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Ukrainian agricultural labour potential management modelling in the context of European integration

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Abstract. Research related to the labour potential in agriculture is relevant as the agricultural sector is one of the key sectors of the economy of Ukraine, and the integration of the country into the EU opens up new opportunities and requires the appropriate adaptation of management approaches to achieve competitiveness and sustainable development in the field of agricultural activity. The study aims to analyse, develop, and improve already existing strategic approaches to the management of the labour potential of Ukraine in agriculture, addressing the processes of integration

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into the European Union. Analytical, statistical, functional, system analysis, deduction, synthesis, and comparison methods were used in the study. The state of labour potential in agriculture was analysed, assessing the qualitative and quantitative composition of employees, their skills and education. The influence of European integration on the agricultural sector, in particular its requirements and opportunities for development, was studied, and a model of management and development of labour potential for the effective functioning of agrarian business was developed. The application of the strategy at the agricultural enterprise AgroGeneration was modelled. Working conditions and social protection of workers were studied, prioritizing the formation and development of personnel potential in the agricultural sector. The study determined that the management of labour potential in agriculture involves the use of a comprehensive strategy that would include industry specifics, European standards, innovative approaches, and best practices of other countries. The practical significance of the study lies in the development of specific practical recommendations and strategies for management bodies, agricultural enterprises, as well as agricultural workers to optimize the use of labour potential

Keywords: labour productivity; management optimization; competitiveness; working conditions; social protection

INTRODUCTION

Labour potential management is an important component of modern management and strategic development in various economic sectors. This issue is especially relevant in the context of agriculture, which is not only a key industry for many countries but also an important factor in ensuring food security and the sustainable development of the nation. Agriculture plays an integral role in the global economic landscape, providing not only food but also a significant number of jobs. However, effective management of labour potential in agriculture is a crucial task, as it allows to optimise the use of human resources, increase labour productivity, ensure decent working conditions, and contribute to the sustainable development of the agricultural sector. On the other hand, Ukraine's integration into the European Union opens up new horizons and requires the country to comply with European standards in all sectors of the economy, including agriculture. This makes the problem of effective management of labour potential in agriculture even more important and justified in terms of achieving successful integration and competitiveness in the international arena.

According to S.O. Dotsyuk (2021), a need to update the staffing and improve the skills of agricultural workers exists. This is necessary to meet European standards, increase productivity and maintain the competitiveness of the agricultural sector. This may include training programmes for farmers and farm workers, as well as the creation of favourable conditions for continuous learning and development of employees. According to V.I. Dudkevych (2021), Ukraine's integration into the European Union can be successful if labour conditions are improved, resources are used more efficiently, and the competitiveness of the agricultural sector is enhanced. For example, this could include the development of innovative agricultural methods that meet European standards, as well as measures to improve the quality and efficiency of farmers' work.

O.F. Yevsiukov *et al.* (2023) demonstrated the need to develop a system of training and professional

development of agricultural personnel. Optimising human resources through training and adaptation to new standards is a key element of a successful integration process. However, a need exists to develop programmes and initiatives to improve the skills of agricultural professionals, as well as to improve the quality of educational institutions that train personnel for the agricultural sector.

V. Voronina (2022) confirmed that optimisation of labour potential management will help to create favourable conditions for adaptation to European standards and increase the competitiveness of the agricultural sector of Ukraine. This requires reforming the human resource management system in agriculture. V. Onegina (2023) emphasises that systematisation and optimisation of working conditions contribute to the attraction and retention of highly skilled professionals, which is key to the competitiveness of the agricultural sector in the international context. The study results can be used to develop policies aimed at improving working conditions and creating an attractive environment for agricultural professionals.

In general, the need to upgrade and improve the skills of agricultural personnel to meet European standards and increase labour efficiency is needed. Integration into the EU requires effective management of labour potential and ensuring the competitiveness of the agricultural sector. The study aims to develop strategies for effective management of the labour potential in Ukrainian agriculture, considering the need to comply with European standards and ensure sustainable development of the agricultural sector.

MATERIALS AND METHODS

The study was based on official documents and reports of the State Statistics Service of Ukraine, as well as materials from the Official Website of the European Union, which describes such programmes as CAP Overview (2023), Horizon (2020) and European Green Deal (2020). The research on the situation with labour potential

in Ukraine was carried out using methods that reveal the content of the object. The analytical method was used to examine certain aspects of the labour potential management system to study their characteristics, interrelationships, and impact on the overall result. The staff composition and qualification level of agricultural workers were analysed to identify the need for further training and education.

The statistical method was used to study data on the level of employment in the agricultural sector and to analyse labour productivity and wages. The functional method was used to study the role of each element of the labour potential management system. By studying the functions of the HR department in the agricultural sector, it is possible to note how it contributes to the formation and optimisation of human resources. The system analysis helped to consider labour potential management as a complex system where each part is interconnected with the others. The impact of various factors (social, economic, political) on management and its results was considered.

The use of the deduction method allowed us to explore the general principles and concepts of labour potential management that are relevant in the European context. The synthesis method helped to combine or combine different elements, concepts, and aspects to create a new holistic view. In the context of workforce management, it helped to create an understanding of innovative strategies that combine the best aspects of existing approaches and other sources. The comparative approach was used to compare approaches to labour force management in agriculture in Ukraine and the EU. This allowed us to understand the strengths and weaknesses of each approach to identify the best strategies for achieving different strategic goals.

The study was conducted with the disclosure of several aspects, including theoretical and practical components. The theoretical aspect includes the analysis of various theories and models of human resources and labour potential management that can be applied in the context of agriculture. The study also examined global and European labour management standards related to ensuring labour quality in agriculture. Another aspect includes the use of modelling techniques to help create simulation models and conduct scenario analysis to identify optimal strategies for managing labour potential in Ukrainian agriculture in the context of European integration.

Based on the results obtained, specific recommendations will be developed to improve the efficiency of the sector and address the challenges that will contribute to the development of agriculture in Ukraine. In general, these actions are aimed at determining the feasibility of increasing the labour potential for the successful development of the agricultural sector and the country as a whole.

RESULTS

Human capital is an essential factor in the sustainable development of organisations and countries. This concept encompasses the set of capabilities and reserves of employees and organisations to achieve high levels of productivity and successful performance. The first aspect of labour potential that requires more detailed consideration is human resources. This component covers all working-age individuals who are part of a particular organisation or the population of the country as a whole. The impact of these resources on the productivity and performance of an organisation or industry is obvious. Having a competent and motivated workforce contributes significantly to an organisation's performance and productivity. It is necessary to research and understand how this aspect of the workforce can be optimised to achieve the best results (Sedyastuti *et al.*, 2021).

Health and performance are extremely important components of labour potential. The physical and psychological health of employees has a crucial impact on their productivity and ability to perform their duties effectively. Organisations should take a proactive interest in maintaining the health of their workforce, as this contributes to the stability and effectiveness of their employees. Measures aimed at maintaining and improving employee health can include medical programmes, fitness initiatives, psychological support, and the creation of a favourable working environment that contributes to the overall well-being of employees and, as a result, leads to increased productivity and the achievement of organisational goals (Kabeer, 2021).

Education and qualifications play a key role in shaping labour potential. The level of education and professional skills of employees directly affect their productivity and ability to adapt to new tasks and technologies. Motivation is also a significant factor, as it determines the extent to which employees are willing to devote attention and effort to achieving common goals. An effective system of incentives and motivation can significantly increase employee performance and improve job satisfaction. To achieve this effect, organisations should consider a variety of motivational methods, including financial incentives, professional development opportunities, recognition of achievements and social status. The incentive system should be transparent and fair so that employees feel that their efforts are valued and rewarded according to their contribution (Bawa, 2017).

Socio-economic conditions also affect labour potential by creating a favourable or unfavourable environment for work. Economic conditions, employment rates and social guarantees have a significant impact on labour potential. Professional development is another important component of labour potential. Training and skills development contribute to improving skills and adapting to modern requirements (Marginson, 2019). Understanding and optimally managing these components is crucial for the success and sustainable

development of organisations and countries. Managing human capital is an important element of a development strategy aimed at achieving high efficiency and competitiveness.

Labour potential management is a process of targeted influence on the human resources of a business structure, in which it is necessary to focus on establishing a match between the organisation's goals and the capabilities of employees. One of the elements of management activities is human resources management, which is based on a generalised view of the employee's

place in the organisation. The main goal of labour potential management is to ensure an optimal balance of processes of renewal and preservation of the quantitative and qualitative composition of personnel following the needs of the organisation itself, the requirements of the current legislation and the state of the labour market. The human resource management model is presented in the form of a diagram that demonstrates the relationship between the strategic directions of the enterprise's development and the methods of human resource management to achieve optimal business results (Fig. 1).



Figure 1. Human resource management model

Source: compiled by the authors

This model consists of several key elements. Firstly, it is based on the organisation's economic development strategy, which defines the company's goals and strategic directions. The next component is the human resource management strategy, which defines how the company plans to manage its workforce to achieve its strategic goals. The third aspect is the specific tools used to implement the HR strategy, such as incentive systems, staff development programmes. Next, there is the organisational structure of human resources management, which describes how HR management is organised. Finally, some indicators determine the effectiveness of human resource management through metrics that measure productivity, employee satisfaction and other aspects of human resource management. This model helps an organisation to optimise its human resources to achieve its strategic goals and improve its business.

Theoretical models of labour potential management highlight the main components of human resources management in institutions and companies. The purpose of these models is to optimise the use of

employees, increase their productivity and ensure the sustainable development of organisations. The competency-based management model pays attention to the development of employees' abilities and their adaptive potential to ensure that they are well-prepared to perform tasks and adapt quickly to changes. This model recognises that each employee has unique abilities and potential that can be developed. The organisation provides opportunities for education, training, and skill development to help employees become more competent and effective in their positions. Assessment of staff competencies helps to identify existing strengths and areas for further development. Based on the results of this assessment, strategic staff development plans are developed, which include learning and training plans and projects to develop new skills and abilities (Miranda *et al.*, 2017).

The transformational management model aims to change the organisational environment and corporate culture to create a stimulating environment for employees where they can develop their abilities and fulfil their potential. It aims to foster creativity, develop

leadership skills, and support employee initiatives. It emphasises the importance of education, training, and career development opportunities to help employees develop their skills and abilities. The transformational model also encourages employees to realise their potential and contribute to the organisation by giving them a sense of ownership in achieving common goals (Thomson III *et al.*, 2016). The systemic model of human resource management considers employees and the organisation as interconnected elements of a system. It involves studying and analysing the needs, goals, and internal processes both at the level of the individual employee and at the level of the organisation as a whole. The main idea is to ensure harmony between individual and organisational goals. This may include developing individual career plans and providing opportunities for professional development (Kim *et al.*, 2020).

The capability management model emphasises the importance of developing employees' skills and capabilities. Organisations that use this model provide employees with access to learning programmes, training, and resources so that they can improve their professional skills. The main goal is to ensure that employees are best prepared to perform their duties and

can quickly adapt to changes in the work environment (Hock-Doepgen *et al.*, 2021). The motivation management model focuses on creating a motivational atmosphere in an organisation. It involves using a variety of methods to encourage employees to achieve high performance. This may include bonus systems, rewards for achieving certain goals, and fostering creativity and leadership development. The goal is to make employees feel motivated and satisfied with their performance, which leads to higher levels of performance (Buchner, 2007). These theoretical models are the basis for the development of practical strategies and methods for managing labour potential in modern organisations. It is important to keep in mind that companies can use elements of different models depending on their characteristics and strategies to achieve success and sustainable development.

Agriculture in Ukraine is a key sector of the country's economy, providing food production, job creation and gross domestic product. The analysis of the labour potential of agriculture involves an assessment of important aspects related to the labour force and its efficiency in this sector of the economy. Table 1 analyses the main indicators of labour potential in agricultural activities.

Table 1. Indicators of Ukraine's labour potential in agriculture

	2018	2019	2020	2021	2022	Deviation (-/+), 2022 Up to 2018
Labour productivity in enterprises engaged in agricultural activities						
Agriculture, thousand UAH. Including:	867.7	928.6	857.2	881.4	821.2	-46.5
Crop production	900.1	954.4	853.7	908.8	789.2	-110.8
Husbandry	730.4	815.2	872.8	940.1	880.2	149.8
Labour productivity index at enterprises engaged in agricultural activities						
Agriculture, %. Including:	114.9	107.0	92.3	102.8	93.2	-21.7
Crop production	115.8	106.0	89.4	106.5	86.8	-29
Husbandry	109.9	111.6	107.1	107.7	93.6	-16.3
Number of employees at agricultural enterprises	564874	553245	523782	525128	453111	-111763
Share of employed workers in agricultural enterprises in terms of total number, %	7.97	7.67	7.10	7.12	7.21	-0.76
Average monthly nominal wages of full-time employees in agriculture	7166	8738	9711	11680	11720	4554
Share of the average monthly nominal salary of full-time employees to the average for the economy, %	85.2	84.4	83.7	83.3	87.6	2.4
Average monthly nominal salary at the US dollar exchange rate, USD	258.9	373.9	346.8	427.8	321.1	62.2

Source: compiled by the authors

In 2022, the war had a serious impact on Ukraine's labour potential, upsetting the balance and causing instability in the labour sector and socio-economic development. The table shows that labour productivity and the number of employees in agriculture have fallen sharply. The war also caused changes in the education and training system. Education has become less

accessible for some people. The social and economic conditions in the country as a result of the war have affected the motivation of employees, and their readiness to face challenges and achieve goals. Security and the restoration of stability are key aspects of restoring labour potential and effective human resource management in Ukraine (Kotsur, 2022).

In line with the dollar exchange rate, the average monthly nominal wage of full-time employees in agriculture has significantly decreased compared to 2021, which hurts the operations of Ukrainian agricultural enterprises. Currently, there are motivationally weak aspects of the agricultural remuneration system, such as the uncertain role of the minimum wage and delays in the payment of wages to employees. It can be argued that in Ukraine, the level of remuneration is almost independent of the labour effort of employees, but is shaped by external factors (Dovgal, 2020). These external factors include inflation in the country, the economic situation, government regulation, and others.

European integration has a significant impact on Ukrainian agriculture, covering economic, technological, social, and infrastructural aspects of this strategically important sector. First, European integration opens the door to new markets for agricultural products. The European Union, as one of the largest consumers of agricultural products, is becoming a powerful market for farmers. This stimulates the development and modernisation of agricultural production, as well as adaptation to European quality and safety standards (Pe'er et al., 2020). Second, European integration contributes to the transformation of agriculture through the introduction of modern technologies and methods. Ukrainian farmers use European experience in implementing advanced agricultural technologies that improve product quality and increase yields. This contributes to the growth of agricultural efficiency and competitiveness in global markets. Third, engagement in the European integration process has an important social impact on the rural population, as it becomes more active in employment and sees improved working conditions. This opens up opportunities for more sustainable and secure working conditions in the agricultural sector. Further accession to the European space contributes to the strengthening of social and economic standards in agriculture (Melchior & Newig, 2021). Ukraine's integration into the EU is a complex but important process. Fully reaping the benefits of European integration in Ukraine's agriculture requires concerted efforts by the government, business, and civil society to jointly achieve sustainable and efficient development of this important sector.

The best practices of the European Union countries in the field of labour force management in the agricultural sector are important for increasing the efficiency and competitiveness of agriculture. The basic principles and methods they use can serve as a source of learning and inspiration for different countries. An important aspect is the training and development of workers. In many EU countries, there are special programmes that facilitate the training of farmers. For example, the Erasmus for Young Entrepreneurs programme allows young farmers to learn and gain experience working with experienced farmers in other EU countries. This allows

them not only to enrich their knowledge but also to implement new ideas and methods in their practice (Jurčić, 2020). The second aspect is the system of social guarantees and incentives for employees. EU countries provide adequate working conditions and some incentives for those who choose agriculture as a career. For example, France has a programme to support young farmers, which provides financial assistance and advice for beginners (Faysse et al., 2019). The third important aspect is the focus on sustainable development. EU countries are actively implementing practices aimed at reducing the environmental impact of agriculture. For example, the Netherlands uses innovative technologies to optimise the use of water and fertilisers, which contributes to environmental protection (Runhaar, 2017).

Several EU programmes have been highlighted to provide insights into best practices in the field of labour force management in the agricultural sector. The EU's Common Agricultural Policy (CAP) sets out the framework and instruments for agricultural development in the EU. One of the key components of the CAP is to support the development of rural areas and create employment opportunities in agriculture. This part of the programme includes various programmes, funds and initiatives aimed at creating sustainable labour management. One of the key objectives of these measures is to increase the efficiency of labour use in the agricultural sector, including skills development and support for employment in rural areas (CAP Overview, 2023). The Horizon 2020 programme is an EU initiative aimed at supporting research and innovation in agriculture and related sectors. Various projects are being developed under this programme to improve productivity and human resource management in the agricultural sector. The programme supports research and development of new technologies that help optimise the use of workers and resources in agriculture. European Green Deal (2020) is designed to achieve sustainable development and reduce the negative impact of agriculture on the environment. It includes measures to improve resource efficiency and introduce green technologies in the agricultural sector. One of the aspects is to improve labour management in agriculture, including optimising the use of workers and developing skills that meet the requirements of sustainable agriculture. Thus, the best practices of the European Union in managing the labour force in the agricultural sector reflect important aspects of training, social protection, and sustainable development. These practices can serve as good models for Ukraine as it seeks to increase the efficiency of its agriculture and manage its labour force optimally.

The strategy for optimising labour force management in Ukrainian agriculture should be comprehensive and focused on improving the productivity, efficiency, and competitiveness of the sector. Several key steps and strategic directions have been identified to achieve this goal (Fig. 2).

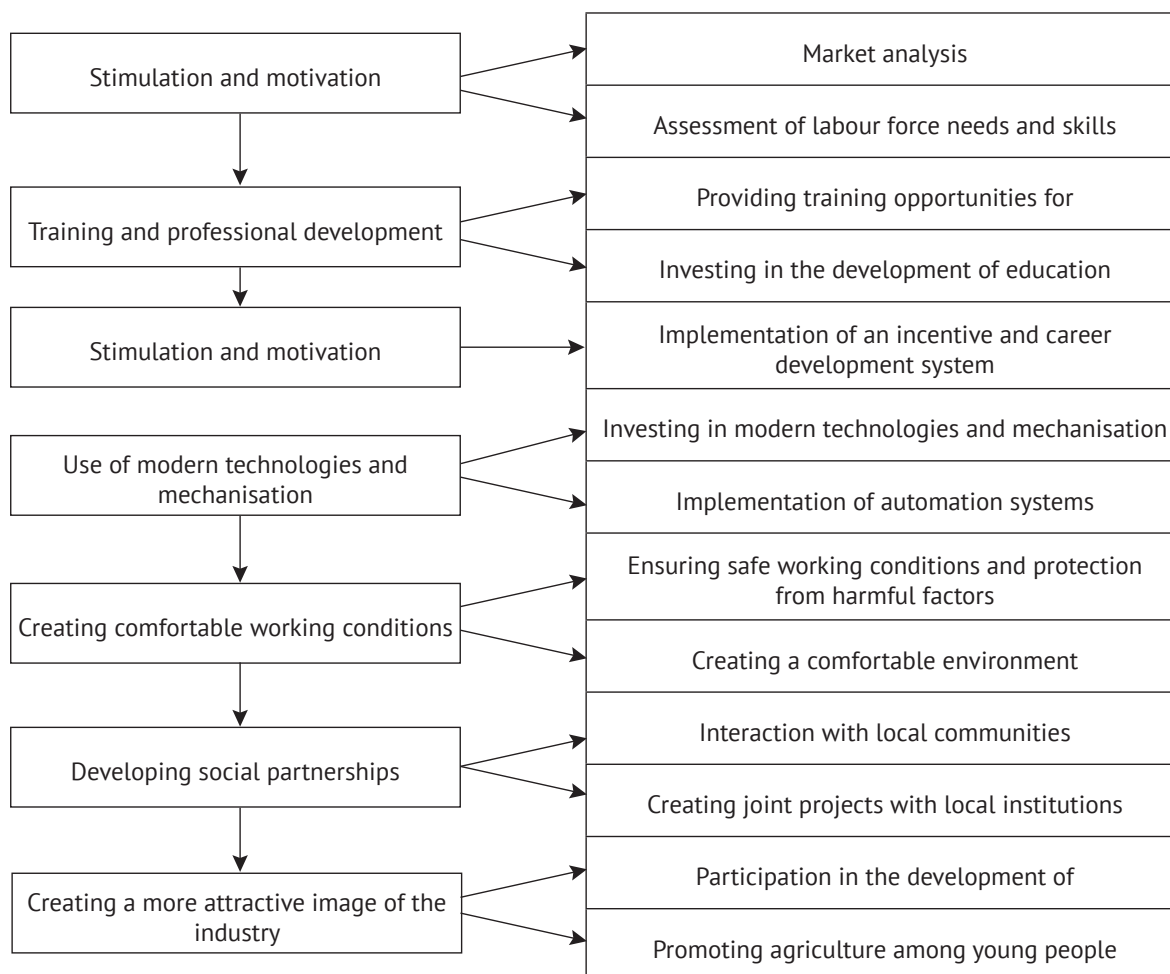


Figure 2. Strategy for optimising labour potential management in Ukrainian agriculture

Source: compiled by the authors

To simulate the application of the strategy to a real agricultural enterprise in Ukraine, the case of AgroGeneration, an agricultural firm specialising in the cultivation of vegetables, grains, and oilseeds should be considered. Needs analysis and assessment: AgroGeneration can analyse the labour market and internal needs of the company to identify vacancies and staffing requirements and consider the strategic goals of the business when planning staffing needs. Training and professional development: AgroGeneration employees can learn modern agricultural production methods through participation in training, seminars, and courses. For example, the company's agronomists can be trained in the use of modern pesticides and fertilisers to ensure high-quality crops. Incentives and motivation: AgroGeneration can use a bonus system for agronomists and employees who achieve high yields or high-quality products; provide incentives to achieve production improvement and cost optimisation targets. Use of modern technologies and mechanisation: The company can invest in new and comfortable tractors, combines and modern farm machinery to increase productivity. Em-

ployees can be provided with access to modern tools and software to perform tasks efficiently. Creating comfortable working conditions: Providing the necessary protection from pests and harmful environmental influences for agronomists and workers. Providing convenient working conditions for vegetable processing, including modern equipment for sorting and packaging. Developing social partnerships: Cooperation with local communities to ensure the sustainable development and growth of agricultural projects. Involvement of local people in production and processing processes, and job creation.

Creating a more attractive image of the industry: AgroGeneration can participate in local agricultural shows and exhibitions to present its products and attract new customers. It is actively involved in educational projects to teach young rural residents the basics of agriculture. This strategy model will help the company to achieve positive results in growing grain and vegetables, increase productivity and create favourable conditions for employees and the community. Figure 3 shows AgroGeneration's labour potential management model.

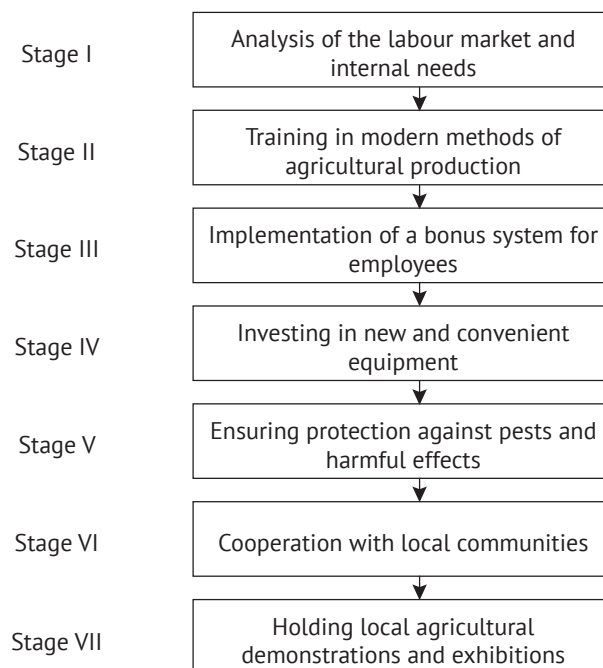


Figure 3. A model for managing the labour potential of AgroGeneration

Source: compiled by the authors

Considering the specific steps to optimise labour potential management in Ukrainian agriculture, it is possible to identify certain modern recommendations based on the example of successful practices in European countries for each point:

1. Needs analysis and assessment: development of an online platform for Ukrainian agriculture where farmers can regularly enter data on the number of employees, their qualifications and training needs; regional analysis to identify the specific needs of different regions of Ukraine; introduction of artificial intelligence to analyse this data and recommend an optimal learning plan.

2. Training and professional development: development of training programmes aimed at teaching modern agricultural technologies and the efficient use of machinery and equipment; creation of a virtual academy where farmers can learn online through interactive courses and simulations for practical skills; introduction of an instant feedback system for employees during training.

3. Stimulation and motivation: use of the “block-chain system” to automate and publicly record farmers’ production achievements; introduction of virtual bonuses as a reward for achieving certain results that can be exchanged for goods or services in agriculture.

4. Modern technologies and mechanisation: implementation of demonstration field stations where farmers can check and test new technologies before implementing them; employment of drones and sensors to monitor crops and land indicators in real-time.

5. Comfortable working conditions: introduction of a “supermarket” of workplace safety and security equipment at agricultural facilities; engagement of

ergonomics specialists to arrange workplaces and provide comfortable working conditions.

6. Social partnership development: creation of a council for social partnership, including representatives of agriculture, trade unions and government; launch of online forums and webinars to discuss topical agricultural issues and create a network of social partners.

7. More attractive image of the industry: development of interactive multimedia materials and videos showing the attractive aspects of working in agriculture and opportunities for career development; organisation of internships for young people on farms with the opportunity to gain practical experience and training in modern conditions.

These steps aim to optimise the management of labour potential in agriculture, increase productivity and attract new personnel to the sector. Optimisation of labour potential management in agriculture requires the development of a comprehensive strategy that considers sectoral specifics, European standards, innovative approaches, and best practices from other countries. It is important to remember that this process requires constant monitoring, analysis, and adaptation to changes in economic, social, and political conditions. The introduction of changes in labour potential management should help to increase agricultural productivity, improve the living standards of workers, and strengthen the competitiveness of the sector at the international level. European integration should be a step towards sustainable development and prosperity of Ukrainian agriculture. The process of optimising the management of labour potential requires joint efforts of the state, business, and the public, which will help

improve working conditions and the quality of life of the rural population.

DISCUSSION

The analysis shows a drop in productivity and a reduction in the number of employees, accompanied by a deterioration in working and living conditions. The military conflict has had a serious impact on the education and training system in Ukraine, as many educational institutions have been forced to switch to distance learning. This situation has resulted in limited access to education for a significant number of people, especially those living in conflict areas. Despite these challenges, there are opportunities to restore and improve Ukraine's labour potential. However, this requires systemic measures in areas such as education reform, reintegration of refugees into the labour force, and providing them with opportunities for professional development. Concerted action by the government, non-governmental organisations and international partners is needed to create the basis for restoring and developing Ukraine's labour potential in the context of European integration and post-conflict rehabilitation.

Authors E. Kurniawan *et al.* (2021) assessed the impact of economic and political aspects on labour potential in agriculture. One of the main findings of these authors was the significant impact of the external environment on labour productivity and workers' perceptions of working conditions. The authors deeply emphasised that changes in economic and political conditions have a significant impact on how employees perceive their work and its performance. At the same time, they argue that it is important to improve the level of social protection for workers in agriculture. They see this as an opportunity to improve working conditions and promote a motivating environment that would stimulate efficiency and productivity. Compared to the results described in this paper, there is a similarity in the approach to analysing the impact of the external environment on labour potential that is relevant for the agricultural sector in Ukraine. Indeed, the economic and political environment affects employees' perceptions of working conditions and their motivation, especially in the current Ukrainian context. However, unlike a few years ago, the current situation in Ukraine's agricultural sector requires not only improved social protection of employees but also active incentive programmes and favourable conditions for the development of employees' professional skills. This will ensure more efficient management of labour potential and increase the competitiveness of the agricultural sector in the current environment.

C. Bopp *et al.* (2019) focused on the remuneration system and the effectiveness of incentive programmes in agriculture. They found instability in these areas, which they attributed to external factors such as economic changes and political fluctuations. The authors suggest that systemic changes in the remuneration

system and incentive programmes are needed to improve the labour potential in agriculture. Their approach emphasises the importance of adapting to external changes and constantly updating the methods of motivating workers in agriculture. The authors' findings show a common trend in emphasising the importance of systemic changes in the remuneration system and incentive programmes. Effective remuneration and motivational measures are crucial for attracting and retaining highly skilled personnel in Ukrainian agriculture. They contribute to the competitiveness of the sector and ensure its stability and development in the current environment.

A.A. Davidescu *et al.* (2020) assessed the impact of training and development on labour potential in agriculture. They emphasised that the successful functioning of the industry is highly dependent on the level of education and skills of workers. A high level of qualifications contributes to higher labour productivity, improved production quality and the introduction of innovations in agriculture. The authors describe the importance of educational programmes and specialised training to improve the competence of workers. These programmes are aimed at developing specific skills and knowledge required to meet the challenges of the agricultural sector. They also help employees to adapt to the latest agricultural technologies and modern working methods, which gives them a competitive advantage in the market. Compared to the studies described in this paper, it is confirmed that investing in the training and development of personnel is an important step in improving the labour potential of modern Ukrainian agriculture. Professionally trained workers contribute to the efficiency and competitiveness of the sector, as well as to its sustainable development in the context of European integration.

Researchers S. Rotz *et al.* (2019) emphasise the importance of social partnership for increasing labour potential in agriculture. This is an important aspect that affects the efficiency and productivity of workers in this sector. The authors point out that cooperation between non-governmental organisations and enterprises is key in this context. Social partnerships between different parties – employees, employers, and authorities – aim to make joint efforts to address social, economic, and labour issues. It helps to balance interests, improve working conditions, provide social protection, and motivate employees. Creating a favourable working environment can include developing safety and health programmes, defining a fair remuneration system, and introducing incentive mechanisms for employees. It should be noted that partnerships should address key issues, such as improving working conditions, ensuring adequate remuneration, providing opportunities for professional growth and development, and ensuring social protection. For example, in Ukraine, cooperation between the government, agriculture and trade unions can help improve legislation and create a social protection system

that considers the specifics of agriculture and the interests of workers.

Authors T. Fonseca *et al.* (2019) analysed the problems that arise in the process of optimising labour capital. They identified several key aspects that are important for optimising labour potential. The high dependence of sectors on economic conditions, such as price conditions, availability of financing and market conditions, requires careful analysis and adaptation of labour management strategies. Social aspects, such as employee satisfaction, the creation of a favourable working environment and increasing motivation, are also important. It is proposed to introduce systemic changes and innovations in management to optimise the use of labour capital. Labour optimisation remains a critical issue in Ukraine's agricultural sector, which requires a comprehensive approach that encompasses economic, social and governance aspects. This integrated approach is important for ensuring efficient use of resources and achieving sustainable development of the sector. It is also noted that managerial aspects, including strategic planning and employee motivation, are recognised as key factors for optimising labour potential, according to the study results.

In general, various aspects such as economic and political conditions, remuneration, training and development, and social partnerships affect employee productivity and motivation. The authors identify the importance of adapting to external changes, such as economic changes and political fluctuations. Improving working conditions, providing social protection, and creating a motivating environment play a critical role in attracting and retaining qualified staff.

CONCLUSIONS

This study analyses labour potential as an important factor in the sustainable development of organisations and countries. Labour potential includes the capabilities and reserves of employees and organisations to achieve a high level of productivity and successful performance. The key components of labour potential, such as human resources, education and qualifications, motivation, and socio-economic conditions, are

considered. The theoretical models of labour potential management, which reflect important aspects of effective human resource management in organisations, are studied. Different models, such as competence, transformational, systemic, talent management and motivation, are outlined, which are the basis for developing practical strategies and methods of labour potential management in modern organisations. The labour potential of Ukrainian agriculture is analysed. The productivity of employees in agriculture in the period from 2018 to 2022 is determined and the consequences of the war on labour potential are identified. The important impact of European integration on Ukraine's agricultural sector, which includes economic, technological, social, and infrastructural aspects, is highlighted. Several EU best practices in the field of labour potential management in the agricultural sector are highlighted, namely the Common Agricultural Policy, the Horizon 2020 programme, and the European Green Deal. The possibility of increasing sales of Ukrainian agricultural products in the European market is analysed, as well as the impact of integration on agricultural development, including the use of modern technologies and the improvement of socio-economic standards for the rural population. A strategy for optimising labour potential management in the Ukrainian agricultural economy was developed to improve the sector's productivity, efficiency, and competitiveness.

Further research could include studying and analysing the best practices of the European Union in managing labour potential in agriculture and their possible implementation in the Ukrainian context. The training programs for farmers and agricultural professionals should be analysed to improve their skills and knowledge, as well as analysing the benefits and opportunities of using environmentally friendly technologies in agriculture.

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CONFLICT OF INTEREST

None.

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Моделювання управління трудовим потенціалом України в сільському господарстві в умовах євроінтеграції

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Анотація. Дослідження, пов'язане з трудовим потенціалом в сільському господарстві, є досить актуальним, оскільки аграрний сектор є однією з ключових галузей економіки України, а інтеграція країни до ЄС відкриває нові можливості та вимагає відповідної адаптації управлінських підходів для досягнення конкурентоспроможності та сталого розвитку у сфері аграрної діяльності. Мета дослідження полягає в аналізі, розробці та вдосконаленні вже наявних стратегічних підходів до управління трудовим потенціалом України у сільському господарстві з урахуванням процесів інтеграції до Європейського Союзу. Серед використаних методів було застосовано аналітичний метод, статистичний метод, функціональний метод, метод системного аналізу, метод дедукції, метод синтезу та метод порівняння. В процесі дослідження було проаналізовано стан трудового потенціалу у сільському господарстві, оцінивши якісний та кількісний склад працівників, їх навички та освіти. Досліджено вплив євроінтеграції на аграрний сектор, зокрема її вимоги та можливості для розвитку, а також розроблено модель управління та розвитку трудового потенціалу для ефективного функціонування аграрного бізнесу. Було змодельовано застосування стратегії на сільськогосподарському підприємстві "AgroGeneration". Досліджено умови праці та соціальний захист працівників, а також зосереджена увага на формуванні та розвитку кадрового потенціалу в аграрному секторі. У ході дослідження було досягнуто такого результату, що управління трудовим потенціалом у сільському господарстві передбачає використання комплексної стратегії, яка б враховувала галузеві особливості, європейські стандарти, інноваційні підходи та кращі практики інших країн. Практичне значення дослідження полягає в розробці конкретних практичних рекомендацій та стратегій для органів управління, аграрних підприємств, а також працівників сільського господарства з метою оптимізації використання трудового потенціалу

Ключові слова: продуктивність праці; оптимізація управління; конкурентоспроможність; умови праці; соціальний захист