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FEATURES OF ASSESSING THE EFFICIENCY OF INNOVATIVE ENTERPRISES IN THE CONDITION OF CORPORATE SOCIAL RESPONSIBILITY

The article analyzes the features of assessing the effectiveness of innovative activity of enterprises from the standpoint of ensuring the social responsibility of business. The stages of assessing the effectiveness of innovative activity of an enterprise in the conditions of ensuring the social responsibility of business are analyzed. Various methods of assessing the effectiveness of innovative activity of enterprises are considered.

The factors that slow down the development of the innovative potential of enterprises are analyzed. It is proved that assessing the effectiveness of innovative activity under the condition of ensuring the social responsibility of business should be based on a comprehensive approach, which includes both financial and scientific and technical, social and strategic aspects. The use of an integrated approach to assessing the effectiveness of innovative activity helps enterprises analyze their achievements, identify weaknesses and make informed decisions under the condition of ensuring the social responsibility of business.

Keywords*: matrix of indicators, integral indicator, efficiency, innovations, assessment methods, assessment of the efficiency of innovative activity, social responsibility of business.*

Problem statement. Assessment of the level of efficiency of innovations of an enterprise under the condition of ensuring the social responsibility of business is defined as a management function aimed at processing the financial and economic condition, characteristics of activity, analysis of innovation processes and construction, on the basis of the received generalized information, conclusions for making successful management decisions. In order to increase profitability, efficiency of management in a developed market environment and efficiency of innovations of enterprises under the condition of ensuring the social responsibility of business, a special scientific modern approach to strategic management of innovative activity is required. The purpose of innovations in this direction is to study and apply scientific theoretical and methodological provisions in the field of forming a successful innovation strategy.

Analysis of recent research and publications. Currently, there is a significant number of works on the theoretical and practical aspects of managing innovation activities at enterprises. In particular, they have become the subject of research in the works of domestic scientists Fedenko V. [1], Pogorelova T. [2], Strutynska L. [3], Strutynska, L. [4], Krylov D [4]. Voronina V., Zyukova M., Artemenko A [8].

Analytical study of the theoretical and methodological foundations of the implementation of strategic management of innovation activities showed that under current conditions, the issues of the features of developing an effective system of strategic management of innovation activities, focused on the long-term perspective, remain unresolved. Accordingly, the scientific and practical interest of the research topic is due to the need for innovative development of enterprises.

The purpose of this article is to formulate and provide practical recommendations for assessing the effectiveness of strategic management of innovation activities at enterprises, while ensuring the social responsibility of business.

Presentation of the main material. Increasing the effectiveness of corporate social responsibility of innovative enterprises requires an adequate assessment of the existing level of effectiveness. Obtaining an objective assessment of the effectiveness of the functioning of enterprises, as practice shows, is associated with certain problematic issues related to the subjective approach of researchers to the selection of evaluation indicators, the lack of an integral indicator that would take into account various types of efficiency in the resource dimension and combine them with areas of intra-industry specialization. Therefore, the current issue is the choice of scientific and methodological approaches to justifying the sequence of calculating a single integral indicator of the effectiveness of corporate social responsibility of innovative enterprises, which would correspond to the above parameters.

Therefore, when calculating economic efficiency, one cannot do without individual relative indicators, let alone absolute ones. In our opinion, it is possible to ensure the integration of various indicators that characterize the economic efficiency of functioning only on the basis of a ranking indicator. It will ensure the comparability of enterprises of different profiles and will allow shifting the emphasis when measuring efficiency from quantitative to qualitative indicators[4.5].

It should be noted that the efficiency of functioning directly depends on the results of the economic activity of entities in this industry. At the same time, the basis for solving the issue of the methodology for assessing economic efficiency is the need to choose appropriate single indicators. The indicators should reflect the main directions of ensuring corporate social responsibility of innovative enterprises. As already noted, these indicators should reflect the resource aspect and the aspect of the efficiency of intra-industry specialization.

The substantive characteristic of the efficiency of corporate social responsibility of innovative enterprises is to increase the useful effect per unit of consumed resources, which is reflected in the generalizing indicators of the efficiency of the resources used. Resource aspects of efficiency involve calculating the efficiency of using enterprise personnel, fixed and circulating assets. These indicators include: the volume of produced and sold products per employee, return on assets, profitability of fixed assets, turnover ratio, profitability of circulating assets [7ꓫ8].

It is advisable to use indicators that more fully reflect the efficiency of the functioning of individual industries, sub-industries, make it possible to assess the dynamics of their economic development. The effectiveness of intra-industry specialization can be measured by the following indicators: product profitability, sales profitability, asset profitability.

Individual efficiency indicators should subsequently be combined into a general indicator of the effectiveness of corporate social responsibility of innovative enterprises. In this case, the methodology for measuring the integral indicator of economic efficiency should: ensure the study of each enterprise; facilitate an objective assessment of the economic performance of sub-industries of the food industry; allow ratings to be built for the comparative characteristics of each enterprise in the industry.

The proposed methodology is static in nature, that is, it is based on the process of normalizing individual performance indicators for a specific period (marketing year). At the same time, the scientific and methodological approach to assessing the integral economic efficiency of corporate social responsibility of innovative enterprises involves the implementation of the following stages:

1) selection of indicators that characterize the efficiency of using individual resources of enterprises and the current state of the efficiency of corporate social responsibility of innovative enterprises;

2) standardization of indicators by which it is possible to characterize the efficiency of corporate social responsibility of innovative enterprises;

3) calculation of integral estimates in the context of individual economic entities;

4) calculation of the integral assessment of the level of development.

When choosing indicators that characterize the level of economic efficiency of small food industry enterprises, one should proceed from relative values, which will avoid abstractness in the characteristics of economic efficiency.

Based on the determined indicators, a matrix of standard values of indicators is formed (matrix A). This is a matrix of the values of the above indicators in terms of economic entities. The matrix is formed as follows:

$$A = \begin{vmatrix} a_{11} & a_{12} & \dots & a_{1j} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2j} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots & \dots & \dots \\ a_{i1} & a_{i2} & \dots & a_{ij} & \dots & a_{in} \\ a_{m1} & a_{m2} & \dots & a_{mj} & \dots & a_{mn} \end{vmatrix}, \quad (1)$$

where A is the matrix of standard indicators; is the value of the jth indicator of the ith district; m is the number of districts; n is the number of indicators.

At the second stage, we proceed to the formation of a matrix of the specific weight of enterprise indicators, i.e. determining the place of enterprises for each indicator among other enterprises in the industry. It should be taken into account that for most of the above indicators (a_{ij}) the condition will be fair: $a_{ij} \to \infty$. In each row of values of a specific indicator, the maximum value of the element is determined, which is taken as one. After that, all elements of the indicators (a_{ij}) are divided by the maximum element max (a_{ij}). As a result, a matrix of standardized coefficients is created (z_{ij}) by the formula: $z_{ij} = \frac{a_{ij}}{\max a_{ij}}$.

This matrix has the following form:

$$Z = \begin{vmatrix} Z_{11}\ Z_{12}\ .....Z_{1j}\ .....Z_{1n} \\ Z_{21}\ Z_{22}.....Z_{2j}\ .....Z_{2n} \\ .... \\ Z_{i1}\ Z_{i2}\ ....Z_{ij}\ ....Z_{in} \\ Z_{m1}\ Z_{m2}\ ...Z_{mj}\ ....Z_{mn} \end{vmatrix}, \quad (2)$$

where Z — matrix of normalized (standardized) values of indicators of efficiency of enterprise functioning; matrix; Z_{ij} — value of the j-th indicator of the i-th enterprise.

Based on the normalized values of the indicators, their integral estimates for enterprises are calculated. When calculating the integral level of efficiency of a single enterprise, the values of the matrix elements, taking into account their distance from the reference (maximum) value of the indicator, are squared according to the indicators of a particular enterprise (we assume the significance of the coefficients to be the same). After that, we determine the rating assessment of the efficiency of corporate social responsibility of innovative enterprises of a particular subsector (R_{ij}) by the formula:

$$R_{ij} = \sqrt{\sum_{j=1}^{N} \left(Z_{ij} - Z_{oj} \right)}^{2}, \quad (3)$$

where Z_{0j} — benchmark value.

Determining the integral indicator of the effectiveness of corporate social responsibility of innovative enterprises has an applied aspect. The practical significance of such a rating is due to the need to determine the level and directions of economic development of production industries, to assess the need for supporting enterprises. Today, many companies choose a development strategy aimed at attracting a wide range of stakeholders. One of the popular approaches to achieving this goal is the application of the principles of corporate social responsibility of business. Corporate social responsibility of business in modern enterprises is an important aspect of socio-economic relations. Many Ukrainian companies actively practice the publication of non-financial reporting on corporate social responsibility of business, which allows stakeholders to learn about the social actions of the enterprise. However, compiling reports on corporate social responsibility of business may have its drawbacks. For example, the lack of a clear structure in the reports may complicate their analysis.

Also, there are currently no universal indices or postulates for assessing the corporate social responsibility of enterprises. This leads to a situation where most companies compile reports without a specific form, which may complicate their comparison and analysis. In this regard, the formation of methodological recommendations, including criteria, indices and features of assessment, becomes an important task for enterprises in the process of studying corporate social responsibility at the national level.

Active participation in social responsibility provides companies with a number of advantages, in particular, the possibility of expanding sales networks, reducing costs through the use of environmentally friendly production equipment and creating more jobs. There is a limited number of studies related to corporate social responsibility in the scientific literature.

Corporate and social responsibility of innovative enterprises consists of four aspects, which include the market, the workplace, the environment and the community. There are two types of environments regarding the issues of corporate social responsibility of innovative enterprises. These are: economically oriented societies or developing markets, and societies where stakeholder activity is well perceived, or developed markets. The main idea is to analyze whether companies operating in Ukraine, owned by Ukrainian citizens, implement corporate social responsibility standards. The analysis of the “Market” category allows us to see that Ukrainian companies in their corporate social responsibility reports use elements such as "performance", while international subsidiaries operating in the Ukrainian market are willing to present "key indicators of sustainable development" and "support for innovation" in their reports, in addition to the elements mentioned earlier. The presentation of such elements means familiarization with the company's innovations, their expenses for research and improvement of current and new types of products. As a result, this will ensure the growth of potential customers and investors.

Table 1

Implementation of sustainable development and safety elements in enterprises

№	Elements	Company	Implementation of elements of corporate social responsibility of business at specific enterprises
1.	Sustainable professional development	"Bio-pharma"	He is one of the first in Ukraine to establish his own corporate, which is an effective tool for ensuring the company's business goals and the environment, which provides good prospects for increasing the efficiency of personnel work and forming leadership. The main goals of stable professional development are: training promising employees, knowledge level assessment, development of certain competencies, effective management of the company's human resources
2.	Security	"Inter-khim"	Successfully tested the operational management and control assessment system for the audit and security program

Table 2

Implementation of elements of corporate social responsibility of business in Ukrainian companies

№	Elements	Company	Implementation of elements of corporate social responsibility of business in specific companies
1.	Interaction with stakeholders	Myronivskyi Hliboproduct (MHP)	The company uses various methods of interaction with stakeholders, such as public reports on its activities, meetings with investors, public discussions, etc. These tools allow the company to ensure openness and transparency of its activities, as well as create mechanisms for discussing issues with various stakeholders. This helps the company to maintain the trust and support of its stakeholders and take into account their needs and expectations.
2.	Investment in society (social partnership)	Roshen	The enterprises implement various projects, including community support, infrastructure projects (road repair, park reconstruction, wells); educational projects (purchase of computers, repair of elementary schools); cultural projects (support for creative circles), support for sports projects (competitions, tournaments), etc.

According to the scale of quality of companies and the interaction of responsibility for corporate social responsibility, the development of the report by Ukrainian companies can be assessed as "satisfactory". This means that Ukrainian companies are trying to adopt the experience of interaction between companies and society from abroad. If we compare the category "workplace", we can see that when developing the corporate social responsibility of the business report, national companies use the same elements as international subsidiaries operating in the Ukrainian market. In this category, the decisive role belongs to increasing employee efficiency. Training to improve employee competence is becoming increasingly popular. Training is continuous, and companies are open to hiring more professionals. Thus, the company assumes its care for the staff and thus receives a reward in terms of increased labor productivity and income. Given the similar scale of interaction of companies with the elements of corporate social responsibility assessment, the activities of an innovative enterprise can be assessed as "good". In the category "workplace", Ukrainian companies are on the same level as international subsidiaries operating in the Ukrainian market. Great importance is attached to the professional development of employees, since the financial growth of the company largely depends on this factor.

The "environment" category provides an opportunity to see how effectively companies use resources in the process of producing goods. Ukrainian companies attach great importance to the elements of "resource efficiency", since the use of eco-innovations contributes to transparent production and savings of material and human resources. However, domestic companies should borrow from international subsidiaries such elements as "product safety and quality" and "IT efficiency". The above-mentioned elements provide time savings and enhance the company's image.

According to the qualitative assessment scale, Ukrainian companies receive a “satisfactory” level. Ukrainian companies try to use the experience of international subsidiaries operating in the Ukrainian market, however, in order to obtain a “good” level, as well as to improve the work process, they need to learn more about international standards.

According to the qualitative assessment scale, Ukrainian companies can be assessed as “good”, if we take into account the company’s interaction with the elements of corporate social responsibility of business, responsibility for developing the report. Ukrainian companies are willing to cooperate with stakeholders and society.

Thus, domestic companies, when reporting on their activities, use such elements as interaction with stakeholders, safety, resource efficiency, interaction with society. However, it is rare to find such an element as “sustainable professional development”. The use of IT technologies is an important element that is widely used by international subsidiaries, as it contributes to the rapid processing and storage of data.

Conclusions. Taking into account the distribution of elements by categories of market, workplace, environment, community will contribute to the further development of corporate social responsibility of businesses and their reports. If a company meets the requirements of this structure, the assessment of its activities will significantly improve, and will also contribute to the development of corporate social responsibility reports. If companies adhere to the structure, this will facilitate the assessment of their activities and will contribute to the definition of criteria for the effectiveness of such an assessment.

Analysis of corporate social responsibility reports of companies makes it possible to formulate conclusions that public reporting ensures the transparency of its management. The data provided in such reports describe almost all aspects of the social interaction of the company and society as a whole. In addition, the separation of elements used in reports from corporate social responsibility reports will allow national companies to analyze their own activities and the possibility of reflecting new elements when developing further reports.

REFERENCES

1. Ivanova, V. V. (2021). Upravlinnia innovatsiinoiu diialnistiu pidpryiemstva: otsinka efektyvnosti protsesu [Management of innovative activity of an enterprise: assessment of the process effectiveness]. Visnyk pisliadyplomnoi osvity. Seriia “Sotsialni ta povedinkovi nauky”, 16(45), 162–175. DOI: https://doi.org/10.32405/2522-9931-2021-16(45)-162-175 [in Ukrainian]

2. Fedenko, V. (2024). Otsinka efektyvnosti investytsiinoi ta innovatsiinoi diialnosti pidpryiemstv v suchasnykh umovakh [Evaluation of the efficiency of investment and innovation activities of enterprises in modern conditions]. Aktualni pytannia u suchasnii nautsi, 7(25). DOI: https://doi.org/10.52058/2786-6300-2024-7(25)-108-121[inUkrainian]

3. Pohorelova, T. (2021). Otsinka efektyvnosti menedzhmentu pidpryiemstva [Assessment of enterprise management efficiency]. Visnyk Natsionalnoho tekhnichnoho universytetu “Kharkivskyi politekhnichnyi instytut” (ekonomichni nauky), (1), 79–83. DOI: https://doi.org/10.20998/2519-4461.2020.1.79 [in Ukrainian]

4. Strutynska, L. R. (2022). Efektyvnist innovatsiinykh zakhodiv u diialnosti pidpryiemstva [Efficiency of innovative measures in enterprise activities]. Scientific Bulletin of UNFU, 32(3), 49–54. DOI: https://doi.org/10.36930/40320308[inUkrainian]

5. Krylov, D. (2023). Innovatsiina diialnist pidpryiemstva: misiia, zavdannia ta osoblyvosti orhanizatsii [Innovative activity of the enterprise: mission, tasks and organizational features]. Problemy i perspektyvy ekonomiky ta upravlinnia, (1(33)), 7–14. DOI: https://doi.org/10.25140/2411-5215-2023-1(33)-7-14 [in Ukrainian]

6. Tkachuk, O. M., & Hermaniuk, N. V. (2020). Suchasne udoskonalennia innovatsiinoi diialnosti pidpryiemstva [Modern improvement of enterprise innovation activity]. Ekonomika i orhanizatsiia upravlinnia, 4(40), 90–99. DOI: https://doi.org/10.31558/2307-2318.2020.4.9 [in Ukrainian]

7. Palamarenko, Ya. V. (2020). Suchasni pidkhody do otsiniuvannia rivnia stratehichnoho rozvytku pidpryiemstva [Modern approaches to assessing the level of strategic development of the enterprise]. Efektyvna ekonomika, (5), 11. DOI: https://doi.org/10.32702/2307-2105-2020.5.80 [in Ukrainian]

8. Voronina, V. L., Ziukova, M. M., & Artemenko, A. Ye. (2020). Otsinka innovatsiinoho potentsialu pidpryiemstva yak zasib efektyvnoho upravlinnia yoho rozvytkom [Assessment of the innovative potential of an enterprise as a means of effective management of its development]. Ekonomichnyi prostir, (162), 57–62. DOI: https://doi.org/10.32782/2224-6282/162-10 [in Ukrainian]