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## INNOVATION POTENTIAL MANAGEMENT OF A BANKING INSTITUTION IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

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**Summary.** The article considers scientific approaches to the interpretation of the essence of innovation potential as one of the key factors of successful enterprise activity. It presents the general structure of the innovation potential of a banking institution in the form of a system of components, such as financial, personnel, marketing, material and technical, information, organizational, and it is proposed to expand this structure with elements of environmental and social components, which is extremely important in the context of sustainable development. It describes the process of managing the bank's innovation potential, which consists of developing plans, controlling processes, analyzing projects, coordinating between departments, providing resources and evaluating results. Approaches to assessing the innovation potential of an enterprise are systematized, a detailed analysis is carried out at the stage of substantiation of the possibility of an innovative project, when the goals and requirements for the components of the innovation potential are already clearly defined, and when weaknesses are identified, the bank takes measures to improve them. Diagnostic analysis is widely used in strategic management. The integral approach to assessing the innovation potential of an enterprise, which is most often used in the practice of entrepreneurship, is disclosed in detail. Taking into account the strategy of environmental and social responsibility of the bank in the context of sustainable development, it is proposed to include an assessment of the environmental and social aspects in the general methodology for assessing the innovation potential of the bank. When assessing the innovation potential of the bank, it is proposed to use the following scale: 0–4.0 – low level, 4.1–7.5 – medium level, 7.6–10.0 – high level of use of innovation potential. The results of the evaluation of each component of innovation potential are used to calculate the overall indicator of the level of innovation potential. After that, an average value is set for each component based on these estimates, which serves as the initial data for identifying the weaknesses of the bank. The integral indicator is calculated as the arithmetic mean of the total sum of all components of the bank's innovation potential.

**Key words:** banking institution, innovation, innovation potential, sustainable development, management.

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## УПРАВЛІННЯ ІННОВАЦІЙНИМ ПОТЕНЦІАЛОМ БАНКІВСЬКОЇ УСТАНОВИ В КОНТЕКСТІ СТАЛОГО РОЗВИТКУ

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**Резюме.** Розглянуто наукові підходи до тлумачення сутності поняття інноваційного потенціалу як одного з ключових факторів успішної діяльності підприємства. Наведено загальну структуру інноваційного потенціалу банківської установи у вигляді системи складових, таких, як фінансова, кадрова, маркетингова, матеріально-технічна, інформаційна, організаційна. Запропоновано розширити цю структуру елементами екологічної та соціальної складових, що вкрай важливо в контексті сталого розвитку. Розглянуто процес управління інноваційним потенціалом банку, який полягає у розробленні

планів, контролі процесів, аналізі проектів, координації між відділами, забезпеченні ресурсами та оцінюванні результатів. Систематизовано підходи до оцінювання інноваційного потенціалу підприємства. Детальний аналіз проводиться на етапі обґрунтування можливості інноваційного проекту, коли вже чітко визначено цілі та вимоги до складових інноваційного потенціалу. При виявленні слабких сторін банк вживає заходи для їх удосконалення. Діагностичний аналіз широко використовується в стратегічному управлінні. Детально розкрито інтегральний підхід до оцінювання інноваційного потенціалу, який найчастіше використовується в практиці підприємництва. Враховуючи стратегію екологічної та соціальної відповідальності банку в контексті сталого розвитку запропоновано включити оцінку екологічного та соціального аспекту до загальної методики оцінювання інноваційного потенціалу банку. Під час оцінювання інноваційного потенціалу банку запропоновано використовувати наступну шкалу: 0–4,0 – низький рівень, 4,1–7,5 – середній рівень, 7,6–10,0 – високий рівень використання інноваційного потенціалу. Результати оцінювання кожної компоненти інноваційного потенціалу використовуються для розрахунку загального показника рівня інноваційного потенціалу. Після цього встановлюється середнє значення для кожної компоненти на основі цих оцінок, яке служить вихідними даними виявлення слабких сторін банку. Інтегральний показник розраховується як середнє арифметичне від загальної суми всіх компонент інноваційного потенціалу банку.

**Ключові слова:** банківська установа, інновації, інноваційний потенціал, сталий розвиток, управління.

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**Introduction.** In today's competitive business environment, the innovation potential of an organization becomes a key factor in success. The concept of innovation potential describes the ability of an organization to generate and implement innovative ideas, processes and products that provide it with competitive advantages and sustainable development in the future. In this context, the study and effective management of innovation potential becomes not only a strategic task, but also a necessity for the successful functioning of any organization.

**Review of the latest research and literature.** Various aspects of innovation management are indicated in the author's works of such scientists as V. A. Balatskaia, O. V. Dziubliuk, A. A. Dranitsyna, S. B. Yegorycheva, S. M. Iliashenko, O. A. Kyrychenko, S. M. Kozmenko, V. S. Kotkovskyi, Z. M. Krykhovetskaia, Me. V. Kryvych, O. T. Levandovskyi, I. N. Mazur, A. I. Maslak, V. I. Mishchenko, Yu. O. Sylkina, N. V. Panchenko, L. A. Primostky, S. M. Tatianina, I. V. Yukhnovsky. Despite the large number of publications on this topic, there are practically no comprehensive studies in Ukraine that would consider the problem of managing the innovative activities of banking institutions in the context of sustainable development.

**Main purpose of the article** is a scientific justification of theoretical and methodological approaches to managing the innovation potential of banking institutions on the principles of sustainable development.

**Task setting.** To achieve this goal, scientific tasks which include clarifying the essence, components and process of managing innovation potential, substantiating the methodology for assessing the bank's innovation potential in the context of sustainable development, have been identified.

**Statements of main issues of the study.** Modern research in the economic literature offers a variety of approaches to understanding the essence of innovation potential (Table 1).

**Table 1.** Scientific approaches to understanding the essence of innovation potential

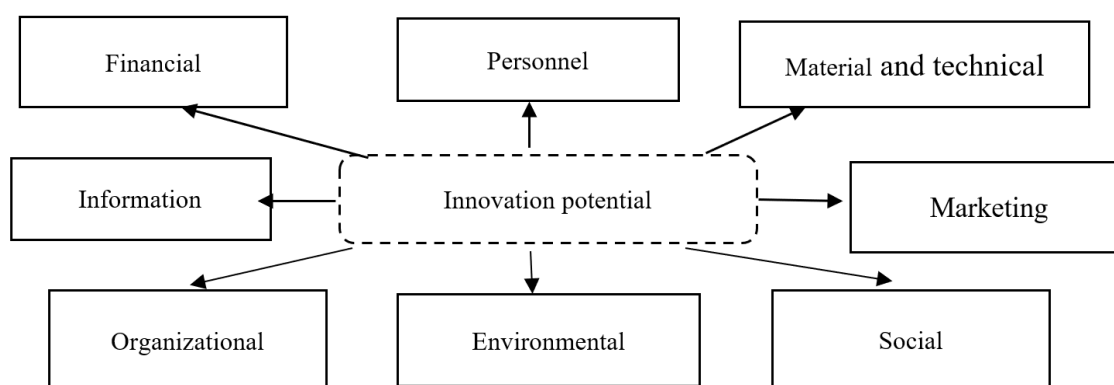
<i>Interpretation of the concept of «innovative potential»</i>	<i>Author [source]</i>
<i>1</i>	<i>2</i>
- part of the economic potential that ensures the development of science and technology and the introduction of their achievements in the economy, thereby ensuring growth	S. M. Illiashenko [1]
- the totality of all available and hidden resources and capabilities of the enterprise for the development and implementation of various kinds of innovations that are formed and implemented under the influence of the cyclical development of the macro environment	A. I. Maslaka [2]

the end of the table 1

1	2
- a set of resources organized in certain socio-economic forms, which, under certain existing internal and external factors of the innovation environment, can be aimed at implementing innovative activities in order to meet the needs of society	L. Martiusheva, V. Kalyshenko [2]
- the totality of all its resources that can be involved in the process of innovation	A. V. Savchuk [2]
- available and hidden opportunities for attracting and using resources aimed at perception, introducing innovations that can be attracted to achieve the goals of economic entities	V. G. Chaban [3]
- a measure of the organization's readiness to perform tasks that ensure the achievement of the set innovation goal, that is, a measure of readiness for the implementation of a project or program of innovative strategic changes	L. I. Fedulova [4]

Thus, the innovation potential of an enterprise determines its ability to develop and implement innovative ideas, products, processes and technologies. This includes the willingness of the organization to innovate, the availability of the necessary resources and the effective management of these resources to stimulate the innovation process. Innovation potential determines the competitiveness of the enterprise, its ability to adapt to changes in the internal and external environment, and also contributes to the creation of new opportunities for growth and development.

The components of the enterprise's innovation potential are summarized in Figure 1.



**Figure 1.** Components of the innovation potential of the enterprise (bank) in the context of sustainable development

Source: summarized and supplemented by the authors on the basis of [2, 5–6].

Therefore, in our opinion, financial resources are the most important element for successful innovation. They provide funding for research and development, market research and promotion of innovative products, the cost of training and development of staff and motivates them to innovate, to modern technological equipment and consultations that are necessary for the creation, development and successful implementation of innovative ideas and products.

Material and technical resources in banks ensure their functioning, but are not as crucial as for production enterprises. However, for successful innovation, banks must have modern computer equipment, effective communication channels, equipment for remote customer service (ATMs, payment terminals) and other necessary equipment.

Human resources in the bank for the implementation of innovations include specialists from various fields who have the necessary skills and knowledge to implement innovative ideas.

Information resources in the bank are an important element that contributes to the effective functioning and innovative development. They include databases, information

systems, software and other technological resources that allow the bank to carry out various operations, analyze data and provide customers with high-quality service. Providing adequate information infrastructure allows the bank to respond quickly to changes in the market, introduce new products and services and increase the efficiency of its activities. Information resources also help the bank to ensure the security and confidentiality of customer data, which is extremely important in today's digital environment.

Organizational resources in the bank play an important role in introducing innovation and include the organization's structure, corporate culture, strategic management and quality management systems. Creating a conducive environment for innovation, where creativity and openness to new ideas and experiments are stimulated, is an important aspect of organizational resources. In addition, effective management ensures rational allocation of resources for innovative projects, adaptation to changes in the internal and external environment, as well as coordination between departments and divisions. In other words, organizational resources determine the structure, culture and processes that ensure the effective implementation of innovations and contribute to the achievement of the strategic goals of the bank.

The marketing component plays a crucial role in introducing innovations in the bank, helping to promote innovative products and services to the market and ensuring their successful integration into the business environment. The content of marketing resources includes the development of marketing strategies, market research, branding, marketing research and testing, as well as the selection and optimization of distribution channels. By analyzing the market and identifying customer needs, the bank can create effective strategies for introducing innovative products, as well as develop marketing campaigns that attract customers. In addition, market research and testing allow the bank to assess the effectiveness and adoption of innovations in the market, as well as to correct possible shortcomings or limitations. All this contributes to increasing the competitiveness of the bank, attracting new customers and developing business in the digital space.

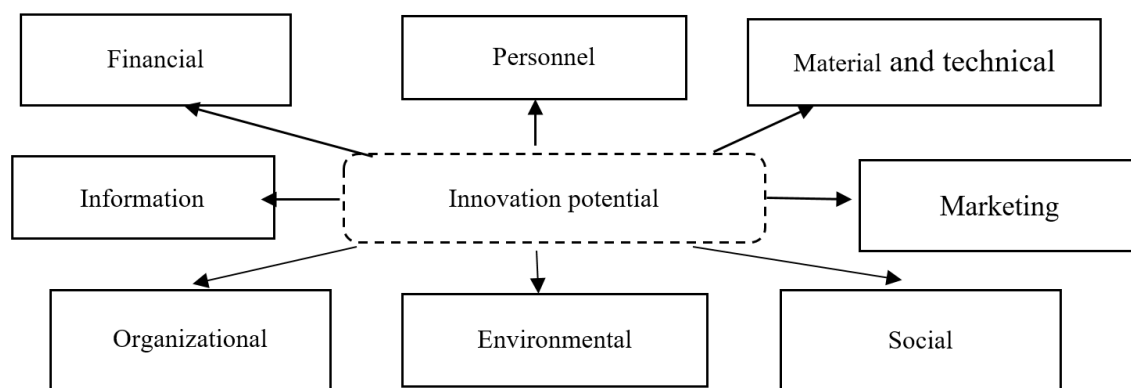
The environmental component of the organization's innovation potential in conditions of sustainable development reflects its ability to introduce innovative technologies, processes and approaches aimed at reducing the negative impact on the environment and increasing environmental sustainability. The use of advanced technologies is aimed at reducing emissions of pollutants, efficient use of natural resources and effective waste management, the introduction of systems that consume less energy, as well as the use of alternative energy sources that help reduce dependence on carbon and other harmful emissions.

The social component of the bank's innovation potential is determined by its ability to influence social development and improve the life quality of people in its influential circle. The bank can develop innovative products and services aimed at ensuring access to financial resources for the general population, including low-income and remote groups, can implement initiatives and programs aimed at supporting socially vulnerable groups, including support for education, health care, housing policy, consumer protection, etc.

Thus, the innovation potential of any enterprise is determined by its actual capabilities in the field of innovation, which includes both realized and unrealized opportunities. However, it is important to emphasize that the availability of resources in itself is not a guarantee of innovation success. To achieve further development and prosperity, it is necessary to systematically develop and rationally use its innovation potential.

Managing an organization's innovation potential involves processes for developing, implementing, and controlling innovative strategies aimed at improving products, services, processes, and market interactions. The purpose of managing the bank's innovation potential is to ensure its strategic stability.

The process of managing the innovation potential of a banking institution is shown in Figure 2 [2–3].



**Figure 2.** Algorithm for managing the bank's innovation potential

Thus, the management of the bank's innovation potential includes the development of strategic plans, process control, project analysis, coordination between departments, provision of resources and assessment of the results of implementing innovative initiatives. The rationale for innovation is based on the analysis of market trends, changes in technology and strategic planning.

Typically, the literature distinguishes methodological approaches to assessing innovation potential, which are summarized in Table 2 [5, 7–8].

**Table 2.** Approaches to assessing the innovation potential of the enterprise

Approach	Characteristics
<i>By depth of evaluation</i>	
Detailed	Evaluation of the scorecard aimed at identifying the possibilities of implementing a particular project. This approach is based on the analysis of various aspects of activity and internal resources in order to determine the readiness of the firm for innovation and their successful implementation
Diagnostic	The assessment consists in using expert methods to analyze the external and internal parameters of the company (bank). This approach aims to identify the weaknesses and strengths of the bank regarding innovation, as well as opportunities and threats that can affect the success of innovation initiatives
<i>By evaluation criterion</i>	
Costly	The assessment is based on the analysis of the costs required to implement a particular innovation or innovation process. This method allows you to evaluate the financial resources that you need to attract or invest to implement an innovative idea or project
Result	The assessment is based on the analysis of previous achievements and results of innovative projects that were implemented earlier. This method allows you to predict the potential results of future innovation initiatives based on real data and conclusions from previous experience
Comparative	Evaluation is carried out by comparison with analogs that have already been studied
<i>By results presentation form</i>	
Integrated	The assessment is based on a generalizing indicator
Scorecard Approach	Evaluation is based on the scorecard

So, a detailed analysis is carried out at the stage of substantiation of the possibility of an innovative project, when the goals and requirements for the components of the innovation potential are already clearly defined. If weak positions are identified, the bank takes measures to improve them. Diagnostic analysis is widely used in strategic management, the main requirements are a systematic approach and reliable information.

Further, Table 3 presents in a more detailed way the integral approach to assessing the innovation potential of an organization (IP), which is most often used in the practice of entrepreneurship [5, 8].

**Table 3.** Diagnostic approaches and criteria for assessing the innovation potential of the organization

Purpose of evaluation	Components of IP	Evaluation algorithm	Result
<b>Strategic-oriented approach</b>			
Determining the sufficiency of IP for the implementation of strategic goals	Intellectual, personnel, technological, research, market, interface, information	Conversion of local components into relative indicators and determination of their severity.	Integral index as weighted average of components
<b>Problem-oriented approach</b>			
Diagnosis of IP	Innovative resources, catalysts	Comprehensive expert analysis of IP components taking into account the weighting factors	Integral index based on the geometric mean of all components
<b>Targeted approach</b>			
Monitoring and objective assessment of IP condition	Indicators of financial condition, level of costs, informatization of innovative processes	Selection of indicators, setting their standards and calculation using the universal indicator of the desirability function used by the Harrington method.	Comprehensive indicator of IP efficiency, which is geometric mean
<b>Cost approach</b>			
Comparison of IP, its potential opportunities and reserves	Production, personnel, investment potentials	Calculation of costs associated with the formation and implementation of IP	An integral indicator in the form of the sum of the potentials of structural components.

Thus, the diagnostic approach is used to assess its own innovation potential and analyze the capabilities of competitors. This approach can be used even if access to internal and external information resources is limited.

When assessing the innovation potential of the bank, an important aspect is the level of technological orientation of its divisions. Balanced integration of structural departments shows significant potential for innovation. When analyzing the organizational and economic conditions of effective management of innovation potential, an important stage is to consider the unused capabilities of the intellectual, technological and information resources of a banking institution.

It should be noted that the assessment and management of the bank's innovation potential require a deep understanding of the level of integration between its various divisions. The more the structural components interact, the more efficiently the innovation process of the bank can function.

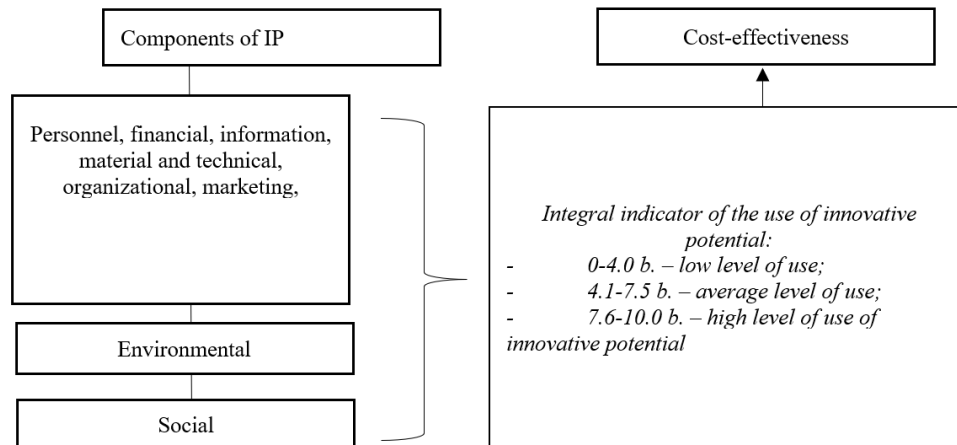
Exploring the untapped potential of intellectual, information and technology resources is a key aspect in stimulating innovation. A deep analysis of these opportunities not only helps to identify potential growth areas, but also contributes to the maximum use of available resources to achieve the strategic goals of a banking institution in the field of innovation.

Human resources play a key role in the realization of innovation potential. They determine the effectiveness of innovation and have a great influence on the success of innovative projects. Competent staff is able to identify new ideas, develop and implement them into practice, which allows the bank to make innovative changes and maintain its competitiveness.

Given the complexity and diversity of the bank's innovation potential, we consider it appropriate to use the method of expert evaluation.

Assessment of the bank's innovation potential is a key stage for determining its development strategy, since innovations determine the growth prospects of the organization.

Taking into account the strategy of environmental and social responsibility of the bank, it is possible to improve the methodology for assessing the innovation potential. It is proposed to include an assessment of the environmental and social aspects in the general methodology for assessing innovation potential, presented in Figure 3.



**Figure 3.** Methodology for assessing the innovation potential of the bank

Source: own development/

When assessing the bank's innovation potential, the following scale is used: 0 – complete non-use, 0–4.0 – low level, 4.1–7.5 – average level, 7.6–10.0 – high level of use of innovation potential. The results of evaluating each component of innovation potential are used to calculate the overall indicator of innovation potential level. After that, an average value is set for each component based on these estimates, which serves as the initial data for identifying the weaknesses of the bank. The integral index is calculated as the arithmetic mean of the total sum of all components of the innovation potential. Assessing the bank's innovation potential is an important step that should be taken before defining a strategy for its further development.

Thus, due to the growing interest in sustainable development and environmental issues, banks can make innovative decisions to improve environmental productivity and environmental impact, for example:

1. The bank can provide loans or invest in projects aimed at improving energy efficiency in construction, industry and agriculture. This may include the installation of energy-saving equipment, insulation of buildings, the transition to energy-efficient technologies, etc.

2. The bank can provide financial support for renewable energy projects such as solar, wind, hydro and biofuel. This helps to reduce dependence on coal and other polluting energy sources.

3. Stimulating environmental investment. Banks can offer clients opportunities to invest in funds that specialize in companies with high standards of environmental responsibility or in environmentally oriented firms.

4. Development of environmental credit programs for small businesses. Banks can create special lending programs for small and medium-sized enterprises that want to introduce environmentally friendly technologies or improve their environmental practices.

**Conclusions.** Consequently, the innovation potential of a banking institution reflects its power in the implementation of innovative ideas, products, processes and technologies, which includes the organization's readiness for innovative changes, the availability of the necessary resources and effective management of them to stimulate the innovation process. Innovative potential determines the competitiveness of the bank, its ability to adapt to changes in the

internal and external environment, and also contributes to the creation of new opportunities for growth and development. To form an innovation potential, the bank uses a variety of resources, such as financial, material, personnel, information, organizational and marketing, which make up its innovation potential. It should be emphasized that the environmental and social component of the innovation potential plays an important role in achieving sustainable development, as it contributes to the preservation of natural resources, reducing emissions and environmental pollution, as well as increasing the overall ecological state of the planet. Taking into account environmental aspects at every stage of innovation development, from their design to the production and use of the product, are of great importance. The development and implementation of green technologies and practices are important steps towards a more environmentally sustainable approach to development, contributing to the balanced conservation of natural resources and reducing the negative impact on the environment.

## References

1. Illiashenko S. M. (2005) Problemy upravlinnya innovatsiynym rozvytkom pidpryyemstv u tranzitivniy ekonomitsi [Problems of innovative development management of enterprises in the transitive economy]: monograph. Sumy, University Book, 582 p.
2. Maslak O. I. (2014) Upravlinnya innovatsiynym potentsialom pidpryyemstva v umovakh tsyklichnosti [Management of innovative potential of enterprise in conditions of cyclicity]. *Economy and organization of management*, no. 1, pp. 166–173.
3. Chaban V. G. (2004) Skladova innovatsiynoyi infrastruktury: venchurnyy kapital [Component of innovation infrastructure: venture capital]. *Finance of Ukraine*, no. 4, pp. 35–40.
4. Fedulova L. I., Kolosh M. O. (2007) Innovatsiynyy potentsial pidpryyemstva yak faktor zabezpechennya rezul'tativnosti restrukturyzatsiyi [The innovative potential of the enterprise as a factor in ensuring the effectiveness of restructuring]. *Scientific works of IAPM*, vol. 3, pp. 48–51.
5. Egorycheva S. (2009) Innovatsiynyy potentsial banku yak faktor vyboru stratehiyi rozvytku [The innovative potential of the bank as a factor in choosing a development strategy]. Vice NBU, pp. 20–23. Available at: <https://core.ac.uk/download/pdf/71925658.pdf> (accessed 02 April 2024).
6. Kotkovskiy V. S. (2018) Vyznachennya innovatsiynoho potentsialu bankiv Ukrayiny v umovakh hlobalizatsiyi [Determination of innovative potential of Ukrainian banks in conditions of globalization]. *Economy and society*, no. 17, pp. 551–554.
7. Trailer I. V. Analiz metodychnykh pidkhodiv do otsinky innovatsiynoho potentsialu pidpryyemstva [Analysis of methodological approaches to assessing the innovative potential of the enterprise]. Available at: <https://onedrive.live.com/?authkey=%21AD8JOZ%5FmUfcS7I0&id=B7F0D3DD7CFF66FD%21282&cid=B7F0D3DD7CFF66FD&parId=root&parQt=sharedby&o=OneUp> (accessed 02 May 2024).
8. Miasnikov V. A. (2016) Metodychnyy pidkhid do otsinky innovatsiynoho potentsialu promyslovykh pidpryyemstv [Methodological approach to assessing the innovative potential of industrial enterprises]. *Black Prychernomorsk economic studies*, no. 12–1, pp. 167–174.

## Список використаних джерел

1. Ілляшенко С. М. Проблеми управління інноваційним розвитком підприємств у транзитивній економіці : монографія. Суми : ВТД «Університетська книга», 2005. 582 с.
2. Маслак О. І. Управління інноваційним потенціалом підприємства в умовах циклічності. *Економіка і організація управління*. 2014. № 1. С. 166–173.
3. Чабан В. Г. Складова інноваційної інфраструктури: венчурний капітал. *Фінанси України*. 2004. № 4. С. 35–40.
4. Федулова Л. І., Колош М. О. Інноваційний потенціал підприємства як фактор забезпечення результативності реструктуризації. Наукові праці МАУП. 2007. Вип. 3. С. 48–51.
5. Єгоричева С. Інноваційний потенціал банку як фактор вибору стратегії розвитку. *Вісник НБУ*. 2009. С. 20–23. URL: <https://core.ac.uk/download/pdf/71925658.pdf> (дата звернення: 02.04.2024).
6. Котковський В. С. Визначення інноваційного потенціалу банків України в умовах глобалізації. *Економіка і суспільство*. 2018. № 17. С. 551–554.
7. Причепя І. В. Аналіз методичних підходів до оцінки інноваційного потенціалу підприємства URL: <https://onedrive.live.com/?authkey=%21AD8JOZ%5FmUfcS7I0&id=B7F0D3DD7CFF66FD%21282&cid=B7F0D3DD7CFF66FD&parId=root&parQt=sharedby&o=OneUp> (дата звернення: 02.05.2024).
8. Мясников В. О. Методичний підхід до оцінки інноваційного потенціалу промислових підприємств. *Причорноморські економічні студії*. 2016. № 12–1. С. 167–174.