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FORMATION OF METHODOLOGICAL FOUNDATIONS FOR ASSESSING THE INNOVATIVE DEVELOPMENT POTENTIAL OF AN INDUSTRIAL ENTERPRISE

Purpose. Formation of methodological foundations for assessing the innovative development potential of an industrial enterprise. The rationale for the use of a comprehensive system of indicators that will allow conducting assessment of the ability of its innovative development, identifying the risks and threats that affect the innovative activity of the enterprise. Definition of an approach to assessing not only quantitative indicators, but also qualitative ones regarding the innovative development potential of an industrial enterprise.

Methodology. In the research process, the following general scientific and applied research methods were used: analysis and synthesis, deduction and induction were used to determine factors of influence on the internal and external environment of an industrial enterprise; systematization and generalization for calculating the generalizing indicator; expert assessments – when determining factors of influence on the internal and external environment of an industrial enterprise; multidimensional scaling – when calculating a complex indicator of the potential for innovative development of an industrial enterprise.

Findings. The methodological foundations for assessing the potential for innovative development of an industrial enterprise have been formed using an integrated approach to assessing its innovative development, which, unlike existing approaches, including assessing the financial condition of an enterprise and evaluating the internal and external factors of innovative activity of a business entity, makes it possible to substantiate a strategy for innovative development of an industrial enterprise. It is proposed to evaluate the innovative potential of enterprises on the basis of two groups of indicators: quantitative and qualitative characteristics of the assessment of the external and internal environment. The first group of indicators for assessing the external environment is represented by the following factors: market parameters, socio-economic trends in the external environment, competition within the industry, the influence of buyers and suppliers. The second group of indicators for assessing the internal environment is represented by the following factors: technical, technological, material, innovative, financial, personnel, information, marketing and organizational. It is proposed to use the multidimensional scaling method to determine a comprehensive indicator for assessing the innovative potential of an industrial enterprise. Such an approach to assessing allows developing a scientifically based basis for constructing an effective innovation strategy and a strategic management system for innovative activities of an enterprise.

Originality. A comprehensive methodological approach to assessing the innovative development potential of an industrial enterprise has been substantiated, which, unlike existing approaches, includes assessing the financial condition of an enterprise and evaluating the internal and external factors of innovative activity of a business entity, which makes it possible to substantiate the innovative development strategy of an industrial enterprise using multidimensional scaling.

Practical value. The methodological basis for assessing the innovative development potential of an industrial enterprise and the research results can be used for further scientific developments in this direction, as well as in the practical activities of industrial enterprises to assess their innovative potential and formulation of development strategies. The methodological approach to assessing the innovative development potential of an industrial enterprise is based on an integrated approach to assessing quantitative and qualitative indicators.

Keywords: *industrial enterprise, innovation assessment, multidimensional scaling, innovative potential*

Introduction. The strategic planning system used by industrial enterprises in terms of innovative capacity development is based mainly on the use of financial indicators. In the conditions of innovative growth, a need arises for the formation of the methodology for assessing innovation potential of industry, which is based not only on financial indicators system, but requires the use of indicators assessing the potential of all enterprise systems.

This approach is due to the complexity and ability to innovate the development of an industrial enterprise, increasing the degree of influence of risks on the results of financial activity of the enterprise and in general on the results of its production and economic activity. This increases the threat of loss of financial stability and bankruptcy. The fact that the relevance of the development of new approaches to the assessment of generalized features of economic objects is the fact that the measurement results

are not reproducible. This is due to the high role of influence of subjective factors, which are presented in existing methods.

Literature review. According to the results of research, generalization and systematization of the theoretical and methodological basis on this issue, the separation of two main groups of approaches to assessing the ability to innovate the industrial enterprise can be seen. Proponents of the first approach considered it sufficient to determine the capacity for innovation of businesses only through financial analysis of their operation. This group includes such scientists as: Zinchenko O., and Zinchenko D. [1], Mamontova N.A. [2], Orlova V.M. [3], Mykolaichuk I.P. [4], Skrynkovskyy R., and others [5].

Proponents of a different approach, without denying the need for such an analysis, offer not to be limited to this subject area and to introduce additional directions and components of the analysis. That is to assess the capacity for innovative development from the standpoint of complexity and systematic study of the functioning of economic entities. This group includes the

following scientists: Starchenko G. [6], Bilan Y., Ushkarenko I., Chmut A., Sharapa O. [7], Oleyazh T., Nitsenko V., Chukurna O. [8], Horodetska T., et al [9], Mardani A., Kuksa I., Sudarkina L. [10], Baharun R., and others [11].

Unsolved aspects of the problem. In our opinion, more appropriate are methodological approaches that connect to a single system of evaluation capacity for enterprise innovation development based on quantitative and qualitative indicators and describing various aspects of the enterprise's activity. They allow one to develop a comprehensive assessment of the level of innovative development of the enterprise in order to develop a strategy for its development.

It is possible to propose a methodical approach to complex evaluation capacity of industrial enterprise for innovation. Its essence lies in the combination of the financial and economic activities and evaluation of internal and external factors of innovation enterprises grounded in the study.

Purpose. The purpose of the article is to formulate methodological bases for assessing the potential of innovative development of an industrial enterprise.

Results. It was proposed to formulate strategic decisions for industrial enterprises on the basis of the results of the methodology of complex assessment of their innovative development capacity. At the first stage, it is envisaged to evaluate the potential of innovative development of industrial enterprises. It is possible to offer a combination of financial, external and internal (enterprise resource potential) indicators by multidimensional scaling.

This integrated approach provides assessment capacity for innovative development of industrial enterprises (Fig. 1).

This approach was tested on the example of PJSC "Odeskabel" and allowed carrying out a thorough assessment of the capacity for innovative development of the enterprise. It allows one to analyze the financial condition of the enterprise and includes an assessment of the risks and threats that affect the innovation activity of the enterprise, which is the basis for the formation of an effective innovation strategy.

The first, second and third stages concern the assessment of the financial condition of industrial enterprises on the basis of financial analysis. A system of indicators was substantiated and used to evaluate the impact of factors on the ability of PJSC "Odeskabel" to implement an innovative strategy for its development. It includes indicators of property, liquidity, financial stability, business activity, profitability and dynamics along with partial (differentiated) indicators (Table 1).

In the process of implementing an innovative enterprise development strategy, it is not possible to evaluate the whole set of indicators, but individual indicators that are adequate to the strategic goal. It is advisable to identify key indicators that will allow one to make specific decisions related to the level of investment evaluation of the attractiveness of the company. This is due to the following disadvantages:

- some indicators are interdependent, that is, the level of one influences the level of the other;
- there are several indicators which give the same information, but are calculated in different ways;
- several indicators are not universal, have a limited scope, depending on the presence or absence of certain conditions.

The final step is to calculate a summary financial and economic indicator using the PROXSCAL multidimensional scale application package. Integral evaluation allows one to combine different factors by name, units, weight and other characteristics into a single indicator. This simplifies the procedure for assessing the ability to implement an innovative strategy for the development of a particular enterprise.

At the fourth stage, the impact of environmental factors on the innovation activity of an industrial enterprise is evaluated. As a result, a number of questions can be answered: in what conditions the enterprise operates; what problems it may encounter; how changes in the environment can affect his business (Table 2).

At the same time, it is extremely difficult to estimate the state of the environment in the conditions of lack of necessary

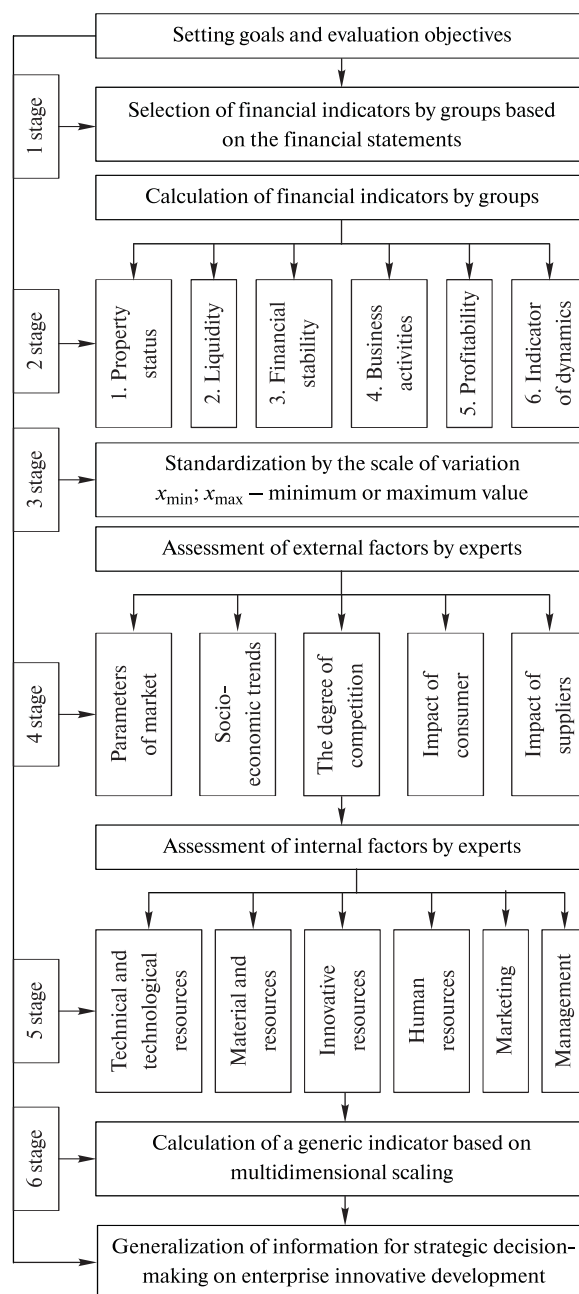


Fig. 1. Scheme for assessing the capacity for innovative development of an industrial enterprise

information. The method of expert evaluations can compensate for lack of quantitative and consider the views of experts relative to the state of the environment. Management decisions will be formed on the basis of these expert interviews. Experience shows, there is no alternative to expert technology in most cases. Therefore, the value of the peer review method is difficult to overestimate. But this, in turn, gives consideration to the conditions under which the results obtained by this method will be as objective as possible. Firstly, the method of expert interviews has a significant drawback – a subjective assessment. This is due to the fact that the result depends on the experts' knowledge, experience and worldview. However, the possibility of its use for the objectives set, provided that the quality of assessment and consistency degree of expert opinions will be high. For the reason that the method requires the use of knowledge and experience of the respondents, they should be competent in the study issue. Experts may be senior executives, executives and managers who are well aware of the problem, industry, enterprise, production technology, product features and characteristics, information

Table 1

Values of financial and economic ratios of PJSC “Odeskabel” 2014–2018 years (information base for estimation)

Indicator (ratios)	2014	2015	2016	2017	2018	Norm
I. Evaluation of property						
1. The ratio of fitness of	0.22	0.21	0.137	0.13	0.18	–
2. The ratio of fitness of intangible assets	0.14	0.14	0.15	0.154	0.15	–
3. The ratio of coverage	0.064	0.60	0.71	0.80	–	1–2
4. The ratio of quickly liquidity	0.52	0.30	0.34	0.40	0.92	0.5–1
5. The ratio of absolute liquidity	–	0.012	0.06	0.03	0.20	0.2–0.5
III. Assessment of financial stability						
6. The ratio of financial autonomy	0.41	0.4	0.37	0.38	0.36	0.5–0.7
7. The ratio of mobility	1.33	-0.32	-0.23	-0.08	1.10	0.2–0.5
8. The ratio of financial stability	0.50	0.55	0.51	0.62	0.65	0.75–0.9
9. The ratio of borrowed and own funds	1.50	1.50	1.70	1.60	1.50	0.5–0.7
IV. Assessment of business activity						
10. The ratio of receivables turnover	4.10	4.15	3.14	5.15	5.50	–
11. The ratio of accounts payable turnover	7.10	7.004	9.27	9.37	9.50	–
12. The ratio of inventory turnover	0.97	1.75	1.60	1.72	1.39	–
13. The ratio of equity turnover	2.50	2.40	3.36	3.53	3.60	–
V. Assessment of profitability						
14. Profitability of all assets of the enterprise	0.01	-0.06	0.033	0.066	0.10	–
15. Profitability of own fund	0.20	-0.15	0.09	0.17	0.18	–
16. Profitability of fixed assets	1.50	1.77	2.73	3.27	3.30	–
17. Operating profitability of sales	0.12	0.12	0.18	0.13	0.15	–
VI. Assessment of dynamics						
18. The growth rate of fixed assets	102.1	104.58	99.73	91.30	92.1	–
19. The growth rate of current assets	115.1	125.64	108.71	108.71	108.71	–
20. The growth rate of quick liquidity	107.2	105.2	113.3	117.6	115.2	–
21. The growth rate of financial autonomy	102.1	96.4	92.5	102.7	101.2	–
22. The growth rate of equity turnover	110.1	110.1	140.0	105.1	104.9	–
23. The growth rate of profitability of own fund	152.4	133.6	260.5	188.8	150.2	–

Table 2

Assessment of attractiveness of the environment and the resource potential of the enterprise

Factors for assessing the attractiveness of the external environment	Factors for assessing the attractiveness of the internal environment
<i>Evaluation of market parameters:</i> market capacity; market updates; market sensitivity to prices	<i>Assessment of technological resource:</i> availability of flexible technologies; modern technology leasing opportunities (leasing); resource opportunities; the level of automation; the opportunity to increase production; sufficient production capacity; availability of new technologies
<i>Assessment of the impact on enterprises of socio-economic trends in the external environment:</i> inflation vulnerability; the level of household income (trends); the impact of taxation; the effect of reducing the employment rate; rising unemployment; economic growth; the level of entrepreneurial activity in the region; socio-demographic situation in the region; political conditions	<i>Evaluation of material resources:</i> the accessibility of resources; the level of competition in the resource markets; price fluctuations; dynamics of resource demand; possibility of replacement of analogues
<i>Assessment of competition in the industry:</i> Dynamics of demand change; the Number of competitors; stage of the life cycle of the industry; The value of the output industry barrier; aggressiveness of competitors; promising profitability from the implementation of a competitive strategy	<i>Evaluation of innovative resources:</i> availability of innovation portfolio; share of the cost of research; the presence of patents, licenses; developing new products; the probability of commercial success of projects developed; the potential of researchers and developers
<i>Evaluation of the power of consumers:</i> Share of purchases by the client from the total sales; Balance of demand and supply; Trends in changes in customer income; The importance of goods as components; The magnitude of the cost to buyers due to the switch to purchasing similar products or substitutes manufactured by competitors	<i>Assessment of human resources:</i> professional knowledge and skills of employees; ability to develop and use new ways in work; level of quality of work execution; adherence to deadlines for work completion; attractiveness of the incentive system; labour productivity compared with the industry average; possibility to use outside human resources
<i>Impact assessment of supplier forces:</i> the degree of standardization of supply; share of purchases from one supplier out of total purchases; availability of substitutes; the nature of industrial relations with the providing firm; possible costs during the transition to purchase goods from other vendors; opportunity to start production of analogy or substitute product; competitors' interest in this supplier; balance of supply and demand for goods purchased from suppliers	<i>Marketing evaluation:</i> the ability to forecast demand; the ability to manage demand; scale of marketing research; the relationship between the resources spent on marketing and product quality; activity in the field of distribution and promotion of goods; level of organization of sales, service and warranty service
	<i>Assessment of organizational capacity (management):</i> the degree of management competence in the characteristics of the enterprise and the environment; management's ability to adapt to changes in the external environment; management's ability to accurately determine the goals of the organization; compliance of the organizational structure of the development strategy

on the status of work and the environment. They should aim for perspective thinking.

Secondly, the validity of the expert assessments is evidenced by the coherence of the actions between the experts, which should be determined by the coefficient of concordance. Where experts estimate only one criterion (indicator), the coefficient of variation can only be calculated. When conducting the analysis of the collected expert data in accordance with the objectives of the study and the models adopted, it is necessary to establish the coherence of the experts' actions and the reliability of the expert assessments. For this purpose use the following method [7].

The mean values for total ranks equal

$$a = \frac{1}{2} p(m+1), \quad (1)$$

where a is the average for the total ranks; p is the number of experts; m is the number of characteristics of the factor being evaluated.

The total deviation S summary of events from a mean value a is

$$S = \sum_{i=1}^m \left(\sum_{j=1}^p a_{ij} - \frac{1}{2} p(m+1) \right)^2, \quad (2)$$

where S is cumulative quadratic deviation from the mean events a ; a_{ij} is evaluation of the i^{th} characteristic of the factor by the j^{th} expert; $i = 1, 2, \dots, m$ is the number of characteristics of the factor being evaluated; $j = 1, 2, \dots, p$ is the number of experts.

The value of S reaches a maximum value when all p experts give the same estimates to each event

$$S_{\max} = \frac{1}{12} p^2(m^3 - m). \quad (3)$$

Obviously, for calculating the degree of experts' coherence it is advisable to take value

$$W = \frac{S}{S_{\max}}, \quad (4)$$

where W is the coefficient of concordance, the value in the range from 0 to 1.

The magnitude of the coefficient of concordance can vary from 0 to 1. At $W = 0$, there is no consistency at all, i.e. there is no correlation between the estimates of different experts.

At the fifth stage, an internal strategic analysis is conducted, i.e. assessment of the strengths and weaknesses of the enterprise, which necessarily includes an analysis of the resource potential of production, its internal capabilities. The potential of industrial production is established as a result of an assessment that takes into account the views of experts on the level and dynamics of its main components in the respective fields of activity. Qualitative behaviours will be developed further. Capacity assessment allows us to consider priority areas using the resources and is based on the competitive position of the enterprise at the market. For this purpose, a methodological approach of experts' evaluation of each resource was used based on its quantitative

and qualitative values. The survey was conducted among 15 experts of the investigated company. In order to determine the homogeneity of the experts' opinions regarding the directions of influence of the factors of assessment of external and internal environment on PJSC "Odeskabel", the coefficient of concordance was calculated. The value of this coefficient is 0.79, which indicates the consistency of the experts' opinions.

The final step of the fourth and fifth stages is to calculate a general indicator of the assessment of the environment and the resource potential using the PROXSCAL multidimensional scale application package (Table 3).

During the analysed period PJSC "Odeskabel" had an average level of capacity for innovative development. The value of the integral index during for 2014–2018 years fluctuated within 0.428–0.522, which indicates the necessity of urgent changes in the strategy of management of innovative activity of the enterprise. In general, the enterprise value of the integral index of the best capacity for innovative development was observed in 2018, and the lowest – in 2016. Ineffectiveness of innovative management strategies and financial operations of the company should be noted as well as increasing manifestation of the crisis at the company.

At the sixth stage, the main goal is to create a general indicator using the PROXSCAL multidimensional scale application package. It provides the ability to obtain sufficient information on the company and its capacity for innovation. The general indicator must have upper and lower bounds. Despite the change in data, this indicator cannot be less than zero and greater than one.

Multidimensional scaling refers to the field of data analysis and is designed to process empirical information about complex objects or systems. This information may be objective, but can also be obtained by interviewing experts [8]. The degree of similarity between the two parameters must be the opposite of the distance between the corresponding points. The closer the parameters are to each other, the higher the degree of similarity between them is and the lower the difference is. Distant points in the interval correspond to a low degree of similarity. You must enter the metric in the coordinate space in order to accurately measure proximity. The choice of this metric significantly influences the outcome of the decision. Usually Minkowski metric is used [8]

$$d_{jk} = \sqrt[p]{\sum_{i=1}^r |x_{ji} - x_{ki}|^p}, \quad (5)$$

where r is the dimension of space; d_{jk} is the distance between the points corresponding to the j^{th} and k^{th} parameters; x_{ji} , x_{ki} are the magnitudes of the projections of the j^{th} and k^{th} points on the i^{th} axis.

In general, the task of multidimensional scaling is to identify the structure of the many parameters under study. Structure detection refers to the selection of a set of basic factors that differentiate the parameters and a description of each parameter in terms of these factors. The procedure for constructing the structure is based on the analysis of objective or subjective information about the closeness between the parameters or information about the advantages of many parameters. In

Table 3

Integral indicators of capacity for innovative development of PJSC "Odeskabel" for 2014–2018

Indicators	Generalized evaluation indicators				
	2014/position	2015/position	2016/position	2017/position	2018/position
The Integral indicator of financial and economic status	0.428/3	0.373/4	0.346/5	0.430/2	0.493/1
The Integral indicator of assessment of the external environment	0.325/4	0.392/1	0.237/5	0.346/3	0.385/2
The Integral indicator of assessment of the internal environment	0.401/3	0.399/4	0.360/5	0.413/2	0.478/1
Complex evaluation index of the capacity of innovative development	0.455/4	0.516/2	0.428/5	0.467/3	0.522/1

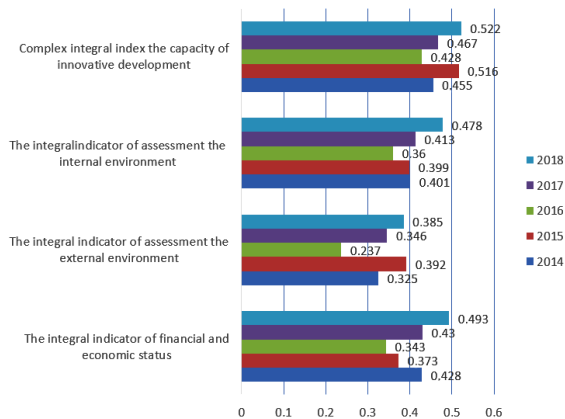


Fig. 2. Integral (summarizing) indicator for assessing the capacity for innovative development of PJSC "Odeskabel" for 2014–2018

the case of subjective data analysis, two problems are solved simultaneously. On the one hand, the objective structure of subjective data is revealed, on the other – the factors that influence the decision-making process are determined [7]. The integral (summarizing) indicator was determined for PJSC "Odeskabel" for 2014–2018 (Fig. 2).

During the analysed period, PJSC "Odeskabel" had an average level of capacity for innovative development. The value of the integral index during 2014–2018 fluctuated within 0.455–0.522, which indicates the need for urgent changes in the strategy of managing the innovation activity of the enterprise. Overall, the company saw the best value for the Integrated Capacity Index for Innovation in 2018, and the lowest in 2016. Also, it is worth noting the ineffectiveness of strategies for managing innovation and financial activity of the enterprise and increasing the manifestation of crisis phenomena in the enterprise.

Conclusions. A comprehensive approach to assessing the ability to innovate the industrial enterprise was developed. Unlike existing approaches, it includes an assessment of the financial condition of the company evaluating internal and external factors of innovation entity. This will allow a thorough assessment of the ability to innovate, identification of the risks and threats that affect the innovation activity of the enterprise. Quantitative and qualitative characteristics of external environment assessment are represented by factors: market parameters, socio-economic trends in the external environment, competition within the industry, the influence of consumers and suppliers. The quantitative and qualitative characteristics of the internal environment assessment are represented by the following factors: technical and technological, material, innovative, financial, human resources, information, marketing and organizational. An effective, scientifically substantiated methodical tool for data aggregation was proposed – the method of multidimensional scaling. This evaluation system is the basis for formation of an effective innovation strategy and a system of strategic management of an enterprise's innovation activity. It allows increasing the validity of management decisions, as it enables to diagnose the complex of external and internal risks and to identify concrete measures for increasing the level of innovative development of the enterprise.

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Формування методичних засад оцінки потенціалу інноваційного розвитку промислового підприємства

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Мета. Формування методичних засад оцінки потенціалу інноваційного розвитку промислового підприємства. Обґрунтування використання комплексної системи показників, що дозволять здійснити оцінку спроможності щодо інноваційного розвитку, визначити ризики та загрози, які впливають на інноваційну діяльність підприємства. Визначити підхід щодо оцінки не тільки кількісних, але й якісних показників щодо потенціалу інноваційного розвитку промислового підприємства.

Методика. У процесі дослідження були використані наступні загальнонаукові та прикладні методи дослідження: аналізу й синтезу, дедукції та індукції використовувалися під час визначення чинників впливу на внутрішнє та зовнішнє середовище промислового підприємства; систематизації та узагальнення для розрахунку узагальнюючого показника; експертних оцінок – при визначенні чинників впливу на внутрішнє й зовнішнє середовище промислового підприємства; багатомірного шкалу-

вання при розрахунку комплексного показника потенціалу інноваційного розвитку промислового підприємства.

Результати. Сформовані методичні засади оцінки потенціалу інноваційного розвитку промислового підприємства за допомогою комплексного підходу щодо оцінки його інноваційного розвитку, який, на відміну від існуючих підходів, включає оцінку фінансового стану підприємства та оцінку внутрішніх і зовнішніх чинників інноваційної діяльності суб'єкта господарювання, що дозволяє обґрунтувати стратегію інноваційного розвитку промислового підприємства. Запропоновано оцінювати інноваційний потенціал підприємств на базі двох груп показників: кількісних і якісних характеристик оцінювання зовнішнього та внутрішнього середовища. Перша група показників для оцінки зовнішнього середовища представлена наступними чинниками: параметри ринку, соціально-економічні тенденції в зовнішньому середовищі, конкуренція в середині галузі, вплив покупців і постачальників. Друга група показників для оцінки внутрішнього середовища представлена такими чинниками: техніко-технологічні, матеріальні, інноваційні, фінансові, кадрові, інформаційні, маркетингові та організаційні. Запропоновано використання методу багатомірного шкалювання для визначення комплексного показника оцінки інноваційного потенціалу промислового підприємства. Такий підхід щодо оцінки дозволяє розробити науково обґрунтоване підґрунтя для побудови ефективної інноваційної стратегії й системи стратегічного управління інноваційною діяльністю підприємства.

Наукова новизна. Обґрунтовано комплексний методичний підхід щодо оцінки потенціалу інноваційного розвитку промислового підприємства, що, на відміну від існуючих підходів, включає оцінку фінансового стану підприємства та оцінку внутрішніх і зовнішніх чинників інноваційної діяльності суб'єкта господарювання, дозволяє обґрунтувати стратегію інноваційного розвитку промислового підприємства за допомогою багатомірного шкалювання.

Практична значимість. Методичні засади оцінки потенціалу інноваційного розвитку промислового підприємства та результати дослідження можуть бути використані для подальших наукових розробок у даному напрямі, а також у практичній діяльності промислових підприємств для оцінки їх інноваційного потенціалу та формування стратегій розвитку. Методичний підхід щодо оцінки потенціалу інноваційного розвитку промислового підприємства засновано на комплексному підході щодо оцінки кількісних і якісних показників.

Ключові слова: промислове підприємство, оцінка інновацій, багатомірне шкалювання, інноваційний потенціал

Формирование методических основ оценки потенциала инновационного развития промышленного предприятия

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Цель. Формирование методических основ оценки потенциала инновационного развития промышленного предприятия. Обоснование использования комплексной системы показателей, которые позволят осуществить оценку способности его инновационного развития,

определить риски и угрозы, которые влияют на инновационную деятельность предприятия. Определить подход к оценке не только количественных, но и качественных показателей относительно потенциала инновационного развития промышленного предприятия.

Методика. В процессе исследования были использованы следующие общенаучные и прикладные методы исследования: анализа и синтеза, дедукции и индукции использовались при определении факторов влияния на внутреннюю и внешнюю среду промышленного предприятия; систематизации и обобщения для расчета обобщающего показателя; экспертных оценок – при определении факторов влияния на внутреннюю и внешнюю среду промышленного предприятия; многомерного шкалирования при расчете комплексного показателя потенциала инновационного развития промышленного предприятия.

Результаты. Сформированы методические основы оценки потенциала инновационного развития промышленного предприятия с помощью комплексного подхода к оценке его инновационного развития, который, в отличие от существующих подходов, включая оценку финансового состояния предприятия и оценку внутренних и внешних факторов инновационной деятельности субъекта хозяйствования, позволяет обосновать стратегию инновационного развития промышленного предприятия. Предложено оценивать инновационный потенциал предприятий на базе двух групп показателей: количественных и качественных характеристик оценки внешней и внутренней среды. Первая группа показателей для оценки внешней среды представлена следующими факторами: параметры рынка, социально-экономические тенденции во внешней среде, конкуренция внутри отрасли, влияние покупателей и поставщиков. Вторая группа показателей для оценки внутренней среды представлена следующими факторами: технико-технологические, материальные, инновационные, финансовые, кадровые, информационные, маркетинговые и организационные. Предложено использование метода многомерного шкалирования для определения комплексного показателя оценки инновационного потенциала промышленного предприятия. Такой подход к оценке позволяет разработать научно обоснованный базис для построения эффективной инновационной стратегии и системы стратегического управления инновационной деятельностью предприятия.

Научная новизна. Обоснован комплексный методический подход к оценке потенциала инновационного развития промышленного предприятия, который, в отличие от существующих подходов, включает оценку финансового состояния предприятия и оценку внутренних и внешних факторов инновационной деятельности субъекта хозяйствования, позволяет обосновать стратегию инновационного развития промышленного предприятия с помощью многомерного шкалирования.

Практическая значимость. Методические основы оценки потенциала инновационного развития промышленного предприятия и результаты исследования могут быть использованы для дальнейших научных разработок в данном направлении, а также в практической деятельности промышленных предприятий для оценки их инновационного потенциала и формирования стратегий развития. Методический подход к оценке потенциала инновационного развития промышленного предприятия основан на комплексном подходе к оценке количественных и качественных показателей.

Ключевые слова: промышленное предприятие, оценка инноваций, многомерное шкалирование, инновационный потенциал

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