ДЕРЖАВНА СЛУЖБА УКРАЇНИ З НАДЗВИЧАЙНИХ СИТУАЦІЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ ЦИВІЛЬНОГО ЗАХИСТУ УКРАЇНИ

ISSN 2522-1892 (print) ISSN 2522-1930 (online)

Науково-технічний журнал «ТЕХНОГЕННО-ЕКОЛОГІЧНА БЕЗПЕКА»

Scientific and technical journal «TECHNOGENIC AND ECOLOGICAL SAFETY»

Випуск 17(1/2025)

Свідоцтво про державну реєстрацію КВ №22536-12436 Р від 01.03.2017

Внесено до Реєстру суб'єктів у сфері медіа Рішенням Національної ради з питань телебачення і радіомовлення №31 (протокол №1 від 11.01.2024) Ідентифікатор медіа R30-02485

Затверджено до друку вченою радою НУЦЗ України (протокол № 11 від 24.04.2025)

РЕДАКЦІЙНА КОЛЕГІЯ

- Р. В. Пономаренко д. т. н., проф. голова редакційної колегії (Україна)
- О. М. Кондратенко д. т. н., проф. головний редактор (Україна)
- В. Ю. Колосков к. т. н., доц. відповідальний секретар (Україна)
- **І. Ю. Аблєєва** д. т. н., доц. (Україна)
- В. А. Андронов д. т. н., проф. (Україна)
- В. С. Бахарєв д. т. н., проф. (Україна)
- **Ю. В. Буц** д. т. н., проф. (Україна)
- С. С. Душкін к. т. н., доц. (Україна)
- О. І. Запорожець д. т. н., проф. (Республіка Польща)
- Г. С. Калда д. т. н., проф. (Республіка Польща)
- І. С. Козій д. т. н., доц. (Україна)
- Т. В. Козуля д. т. н., проф. (Україна)
- Ш. Н. Кубекова к. т. н., асоц. проф. (Республіка Казахстан)
- Н. В. Мінська д. т. н., доц. (Україна)
- Л. Д. Пляцук д. т. н., проф. (Україна)
- Х. Роубік д. філос. (Чеська Республіка)
- С. Ю. Саєнко д. т. н., с. н. с. (Україна)
- О. М. Сєрікова к. т. н., доц. (Україна)
- О. В. Третьяков д. т. н. (Україна)
- В. Л. Филипчук д. т. н., проф. (Україна)
- С. Д. Цибуля д. т. н., проф. (Україна)

EDITORIAL BOARD

Roman Ponomarenko DSc (Technical), Full Professor - Chairman of the editorial board (Ukraine)

Oleksandr Kondratenko DSc (Technical), Full Professor – Editor-in-Chief (Ukraine)

Volodymyr Koloskov PhD, Associate Professor – Secretary-in-Charge (Ukraine)

Iryna Ablieieva DSc (Technical), Associate Professor (Ukraine)

Volodymyr Andronov DSc (Technical), Full Professor (Ukraine)

Volodymyr Bakharev DSc (Technical), Full Professor (Ukraine)

Yuriy Buts DSc (Technical), Full Professor (Ukraine)

Stanislav Dushkin PhD, Associate Professor (Ukraine)

Oleksandr Zaporozhets DSc (Technical), Full Professor (Republic of Poland)

Galyna Kalda DSc (Technical), Full Professor (Republic of Poland)

Ivan Kozii DSc (Technical), Associate Professor (Ukraine)

Tatiana Kozulia DSc (Technical), Full Professor (Ukraine)

Sholpan Kubekova PhD, Associate Professor (Republic of Kazakhstan)

Natalia Minska DSc (Technical), Associate Professor (Ukraine)

Leonid Plyatsuk DSc (Technical), Full Professor (Ukraine)

Hynek Roubík PhD (Czech Republic)

Sergii Saienko DSc (Technical), Senior Researcher (Ukraine)

Olena Sierikova PhD, Associate Professor (Ukraine)

Oleg Tretyakov DSc (Technical) (Ukraine)

Viktor Fylypchuk DSc (Technical), Full Professor (Ukraine)

Serhii Tsybulia DSc (Technical), Full Professor (Ukraine)

Науково-технічний журнал «Техногенно-екологічна безпека» включено до:

- переліку наукових фахових видань України, в яких можуть публікуватися результати дисертаційних робіт на здобуття наукових ступенів доктора і кандидата наук (наказ № 1413 від 24 жовтня 2017 р.);
- Категорії «Б» переліку наукових фахових видань України, в яких можуть публікуватися результати дисертаційних робіт на здобуття наукових ступенів доктора і кандидата наук, галузь науки технічні, спеціальність 183 «Технології захисту навколишнього середовища» (наказ № 1412 від 18 грудня 2018 р.);
 - платформи «Наукова періодика України» у Національній бібліотеці ім. В. І. Вернадського;
 - міжнародної бази даних Ulrichsweb (Ulrich's Periodicals Directory);
 - міжнародної бази даних Index Copernicus International;
 - міжнародної індексаційної бази ResearchBib;
 - − європейської репозитарної бази даних ОрепАІRE;
 - довідника міжнародних наукових журналів у співпраці з провідними університетами СіteFactor.

Техногенно-екологічна безпека: наук.-техн. журн. – Черкаси: НУЦЗ України, 2025. Вип. 17(1/2025). 100 с.

Scientific and technical journal «Technogenic and Ecological Safety»



ORIGINAL REVIEW OPEN ACCESS

THEORIES AND TOOLS OF SOCIAL RESPONSIBILITY IN THE CONTEXT OF TECHNOGENIC-ECOLOGICAL SAFETY

L. Yurchenko¹

¹National University of Civil Protection of Ukraine, Cherkasy, Ukraine

UDC 574:658.012.4

DOI: 10.52363/2522-1892.2025.1.7 *Received:* 15 March 2025

Accepted: 24 April 2025

Cite as: Yurchenko L. (2025). Determination of quantitative and qualitative aspects of environmental pollution by thermal energy from power plants with reciprocating internal combustion engines. Technogenic and ecological safety, 17(1/2025), 67–73. doi: 10.52363/2522-1892.2025.1.7

Abstract

The tendencies of business socialization as well as the peculiarities of the Ukrainian situation, namely, the general social and economic crisis in the country and, at the same time, an increase in the lack of qualified managers who see the future of their business in Ukraine, predetermines such an aspect of the formation of business management technologies that are combined with the functioning of corporate structures and the development of their social value.

The problem is conditioned by the fact that in order to balance the interests of the parties in the social dialogue, socially responsible behavior, the spread of ideology and technology of social responsibility, the introduction into practice of all economic structures, state, business, trade union, the idea of a just social contract, and not confrontation. It updates the development of theories and tools of corporate social responsibility policy.

Using analytical materials from domestic and foreign publications in the context of social ethics, to derive the theory of social responsibility of business and practical tools for their application. To achieve the goal, a following methodology is used: inductive generalization of data, comparison and analogy, deductive output of new knowledge.

Established by the current conditions of the theory of the phenomenon of social responsibility, namely: business professional practices (improvement of production technologies), technology personnel (retraining, training), regulation in the field of occupational safety and health (increasing the level of occupational safety), maintaining links with community, environmental social responsibility. Proposed tools for their application (grants, scholarships, social investments, philanthropy, sponsorship, local community funds).

Social responsibility is a voluntary contribution of business to the development of society in the economic, social, environmental spheres; the commitment of the company to ethical conduct of business, promotion of sustainable development of the enterprise, community and society.

Key words: social responsibility, theory, tool, stakeholders, investment, charity, philanthropy.

Problem statement.

In recent years, the social aspects of corporate activities have received significantly more attention both in theory and in management practice. This is due to both global (primarily European) trends in the socialization of business and the specifics of the Ukrainian situation, namely: the general socioecological crisis in the country and, at the same time, the increase in qualified managers who plan the future of their business in Ukraine. The most complex and interesting aspect of the formation of social technologies for managing large businesses is that which is combined with the functioning of corporate structures and the development of their social tolerance.

The timeliness of the subject is due primarily to the fact that in order to ensure the balancing of the interests of the parties to social dialogue, the effective development of socially responsible behavior of business entities, it is necessary to consistently spread the ideology and technology of social responsibility, to introduce into the consciousness and practice of all economic and social entities — state, business, trade union structures — the idea of a fair social agreement, rather than social confrontation. Much work is needed to form the parties to social partnership.

Analysis of recent research and publications.

It is a socially responsible approach to business management the foundations of which were laid in the middle of the 20th century owing to the charitable social activities of A. Carnegie, J. Rockefeller, R. E. Wood [1–3]. Today, the phenomenon of social responsibility has gained widespread acceptance and detailed analysis, which was facilitated by Howard R. Bowen's work "Social Responsibilities of the Businessman" [4].

H. R. Bowen was one of the first to study the phenomenon of social responsibility. Based on his definition that the social responsibility of a businessman consists in implementing such policies, making such decisions or adhering to such a line of behavior that would be desirable for the goals and values of society [4]. Along with this, subsequent interpretations of this concept began to take shape.

For example, we have formulated a definition of corporate social responsibility as the management of technogenic and environmental safety that satisfies the environmental, ethical, legal, commercial and other public expectations that society associates with modern business management.

Yu. Marshavin identified four main characteristics of an organization that can be given the status of socially responsible [5, 6]:

- rational combination of the techno-economic interests of the owner of the enterprise with the interests of the team;
- the focus of entrepreneurship on ensuring that the entire society receives material and social benefits from its activities;

- taking into account the long-term impact of modern economic activity on future generations, i. e. ensuring sustainable environmental development;
- high spirituality of the enterprise, concern for the spread of moral values, preservation of culture, nature and development of art.

Alternatively, N. Voloskovets believes corporate social and environmental responsibility is a responsible attitude of any company towards its product or service, towards consumers, employees, partners; an active social position of the company, which consists in harmonious coexistence, interaction and constant dialogue with society, participation in solving the most acute social and environmental problems, and the social responsibility of a businessman consists implementing such a policy, making such decisions or adhering to such a line of behavior that would be desirable for the goals and values of the society [7].

- P. Kotler speaks of social responsibility as an obligation to improve the well-being of the community through voluntary business practices and the investment of corporate resources in social and environmental projects [8, 9].
- P. Drucker put forward the idea of combining profitability and ethical responsibility, that is, adhering to the principles of social responsibility of business [10].

In general, the problem of socially responsible business is currently being actively discussed in the social and humanitarian scientific field. However, certain issues, such as the creation of applied strategies and tactics of socially responsible business behavior that would be not only socially balanced, but also economically profitable, often remain out of the researchers' attention. This circumstance has led to the formulation of the corresponding aim and objectives of the study.

Setting the task and its implementation.

The aim of the research is to develop a system of theoretical provisions of the social and environmental responsibility of business and practical tools for their application.

To achieve the aim, the tasks have been set to clearly define the issues of social responsibility of business, establish a conceptual basis and management technologies of socially responsible entrepreneurship, analyze world experience in the field of social responsibility of enterprises and its implementation in Ukrainian realities. To perform the tasks, the methodology of inductive data generalization, comparison and analogy, and deductive derivation of new knowledge has been used.

Social responsibility (of the state, business, and individuals) as a special type of social relations and a natural result of a developed socially oriented economy is at the same time an important indicator of the ecological, social, and political maturity of society. In a developed society with a strong economy, there is an objective need to transition to socially responsible relations.

There is some uncertainty in the issue of compliance with the principles of social and environmental

responsibility by businesses in modern conditions gives rise to a multitude of approaches to solving this issue, but they have a common basis: social responsibility of business prioritizes how enterprises organize and ensure the effectiveness of their commercial activities to form an overall positive impact on society.

When investigating the conceptual basis of the corporate social responsibility system, we have substantiated that it largely depends on the value orientations that underlie the formation of the mission, strategic vision, corporate governance, and the use of modern management technologies.

The structure of the phenomenon of social responsibility can be represented as a system of levels of organization, principles of functioning (regulatory framework), management technologies and tools for their implementation. The analysis and research of the named components of this phenomenon allows us to more deeply reveal their content and essence.

The definition of social responsibility levels defines three levels: basic (compliance with legislation, conscientious payment of taxes, payment of wages, improvement of the workforce); corporate (personnel development, social packages, greening of activities, occupational safety system); paternalistic (charity, patronage, support for community development).

The basic principles of the functioning of the social responsibility system are quite clearly established in the relevant standards, which we have divided into four groups: general (UN Global Compact, Global Sullivan Principles, OECP); managerial (SA 8000, ISO 9000, ISO 14000, Criteria for Forest Management); rated (FTSE4 Good Selection Criteria, Dow Jones Sustainability Group); reporting and analytical (AA1000, Global Reporting Initiative Guidelines) [11–14].

The analysis of possible management technologies as the basis for the development of social responsibility at enterprises has allowed us to identify technologies for the development of innovative business practices, personnel technologies, technologies in the field of occupational safety and health, technologies for a responsible attitude to the environment, and technologies for supporting the local community, the use of which provides for increasing the efficiency of the implementation of projects in the field of social responsibility of enterprises.

The tools for implementing the suggested technologies are based on the following methods and means: cash grants and scholarships, social investments, charitable contributions, corporate sponsorship, local community funds.

The success of developing business social responsibility is largely determined by inherent intangible resources, the efficiency of using intellectual and creative personnel, the uniqueness of organizational knowledge, and the use of modern personnel technologies to ensure sustainable competitive advantages.

The most widespread approach to socially responsible activity is the instrumental approach, according to which the enterprise acts as an instrument for creating wealth, and all its social activities are aimed

at achieving economic results. Such a strategy appeared at the end of the 20th century, when corporate social responsibility was considered mainly responsibility of the enterprise to its shareholders. The most famous supporter of this approach is M. Friedman, who believed that there is only one social responsibility of the business world - to use its resources and engage in activities aimed at increasing profits, provided that the rules of the game are observed, that is, to engage in open and free competition, without deception and fraud. [15, p. 124; 16]. That is, acting in this way, the organization fulfills its technological, economic function, producing goods and services necessary for society, while creating jobs and ensuring profit maximization for shareholders.

A focus on profits does not exclude the need to also take into account the interests of all those affected by the company's activities (stakeholders). Under certain conditions, satisfying such interests can contribute to maximizing shareholder value. An adequate level of investment in philanthropy and social activities is also permissible for the sake of generating profits.

Instrumental theories are divided into three groups:

- maximizing shareholder value;
- creating competitive advantage;
- marketing a socially significant problem.

The theory of shareholder value maximization proves that the growth of a company's shareholder value is one of the approaches to assessing its social activities. That is, it is worth investing in social and environmental projects in order to increase the value of shares. Otherwise, if social requirements will only lead to the expenditure of funds, the company should refuse such investments. In order to improve long-term prospects, companies should somehow contribute to the development of the community. This will contribute to the attraction of qualified personnel, reduce the risk of strikes, receive benefits from the state and other positive effects. That is, social and economic goals are somewhat separated from economic.

We divide the strategy of competitive advantage into two aspects:

- social investments to strengthen competitiveness;
- business development from the point of view of effective, environmentally sound use of resources.

A supporter of this approach is M. Porter. [17, p. 211]. It is from him that the idea originates that investments in the social and environmental sphere, as well as charity, can become factors in increasing the competitiveness of an enterprise. If a company's charitable activities are connected to its overall goal, then they can create more benefits than individual donations and contributions.

The idea of economic development based on environmentally sound and economical use of resources is based on an effective and unique combination of human, organizational and material resources.

The approach, called cause-related marketing, defines social responsibility as the process of forming and implementing marketing activities that are characterized as a firm's attempt to make certain contributions to a social goal, satisfying both corporate and individual interests.

A group of theories that can be called socio-political focuses on the connection and interaction between the technological sphere and society and the role of economic power in society.

Among socio-political theories, we distinguish:

- corporate constitutionalism;
- social contract theory;
- corporate citizenship.

It was K. Davis who stood at the origins of the theory of corporate constitutionalism [18, p. 23]. He was one of the first to argue that business is a social institution and must use its power responsibly; and he also put forward the imperative that the improper use of power (including political power) is considered wrong and can lead to its complete loss.

The essence of the theory of corporate constitutionalism in the context of environmental social responsibility lies in the initiation by corporations of a policy of minimizing the negative consequences of their activities in order to prevent crisis situations and protests against capital.

But, in our opinion, total business responsibility, as well as the ideology of the free market in the absence of social responsibility, are undesirable in a moderate society. The limits of functional power lie within the requirements of various interest groups. This circle of interest groups determines the conditions for the use of their power by companies. They direct the company's capabilities in the direction of supporting and protecting their interests, including a safe ecological environment for the population.

The philosophical basis of the social contract theory was laid by J. Locke [19]. He believed that there is a certain implicit contract between a society and business. This contract covers some indirect obligations of business towards society.

Such a contract implies the existence of some kind of social contract that aligns the behavior of the entrepreneur with the goals and values of the society. The specific terms of this contract may change in accordance with the transformation of social expectations, but the contract as a whole remains as the main source of legitimacy of the business.

But in modern conditions of economic management, it is necessary to distinguish between macrosocial and microsocial contracts. The macrosocial contract should provide for the formation of principles and norms that would provide rules for any social contracts. The microsocial contract implies explicit and implicit agreements, such as, for example, economical, scientifically based treatment of natural objects, which are mandatory within certain communities: industries, companies or economic systems as a whole.

The theory of "corporate citizenship" has achieved active development in society due to the growing popularity of anti-globalization processes. This concept was actively proposed by Yu. Ye. Blagov and mentioned in the reference [20, p. 186]. Considerable attention to this problem was also paid by R. E. Wood. [3, p. 107]. In his work, the author notes that to this day the theory of "corporate citizenship" largely determines the obligations of corporations towards stakeholders with their environmental needs.

A fairly common view is that corporate citizenship is equated with corporate social responsibility. A. Carroll sees corporate citizenship as a new conceptualization of the role of business in a society [21, p. 213]. Finally, a broader approach to understanding corporate citizenship is that corporations are engaged in the sphere of citizenship when the government is unable to cope with the problems of society. Despite the diversity of interpretations of the concept of "corporate citizenship", they all focus on the problem of combining rights, responsibilities and possible partnerships between business and society in an effort to improve the conditions for the functioning of societies and places of presence of companies, as well as preserve the environment.

Thus, the main achievement of the theory of corporate citizenship is that it defines the responsibilities of corporations towards their stakeholders.

Awareness of the role and importance of corporate citizenship contributes to the active creation and signing of agreements by international companies to establish multilateral relations in the context of collective tolerance in the treatment of natural objects.

In the socio-ethical field, there is a phenomenon of integrative theories. The group of integrative theories focuses on how business integrates social requirements into its activities, convincing that it owes its existence and development to society.

Thus, social responsibility in the field of technogenic and ecological safety is reduced to the conditions of a specific situation: place, time, specific values for a specific society at a specific moment, as well as the functional role of business. In other words, there is no specifically defined action that managers must perform at a particular moment in any sphere of functioning. This group of theories focuses mainly on identifying social demands and responding to them.

Integrative theory includes the following approaches:

- environmental contingency management;
- stakeholder management in the context of environmental responsibility;
 - corporate social and environmental activity.

The idea of contingency management began to develop in the late 20th century and was called corporate social responsibility. This approach focuses on the discrepancies between the expected activities of a company and its actual actions.

According to R. Ackerman, this gap lies in the area of free choice of the company – "zone of discretion" [22, p. 90]. The company must fill the gap, respond to the needs of the environment. The essence of this approach is not only focusing on achieving and satisfying social needs, but also on how those are achieved.

However, more attention is paid in the concept to the process itself, rather than to the principle of solving corporate social responsibility problems.

The concept of "social response" was later supplemented by the concept of "emergency management." The latter also emphasizes the process of a company responding to social needs. Contingency management is defined as the process of identifying, assessing, and responding to social and political issues that may directly impact the operations of the company itself. Contingency management aims to minimize the "surprises" from social and political changes by serving as a warning system for potential threats and possible benefits that come from the environment.

The idea behind the stakeholder concept is that every organization, commercial enterprise, government agency, or public association has a range of stakeholders who influence or are affected by their activities now and in the future.

Groups of individuals generally referred to as "stakeholders" include employees, customers, shareholders, suppliers, the local community, the government and society at large. In essence, some of these stakeholders will have more influence than others, and businesses need to understand the level of influence that each of these stakeholder groups can exert. Accordingly, the social role of business should be defined by the demands of stakeholders, thereby replacing the concept of "society" with the concept of "stakeholders".

The concept of stakeholders is developing in the modern socio-ecological and technogenic field. Following L. Preston, we believe that the relationship of a corporation with stakeholders is a source of "relational assets", the development of which consists in a balanced rational response of the company to the system of conflicting expectations of stakeholders [23, p. 213]. This behavior of a corporation enables it to generate benefits for stakeholders over the long term and is a means of achieving, for example, environmentally sustainable development.

A. Carroll, as the founder of the theory of corporate social activity, envisaged the existence of three main elements in it: a basic definition of corporate social responsibility, a list of problems that are attributed to social responsibility and ways of responding to these problems. Relying on his long-known opinion, we see that social responsibility consists of four levels (Fig. 1.).

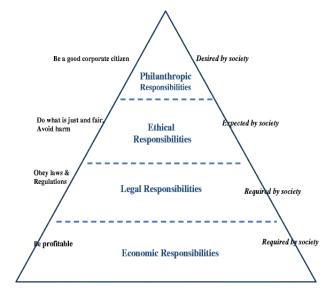


Figure 1 – A. Carroll's pyramid of corporate social responsibility [24]

At the highest level of the pyramid, the company donates funds for education, health care, and environmental safety.

The stakeholder theory has several significant differences from other theories. Three of its most important features regarding environmental issues can be distinguished:

- this theory is designed to simultaneously describe and determine the environmental structure and functioning of a particular corporation;
- it considers the corporation as a certain organizational object through which various participants solve their eco-social obligations;
- it is general and comprehensive, but at the same time has a practical environmental focus.

To fulfill a proper corporate social responsibility, a corporation must fulfill the following responsibilities:

- economic: to earn sufficient profit, satisfy the needs of buyers in goods and services, create new jobs, and encourage innovation;
 - legal: not to go beyond the legal field;
- ethical: to be honest, respect people's rights, be fair:
- philanthropic: to benefit society through its activities, including environmental ones.

We should also pay attention to the fact that, constantly supplementing A. Carroll's model, adapting it to the needs of modern management, we may not consider this pyramid to be a complete construction of business social responsibility.

Essentially, this approach to understanding corporate social responsibility as a multi-level structure allows us to clearly identify the components of corporate social responsibility of business and resolve certain contradictions in approaches to this issue.

Socio-ethical theories include three groups of theories focused on ethical characteristics that set the basis for business-society relations:

- normative stakeholder theory;
- eco-sustainable development theory;
- social ecological well-being approach.

The concept of corporate social responsibility was originally based on human rights. This is provided for by the UN Global Compact, the World Economic Forum, the Sullivan Global Principles, as well as numerous international initiatives, for example, the SA 8000 certification standards initiative [11–14].

The approach of ecological sustainable development has become more popular at the macro level than at the corporate level, and it involves appropriate contributions from business. Sustainable development is a general concept regarding the need to strike a balance between meeting the current needs of humanity and protecting the interests of future generations, including their need for a safe and healthy environment. This concept has become widely used, and the concept of "eco-sustainable development" has spread to social aspects, which have become inseparable from issues of environmental protection and human life.

The approach of public good assumes that business should contribute to the increase of general well-being as part of this society. Business should not harm or be a "parasite" in society, but should make an exclusively positive contribution to the well-being of society and, above all, improve its environment.

So, as can be seen from the material considered and analyzed, since its inception, the concept of environmental social responsibility has undergone significant changes, transforming from a complete denial of this idea to the recognition of full responsibility for the environmental safety of society on an equal footing with the state, in accordance with the concept of corporate citizenship.

Conclusions.

Summarizing the above concepts, we can define the environmental social responsibility of a company as a responsibility to members of society, which includes both direct participants in the corporation (primarily investors, managers and employees of the company), and other members of society who have an indirect relationship with the company (consumers of the company's products, competitors, other companies, etc.).

The subjects of the company's social environment and responsibility include participants in the microenvironment – owners, employees, investors, and the corporation's macroenvironment – customers, business partners, competitors, other companies, authorities (local and national), local communities (media, non-profit organizations, including public and charitable ones, local activists who shape public opinion).

Environmentally socially responsible behavior of a company is an opportunity for a corporation to realize its basic needs for survival, security and sustainability; it is the main source of its reputation and one of the most serious topics of discussion in the social and scientific field. Local, low-budget, but interesting environmental projects are the means of creating a positive image of the company not only at the local, but also at the national and international levels.

It should be noted that the theory of corporate altruism is directly opposite to the concept of corporate egoism. And corporations are obliged to make significant contributions to improving the life quality of a society.

Observation and analysis of the activities of ecosocially responsible enterprises and companies shows that even under conditions where investments in reputation are reduced hundreds of times, the effect is no less impressive than from the implementation of a costly national program.

Consumer relations are brand building. That is, the company tries to associate itself with reliability and social responsibility in order to maintain competitive advantages. But, at the same time, social activity can significantly increase the company's profits.

REFERENCES

- 1. Carnegie, A. (2004). Advantages of poverty (D. Carnegie, Foreword). URL: https://www.yumpu.com/en/document/view/67855451/pdfdownload-advantages-of-poverty-life-changing-classics.
- 2. Rockefeller, D. (2003). *Memoirs*. Random House. URL: https://ia800904.us.archive.org/35/items/DavidRockefellerMemoirs2003 RandomHouse/David% 20Rockefeller% 20-% 20Memoirs% 20% 282003% 2C% 20Random% 20House% 29.pdf.
 - 3. Wood, R. E. (2006). Remember with advantages: Chasing the fugitive and other stories from an actor's life. McFarland & Co.
- 4. Bowen, H. R. (2013). Social responsibilities of the businessman (P. G. Bowen, Foreword; J.-P. Gond, Introduction). University of Iowa Press. DOI: 10.2307/j.ctt20q1w8f.
- 5. Lopushniak, H., Marshavin, Y., Kytsak, T., Iastremska, O., & Nikitin, Yu. (2021). Modernization of social dialogue as an imperative for developing social responsibility by business organizations in Ukraine. *Problems and Perspectives in Management*, 19(1), 487–498. DOI: 10.21511/ppm.19(1).2021.41.
- 6. Marshavin, Yu. M., & Mohylnyi, O. M. (2018). Entsyklopediia suchasnoi Ukrainy [Encyclopedia of Modern Ukraine] (I. M. Dziuba, A. I. Zhukovskyi, M. H. Zhelezniak et al., Eds.; National Academy of Sciences of Ukraine, Shevchenko Scientific Society). Kyiv, Instytut entsyklopedychnykh doslidzhen NAN Ukrainy. URL: https://esu.com.ua/article-64116. [in Ukrainian]
- 7. Voloskovets, N. Yu. (2010). Korporatyvna sotsialna vidpovidalnist pidpryiemstv yak osnova innovatsiinoho rozvytku suchasnoi ekonomiky [Corporate social responsibility of enterprises as a basis for the innovative development of the modern economy]. *Naukovi pratsi KNTU: Ekonomichni nauky*, 17, 18–25. [in Ukrainian]
- 8. Kotler, F. L., & Li, N. (2005). Korporatyvna sotsialna vidpovidalnist. Yak zrobyty yakomoha bilshe dobra dlia vashoi kompanii ta suspilstva [Corporate social responsibility: How to do the most good for your company and society]. Kyiv, Standart. [in Ukrainian]
- 9. Kotler, F. (2023). Osnovy marketynhu [Principles of marketing]. Kyiv, Naukovyi svit. URL: https://diamail.com.ua/PDF/978-617-7812-04-2/content.pdf. [in Ukrainian]
 - 10. Drucker, P. (2018). Efektyvnyi kerivnyk [The effective executive] (R. Mashkova, Trans.). Kyiv, KM-BUKS. [in Ukrainian]
 - 11. Pro standart SA 8000 [About the SA 8000 standard]. (2024). URL: https://sm-mt.com.ua/services/standart-sa-8000/.
 - 12. DSTU ISO 9000:2015. (2015). URL: https://online.budstandart.com/ua/catalog/doc-page.html?id_doc=64030.
- 13. Seriia standartiv ISO 14000 [Series of ISO 14000 standards]. (2025). URL: https://intercert.com.ua/articles/regulatory-documents/67-iso-14000.
 - 14. AccountAbility. (2025). Standards: 30 years of setting the standard for sustainability. URL: https://www.accountability.org/standards.
 - 15. Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. The New York Times Magazine, 122-126.
- 16. Friedman, M., & Schwartz, A. (2007). Monetarna istoriia Spoluchenykh Shtativ 1867–1960 rr. [A monetary history of the United States, 1867–1960]. Kyiv, Vakler.
- 17. Porter, M. (2019). Konkurentna perevaha: Yak dosiahaty stabilno vysokykh rezultativ [Competitive advantage: Creating and sustaining superior performance] (I. Yemel'nova & I. Hnatkovska, Trans.). Kyiv: Nash Format. [in Ukrainian]
- 18. Zabashtanskyi, M. M. (2013). Sotsialna vidpovidalnist kontsiesiinoi diialnosti v Ukraini [Social responsibility of concession activity in Ukraine]. *Innovatsiina ekonomika*, 6, 23–27. [in Ukrainian]
 - 19. Locke, J. (n.d.). Segundo ensayo sobre el gobierno civil. Rústica.
- 20. Yarova, V. V. (2013). Teoretyko-metodolohichni pidkhody do vyvchennia sotsialnoi vidpovidalnosti biznesu [Theoretical and methodological approaches to the study of corporate social responsibility]. Visnyk Kharkivskoho natsionalnoho ahrarnoho universytetu im. V. V. Dokuchaeva. Ser.: Ekonomichni nauky, 5, 185–196. [in Ukrainian]
- 21. Minervin, I. H., & Kerroll, A. B. (2016). Korporatyvna sotsialna vidpovidalnist. Mistse i rol v suchasnomu biznesi [Corporate social responsibility: Place and role in modern business].
 - 22. Ackerman, R. W. (1973). How companies respond to social demand. Harvard Business Review, 88-98.
 - 23. Preston, L. E., & Post, J. E. (1975). Private management and public policy. Englewood Cliffs, NJ: Prentice-Hall.
- 24. Carroll, A. B. (2016). Carroll's pyramid of CSR: Taking another look. *International Journal of Corporate Social Responsibility*, 1(3). DOI: 10.1186/s40991-016-0004-6

Юрченко Л. І.

ТЕОРІЇ ТА ІНСТРУМЕНТИ СОЦІАЛЬНОЇ ВІДПОВІДАЛЬНОСТІ В КОНТЕКСТІ ТЕХНОГЕННО-ЕКОЛОГІЧНОЇ БЕЗПЕКИ

Тенденції соціалізації господарювання, а також особливості української ситуації, а саме загальна соціально-політична криза в країні і, водночас, збільшення частки кваліфікованих менеджерів, які бачать майбутнє свого бізнесу в Україні, зумовлює такий аспект формування технологій управління, який поєднаний із функціонуванням корпоративних структур та розвитком їхньої соціальної повноцінності, зокрема екологічної.

Проблематика обумовлюється тим, що задля забезпечення балансу інтересів сторін соціального діалогу, соціально-екологічної відповідальної поведінки необхідне поширення ідеології й технології соціальної відповідальності, впровадження в практику всіх економічних структур: державних, підприємницьких, профспілкових, ідеї справедливого соціального договору, а не конфронтації. Це актуалізує розробку теорій та інструментарію політики екологічної та соціальної відповідальності підприємства.

Аналітично використовуючи матеріали вітчизняних і зарубіжних публікацій у контексті техногенно-екологічної безпеки, за мету вызьмемо виведення теоретичних положень феномену екологічної та соціальної відповідальності і встановити практичний інструментарій їх застосування. Для досягнення мети використано методологію індуктивного узагальнення даних, порівняння та аналогії, дедуктивного виведення нового знання.

Встановлено прийнятні за сучасних умов теорії феномену екологічної та соціальної відповідальності, а саме ділові професійні практики (вдосконалення технологій виробництва), персонал-технології (перепідготовка, навчання), регулювання у сфері безпеки праці й гігієни (підвищення рівня охорони праці), підтримка зв'язків із громадою, екологічна безпека. Запропоновано засоби інструментарію їх застосування (гранти, стипендії, соціальні інвестиції, благодійництво, спонсорство, фонди місцевих громад).

Соціальна відповідальність – це добровільний внесок організацій у розвиток суспільства в екологічній, соціальній, економічній сферах; зобов'язання компанії щодо етичного ведення господарства, сприяння сталому розвитку підприємства, громади і суспільства.

Ключові слова: соціальна відповідальність, теорія, інструмент, стейкхолдери, інвестиція, благодійництво, меценатство.

ЛІТЕРАТУРА

- 1. Carnegie A. Advantages of Poverty / Foreword by D. Carnegie. 54 p. URL: https://www.yumpu.com/en/document/view/67855451/pdfdownload-advantages-of-poverty-life-changing-classics (дата звернення 08.03.2025).
- 2. Rockefeller D. Memoirs. Random House, 2003. URL: https://ia800904.us.archive.org/35/items/DavidRockefellerMemoirs 2003RandomHouse/David% 20Rockefeller% 20-% 20Memoirs% 20% 282003% 2С% 20Random% 20House% 29.pdf (дата звернення 08.03.2025).
 - 3. Wood R. E. Remember with Advantages: Chasing the Fugitive and Other Stories from an Actor's Life. McFarland & Co, 2006. 415 p.
- 4. Bowen H. R. Social Responsibilities of the Businessman / Foreword by Peter Geoffrey Bowen, introduction by Jean-Pascal Gond. University of Iowa Press_2013. 298 p. DOI: 10.2307/j.ctt20q1w8f.
- 5. Modernization of social dialogue as an imperative for developing social responsibility by business organizations in Ukraine / H. Lopushniak et al. *Problems and Perspectives in Management*. 2021. 19(1). P. 487–498. DOI: 10.21511/ppm.19(1).2021.41.
- 6. Маршавін Ю. М., Могильний О. М. Енциклопедія сучасної України / редкол.: І. М. Дзюба, А. І. Жуковський, М. Г. Железняк та ін.; НАН України, НТШ. Київ: Інститут енциклопедичних досліджень НАН України, 2018, оновл. 2023. URL: https://esu.com.ua/article-64116 (дата звернення 08.03.2025).
- 7. Волосковець Н. Ю. Корпоративна соціальна відповідальність підприємств як основа інноваційного розвитку сучасної економіки. Наукові праці КНТУ: Економічні науки. 2010. №17. С. 18–25.
- 8. Котлер Ф. Л., Лі Н. Корпоративна соціальна відповідальність. Як зробити якомога більше добра для вашої компанії та суспільства. Київ: Стандарт, 2005. 302 с.
- 9. Котлер Ф. Основи маркетингу. Київ: Науковий світ, 2023. 490 с. URL: https://diamail.com.ua/PDF/978-617-7812-04-2/content.pdf (дата звернення 08.03.2025).
 - 10. Друкер П. Ефективний керівник / пер. з англ. Р. Машкової. Київ: КМ-БУКС, 2018. 248 с.
 - 11. Про стандарт SA 8000. URL: https://sm-mt.com.ua/services/standart-sa-8000/ (дата звернення 08.03.2025).
 - 12. ДСТУ ISO 9000:2015. URL: https://online.budstandart.com/ua/catalog/doc-page.html?id_doc=64030 (дата эвернення 08.03.2025).
 - 13. Серія стандартів ISO 14000. URL: https://intercert.com.ua/articles/regulatory-documents/67-iso-14000 (дата звернення 08.03.2025).
 - 14. Standards: 30 Years of Setting the Standard for Sustainability. URL: https://www.accountability.org/standards (дата звернення 08.03.2025).
 - 15. Friedman M. The Social Responsibility of Business is to increase its Profits. New York Yimes Magazine. September, 13. 1970. P.122-126.
 - 16. Фрідман М., Шварц А. Монетарна історія Сполучених штатів 1867–1960 рр. Київ: Ваклер, 2007. 880 с.
- 17. Потер М. Конкурентна перевага: Як досягати стабільно високих результатів / пер. з англ.: І.Ємельнова, І. Гнатковська. Київ: Наш формат, 2019. 622 с.
 - 18. Забаштанський М. М. Соціальна відповідальність концесійної діяльності в Україні. Інноваційна економіка. 2013. №6. С. 23–27.
 - 19. Locke J. Segundo Ensayo Sobre el Gobierno Givil. Rústica. 178 p.
- 20. Ярова В. В. Теоретико-методологічні підходи до вивчення соціальної відповідальності бізнесу. Вісник Харківського національного аграрного університету ім. В. В. Докучаєва. Сер.: Економічні науки. 2013. № 5. С. 185—196.
 - 21. Мінервін І. Г., Керролл А. Б. Корпоративна соціальна відповідальність. Місце і роль в сучасному бізнесі. 2016. 351 с.
 - 22. Ackerman R. W. How Companies Respond to Social Demand. Harvard Business Review. 1973. P. 88-98.
 - 23. Preston L. E., Post J. E. Private Management and Public Policy. Englewood Cliffs: Prentice-Hall, 1975. 349 p.
- 24. Carroll A. B. Carroll's pyramid of CSR: taking another look. *International Journal of Corporate Social Responsibility*. 2016. Vol. 1. Art. 3. DOI: 10.1186/s40991-016-0004-6.

3MICT

Kondratenko O., Koloskov V., Koloskova H., Lytvynenko O. DETERMINATION OF QUANTITATIVE AND QUALITATIVE ASPECTS OF ENVIRONMENTAL POLLUTION BY THERMAL ENERGY FROM POWER PLANTS WITH RECIPROCATING INTERNAL COMBUSTION ENGINES	3
Rybalova O., Ilinskyi O., Bryhada O., Matsak A. ECONOMIC ASSESSMENT OF THE RISK TO PUBLIC HEALTH CAUSED BY SURFACE WATER POLLUTION	18
Цимбал Б. М., Рибалова О. В., Сула В. €. ДОСЛІДЖЕННЯ ВПЛИВУ ЛІТІЮ НА НАВКОЛИШНЄ СЕРЕДОВИЩЕ ТА ПРОФЕСІЙНЕ ЗДОРОВ'Я	28
Kondratenko O., Krasnov V. DEVELOPMENT OF THE MOBILE DISASSEMBLY TEST BENCH FOR EXPERIMENTAL STUDY OF THE ECOLOGICAL SAFETY LEVEL OF EXPLOITATION OF FIREFIGHTING AND EMERGENCY-RESCUE EQUIPMENT WITH RECIPROCATING ICE AND THE PERFORMANCE CHARACTERISTICS OF THE EXECUTIVE DEVICES OF EPT	37
Безсонний В. Л., Пономаренко Р. В., Пляцук Л. Д., Третьяков О. В. ОЦІНКА БЕЗПЕКИ ПІДЗЕМНИХ ВОД ЗА ДОПОМОГОЮ БАГАТОМОДЕЛЬНОГО ІНДЕКСУ ЯКОСТІ ВОДИ ТА ПОКАЗНИКІВ РИЗИКУ ДЛЯ ЗДОРОВ'Я	48
Плотников І. В., Кондратенко О. М., Колоскова Г. М., Колосков В. Ю. РОЗРОБКА ТЕХНОЛОГІЇ МОНІТОРИНГУ ВИКИДІВ ХЛОРУ В АТМОСФЕРНЕ ПОВІТРЯ ПРИ ЗНЕЗАРАЖЕННІ СТІЧНИХ ВОД НА МІСЬКИХ ОЧИСНИХ СПОРУДАХ	54
Yurchenko L. THEORIES AND TOOLS OF SOCIAL RESPONSIBILITY IN THE CONTEXT OF TECHNOGENIC-ECOLOGICAL SAFETY	67
Коваленко С. А., Пономаренко Р. В., Третьяков О. В. ВДОСКОНАЛЕННЯ МЕТОДИКИ КОМПЛЕКСНОЇ ОЦІНКИ ЕКОЛОГІЧНОГО СТАНУ ПОВЕРХНЕВОГО ВОДНОГО ОБ'ЄКТА (НА ПРИКЛАДІ СУББАСЕЙНУ СЕРЕДНЬОГО ДНІПРА)	7 4
Портянник С. В., Маменко О. М., Кондратенко О. М. КОРЕЛЯЦІЙНИЙ АНАЛІЗ ВМІСТУ ВАЖКИХ МЕТАЛІВ У КОРМАХ ТА ОРГАНІЧНИХ ВІДХОДАХ ТВАРИННИЦТВА З ОЦІНКОЮ ЕКОЛОГІЧНОГО РИЗИКУ ЗАБРУДНЕННЯ АГРОЕКОСИСТЕМ ПОЛЮТАНТАМИ	81
Юрченко В. О., Авдієнко І. А., Христенко А. М. ЕМІСІЯ СО2 ЗІ СПОРУД БІОЛОГІЧНОЇ ОЧИСТКИ СТІЧНИХ ВОД, ЩО ПРАЦЮЮТЬ ЗА СХЕМОЮ АО	92

TABLE OF CONTENT

Kondratenko O., Koloskov V., Koloskova H., Lytvynenko O. DETERMINATION OF QUANTITATIVE AND QUALITATIVE ASPECTS OF ENVIRONMENTAL POLLUTION BY THERMAL ENERGY FROM POWER PLANTS WITH RECIPROCATING INTERNAL COMBUSTION ENGINES	3
Rybalova O., Ilinskyi O., Bryhada O., Matsak A. ECONOMIC ASSESSMENT OF THE RISK TO PUBLIC HEALTH CAUSED BY SURFACE WATER POLLUTION	18
Tsymbal B., Rybalova O., Sula V. RESEARCH ON THE IMPACT OF LITHIUM ON THE ENVIRONMENT AND OCCUPATIONAL HEALTH	28
Kondratenko O., Krasnov V. DEVELOPMENT OF THE MOBILE DISASSEMBLY TEST BENCH FOR EXPERIMENTAL STUDY OF THE ECOLOGICAL SAFETY LEVEL OF EXPLOITATION OF FIREFIGHTING AND EMERGENCY-RESCUE EQUIPMENT WITH RECIPROCATING ICE AND THE PERFORMANCE CHARACTERISTICS OF THE EXECUTIVE DEVICES OF EPT	37
Bezsonnyi V., Ponomarenko R., Plyatsuk L., Tretyakov O. ASSESSMENT OF GROUNDWATER SAFETY USING A MULTI-MODEL WATER QUALITY INDEX AND HEALTH RISK INDICATORS	48
Plotnikov I., Kondratenko O., Koloskova H., Koloskov V. DEVELOPMENT OF TECHNOLOGY FOR MONITORING CHLORINE EMISSIONS INTO THE ATMOSPHERE DURING DISINFECTION OF WASTEWATER AT MUNICIPAL WASTEWATER TREATMENT PLANTS	54
Yurchenko L. THEORIES AND TOOLS OF SOCIAL RESPONSIBILITY IN THE CONTEXT OF TECHNOGENIC-ECOLOGICAL SAFETY	67
Kovalenko S., Ponomarenko R., Tretyakov O. IMPROVEMENT OF THE TECHNIQUE OF COMPLEX ASSESSMENT OF ENVIRONMENTAL STATE OF SURFACE WATER BODY (ON THE EXAMPLE OF THE MIDDLE DNIPRO SUB-BASIN)	74
Portiannyk S., Mamenko O., Kondratenko O. CORRELATION ANALYSIS OF HEAVY METAL CONTENT IN ANIMAL FEED AND ORGANIC WASTE WITH ASSESSMENT OF THE ECOLOGICAL RISK OF CONTAMINATION OF AGROECOSYSTEMS BY POLLUTANTS	81
Iurchenko V., Avdienko I., Khrystenko A. CO ₂ EMISSIONS FROM BIOLOGICAL WASTEWATER TREATMENT FACILITIES OPERATING UNDER THE AO SCHEME	92

Наукове видання

Науково-технічний журнал «ТЕХНОГЕННО-ЕКОЛОГІЧНА БЕЗПЕКА»

Випуск 17(1/2025)

Головний редактор О. М. Кондратенко

Відповідальний секретар В. Ю. Колосков

Відповідальний за випуск В. Ю. Колосков Підписано до друку 09.06.2025 Тир. 300

Технічний редактор В. Ю. Колосков Друк.арк. 12,4 Формат А4

Надруковано в друкарні «ФОП Супрун Т.О.», 61007, м. Харків, вул. Миру, 32