

DOI: 10.31319/2709-2879.2026iss1(12).363801pp68-75  
УДК 331.108:658.3

**Kasko Alina**, Bachelor's degree student

Dniprovsky State Technical University, Kamianske

e-mail: kasko.alina@ukr.net

**Levchuk Kateryna**, PhD in Economics, Associate Professor, Associate Professor of the Department of Management

Dniprovsky State Technical University, Kamianske

ORCID ID: 0000-0002-4803-5355

e-mail: career\_dgtu@ukr.net

**Касько А.І.**, здобувач вищої освіти першого (бакалаврського) рівня

Дніпровський державний технічний університет

**Левчук К.О.**, кандидат економічних наук, доцент, доцент кафедри менеджменту

Дніпровський державний технічний університет, м. Кам'янське

## PERSONNEL MANAGEMENT SYSTEM OF LLC 'SPEZTEKHOSNASTKA': EFFICIENCY ASSESSMENT AND WAYS OF IMPROVEMENT

### СИСТЕМА УПРАВЛІННЯ ПЕРСОНАЛОМ ТОВ «СПЕЦТЕХОСНАСТКА»: ОЦІНКА ЕФЕКТИВНОСТІ ТА НАПРЯМИ ВДОСКОНАЛЕННЯ

*The article examines the features of the personnel management system of LLC 'Spetstechosnastka' under the current conditions of economic instability and martial law. A comprehensive assessment of the effectiveness of the enterprise's personnel management system was carried out based on an analysis of staffing indicators for 2022–2024. The main problematic aspects of personnel management were identified, including: aging of the workforce, a decrease in satisfaction with the motivation system, insufficient efficiency of personnel adaptation, instability of personnel policy, limited use of modern recruitment tools, and an increase in the time required to fill vacancies. It was established that the key reasons for employee resignations are dissatisfaction with the level of pay, lack of career growth, and imperfections in adaptation processes.*

*A set of measures for improving the enterprise personnel management system has been justified, which includes improving the motivation policy, developing adaptation programs, optimizing personnel recruitment, forming a youth personnel policy, enhancing the effectiveness of professional training, and ensuring personnel stability. Special attention was paid to the implementation of modern HR tools, in particular HR analytics, a competency-based approach to personnel selection, mentoring systems, onboarding programs, and continuous learning.*

**Key words:** *personnel management system, personnel management, employee motivation, employee adaptation, personnel recruitment, personnel stability, personnel management effectiveness.*

*У статті досліджено теоретико-прикладні аспекти функціонування системи управління персоналом промислового підприємства в умовах трансформаційних змін зовнішнього середовища, воєнного стану та посилення конкуренції на ринку праці. Актуальність тематики зумовлена зростанням ролі людського капіталу як ключового ресурсу забезпечення конкурентоспроможності, інноваційності та економічної стійкості підприємств виробничого сектору.*

*Об'єктом дослідження виступає система управління персоналом ТОВ «Спецтехоснастка». Метою роботи є оцінювання її ефективності, виявлення проблемних зон функціонування та обґрунтування практичних рекомендацій щодо її вдосконалення відповідно до сучасних умов господарювання.*

У процесі дослідження застосовано системний, аналітичний та порівняльний підходи, що дозволило комплексно оцінити кадрові процеси підприємства за період 2022–2024 років. Встановлено наявність структурних дисбалансів у кадровому складі, зокрема тенденції до старіння персоналу та скорочення частки молодих працівників. Виявлено зниження рівня задоволеності системою мотивації, недостатню ефективність адаптаційних процедур, недосконалість рекрутингових механізмів і нестабільність показників плинності кадрів.

Дослідження показало, що домінуючими причинами звільнення працівників є недостатній рівень матеріального стимулювання, обмежені можливості професійного зростання та слабка ефективність соціально-організаційної підтримки персоналу. Додатково зафіксовано зростання рівня виробничого браку серед новоприйнятих працівників, що свідчить про недостатній рівень адаптаційного супроводу та професійної підготовки.

У роботі обґрунтовано комплексний підхід до вдосконалення системи управління персоналом, який охоплює модернізацію мотиваційного механізму на основі KPI-орієнтованого преміювання, розвиток програм наставництва, впровадження стандартизованих onboarding-процедур, цифровізацію рекрутингу та формування молодіжної кадрової політики. Окрему увагу приділено розвитку безперервного професійного навчання, мікронавчання, внутрішнього обміну знаннями та формуванню кадрового резерву.

Запропоновано використання сучасних інструментів HR-менеджменту, зокрема HR-аналітики, компетентнісного підходу до відбору персоналу та цифрових комунікаційних каналів залучення кандидатів. Встановлено, що їх впровадження сприятиме підвищенню продуктивності праці, зниженню плинності кадрів, зміцненню кадрової стабільності та підвищенню рівня професійної компетентності персоналу.

Результати дослідження мають практичне значення та можуть бути використані для вдосконалення систем управління персоналом промислових підприємств в умовах нестабільного зовнішнього середовища, дефіциту трудових ресурсів та трансформації ринку праці.

**Ключові слова:** система управління персоналом, кадровий менеджмент, мотивація персоналу, адаптація працівників, підбір персоналу, кадрова стабільність, ефективність управління персоналом.

### **JEL Classification** M12, M51, M54, J24, J63

**Introduction.** In today's business environment, the human resources management system is one of the key factors in ensuring a company's competitiveness, its ability to adapt to changes in the external environment, and its long-term economic stability. The issue of effective human resource management is particularly relevant for industrial enterprises, whose operations depend on the availability of highly qualified personnel, the level of employee training, the efficiency of work organization, and the ability to respond quickly to transformational processes in the economy.

Amid martial law in Ukraine, a demographic crisis, increased labor migration, and a shortage of skilled personnel, enterprises face new challenges in the area of workforce management. A significant reduction in the labor force, increased competition for skilled personnel, the need for employees to adapt to crisis conditions, and changing motivational expectations among staff require a reevaluation of traditional approaches to human resource management.

For industrial enterprises, issues such as building a stable workforce, improving the motivation system, professional development of employees, effective onboarding of new staff, and increasing staff retention are of particular importance. In this regard, it is relevant to study the specifics of how a particular enterprise's human resources management system functions in order to identify problematic aspects and develop practical recommendations for its improvement.

The subject of this study is Spetstekhosnastka LLC, a manufacturing company whose operations rely on highly skilled labor and require continuous development of its human resources.

**Analysis of recent studies and publications.** Personnel management issues are widely represented in the works of both domestic and international scholars. A significant contribution to the

development of human resource management theory has been made by O. Hryshnova [3], M. Kolot [4], T. Balabanova [5], M. Armstrong [1], and P. Drucker [2]. Contemporary research places particular emphasis on strategic HR management, human capital development, competency formation, and ensuring organizational workforce resilience.

Despite the considerable body of academic literature, issues related to the improvement of personnel management systems in industrial enterprises under martial law conditions remain highly relevant and require further scientific investigation.

**The purpose of this article** is to assess the effectiveness of the personnel management system of LLC “Spetstekhosnastka,” to identify problematic aspects of its functioning, and to develop practical recommendations for improving human resource management under contemporary economic conditions.

**Presentation of the main material.** An effective personnel management system is a crucial element in ensuring the stability of a manufacturing enterprise, as human resources determine labor productivity levels, the quality of production processes, and the organization’s ability to adapt to changes in the external environment. For industrial enterprises characterized by high technological complexity and significant dependence on employee qualifications, the formation of an effective HR policy is of particular importance.

LLC “Spetstekhosnastka” is a manufacturing enterprise engaged in the production of specialized technical goods. The specificity of its production processes requires the involvement of highly qualified personnel capable of operating modern equipment, including computer numerical control (CNC) machines, which highlights the need for an effective system of recruitment, training, and employee retention.

The analysis of the personnel management system of LLC “Spetstekhosnastka” for the period 2022–2024 made it possible to identify both positive trends and a number of problematic aspects affecting the effectiveness of HR management.

An important component of evaluating the effectiveness of the personnel management system is the analysis of the demographic structure of the workforce, as human capital determines the enterprise’s ability to ensure production stability, adapt to technological changes, and maintain competitiveness. The results of the workforce composition analysis for LLC “Spetstekhosnastka” over 2022–2024 reveal several contradictory trends.

One of the most significant issues is the aging of the workforce. In particular, the share of young employees under the age of 25 significantly decreased during the studied period, from 21.6 % in 2022 to 7.1 % in 2024. At the same time, the proportion of employees aged 40–60 increased, reaching 59.8 %. Such a trend creates potential risks of future labor shortages, as the capacity for workforce renewal and the transfer of professional competencies to younger generations is gradually diminishing.

The aging of the workforce also poses a risk of reduced innovation capacity within the enterprise, as younger employees typically adapt more rapidly to digital technologies, demonstrate greater flexibility, and show higher readiness to master new production processes. Under such conditions, the enterprise requires the formation of a long-term youth-oriented HR policy focused on attracting young professionals and creating favorable conditions for their professional development.

An important indicator of the effectiveness of personnel management is workforce mobility indicators. The analysis of staff turnover rates revealed an unstable HR situation at the enterprise. The most problematic year was 2022, when the turnover rate reached 13.34 %, indicating significant workforce losses and instability within the labor collective. Despite a partial improvement in 2023, a renewed increase to 3.97 % in 2024 demonstrates the instability of positive changes and the persistence of systemic issues in employee retention.

Particular attention should be paid to the analysis of reasons for employee resignation, which allows the identification of key factors of HR instability. It was established that the predominant cause of turnover is dissatisfaction with salary levels, accounting for 41.7 % of total resignations. This indicates a lack of competitiveness in the compensation system and a mismatch between remuneration levels and employee expectations or prevailing market conditions.

The second most significant factor is the absence of career development opportunities, which accounts for 16.7 % of resignations. This highlights deficiencies in internal promotion mechanisms and the lack of clear career pathways within the enterprise. Insufficient career planning negatively affects employee motivation and reduces engagement in achieving the company's strategic objectives.

Another critical issue is the insufficient effectiveness of onboarding and adaptation processes for new employees. The analysis showed that the defect rate among newly hired personnel increased from 25 % to 31 %, while the success rate of probation period completion declined from 40 % to 36 %. Moreover, only 19 % of positions are covered by formal adaptation programs, which is inadequate for a manufacturing enterprise requiring high levels of professional training and strict adherence to technological standards.

An essential component of personnel management is the recruitment process. The study revealed a predominance of informal recruitment channels, with friends, acquaintances, and relatives of employees accounting for more than 23 % of hires. Such a strong reliance on social networks may negatively affect recruitment quality, as selection criteria in these cases are not always based on candidates' professional competencies.

At the same time, the enterprise insufficiently utilizes modern digital recruitment tools, HR analytics, and competency-based selection approaches. This partly explains the increase in vacancy closing time from 7 to 14 days, which, under conditions of labor shortages and martial law, creates additional risks for production stability.

Another important indicator of personnel management effectiveness is employee satisfaction with the motivation system. The analysis revealed a negative trend, with satisfaction decreasing from 73 % in 2022 to 55 % in 2024. This dynamic indicates a gradual decline in the effectiveness of the existing incentive system and the need for its transformation in line with current socio-economic conditions.

Overall, the assessment of the personnel management system of LLC "Spetstekhosnastka" reveals a number of systemic problems that hinder the improvement of HR management efficiency. The key issues include workforce aging, insufficient effectiveness of the motivation system, challenges in employee adaptation, instability of HR policy, inefficiencies in recruitment processes, and declining labor productivity. These challenges necessitate the development of a comprehensive approach to improving the enterprise's personnel management system.

The findings of the analysis have identified critical issues in the functioning of the HR management system at LLC "Spetstekhosnastka" that require integrated solutions. Accordingly, it is advisable to implement a systemic approach to improving HR management, encompassing employee motivation, adaptation, recruitment, professional development, and workforce stability.

The primary direction for improving the personnel management system is the modernization of the enterprise's motivational policy. The necessity of its revision is driven by a decline in employees' satisfaction with the incentive system and the predominance of dissatisfaction with wage levels among the reasons for staff turnover.

In the context of inflationary processes, a shortage of qualified labor, and high competition in the labor market, it is advisable for the enterprise to reconsider its approach to financial incentives by aligning wage levels with prevailing market conditions. At the same time, financial incentives alone are insufficient to ensure long-term employee engagement, which necessitates the formation of a comprehensive motivation system combining both material and non-material instruments of influence.

One effective solution is the implementation of a flexible performance-based bonus system using Key Performance Indicators (KPIs). For production personnel, such indicators may include the level of production plan fulfillment, reduction of defect rates, and compliance with production standards. For engineering and technical staff, relevant indicators may involve project implementation speed, the level of technological improvements, and the introduction of innovative solutions. For administrative personnel, evaluation criteria may include the effectiveness of managerial decisions, process optimization, and overall organizational performance.

It is advisable to establish bonus payments within the range of 20–40 % of the base salary, depending on the degree of achievement of defined performance indicators. This approach will

contribute to the development of a transparent performance evaluation system, increased productivity, and enhanced employee motivation.

In addition to financial incentives, it is important to strengthen non-monetary motivation mechanisms. In the context of increased psychological workload, effective tools may include recognition programs for professional achievements, flexible work arrangements, and the development of internal communication systems. In particular, the introduction of an “Employee of the Month” program is recommended, aimed at publicly recognizing employees’ professional achievements. Such instruments positively influence organizational engagement and foster a favorable socio-psychological climate within the workforce.

Of particular relevance under martial law conditions is the development of social and psychological support for employees. Workers require not only financial stability but also a sense of security, social support, and emotional resilience. Therefore, it is advisable to introduce psychological counseling services, employee assistance programs in crisis situations, and enhanced social guarantees.

Another important area of improvement in personnel management is enhancing the effectiveness of onboarding processes for new employees. Given the identified insufficient level of adaptation and the increase in production defects among newly hired staff, the enterprise should implement standardized onboarding programs for all categories of employees.

A modern HR solution may include the development of individualized adaptation pathways for different professional groups. Such pathways should provide a clear sequence of adaptation stages: familiarization with the workplace, completion of initial training, execution of basic production tasks under mentor supervision, gradual expansion of job responsibilities, and a final assessment of readiness for independent work.

For production employees, particularly operators of CNC (computer numerical control) machines, it is advisable to apply a practice-oriented training approach that ensures step-by-step acquisition of professional skills and the use of production simulations without risk to the main manufacturing process. This approach will help reduce defect rates, minimize production losses, and improve the overall quality of personnel training.

The mentoring system also holds significant potential for improvement. It is appropriate to introduce financial incentives for mentors, for example in the form of bonus payments upon successful completion of the probation period by trainees. This would increase the motivation of experienced employees to actively transfer professional knowledge and ensure high-quality training of new staff.

An important instrument of social adaptation is the implementation of a Buddy system, which involves assigning a colleague of the same professional level to a new employee for informal support and faster integration into the team. Such an approach helps reduce psychological barriers during adaptation and increases newcomers’ satisfaction with working conditions.

One of the key prerequisites for ensuring workforce stability is the improvement of the recruitment process. The analysis of the enterprise’s HR practices revealed an excessive reliance on informal recruitment channels, which necessitates the diversification of candidate sourcing methods.

A promising direction is the development of digital recruitment and the formation of a strong employer brand. In particular, it is advisable to create a dedicated “Careers at LLC ‘Spetstekhosnastka’” section on the company’s official website, as well as to actively use social media platforms to promote job openings, showcase production processes, and highlight opportunities for professional development.

At the same time, an important direction for improving the personnel management system of LLC “Spetstekhosnastka” is the formation of a youth-oriented HR policy, driven by the identified trend of workforce aging and the declining share of young employees. In conditions of labor shortages, industrial enterprises must compete for young specialists by offering attractive opportunities for professional growth and career advancement.

One of the most effective instruments in this regard is the development of cooperation with vocational and higher technical education institutions based on dual education principles. The

conclusion of tripartite agreements between the enterprise, educational institutions, and students would enable paid industrial internships with the prospect of subsequent employment.

A practical initiative in this area could be the introduction of a “Young Specialist at LLC ‘Spetstekhosnastka’” program, which would ensure a step-by-step integration of young employees into the production environment. Such a program may include individual career development trajectories, mentoring systems, regular performance evaluations, and gradual increases in financial incentives based on competency development.

Particular attention should be given to the formation of a talent pipeline (personnel reserve). To this end, the enterprise should introduce internal competitions among promising young employees, with subsequent inclusion of the most effective staff members in the reserve for critical production or managerial positions. This approach would ensure continuity of professional competencies and reduce personnel-related risks.

Another important component of improving the HR management system is the development of professional training. In conditions of rapid technological advancement, enterprises require continuous updating of employees’ knowledge and skills, especially in the operation of modern production equipment.

The implementation of the Learning Factory concept is advisable, which involves on-site training with dedicated learning zones where employees can practice skills without affecting actual production processes. For CNC machine operators, this may include training modules, test components, and digital simulators.

An important tool for skills development is the use of microlearning technologies, which involve short training modules lasting 5–10 minutes. Practical implementation may include video instructions for equipment setup, short safety courses, and learning materials on common production errors and their correction. Access to such content should be provided via corporate messengers or internal digital platforms.

The development of internal knowledge sharing is also of significant importance. This may be implemented through technical mini-seminars, meetings with leading specialists, and the creation of an electronic knowledge base. Such an approach contributes to the preservation and transfer of practical experience across generations of employees.

For managerial staff, it is advisable to introduce an internal “Master/Manager School” program focused on developing leadership competencies, team management skills, conflict resolution, and the application of modern production management approaches, including Lean Management and 5S methodologies.

An essential component of HR policy is ensuring workforce stability. In this regard, the enterprise should shift from a reactive approach to turnover management toward a preventive employee retention model.

One of the most effective tools is continuous monitoring of employee turnover causes through both exit interviews and stay interviews aimed at identifying risk factors before employees decide to resign. Regular anonymous employee surveys will also allow timely detection of problematic aspects in labor relations and enable appropriate corrective actions.

At the same time, it is advisable to implement a Talent Retention Program, which may include individualized incentive schemes, bonuses for long-term employment, personalized career development plans, and additional social benefits.

**Conclusions.** The study has established that the personnel management system of LLC “Spetstekhosnastka” plays a decisive role in ensuring the stability of the enterprise’s production activities; however, it requires further improvement in response to contemporary labor market challenges, demographic shifts, and the conditions of martial law.

A comprehensive assessment of the enterprise’s HR management effectiveness over the period 2022–2024 revealed both positive trends and a number of problematic aspects. In particular, an aging workforce structure was identified, characterized by a decreasing share of young employees and an increasing proportion of staff aged 40–60 years. A decline in employee satisfaction with the motivation system was also observed, along with insufficient effectiveness of onboarding processes for new

employees, instability of HR policies, shortcomings in recruitment practices, and a general downward trend in labor productivity.

The study confirmed that the primary reasons for employee turnover include dissatisfaction with wage levels, limited career advancement opportunities, insufficient social support, and inadequate organization of professional adaptation. At the same time, the increasing defect rate among newly hired employees and the low coverage of adaptation programs indicate the need for a systematic revision of HR processes.

To address the identified issues, a set of measures has been proposed to improve the personnel management system of LLC “Spetstekhosnastka.” These include modernization of the motivation system, implementation of KPI-based bonus schemes, development of mentoring and onboarding programs, enhancement of recruitment processes, formation of a youth-oriented HR policy, introduction of continuous professional training, and establishment of employee retention mechanisms.

The feasibility of applying modern HR management tools has been substantiated, including HR analytics, competency-based selection approaches, digital recruitment channels, microlearning, internal knowledge-sharing systems, and talent pipeline development programs. It has been determined that their implementation will contribute to increased workforce stability, higher labor productivity, improved professional competencies of employees, and overall enhancement of human resource management effectiveness.

Thus, the implementation of the proposed improvement directions will enable LLC “Spetstekhosnastka” to develop a more efficient, adaptive, and resilient personnel management system capable of ensuring stable enterprise performance and strengthening its competitiveness under current socio-economic challenges.

## References

- [1] Armstrong M. (2023) *Armstrong’s Handbook of Human Resource Management Practice*. London: Kogan Page.
- [2] Drucker P. (2008) *Management: Tasks, Responsibilities, Practices*. New York: Harper Business.
- [3] Hrishnova O.A. (2019) *Ekonomika pratsi ta sotsialno-trudovi vidnosyny* [Economics of Labour and Social-Labour Relations]. Kyiv: Znannia. (in Ukrainian)
- [4] Kolot A.M. (2020) *Sotsialno-trudovi vidnosyny: teoriia i praktyka* [Social and Labour Relations: Theory and Practice]. Kyiv: KNEU. (in Ukrainian)
- [5] Balabanova L.V., Sardak O.V. (2011) *Upravlinnia personalom* [Human Resource Management]. Kyiv: Tsentri uchbovoi literatury. (in Ukrainian)
- [6] Hrishnova O.A. (ed.) (2023) *Upravlinnia personalom v umovakh nestabilnosti: suchasni HR-tekhnologii* [Personnel Management in Conditions of Instability: Modern HR Technologies]. Kyiv: KNEU. (in Ukrainian)
- [7] *Human Resource Management in Industry: Modern Challenges and Practices* (2022). London: Routledge.
- [8] Kolot A.M. (ed.) (2021) *Stratehichne upravlinnia liudskymy resursamy pidpriemstva* [Strategic Human Resource Management of an Enterprise]. Kyiv: KNEU. (in Ukrainian)
- [9] Levchuk K.O., Bandurka K.V. (2024) *Upravlinnia personalom: vyklyky, z yakymy stykaiutsia robotodavtsi pid chas voiennoho stanu v Ukraini* [Human Resource Management: Challenges Faced by Employers During Martial Law in Ukraine]. *Ekonomichnyi visnyk Dniprovskoho derzhavnoho tekhnichnoho universytetu*, no. 2(9), pp. 90–94. DOI: [https://doi.org/10.31319/2709-2879.2024iss2\(9\).318987pp90-94](https://doi.org/10.31319/2709-2879.2024iss2(9).318987pp90-94).
- [10] TOV «Spetstekhosnastka» (2026) Ofitsiynyi sait [Official website]. Available at: <https://d-sto.com/> (accessed March 31 2026). (in Ukrainian)
- [11] Levchuk K., Tarasenko S. (2025) HR management in a modern production environment LLC “Spetstekhosnastka”. *Ekonomichnyi visnyk Dniprovskoho derzhavnoho tekhnichnoho universytetu*, no. 1(10), pp. 90–98. DOI: [https://doi.org/10.31319/2709-2879.2025iss1\(10\).332493pp90-98](https://doi.org/10.31319/2709-2879.2025iss1(10).332493pp90-98).

**Список використаної літератури**

1. Armstrong M. *Armstrong's Handbook of Human Resource Management Practice*. London : Kogan Page, 2023. 824 p.
2. Drucker P. *Management: Tasks, Responsibilities, Practices*. New York : Harper Business, 2008. 576 p.
3. Грішнова О.А. Економіка праці та соціально-трудові відносини: підручник. Київ: Знання, 2019. 390 с.
4. Колот А.М. Соціально-трудові відносини: теорія і практика: монографія. Київ : КНЕУ, 2020. 456 с.
5. Балабанова Л.В., Сардак О.В. Управління персоналом: навч. посіб. Київ: Центр учбової літератури, 2011. 468 с.
6. Управління персоналом в умовах нестабільності: сучасні HR-технології: колективна монографія / за ред. О.А. Грішнкової. Київ : КНЕУ, 2023. 312 с.
7. *Human Resource Management in Industry: Modern Challenges and Practices*. London : Routledge, 2022. 284 p.
8. Стратегічне управління людськими ресурсами підприємства : монографія / за ред. А.М. Колота. Київ : КНЕУ, 2021. 378 с.
9. Левчук К.О., Бандурка К.В. Управління персоналом: виклики, з якими стикаються роботодавці під час воєнного стану в Україні. *Економічний вісник Дніпровського державного технічного університету*. 2024. № 2 (9). С. 90–94. DOI: [https://doi.org/10.31319/2709-2879.2024iss2\(9\).318987pp90-94](https://doi.org/10.31319/2709-2879.2024iss2(9).318987pp90-94).
10. ТОВ «Спецтехоснастка»: офіційний сайт. URL: <https://d-sto.com/> (дата звернення: 31.03.2026).
11. Levchuk K., Tarasenko S. HR management in a modern production environment LLC "Spetstekhosnastka". *Економічний вісник Дніпровського державного технічного університету*. 2025. № 1 (10). С. 90-98. DOI: [https://doi.org/10.31319/2709-2879.2025iss1\(10\).332493pp90-98](https://doi.org/10.31319/2709-2879.2025iss1(10).332493pp90-98).

Надійшла до редколегії 24.04.2026

Прийнята після рецензування 12.05.2026

Опублікована 28.05.2026