIP 2021, SPE-207535-MS.
- 24. Periokaite, P., & Dobrovolskiene, N. (2021). The impact of COVID-19 on the financial performance: A case study of the Lithuanian transport sector. *Insights into Regional Development*, 3(4), 34-50.
- 25. Dmytriiev, D., & Dobrovanov, O. (2021). Post-COVID pain syndrome. Anaesthesia, Pain & Intensive Care, 25(4), 505-512.
- 26. Bocheliuk, V. Y., Spytska, L. V., Mamicheva, O. V., Panov, M. S., & Kordonets, V. V. (2021). Psychological features of post-COVID syndrome course. *International Journal of Health Sciences*, 5(3), 276-285.
- 27. Kenesbayev, S. M., Salgarayeva, G. I., Makhmetova, A. A., Idrissov, S. N., & Sabit, B. (2017). Management of information software systems in the corrective work with children with disabilities. *Espacios*, 38(46), 34.
- 28. Karthik, G. M., Mary Joshitta, S., Rajesh, R., Manjulatha, B., Chung, J. K., & Gagnani, L. P. (2022). Design of Covid19 detection based on relative eccentric feature selection using deep vectored regressive neural network for Corona Virus. *Proceedings of the International Interdisciplinary Humanitarian Conference for Sustainability, IIHC* 2022, 1027-1033.
- Dean, S. A., & East, J. I. (2019). Soft skills needed for the 21st-century workforce. International Journal of Applied Management & Technology, 18(1), 17-32.
- 30. Miethlich, B. (2022). Vocational rehabilitation in small and medium-sized enterprises: An integrated management perspective on potentials and business impact. Berlin: Loos Verlag Berlin.
- 31. Mikołajczyk, K. (2021). Changes in the approach to employee development in organisations as a result of the COVID-19 pandemic. *European Journal of Training and Development*, 46(5/6), 544-562.
- 32. Abudaqa, A., Almujaini, H., & Hilmi, M. F. B. (2019). HRM practices as determinates of the employee intention to stay: The moderating effect of transformational leadership: A case of higher education institutes in UAE. *Humanities and Social Sciences Review*, 7(5), 1087-1096.
- 33. Silagadze, A. (2022). Contemporary global economic trends: Transitional economies during Covid-depression. *Bulletin of the Georgian National Academy of Sciences*, 16(3), 130-135. Retrived April 4, 2024, from http://science.org.ge/bnas/vol-16-3.html
- Ntshangase, B. A., & Msosa, S. K. (2022). Enhancing service delivery for metropolitan municipalities in South Africa via project management. *Insight into Regional Development*, 4(3), 127-138.
- 35. Berestetska, O., Iankovets, T., Orozonova, A., Voitovych, S., Parmanasova, A., & Medvedieva, K. (2023). Using CRM systems for the development and implementation of communication strategies for digital brand management and internet marketing: EU experience. *International Journal of Professional Business Review*, 8(4), e01613.
- 36. Chen, T. C., Ibrahim Alazzawi, F. J., Mavaluru, D., Mahmudiono, T., Enina, Y., Chupradit, S., Al Ayub Ahmed, A., Syed, M. H., Ismael, A. M., & Miethlich, B. (2022). Application of data mining methods in grouping agricultural product customers. *Mathematical Problems in Engineering*, 2022, 3942374.
- 37. Patyka, N., Khodakivska, O., Mohylnyi, O., & Pugachov, M. (2021). Ukraine's agrarian sector in the conditions of COVID-19 Distribution and restrictive quarantine measures: Methodological principles of empirical evaluation. *Scientific Horizons*, 24(12), 55-69.
- 38. Mukoviz, V., Leshchii, L., Khodakivska, O., Prokopova, O., & Kuzub, M. (2022). Accounting for transactions costs of agricultural producers in the shadow economy. *Agricultural and Resource Economics: International Scientific E-Journal*, 8(2), 67-85.