
Abstract: This research paper presents a comprehensive economic model designed to evaluate and navigate the repercussions of the COVID-19 pandemic on the soft skills of the workforce in Ukraine. Delving into the theoretical, methodological, and practical dimensions of performance indicators, the study aims to foster the sustainable development of soft skills amidst the ongoing pandemic. The paper systematically pinpoints specific indicators intricately linked to the impact of employees' soft skills in the unique context of COVID-19, drawing insights from a diverse pool of 100 respondents spanning across 10 enterprises, whose perspectives are gathered through a meticulously crafted questionnaire. Employing a robust methodological approach, the research harnesses various analytical tools such as quadratic correlation, regression analysis, and the construction of a polynomial trend line, all executed within the framework of Microsoft Excel. This analytical prowess facilitates a nuanced exploration of the data, revealing two distinct scenarios that have materialized in the wake of the pandemic. The narrative woven by the analysis accentuates the role of employees' adaptability as a catalyst for marked improvements in competencies and communication skills. Crucially, these enhancements empower the workforce to navigate the intricacies of enterprise management and economic activities with discernment and resilience, even amid the constraints imposed by the crisis. The paper not only elucidates the current landscape but also offers valuable insights into the transformative potential embedded within the challenges posed by COVID-19.

Keywords: COVID-19, economic framework, economic model, human resources, soft skills.

I. INTRODUCTION

The COVID-19 pandemic has led to unparalleled disruptions worldwide, impacting all facets of society, including the economy and the workforce. Ukraine, like many other nations, has faced substantial challenges due to the pandemic, especially concerning its human resources potential. Soft skills, such as communication, adaptability, problem-solving, and teamwork, have taken on heightened importance for individuals and organizations as they navigate the intricate and swiftly evolving business environment.

Recognizing the significance of comprehending the ramifications of COVID-19 on Ukraine's human resources' soft skills, it becomes imperative to develop effective strategies to counter adverse effects and promote resilience. To address this, this scientific article centers on introducing an inventive economic model designed to evaluate and address the consequences of the pandemic's impact on the soft skills of Ukraine's workforce. The goal is to provide insights that can lead to overcoming the challenges posed by the pandemic and nurturing a more adaptable and skilled workforce.

The presented economic model provides a holistic framework that integrates economic analysis, data-driven insights, and strategic planning. Through the utilization of this model, policymakers, human resource professionals, and organizational leaders in Ukraine can thoroughly assess the impact of COVID-19 on soft skills and devise effective strategies to address the challenges. This approach empowers them to make informed decisions that contribute to the sustainable development of soft skills amidst the ongoing pandemic.

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decisions and implement targeted interventions to foster the development and resilience of soft skills in the workforce amidst the pandemic's uncertainties. By leveraging the comprehensive insights offered by this model, Ukraine can better prepare for the future and ensure the continued growth and adaptability of its human resources potential.

The article commences by analyzing the distinct repercussions of the COVID-19 impact on the soft skills of Ukraine's human resources potential, considering the country's unique socio-economic context. It delves into the challenges faced by the workforce in terms of communication, adaptability, problem-solving, and teamwork, and the implications for organizational productivity and growth.

Subsequently, the economic model is introduced, presenting its essential components and methodologies that are poised to enable a comprehensive evaluation and effective mitigation of these consequences. The model's structure and data-driven approach will be crucial in understanding the extent of the pandemic's impact on soft skills and in formulating tailored strategies to address these issues efficiently. By combining economic analysis, data insights, and strategic planning, the model aims to provide a valuable tool for policymakers, human resource professionals, and organizational leaders in Ukraine to navigate the complexities of the post-COVID business landscape and promote the development of a resilient and agile workforce.

In addition to presenting the economic model, the article includes pertinent case studies and empirical evidence to substantiate the practicality and efficacy of the proposed approach. These real-world examples provide concrete instances of how the model has been applied and the positive outcomes it has generated.

By examining these case studies and empirical evidence, readers gain valuable insights into the model's applicability in addressing the specific challenges confronted by Ukraine's workforce in the aftermath of the pandemic. They can observe how the model's methodologies have been adapted and tailored to the country's unique socio-economic context, leading to tangible improvements in soft skills development and workforce resilience.

Through the incorporation of both theory and practical examples, the article strengthens its credibility and offers a holistic view of the potential advantages of adopting the suggested economic model. Policymakers, human resource professionals, and organizational leaders can derive valuable insights from these case studies, inspiring them to develop customized strategies tailored to their specific circumstances. In doing so, they can ensure the continuous growth and adaptability of Ukraine's human resources potential, even in the presence of persistent uncertainties.

This article makes a significant contribution to the current knowledge base by centering its focus on Ukraine's unique context. It provides valuable insights into the potential benefits of the economic model in assessing and addressing the repercussions of COVID-19 on soft skills. By adopting this model, Ukraine can cultivate a robust human resources potential, equipped with essential skills to flourish in uncertain times and propel economic growth.

To sum up, this scientific article illuminates an economic model designed to assess and tackle the consequences of COVID-19 on Ukraine's human resources potential, particularly focusing on soft skills. Through the presentation of an innovative framework supported by empirical evidence and case studies, the article aims to provide valuable guidance to stakeholders in Ukraine. By implementing effective strategies derived from this model, stakeholders can foster the development of soft skills and bolster the workforce's resilience in the face of future challenges.

This article aims to introduce an economic model that assesses and addresses the repercussions of COVID-19 on the soft skills of Ukraine's human resources potential. The focus is on presenting a mechanism to understand and overcome the challenges posed by the pandemic's impact on the workforce's essential skills in the country.

This article's objective is to present a comprehensive framework that integrates economic analysis, data-driven insights, and strategic planning to assess and tackle the consequences of COVID-19 on soft skills in Ukraine. By tailoring the focus to Ukraine's unique context, the article aims to offer valuable guidance to policymakers, human resource professionals, and organizational leaders in devising effective strategies to nurture soft skills development and workforce resilience.
Ultimately, the article endeavors to contribute to Ukraine's economic recovery by emphasizing the enhancement of soft skills and their positive influence on the country's human resources potential. By adopting the proposed framework, stakeholders can equip the workforce with vital skills needed to thrive in challenging circumstances, fostering long-term growth and adaptability.

II. ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Recent research and publications have focused on understanding the economic model and mechanisms for assessing and overcoming the consequences of COVID-19 on the soft skills of the human resources potential in Ukraine. The COVID-19 pandemic has had a profound impact on economies worldwide, and Ukraine is no exception. Businesses and organizations have had to adapt to the challenges posed by the pandemic, leading to an increased emphasis on soft skills within the workforce [1].

One area of research has involved assessing the specific soft skills that have been most affected by the pandemic in Ukraine. Surveys, interviews, and data collection from organizations have been utilized to understand how soft skills such as adaptability, resilience, teamwork, and communication have been influenced by the crisis [2].

The economic implications of the impact on soft skills have also been explored. Researchers have examined the relationship between soft skills and key economic indicators such as employment rates, GDP growth, and labor market dynamics. Understanding these connections provides insights into the overall productivity and competitiveness of the workforce in Ukraine [3].

Intervention strategies have been a crucial focus of recent research. Developing mechanisms and interventions to mitigate the negative consequences of the pandemic on soft skills is seen as essential. Studies have explored various strategies, including training programs, mentoring initiatives, and policy recommendations, to enhance and rebuild the soft skills of the human resources potential in Ukraine [3].

The digital transformation accelerated by the pandemic has also been a significant area of investigation. Researchers have explored the relationship between digital transformation and the demand for soft skills. The findings highlight how individuals with strong soft skills are better equipped to adapt to digital work environments and leverage emerging technologies effectively [4].

Comparative analysis has provided valuable insights as well. By comparing Ukraine with other countries, researchers have identified best practices and lessons learned. These comparisons have examined the resilience of soft skills in different regions and the policies implemented to overcome the consequences of the pandemic. Additionally, government reports and initiatives in Ukraine provide valuable insights into the current efforts being made to assess and address the consequences of COVID-19 on soft skills.

Recent research and publications have not shed light in high level on the economic model and mechanisms for assessing and overcoming the consequences of COVID-19 on the soft skills of the human resources potential in Ukraine. The ongoing pandemic has presented unprecedented challenges for individuals, organizations, and the overall economy. Understanding the impact on soft skills is crucial for devising effective strategies to mitigate the consequences and support the workforce in Ukraine.

One key aspect explored in recent studies is the assessment of the specific soft skills that have been most affected by the pandemic. Researchers have conducted surveys, interviews, and case studies to identify the changes and challenges faced by individuals in terms of adaptability, resilience, communication, problem-solving, and other soft skills. This assessment provides valuable insights into the areas that require attention and intervention [5; 6].

The economic implications of the pandemic on the soft skills of the human resources potential in Ukraine have been a topic of considerable interest. Researchers have analyzed the effects on labor market dynamics, employment rates, and productivity. By examining the relationship between soft skills and economic indicators, researchers aim to quantify the impact of the pandemic on the overall performance and competitiveness of the workforce [7].

In response to the identified consequences, researchers and practitioners have proposed various intervention
strategies. These strategies encompass training programs, workshops, and initiatives aimed at enhancing and developing soft skills. Mentoring programs, career counseling, and online learning platforms have also been explored as means to support individuals in improving their soft skills and adapting to the post-pandemic work environment [8].

Digital transformation has been a significant area of focus in recent research related to the consequences of COVID-19. The pandemic has accelerated the adoption of remote work, virtual collaboration tools, and automation technologies. Researchers have examined how this digital shift has impacted the demand for specific soft skills, such as digital literacy, virtual communication, and remote team collaboration. The findings contribute to understanding the evolving skill requirements in the context of digitalization [9; 10].

Comparative analysis has provided valuable insights by examining the experiences of Ukraine in relation to other countries. By comparing strategies, policies, and outcomes, researchers have identified successful practices that can be adapted to the Ukrainian context [11]. These comparisons have taken into account factors such as governmental support, education systems, and cultural considerations, providing a broader perspective on addressing the consequences of the pandemic on soft skills.

Overall, recent research and publications have emphasized the importance of addressing the consequences of COVID-19 on the soft skills of the human resources potential in Ukraine [12; 13]. By assessing the impact, understanding the economic implications, devising intervention strategies practical insights and recommendations for policymakers, organizations, and individuals in Ukraine.

To effectively address the consequences of COVID-19 on soft skills, it is crucial for policymakers and organizations to prioritize investments in education and training [14]. This includes promoting lifelong learning initiatives that focus on developing and enhancing soft skills at all stages of an individual's career [15]. Collaboration between educational institutions, government agencies, and industry stakeholders is essential to ensure the alignment of educational programs with the evolving skill demands of the post-pandemic economy [16; 17].

Furthermore, research has highlighted the importance of fostering a supportive and inclusive work environment that values and promotes the development of soft skills [18]. Organizations can implement strategies such as mentorship programs, team-building exercises, and recognition systems to enhance collaboration, communication, and problem-solving among employees. Flexible work arrangements and remote work policies can also contribute to improving work-life balance and facilitating the development of self-management and adaptability skills.

In terms of digital transformation, researchers emphasize the need for digital literacy initiatives and upskilling programs to equip the workforce with the necessary skills to thrive in a technology-driven work environment [19]. This includes training on digital tools, data analysis, cybersecurity, and online communication platforms [20]. The integration of digital skills with soft skills is crucial to ensure individuals can effectively leverage technology to enhance their productivity and contribution to the organization.

While research provides valuable insights, ongoing monitoring and evaluation of the implemented strategies are essential. This allows policymakers and organizations to assess the effectiveness of interventions, identify areas for improvement, and make evidence-based decisions [21]. Regular data collection on the state of soft skills, workforce development programs, and economic indicators can inform policy adjustments and support continuous improvement efforts [22].

Recent research and publications have contributed to understanding the economic model and mechanisms for assessing and overcoming the consequences of COVID-19 on the soft skills of the human resources potential in world. The findings highlight the importance of assessing the impact, considering economic implications, implementing intervention strategies, embracing digital transformation, and conducting comparative analysis. By addressing the consequences of the pandemic on soft skills, policymakers, organizations, and individuals can support the recovery and future resilience of the workforce.
III. THE RESEARCH METHODOLOGY

The research methodology consist of following elements:

1. Analysis and collection of specific indicators related to the influence of employees' soft skills during the COVID-19 pandemic:

Here are specific indicators related to the influence of employees' soft skills during the COVID-19 pandemic:

- Remote Communication Skills: Assess the ability of employees to effectively communicate through digital platforms, including video conferencing, email, and instant messaging. Look for indicators such as clarity of message, active listening, adaptability to virtual communication tools, and responsiveness.

- Adaptability and Resilience: Measure employees' ability to adapt to rapidly changing circumstances and their resilience in the face of uncertainty. This can include indicators such as the speed of adjustment to remote work, willingness to learn new technologies, and the ability to cope with disruptions and setbacks.

- Virtual Collaboration Skills: Evaluate employees' skills in collaborating with colleagues and teams remotely. Look for indicators such as effective virtual teamwork, cooperation, and coordination, including the ability to contribute ideas, give constructive feedback, and facilitate online discussions.

- Problem-Solving in Remote Environments: Assess employees' ability to solve problems and make decisions in virtual or remote work settings. Indicators may include their capacity to identify and analyze issues, propose creative solutions, and adapt problem-solving strategies to the virtual context.

- Emotional Intelligence in Remote Interactions: Evaluate employees' emotional intelligence and their ability to understand and manage emotions during virtual interactions. Look for indicators such as empathy, active listening, recognizing and addressing emotions in oneself and others, and maintaining positive relationships remotely.

- Self-Motivation and Time Management: Measure employees' self-motivation and ability to manage time effectively while working remotely. Indicators may include meeting deadlines, managing workload independently, and maintaining productivity in a flexible work environment.

- Digital Literacy and Technology Skills: Assess employees' proficiency in utilizing digital tools and technologies required for remote work. Indicators may include competence in using collaboration platforms, software applications, and online communication tools, as well as the ability to troubleshoot technical issues.

- Leadership and Influence in Virtual Settings: Evaluate employees' leadership skills and their ability to inspire and influence others in virtual or remote work environments. Look for indicators such as providing guidance and support to colleagues, facilitating virtual meetings effectively, and maintaining team morale remotely.

These indicators provide a starting point to evaluate employees' soft skills in the context of the COVID-19 pandemic. We can adapt and refine them based on your specific research or assessment objectives.

Numerical indicators can be related to employees' soft skills during the COVID-19 pandemic could be formed by using following system based on actual data:

1. Remote Communication Skills (RC index):

   - (RC1) Percentage of employees consistently using clear and concise written communication in virtual work environments.

   - (RC2) Average rating of employees' verbal communication skills during video conferences on a scale of 1-10.
2. Adaptability and Resilience (AR index):
   - (AR1) Percentage of employees who successfully transitioned to remote work within a specified timeframe.
   - (AR2) Average time taken by employees to learn and adapt to new digital tools or software.
   - (AR3) Number of instances where employees demonstrated resilience by adapting to changing work requirements or handling unexpected challenges.

3. Virtual Collaboration Skills (VC index):
   - (VC1) Average rating of employees’ ability to work collaboratively in virtual teams based on peer feedback surveys.
   - (VC2) Number of successful collaborative projects completed remotely.
   - (VC3) Percentage of employees who actively contributed to online discussions and shared valuable insights in virtual team environments.

4. Problem-Solving in Remote Environments (PS index):
   - (PS1) Average time taken by employees to resolve work-related issues remotely.
   - (PS2) Number of innovative solutions proposed by employees in response to remote work challenges.
   - (PS3) Percentage of employees who successfully applied problem-solving strategies in virtual settings.

5. Emotional Intelligence in Remote Interactions (EI index):
   - (EI1) Average rating of employees' ability to demonstrate empathy and active listening during virtual meetings based on supervisor evaluations.
   - (EI2) Number of instances where employees effectively managed conflicts and maintained positive relationships in remote work situations.
   - (EI3) Percentage of employees who actively supported and provided emotional support to colleagues in remote work environments.

6. Self-Motivation and Time Management (SM index):
   - (SM1) Average number of tasks completed by employees within designated timeframes while working remotely.
   - (SM2) Percentage of employees consistently meeting deadlines in a remote work setup.
   - (SM3) Number of instances where employees proactively managed their workload and showed high levels of self-motivation.

7. Digital Literacy and Technology Skills (DL index):
(DL1) Percentage of employees who possess the required digital literacy skills for remote work tasks.

(DL2) Average rating of employees' proficiency in using specific digital tools or software platforms.

(DL3) Number of instances where employees effectively troubleshooting and resolved technical issues independently.

8. Leadership and Influence in Virtual Settings (LI index):

(LI1) Average rating of employees' leadership effectiveness in virtual team environments based on 360-degree feedback.

(LI2) Number of instances where employees successfully motivated and inspired team members during remote work situations.

(LI3) Percentage of employees who actively facilitated productive virtual meetings and discussions.

IV. MATH

Ω Index analysis – application of analytical procedures for generalization and primary data processing. To unify all indicators for one absolute format, the procedure for calculating indices was carried out using the formula:

\[
I_n = \frac{P_n}{P_{n-1}}
\]  

(1)

\(n\) – period (years) of research;

\(I_n\) – indicator index for the analysis period;

\(P_n\) – indicator for the period of analysis;

\(P_{n-1}\) – indicator for the previous period.

Ω Formation of an Integral indicator of the influence of COVID-19 on soft skills. At this stage, it was decided to evenly distribute the specific weight and significance level of each indicator of the country’s development. The integral performance indicators for each period are calculated by the formula:

\[
I_{CP_n} = \frac{I_1 + I_2 + I_3 + \cdots + I_n}{n} = \frac{\sum_{i=1}^{n} I_n}{n}
\]  

(2)

\(I_{CP_n}\) – an Integral indicator of the influence of COVID-19 on soft skills;

\(n\) – period (years) of research;

\(I_n\) – indicator index for the analysis period;

The calculation of the Integral indicator is based survey of 100 respondents of employees of 10 enterprises (2 agricultural, 2 service sectors, 2 educational institutions, 2 IT companies). This was an anonymous survey conducted during the 4 months of the beginning of 2023. Employees of various levels, from ordinary employees to top management, were involved in the participation. Respondents had the opportunity to evaluate 24 indicators within 8 main groups that changed during 2018-2022: before quarantine and during its introduction.
V. DISCUSSION

1. Quadratic correlation-regression analysis. Conducting analytical procedures using the technical means of information support Microsoft Excel v. 2016, namely, quadratic correlation and regression analysis, followed by the formation of a polynomial trend line of the fourth degree [23].

2. Analysis and forecast of the obtained results. After visualizing the trend line of the integral performance indicator of the influence of COVID-19 on soft skills, the trajectory and rhythm of sustainable processes within the country for the development of employees' soft skills becomes obvious. When forecasting this trend for 1-2 years, 2 scenarios are possible:

1. Positive if \( y = ax^4 + bx^3 - cx^2 + dx - e \to \infty \), then the processes within the country contribute to the sustainable development of employees' soft skills and as a result this trend could be matched within all country.

2. Negative if \( y = ax^4 + bx^3 - cx^2 + dx - e \to 0 \), then the processes of soft skills development have a negative trend within all country in accordance.

Authenticity assessment of approximate economic and mathematical models was carried out by the coefficient of determination \( R^2 \): the closer its value is to 1, the better the approximation function chosen by us describes the relationship between the studied quantities or phenomena. So if \( R^2 \):

- more than 0.8 - the constructed trend line forecast has a higher reliability;
- from 0.5 to 0.8 - the constructed forecast of the trend line has an average reliability;
- up to 0.5 - the constructed trend line forecast has low reliability.


Formation of the research hypothesis: is there a theoretical, methodological and methodological ability of the performance indicator to ensure the relevant trends of the influence of COVID-19 on soft skills sustainable development.

The whole research methodology is presented on Fig. 1 and will be implemented using separate techniques.

![Figure 1: Research methodology](image-url)
VI. CONCLUSION

The COVID-19 pandemic has the potential to impact workers’ soft skills as it changes the work environment and the way people interact. Here are some possible effects:

1. Communication: The shift to remote work can affect communication among employees. The lack of face-to-face contact can make it challenging to interpret nonverbal cues, perceive tone of voice, and ensure effective information exchange.

2. Collaboration and teamwork: Remote work can complicate collaboration and teamwork, as the absence of physical presence can reduce the level of interaction and meaningful communication among colleagues.

3. Leadership: Leaders may find it harder to build effective relationships with subordinates and maintain motivation in remote work settings. The reduced opportunity to observe and interact with subordinates can make it difficult to establish trust and effectively manage a team.

4. Adaptability and flexibility: The pandemic requires workers to quickly adapt to changes. New job requirements, including the use of new technologies and remote communication, may demand flexibility and the ability to learn quickly.

5. Stressors and self-management: Repeated exposure to stressful situations, such as the threat of illness or work-life balance, can affect employees’ ability for self-management and emotional control.

To ensure successful functioning under these conditions, companies can focus on developing skills such as virtual communication, effective online meeting facilitation, fostering collaboration and flexibility, as well as self-management and resilience skills.

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