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ASSESSMENT OF THE INNOVATION POTENTIAL OF A PHARMACEUTICAL COMPANY BASED ON LEADERSHIP PRINCIPLES

ОЦІНКА ІННОВАЦІЙНОГО ПОТЕНЦІАЛУ ФАРМАЦЕВТИЧНОЇ КОМПАНІЇ НА ЗАСАДАХ ЛІДЕРСТВА

Summary. Introduction. In the context of global changes in the pharmaceutical market, the development of the innovative potential of companies becomes a determining factor in their ability to remain competitive. Leadership plays an important role in this process, as it supports the creativity of employees and increases the company's ability to quickly adapt to a changing market environment.

Purpose. The purpose of the study is to develop theoretical and methodological approaches and practical recommendations for assessing the innovative potential of a pharmaceutical company based on the concept of leadership.

Materials and methods. The study was conducted using scientometric Internet databases, as well as employing comparative analysis, induction and deduction, expert evaluations, logical analysis, economic and statistical approaches, surveys, and other methods. The assessment of the innovative potential of the pharmaceutical company "Darnitsa" was carried out based on human resources, technological, financial, and leadership components. For the integral assessment of innovative potential, taxonomic analysis using the Harrington scale was applied. Leadership effectiveness was evaluated using the "Leadership Practices Inventory", the "Multifactor Leadership Questionnaire", and a leadership style assessment questionnaire.

Results. The study of the innovative potential of the pharmaceutical company “Darnitsa” revealed positive changes in the human, technological, financial, and leadership components. The company effectively implements innovative strategies, maintains a high level of product quality, and introduces modern technologies. According to the results of the innovation potential assessment, the company has achieved a high level of the integral indicator, which confirms its competitiveness and the effectiveness of its management practices.

The assessment of the leadership practices of the company’s managers showed a high level in the areas of “Transformation of the Organization”, “Supporting Action”, and “Modeling the Way”, which reflects their effectiveness in promoting innovation and personnel development. The self-assessment of leaders indicates a high level of transformational leadership.

The predominant leadership styles of the managers are democratic, team-oriented, and coaching, which promote open communication and the development of an innovative culture. It is recommended to further improve management practices and implement modern approaches to support the company’s sustainable development.

Further research in this area. The integration of leadership qualities into the system of innovation development management significantly enhances the effectiveness of innovation processes. The application of democratic, team-oriented, and coaching leadership styles contributes to the formation of an innovative culture and strengthens the company’s competitiveness. Further research should focus on analyzing the impact of leadership practices on the dynamics of innovation development and the adaptation of strategies to the transformations of the pharmaceutical market.

Key words: innovative potential, leadership, pharmaceutical company, democratic style, team-oriented style, coaching style, innovative style.

Анотація. Вступ. В умовах глобальних змін на фармацевтичному ринку розвиток інноваційного потенціалу компанії стає визначальним фактором їхньої здатності зберігати конкурентоспроможність. Лідерство відіграє важливу роль у цьому процесі, оскільки підтримує креативність працівників і підвищує здатність компанії швидко адаптуватися до змінного ринкового середовища.

Мета. Метою дослідження є розробка теоретико-методичних підходів і практичних рекомендацій щодо оцінки інноваційного потенціалу фармацевтичної компанії на засадах концепції лідерства.

Матеріали і методи. Дослідження проводилося із використанням наукометричних баз даних Інтернет, а також із застосуванням порівняльного аналізу, індукції та дедукції, експертних оцінок, логічного аналізу, економіко-статистичних підходів, анкетування та інших методів. Оцінка інноваційного потенціалу фармацевтичної компанії “Дарниця” здійснювалася за кадровою, технологічною, фінансовою та лідерською складовими. Для інтегральної оцінки інноваційного потенціалу було застосовано таксономічний аналіз із використанням шкали Харрінгтона. Оцінка ефективності лідерства проводилася за допомогою анкет “Leadership Practices Inventory”, “Multifactor Leadership Questionnaire” та анкети для оцінки стилів лідерства.

Результати. Дослідження інноваційного потенціалу фармацевтичної компанії “Дарниця” виявило позитивні зміни у кадровій, технологічній, фінансовій та лідерській складових. Компанія ефективно реалізує інноваційні стратегії, підтримує високий рівень якості продукції та впроваджує сучасні технології. За результатами оцінки інноваційного потенціалу компанія досягла високого рівня інтегрального показника, що підтверджує її конкурентоспроможність і ефективність управлінських практик.

Оцінка лідерських практик керівників компанії засвідчила високий рівень за напрямками “Організаційна трансформація”, “Підтримка дій” та “Модельовання шляху”, що відображає їхню ефективність у сприянні інноваціям і розвитку персоналу. Самооцінка лідерів свідчить про високий рівень трансформаційного лідерства.

Переважаючими стилями лідерства керівників є демократичний, командний і коучинговий, що сприяють відкритій комунікації та розвитку інноваційної культури. Рекомендується подальше вдосконалення управлінських практик і впровадження сучасних підходів для підтримки сталого розвитку компанії.

Перспективи. Інтеграція лідерських якостей у систему управління інноваційним розвитком суттєво підвищує ефективність інноваційних процесів. Застосування демократичного, командного та коучингового стилів лідерства сприяє формуванню інноваційної культури та зміцненню конкурентоспроможності компанії. Подальші дослідження мають зосередитися на аналізі впливу лідерських практик на динаміку інноваційного розвитку та адаптацію стратегій до трансформацій фармацевтичного ринку.

Ключові слова: інноваційний потенціал, лідерство, фармацевтична компанія, демократичний стиль, командний стиль, коучинговий стиль, інноваційний стиль.

Statement of the problem. In the context of current changes in the global pharmaceutical market, the formation of innovative potential of pharmaceutical companies is becoming a strategically important direction to ensure their competitiveness. Innovative potential covers a set of resources, competencies, and management practices aimed at generating, implementing, and

commercializing new ideas. Leadership plays an important role in this process, which ensures the creation of a favorable organizational climate, stimulates staff creativity, and enhances the strategic flexibility of the company. Leaders form a vision of innovative development and coordinate its implementation in accordance with the long-term goals of the enterprise [1–3].

Leadership as a conceptual basis for innovative management involves not only managerial decision-making but also the activation of human capital and the development of a corporate culture of innovation and change management. In the pharmaceutical industry, this is expressed in the creation of mechanisms for motivating innovation, the integration of modern technologies into production and management processes, as well as in the introduction of strategic approaches to the commercialization of scientific developments. The interaction of leadership strategies and innovative potential allows enterprises to increase the level of adaptability to dynamic market conditions and strengthen their competitive position at the national and global levels [4–6].

Analysis of recent research and publications.

The issue of forming the innovative potential of pharmaceutical companies is the focus of many researchers [7–9]. Leadership plays a crucial role in this process, as leaders set strategic priorities, inspire teams for creative exploration, and create an environment that encourages innovation [10]. Effective leadership not only promotes the introduction of new ideas but also ensures the sustainability of change, harmonizing the interests of the company and its employees. Despite a significant contribution to the development of theories of leadership and innovation management, there are still a number of issues that need further improvement. In particular, it concerns the development of recommendations to stimulate the innovative development of pharmaceutical companies based on leadership concepts, including the introduction of new products, the optimization of personnel management, and the formation of a corporate culture focused on innovation.

The purpose of the study is to develop theoretical and methodological approaches and practical recommendations for assessing the innovative potential of a pharmaceutical company based on the concept of leadership.

Materials and methods. The research was conducted using scientometric Internet databases. The study employed comparative analysis, induction and deduction, expert evaluations, logical analysis, economic and statistical approaches, surveys, and other methods.

The assessment of the innovative potential of the pharmaceutical company was conducted based on the following components: human resources, technological, financial, and leadership components in the context of innovation activities. The human resources component was evaluated using indicators that reflect the effectiveness of employee training and professional development, including the number of training sessions conducted, staff qualifications, employee satisfaction, and team performance. The technological component of the company's innovative potential was assessed through indicators such as the number of new technologies im-

plemented, registration of new medicines, integration of digital technologies into production processes, and participation in cross-functional projects. The financial component considered expenditures on innovation development, funding for research and development, as well as investments in digital infrastructure and employee training. The leadership component in the context of innovation activities was evaluated based on the level of leader initiatives, their adaptability to change, recognition of achievements, mentorship levels, and the frequency of communication regarding innovation goals.

A methodology for the integral assessment of the innovative potential of a pharmaceutical company using taxonomic analysis has been proposed. The advantage of this tool lies in the process of so-called indicator standardization, which transforms the properties of an object, described by various qualitative and quantitative indicators, into a unified standardized measurement system. The value of the integral indicator ranges from 0 to 1, with higher values indicating better outcomes. To ensure high-quality results, the integral indicator of the pharmaceutical company's innovative potential was evaluated using the Harrington scale (0–0.24 — critical level, 0.25–0.49 — satisfactory level, 0.5–0.74 — sufficient level, 0.75–1 — high level).

The developed methodology for assessing the innovative potential of a pharmaceutical enterprise was validated through its application at the pharmaceutical company “Darnitsa”. The company “Darnitsa” is one of the leaders in the pharmaceutical industry of Ukraine. The company produces over 180 medicinal products in the fields of cardiology, neurology, pain management, and others and has its own R&D complex. From 2019 to 2024, “Darnitsa” launched 87 new drugs [11].

To assess the effectiveness of leadership in the innovation activities of the pharmaceutical company “Darnitsa” and identify areas for development, the “Leadership Practices Inventory” [12], “Multifactor Leadership Questionnaire” [13], and a questionnaire for evaluating various leadership styles [14] were used.

Presentation of the main material of the research. Stimulating innovative development based on the concept of leadership contributes to the efficient use of resources, attracting highly qualified specialists, and forming a long-term vision that is focused on social needs and strengthening the company's reputation.

Using taxonomic analysis, comprehensive indicators of the innovative potential of the pharmaceutical company “Darnitsa” were determined, including human resources, technological, financial, and leadership components. The obtained results are presented in Figure 1.

The conducted studies testify to the successful innovative development of the pharmaceutical company “Darnitsa” in the conditions of complex external factors. The company continues to actively implement

innovative strategies, demonstrating positive dynamics regarding the personnel, technological, and financial components. The growth of leadership indicators in innovation activity was noted, which testifies to the effective strategy of leadership development and the active role of management in the formation of an innovation culture. In general, the company adapts to changes and successfully implements strategies that contribute to its sustainable development in a competitive market. This level is achieved through a comprehensive approach to management, including the introduction of the latest technologies, constant work on improving personnel, and ensuring high-quality products.

On the basis of comprehensive indicators for assessing the components of the innovative potential of the pharmaceutical company “Darnitsa”, its integral indicator was calculated (Figure 2).

According to the Harrington scale, the integral indicator of the innovative potential of the pharmaceutical company “Darnitsa” is at a high level, which indicates the effectiveness of its innovation development system and the alignment of its human resources, technological, financial, and leadership components with modern requirements. The high level of this indicator confirms that the company’s innovative approaches, technological solutions, and management practices ensure its competitiveness, maintain product

quality, and contribute to the implementation of advanced developments.

Using the “Leadership Practices Inventory” questionnaire, employees assessed the leadership practices of managers at the pharmaceutical company “Darnitsa” in three key areas: “Transformation of the Organization”, “Supporting Action”, and “Modeling the Way” [12]. “Transformation of the Organization” reflects the leader’s ability to initiate and implement innovations, adapt to dynamic changes in the external environment, and contribute to the strategic development of the organization through new ideas and approaches. “Supporting Action” encompasses the assessment of the leader’s involvement in supporting processes for subordinates, creating conditions for their autonomy in decision-making, and fostering a culture of mutual trust, open communication, and collaboration. “Modeling the Way” characterizes how much the leader demonstrates personal standards of behavior, serves as a role model, defines strategic directions, and shapes the organization’s system of values and goals. The results of the study are presented in Figure 3.

The results indicate a high level of leadership practices in the company in all areas. Leaders actively support innovation, promote employee development, build an atmosphere of trust and autonomy, and demonstrate high ethical standards. This contributes to the

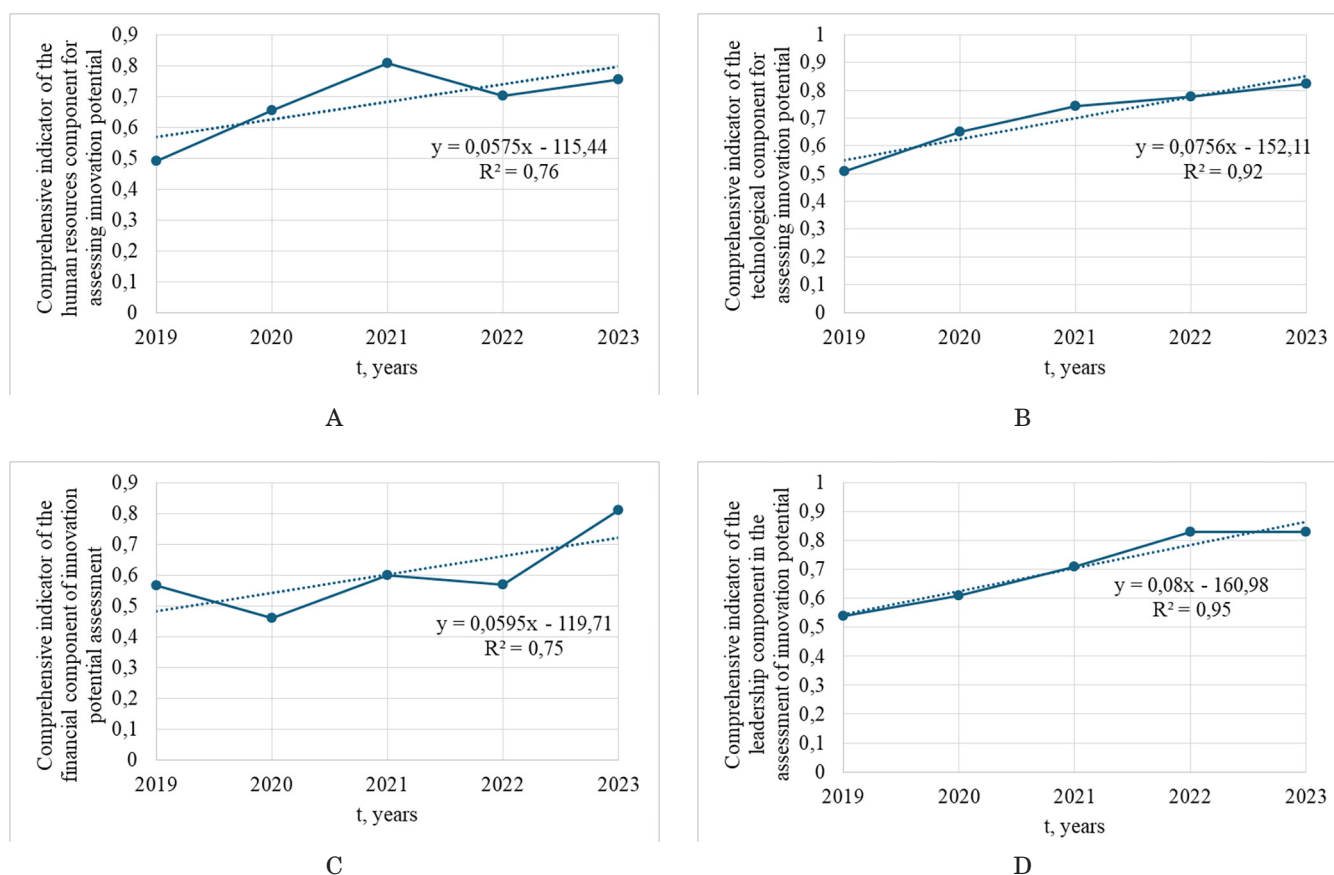


Fig. 1. Dynamics of the comprehensive indicators of the innovative potential of the pharmaceutical company “Darnitsa”: human resources (A), technological (B), financial (C), and leadership (D) components

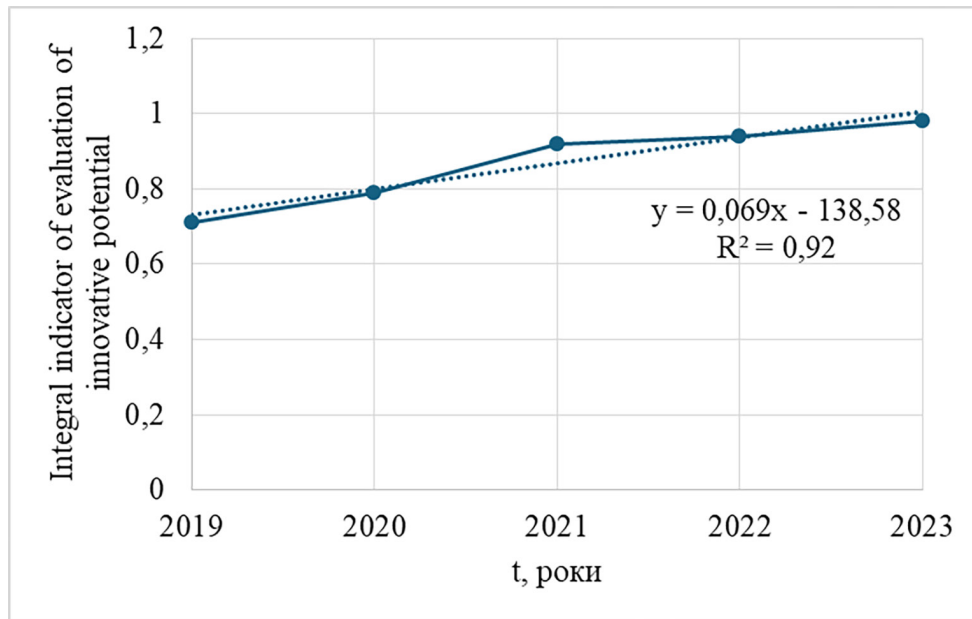
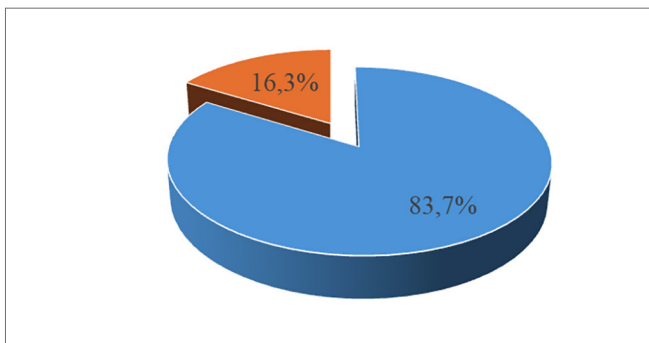


Fig. 2. Integral indicator of evaluation of innovative potential of pharmaceutical company “Darnitsa”

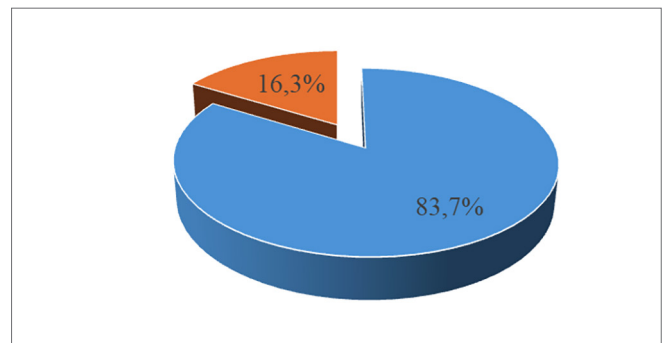
development of organizational culture and increases the efficiency of the team.

The second questionnaire (Multifactor Leadership Questionnaire) [13] was used for leaders to assess their leadership practices independently. It allows for the evaluation of transformational, transactional,

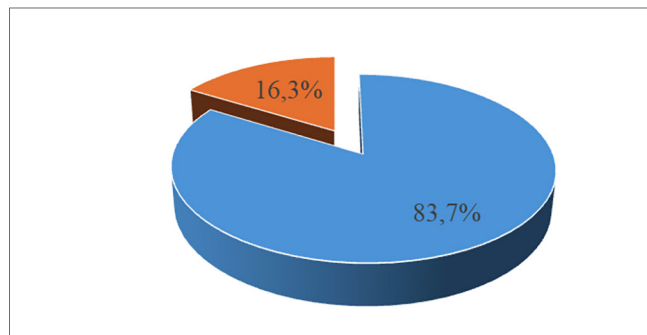
and passive leadership. Transformational leadership is demonstrated through inspiration, motivation, individual attention to employees, and stimulation of intellectual activity. Transactional leadership includes practices based on exchange, control, rewards, and sanctions. Passive leadership indicates a minimal



A



B



C

Fig. 3. Assessments in the areas of “Transformation of the Organization” (A), “Supporting Actions” (B), and “Modeling the Way” (C) (Blue color — % of respondents who agreed with the statement)

level of activity from the leader and a lack of actions for controlling or motivating subordinates. Overall, all leaders demonstrated a high level of support for subordinates through transformational leadership, particularly through charismatic leadership and individual consideration. However, there are opportunities for improvement in aspects of intellectual stimulation

and inspirational motivation, as these indicators are somewhat lower. A low level of passive leadership was observed.

The results of the survey correlated with each other, which allows us to confirm the high level of transformational leadership in the company and indicates certain areas for improvement, in particular

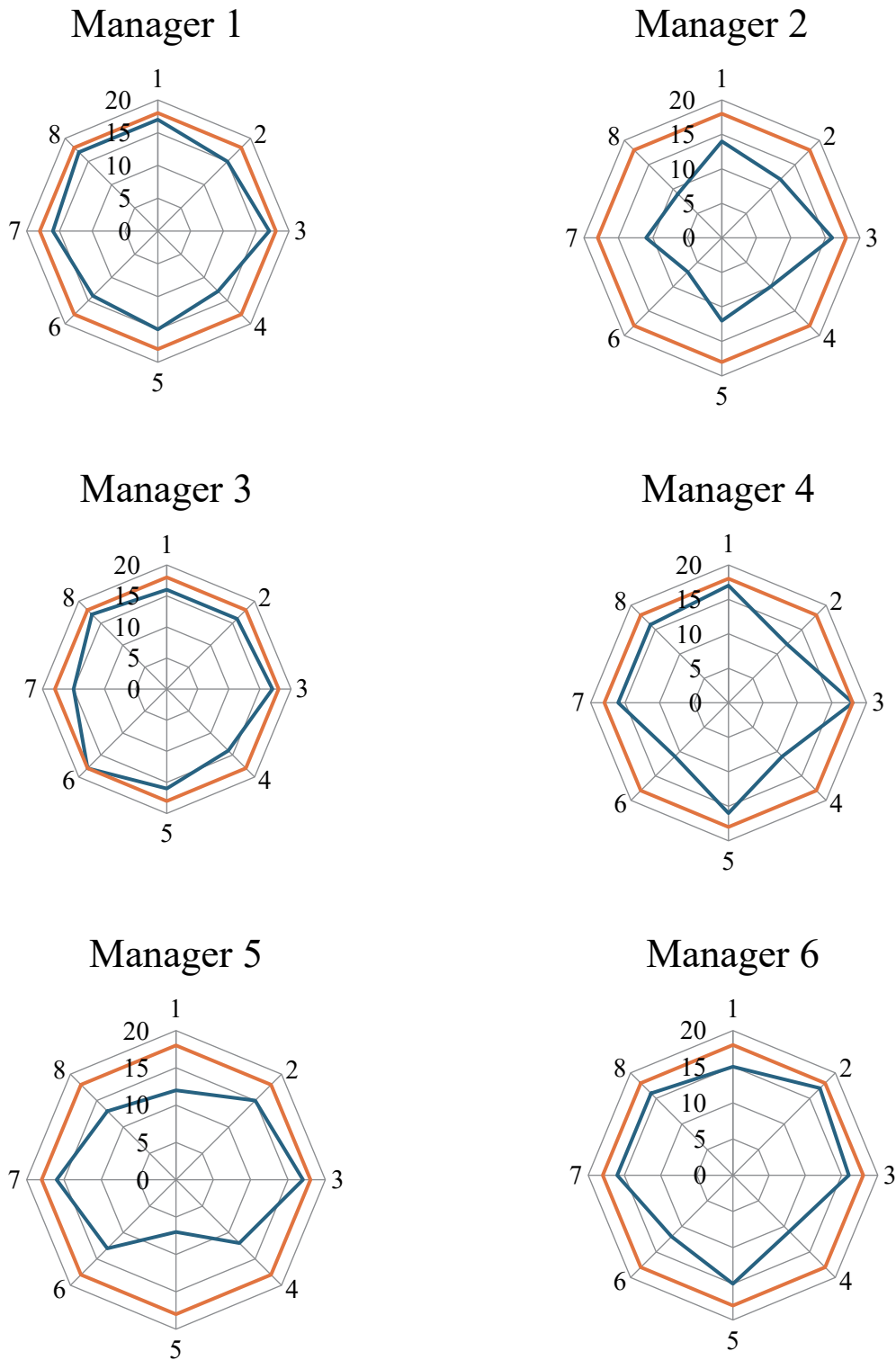


Fig. 4. Leadership style profiles of managers (1 — bureaucratic, 2 — authoritative, 3 — innovative, 4 — pacesetter, 5 — democratic, 6 — team-oriented, 7 — coaching, 8 — altruistic)

in stimulating intellectual activity and motivation of employees. Thus, the survey allows not only to assess the current state of management practices but also to determine the directions for their improvement, which contributes to the adaptation of the organization to changes and the development of innovations.

Modern studies of leadership indicate that one leader can use different styles depending on the situation and needs of the organization. Scientists determine that successful leaders are able to combine democratic, authoritarian, innovative, coaching, and other approaches, adapting them to changes in the external environment and internal conditions of the company. Such flexibility in the style of leadership allows you to effectively respond to challenges, maintain team motivation, and promote innovation [15–17].

In this regard, a survey of the company's leaders was conducted to determine the predominant leadership styles and assess their impact on management effectiveness [14].

The evaluation of the responses allowed for the formation of quantitative indicators for various leadership styles: bureaucratic, authoritative, innovative, pacesetter, democratic, team-oriented, coaching, and altruistic. The results of the analysis allow for the construction of an overall leadership profile for each leader, identifying their strengths and weaknesses, and developing recommendations for improving management effectiveness and stimulating innovation activities within the organization. Figure 4 illustrates

examples of leadership style profiles of several company leaders.

Based on the results obtained, it can be noted that the democratic and team-oriented leadership styles, which received the highest ratings, indicate that the leaders are focused on collaboration, open communication, and involving the team in decision-making. This creates favorable conditions for the development of an innovation culture within the company. The coaching style is also popular, highlighting the importance of mentorship and supporting employee development. Further support for creative thinking among leaders is recommended, as it will contribute to the continued development of innovation.

To further develop the innovative potential of the pharmaceutical company “Darnitsa”, it is important to continue to integrate the latest managerial and technological approaches, as well as actively adapt leadership strategies to the requirements of the modern pharmaceutical market.

Conclusions of this research and prospects for further research in this area. The integration of leadership qualities into the management system contributes to enhancing the effectiveness of innovation processes, as confirmed by the survey results. Creating an innovation culture through the implementation of democratic, team-oriented, coaching, and innovative leadership styles fosters the improvement of the pharmaceutical enterprise's development strategy, ensuring sustainable growth and competitiveness in the global market.

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