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# INTELLECTUALIZATION OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT

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## IMPLEMENTATION OF INNOVATIVE METHODS FOR MANAGING HUMAN RESOURCE DEVELOPMENT IN AGRIBUSINESS ENTERPRISES

**Olga Fedyk.** *«Implementation of innovative methods for managing human resource development in agribusiness enterprises».* This article is dedicated to the theoretical justification and practical aspects of implementing innovative methods for managing human resource development in agribusiness enterprises. The relevance of the research topic is explained by the urgent need to modernize the traditional human resource management system amid dynamic economic transformations, increasing competition, labor market instability, and rapid technological progress. The study emphasizes that traditional approaches to human capital development no longer meet the new requirements of the agribusiness sector. Special attention is paid to the need for introducing innovative tools and methods to improve employee training efficiency, enhance their ability to adapt to technological innovations, and contribute to the overall competitiveness of enterprises.

The article outlines the main innovative methods that can be applied to human resource development, including e-learning technologies, gamification, adaptive learning, as well as coaching, buddying, shadowing, and secondment methods. The study highlights the flexibility and accessibility of e-learning for workers in the agricultural sector, which allows them to acquire knowledge without interrupting core production processes, a critical factor in the seasonal nature of agricultural activities. Furthermore, the use of gamification elements as a motivational tool is discussed, as it enhances employee engagement and promotes the development of both professional and soft skills. Special attention is given to adapting the content of training to regional features of agricultural production, such as climate conditions, soil types, and the specifics of crop cultivation. Coaching is considered as a means of individual support aimed at unlocking employees' potential, developing leadership skills, and addressing specific challenges in agricultural production. The buddying and shadowing methods are analyzed as effective tools for knowledge and experience transfer within the workforce, fostering the smooth integration of new employees and the spread of best practices. The article argues for the integration of the concept of continuous learning into the corporate culture of agribusiness enterprises. Additionally, the importance of involving employees in the development and improvement of training programs is highlighted, as this will enhance their motivation and foster a sense of responsibility for both personal and organizational development.

In conclusion, the article asserts that the implementation of innovative methods for managing human resource development is a key factor in ensuring the sustainable development and competitiveness of agribusiness enterprises. The introduction of innovative approaches to human resource development will not

*only contribute to the improvement of qualifications and the acquisition of professional skills but also stimulate employees' creativity, initiative, and readiness for change, which will, in turn, contribute to the successful development of agricultural production in the context of the digital economy and technological progress.*

**Keywords:** personnel management, agro-industrial complex, innovative methods, e-learning, gamification, coaching, skills development, lifelong learning

**Ольга Федик. «Впровадження інноваційних методів управління розвитком персоналу на підприємствах агропромислового комплексу».** Стаття присвячена теоретичному обґрунтуванню та практичним аспектам впровадження інноваційних методів управління розвитком персоналу на підприємствах агропромислового комплексу. Актуальність теми дослідження пояснюється нагальною необхідністю модернізації традиційної системи управління людськими ресурсами в умовах динамічних економічних трансформацій, зростаючої конкуренції, нестабільності ринку праці та стрімкого технологічного прогресу. У дослідженні підкреслюється, що традиційні підходи до розвитку людського капіталу більше не відповідають новим вимогам агропромислового сектору. Особлива увага приділяється необхідності впровадження інноваційних інструментів та методів для підвищення ефективності підготовки персоналу, його здатності до адаптації до технологічних новацій і внеску в загальну конкурентоспроможність підприємств.

У статті окреслено основні інноваційні методи, що можуть бути застосовані для розвитку персоналу, зокрема технології електронного навчання (e-learning), гейміфікацію, адаптивне навчання, а також методи коучингу, buddying, shadowing і secondment. У дослідженні акцентовано увагу на гнучкості та доступності електронного навчання для працівників аграрної сфери, що дає змогу здобувати знання без відриву від основних виробничих процесів, що є особливо важливим у контексті сезонного характеру сільськогосподарської діяльності. Крім того, обговорено використання елементів гейміфікації як інструменту мотивації, що підвищує залученість працівників і сприяє формуванню як професійних, так і м'яких навичок. Особлива увага приділена адаптації змісту навчання до регіональних особливостей аграрного виробництва, зокрема кліматичних умов, типів ґрунтів та специфіки вирощування культур. Коучинг розглядається як засіб індивідуальної підтримки, спрямований на розкриття потенціалу працівників, розвиток лідерських навичок і вирішення специфічних завдань у сільськогосподарському виробництві. Методи buddying і shadowing аналізуються як ефективні інструменти передачі знань та досвіду в межах трудового колективу, що сприяє плавній інтеграції нових працівників і поширенню найкращих практик. У статті аргументується необхідність інтеграції концепції безперервного навчання в корпоративну культуру підприємств агропромислового комплексу. Додатково підкреслюється важливість залучення працівників до розробки та вдосконалення навчальних програм, що сприятиме зростанню їхньої мотивації та формуванню почуття відповідальності за особистий і організаційний розвиток.

У підсумку зазначається, що впровадження інноваційних методів управління розвитком персоналу є ключовим фактором забезпечення сталого розвитку і конкурентоспроможності підприємств агропромислового комплексу, адже впровадження інноваційних підходів до розвитку персоналу не лише сприятиме підвищенню кваліфікації та набуттю професійних навичок працівників, а й стимулюватимуть їхню креативність, ініціативність та готовність до змін, що в цілому сприятиме успішному розвитку аграрного виробництва в умовах цифрової економіки та технологічного прогресу.

**Ключові слова:** управління персоналом, агропромисловий комплекс, інноваційні методи, електронне навчання, гейміфікація, коучинг, розвиток компетенцій, безперервне навчання.

**The relevance of the problem.** In the current context of economic transformation and the active implementation of digital technologies, the issue of effective personnel development management in agro-industrial enterprises is becoming increasingly important. Given the growing competition, labor market instability, and the continuous renewal of technological processes, there is an objective need to apply innovative methods of human resource management. The relevance of this issue is driven by the fact that traditional approaches no longer provide sufficient flexibility and efficiency to meet the new challenges facing the agricultural sector.

The implementation of innovative methods for managing personnel development is crucial not only for increasing labor productivity but also for ensuring the competitiveness of enterprises in both domestic and international markets. The connection with significant scientific and practical objectives is reflected in the necessity to seek new models of professional training, to develop employees' leadership potential, to introduce systems for continuous competence development, and to adapt personnel to the use of modern agricultural technologies. The achievement of these objectives requires a comprehensive approach that integrates the latest theoretical advancements with successful practical experience in managing human capital within the agro-industrial production sector.

**An analysis of the latest research.** Significant attention has been devoted to the study of the implementation of innovative methods for managing human resource development in agribusiness enterprises by researchers such as O. Babchynska, V. Gaeva, N. Zingaeva, V. Stilnyk, S. Kucherenko, I. Kot, S. Ostrianina, O. Mokii, D. Drobitko, H. Varina, O. Kovaliova, N. Hudz, I. Sheluzhak, S. Todoriuk, and V. Kifiak. In their works, they emphasize the importance of modernizing approaches to human capital development, introducing e-learning, coaching, gamification, and other innovative tools. However, despite the significant contributions to the advancement

of this topic, certain aspects remain insufficiently explored. In particular, further research is needed on the adaptation of innovative methods to the specific features of regional agricultural production, the evaluation of their effectiveness under conditions of seasonality and labor market instability, as well as the development of mechanisms for engaging employees in continuous professional development.

**Formulation of the purpose of the study.** The aim of the research is to substantiate the theoretical foundations and develop practical recommendations for implementing innovative methods of human resource development management in the activities of enterprises in the agro-industrial complex, considering current trends in digitalization, technological changes, and labor market demands. The research tasks involve identifying the features of using innovative approaches to the formation and development of human capital in the agricultural sector, analyzing existing practices, determining the key factors of effectiveness of innovative management technologies, and formulating recommendations for their integration into the human resources policy of agro-enterprises.

**Presentation of the main research.** Modern trends in the development of the agro-industrial complex impose new requirements on the human resource management system, which necessitates the implementation of innovative methods for human resource development. The activities of enterprises in the agricultural sector are closely linked to the use of technological innovations, automation of production processes, and digitalization of management procedures. As a result, the role of personnel is also changing. Personnel development management in the context of the agro-industrial complex requires the integration of innovative methods into the overall strategy of enterprise development. The introduction of cutting-edge technologies should be accompanied by changes in organizational

culture aimed at promoting openness to change, fostering initiative, and supporting a creative approach to solving production challenges. Therefore, the improvement of the personnel development system based on innovative approaches becomes a key factor in ensuring the competitiveness of agro-industrial enterprises.

Innovative methods of personnel development management encompass a wide range of tools and technologies aimed at forming new competencies, increasing professional flexibility, developing creative thinking, and enhancing the ability to adapt quickly. Among these methods, E-learning holds a special place, as it enables the organization of qualification improvement processes regardless of spatial and time constraints. This form of training has become popular due to its flexibility and ability to optimize time for both trainers and participants [4]. The E-learning method is a modern and flexible tool for personnel development that can be effectively applied in enterprises within the agro-industrial complex. Thanks to the ability to learn online, employees can gain knowledge at a convenient time without interrupting their main work processes. This is particularly important for the agricultural sector, where the seasonality of work and uneven workloads affect the availability of traditional training. E-learning allows for training using modern platforms that offer a wide range of educational materials: video lectures, interactive modules, webinars, tests, and simulators. For agricultural workers, this can provide an opportunity to study the latest agronomic technologies, plant protection methods, precision farming principles, and the use of drones or other digital tools for field monitoring. For example, agronomists can take courses on soil analysis, while technical staff can learn to maintain modern agricultural machinery. This method also helps improve knowledge in management and economics for company executives. Online courses can cover topics such as financial management, risk management,

cost optimization, or agricultural product marketing. Furthermore, E-learning supports professional growth by providing access to the best international practices and expertise from leading specialists. The use of E-learning helps make the learning process accessible and effective, improving personnel qualifications and enhancing the competitiveness of agro-enterprises, while promoting their sustainable development in the modern agricultural market.

An important aspect is that training materials can be tailored to the specifics of the region, taking into account climatic conditions, soil types, and the specifics of growing certain crops in a given area. Another advantage is the ability to organize joint training for employees from different companies, creating a platform for experience exchange. This fosters the formation of a professional community that brings together agricultural producers, agronomists, technical specialists, and managers.

Another important component is the use of gamification in the professional development system, which enhances motivation to learn. Introducing game elements into training programs makes the process of acquiring new knowledge more engaging and interactive, which is especially relevant for younger workers. Thanks to gamification, employees can develop not only professional competencies but also important personal qualities such as teamwork, leadership, and problem-solving skills.

The implementation of adaptive learning based on artificial intelligence opens new perspectives for individualizing the personnel development process. By analyzing data on each employee's learning outcomes, the system can propose personalized professional growth trajectories. This is particularly important for enterprises in the agro-industrial complex, where the qualification level of employees can vary significantly depending on their position, specialization, and work experience.

The active use of virtual and augmented reality technologies allows for the modeling of production processes, creating simulators for practicing complex skills without risk to real production. For the agricultural sector, this is especially relevant when working with machinery, complex equipment, or in processes where significant financial or environmental risks exist in case of employee errors.

Innovative approaches to personnel development also include the introduction of the concept of continuous learning, which should become part of the corporate culture of agro-industrial enterprises. The continuous learning system is aimed at regularly updating employees' knowledge and skills, which is critical in the context of rapid

technological changes. It is based on principles of self-education, mentoring, participation in professional communities, and the use of external learning resources. Another component of the innovative approach to personnel development is the creation of internal corporate universities, training centers, and innovation laboratories. Such structures allow enterprises to independently form the necessary competencies, quickly respond to market changes, and integrate new developments into production processes. In developed economies, effective approaches to corporate training and enhancing the professional potential of employees are widely used (Fig. 1).

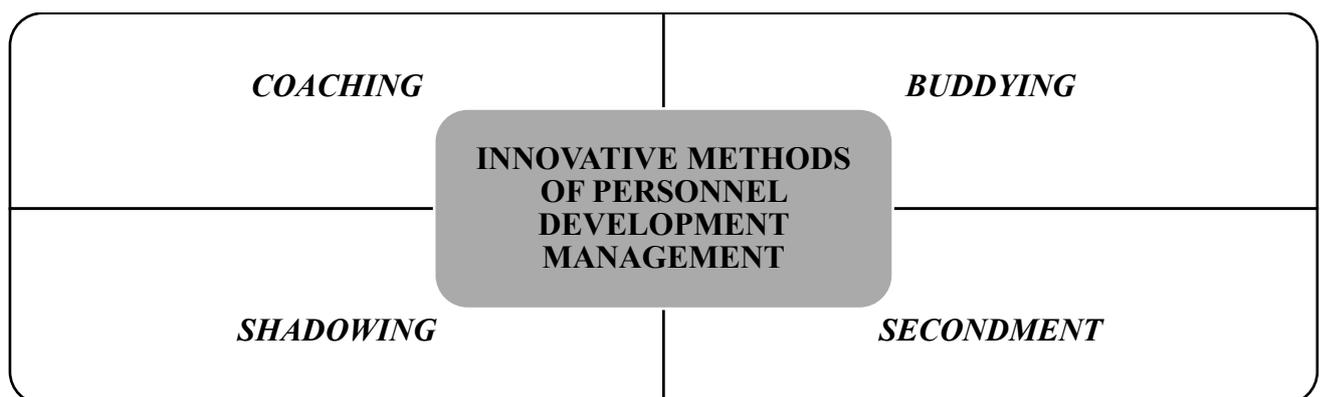


Figure 1 – Innovative Methods of Personnel Development Management [4; 5]

Coaching serves as an effective tool for personnel development, capable of significantly enhancing the productivity of agricultural enterprises. This method is focused on providing individual support to employees, helping to unlock their potential, improve professional competencies, and solve specific tasks in the agricultural sector [6]. Thus, coaching can be used to introduce the latest technologies and practices. For example, mentor-coaches can work with agronomists or technical staff, helping them better understand the benefits and operational principles of modern tools, such as drones for field monitoring, precision farming systems, or automated irrigation complexes. Instead of simple instruction, coaching focuses on a personalized approach,

supporting employees in applying these technologies to meet the real needs of their enterprises. For the management staff of agricultural enterprises, coaching becomes an effective tool for developing leadership skills. Middle and senior managers can learn to make more effective decisions, motivate teams, and optimize work processes. This is particularly important in agriculture, where there is often a need to quickly adapt to changes – whether due to weather conditions or market fluctuations. Coaching is also useful for adapting new employees, especially young ones starting their careers in agriculture. Individual work with a coach helps newcomers not only quickly acquire basic skills but also build trust with their team, understand the specifics of the job, and adopt

the corporate culture of the enterprise. In addition, this method can be used to address specific problems. For example, coaches can help employees solve issues related to cost optimization, increasing yields, pest control, or mastering new agricultural technologies. Coaching encourages the search for personal solutions, develops critical thinking, and boosts confidence in one's actions. In the context of Ukrainian agrarians, where agriculture has rich traditions but faces modern challenges, coaching will help enterprises combine traditional knowledge with innovative approaches. This will contribute to increased productivity, staff motivation, and ensure the sustainable development of the agro-industrial sector.

Buddying is the process of knowledge and experience transfer between individuals, based on the principles of interaction and feedback. The essence of this method lies in informal knowledge exchange between professionals who are willing to share their experience based on mutual interest. It does not imply a strict structure or rigid regulations, such as set hours or mandatory meetings [4]. On the contrary, the exchange happens spontaneously, often in an informal setting, between colleagues who share common interests or work on similar tasks. The buddying method can also be an effective tool for personnel development in agricultural enterprises, considering the specifics of a particular region and the characteristics of the industry. In agriculture, there is often a gap between the experience of senior professionals and the needs of younger workers, as well as between traditional practices and modern technologies actively being implemented in the agricultural sector. Buddying helps to bridge these resources, creating an environment for continuous learning. Experienced workers, familiar with the climatic and soil conditions of a specific region, can pass on their knowledge to younger agronomists or workers, helping to adapt modern technologies to local conditions. For example, they can explain

which crop varieties are better suited to different areas, how to use fertilizers more effectively, or how to optimize work depending on weather conditions. Additionally, younger specialists with knowledge of the latest agricultural techniques, such as using GPS navigation, drones for field monitoring, or digital management systems, can share these insights with senior colleagues. This facilitates the integration of modern technologies into traditional processes. Buddying can also be used to organize informal knowledge exchanges between agricultural producers working in the same region. Such meetings can help spread best practices in crop growing, pest control, or cost optimization, contributing to the overall development of the region's agricultural sector. To enhance qualification at the workplace, new employees can be paired with experienced mentors who will teach them the nuances of specific tasks, such as operating machinery, caring for livestock, or working with irrigation systems, in an informal setting. This approach will help newcomers adapt more quickly to the working conditions and requirements of the enterprise. Buddying will also help form a corporate culture by fostering an atmosphere of mutual assistance and trust within the team. In agriculture, where work is often collaborative, this is especially important. The implementation of buddying will allow agricultural enterprises to create a flexible learning system based on human interactions, which will foster professional development, improve productivity, and enhance the competitiveness of the region's agricultural sector.

The Shadowing method is a form of training where an employee "shadowing" observes an experienced colleague's work [5]. This method can be extremely useful in personnel development at agro-industrial enterprises, as it allows new or less experienced employees to learn from real-life work examples and gain practical knowledge directly in the field, observing the work of more experienced colleagues. This method is

particularly effective in agriculture, where knowledge is often transferred through hands-on experience. Employees who shadow their mentors have the opportunity to master various aspects of the work, from organizing agricultural processes to servicing machinery and managing workgroups. For example, young agronomists or technicians may observe the work of more experienced colleagues, learning best practices in crop growing, land preparation, or even setting up and maintaining agricultural machinery. This will allow them to quickly acquire necessary skills and knowledge without the need for prolonged theoretical training, as practical experience is often the most effective. For managers or employees seeking to develop their leadership and management skills, the Shadowing method also offers the opportunity to learn from real-life examples of decision-making, staff interaction, and solving work-related issues. This approach will allow junior managers or future company leaders to better understand corporate culture and effective management strategies by observing the work of more experienced colleagues. This method also facilitates a faster integration of new employees into the work process, allowing them to directly engage with the enterprise's activities and receive valuable advice and feedback from those who already have experience. As a result, the Shadowing method not only

enhances employees' qualifications but also helps them adapt to the specific nature of work in the agricultural sector, which is crucial for the development of agro-industrial enterprises.

Another interesting method is Secondment, which involves transferring staff to another department or even enterprise to gain specific experience [4]. This method can also be used to exchange experience between different enterprises in the agricultural sector. It will allow employees to learn how to use innovative approaches and effective strategies. Temporary transfers provide employees with new career growth and development opportunities, as they allow them to demonstrate their abilities in new roles or positions. Through Secondment, employees can gain important interdisciplinary experience, which will later contribute to more efficient performance in their main roles. For the enterprise, it is also an opportunity to bring in new ideas and approaches, improve management and technologies, thereby enhancing the overall efficiency of the enterprise.

After analyzing various methods aimed at managing personnel development, we suggest that agro-industrial enterprises, in addition to the aforementioned methods, focus on developing their personnel in the directions depicted in Figure 2.

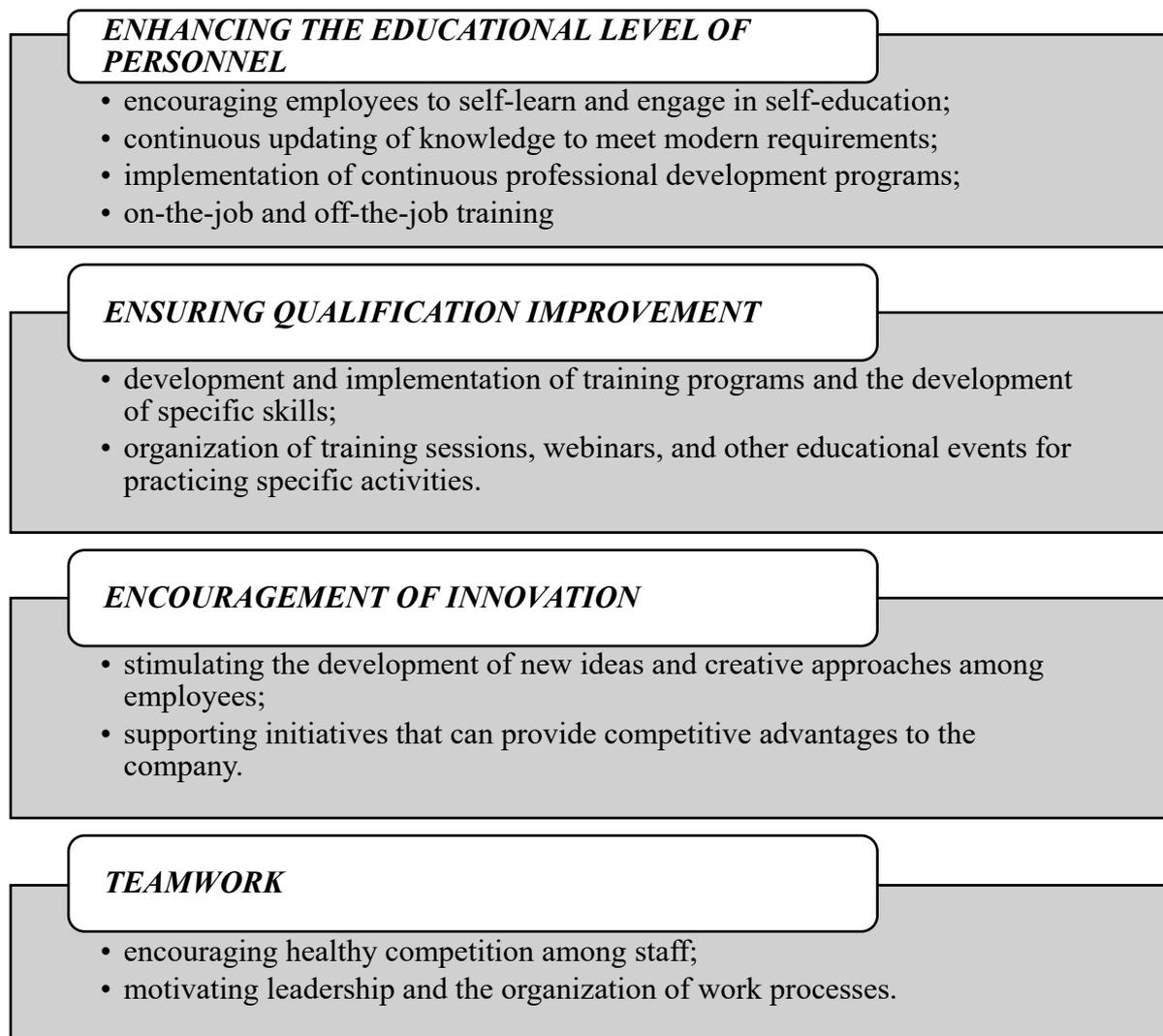


Figure 2 – Directions of personnel development in agro-industrial enterprises [1; 2; 3]

An important condition for the effective implementation of innovative methods for managing personnel development is the formation of a system for evaluating training outcomes. This will allow for tracking the dynamics of changes in employees' professional training, assessing the impact of educational activities on production performance, and adjusting development programs according to the actual needs of the enterprise.

Equally important is the involvement of employees in the process of developing and improving training programs. Active participation in identifying their educational needs, assessing the quality of training, and suggesting improvements to training programs will increase their motivation and

engagement in their own development process.

Thus, the implementation of innovative methods for managing personnel development in agro-industrial enterprises is a key factor in their competitiveness in the context of the digital economy. Innovative technologies open up broad opportunities for enhancing employee qualifications, forming new competencies, and stimulating their activity and creative potential, which are crucial for the successful development of agricultural production in the future.

**Conclusions.** The conducted research has demonstrated that innovative methods of managing personnel development are a key factor in enhancing the competitiveness of enterprises in the agro-industrial sector amid digitalization and technological change. The

relevance of integrating such methods is driven by the need for rapid adaptation to labor market dynamics, the growing importance of highly qualified personnel, and the necessity of implementing advanced agricultural technologies.

The proposed innovative approaches – including e-learning, gamification, adaptive learning, the use of virtual and augmented reality technologies, buddying, shadowing, and coaching – have proven effective in developing professional competencies, fostering initiative, creativity, and readiness for change. Particularly important is the implementation of continuous learning and the creation of internal corporate educational platforms, which will contribute to sustainable professional development of personnel.

The practical implementation of the proposed methods will enable agricultural enterprises to introduce technological innovations more quickly, optimize production processes, increase labor productivity, and reduce costs. Furthermore, innovative approaches will promote the formation of a favorable environment for knowledge exchange, the development of teamwork, and the enhancement of overall employee motivation.

Therefore, the application of innovative personnel development methods should become a strategic priority for agricultural enterprises aiming for sustainable growth and effective response to the challenges of the modern agricultural market.

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