Advances in Research on Russian Business and Management
ISSN: 2578-725X, e-ISSN: 2578-7268

The Relevance of Sustainable Development and the Application of ESG Principles in the Strategy of Industrial Enterprise Management

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Abstract: The research aims to interpret the actualization of compliance with the sustainable development principles as an important element of the strategic development of industrial enterprises. In this research, the authors analyze the key ESG factors that are of great importance in of an enterprise's sustainable development strategy. The introduction of world standards of the green economy is being updated, which will help reduce the burden on the ecosystem and improve the people's well-being. According to the authors, contemporary business models should correspond to the pace of scientific and technological progress. The application of ESG principles allows enterprises to gain advantages over competitors, improve their reputation, and attract investments. Compliance with the ESG principles is a marker of a company's long-term development. The authors popularize the concept of sustainable development as a purposeful, balanced (in terms of economic, environmental, and social indicators), and permanent development of the company, maintaining an optimal balance with the factors of the external and internal environment. The sustainable development agenda in Russia is relevant even in the face of the current difficult geopolitical factors and sanctions restrictions. An export-oriented country cannot ignore the general world standards and principles. According to the authors, compliance with the ESG principles is an integral part of

the effective operation of an individual enterprise and the industrial sectors of Russia as a whole.

Keywords: sustainable development, green economy, ESG principles, ESG factors, ecology

JEL codes: M11, D23, G32, D29, L23

The development of science and the introduction of advanced technologies in all spheres of human life led to the formation of a new technogenic civilization. However, despite all advantages of progress, improvement and automation of various processes of activity and production, introduction of innovative information technologies, and economic growth in most countries of the world, there are also several problems. One of the negative consequences of scientific and technological development is the ecological crisis. Anthropogenic pressure on the atmosphere and hydrosphere of our planet has led to environmental pollution, depletion of natural resources, reduction of biological diversity, deforestation, and harm to human health and global climate change.

Statistics for 2022–2023 show that more than half of the world's population lives in an unfavorable environmental situation. Nowadays, several countries have a negative ecological footprint that exceeds their biopotential, including Gabon, China, India, Bangladesh, Somalia, the USA, Mexico, Japan, etc. Russia is in the middle of the world ranking, which is also due to the fact that the country's territory is large compared to the population.

As an integral part of human activity, industrial production has the greatest impact on the world ecology and economy. Such industries as fuel and energy, ferrous and non-ferrous metallurgy, chemical, pulp and paper, construction, machine-building, oil refining, food, and many others are developing at an accelerated pace. Nevertheless, as businesses strive to maximize productivity and profits, they must also consider the extent of their environmental impact.

By nature, a person is characterized by constant development and search for new effective methods for organizing the environment. Faced with certain problems in the transition from an agrarian to an industrial society, the world has begun to think about the need to control its activities in various fields and use the gifts of nature wisely.

Preserving a favorable environment and minimizing the harmful impact on it depends not only on large enterprises but also on each of us. It is necessary to change approaches to production processes and pay attention to environmental education and the correct worldview of the current and rising generations. The development of human activity as a process of continuous change should strive to create a qualitatively new and more perfect state of all industries. Thus, purposeful, balanced (according to economic, environmental, and social indicators), and permanent development of the company, maintaining an optimal balance with the factors of the external and internal environment, can be defined as sustainable development. This term refers to a model of movement in which the satisfaction of the needs of the present generation is achieved without depriving future generations of such an opportunity. The environmental and social principles of sustainable development are becoming integral elements of the business ideology, their integration allows organizations to create long-term value,

manage risks, build stakeholder trust, improve their reputation, increase social approval of their activities, and attract new customers and investors.

Methodology

The topic of sustainable development in Russia has long been perceived by companies as development at the level of technological changes and improvement of planned indicators. The transformation of consciousness took place only a few years ago. Thanks to educational activities, a correct understanding of the concept of sustainable development, its essence and globality followed. Nowadays, despite the enthusiasm of many companies and the desire to become committed to the sustainable development goals, there is still a problem of the lack of strategies, tools, and culture necessary for modernization. Achieving a balance between social, environmental, and economic aspects is possible not only by changing technologies and marketing techniques but also by focusing all stakeholders on one common goal – long-term prosperity.

The specifics and prospects for the consolidation of ESG principles in the economy, as well as the formation of sustainable development, are studied in the works of T. E. Baklanova (2022), O. S. Bobrova (2022), E. P. Kozlova et al. (2021), O. G. Lushnikov (2022), E. N. Popova (2019), A. K. Prokopova and N. P. Nishatov (2021), E. V. Romanovskaya et al. (2022), S. B. Safronov (2022), Ya. I. Smirnova (2022), S. D. Tsymbalov et al. (2022), A. N. Zharov and K. V. Isaev (2021), and others.

Results

Being a complex system, an industrial enterprise has indicators and characteristics that constantly change in dynamics. ESG factors (Environment, Social Responsibility, and Governance) have become an important basis for assessing sustainable development indicators. The concept of ESG goes beyond traditional financial analysis, including environmental and social issues, as well as corporate governance in decision-making processes in organizations. The activity of any company reflects the most significant ESG factors (Baklanova, 2022):

Environmental factors are as follows:

- The company's impact on the planet's climate (carbon emissions into the atmosphere);
- The use of natural resources (pollution of water sources and negative impact on flora and fauna);
- Environmental pollution (toxic and radiation waste and the use of chemically harmful packaging for products);
- The use of "green" technologies (energy from renewable sources and restoration of the territory of the company's activities).

Social factors are as follows:

- Attitude towards personnel (labor protection, health, career opportunities, and working conditions);

- Responsibility in the production of products (product quality, data security, reliability, and responsible investment);
- Social benefits (financial assistance programs, additional health insurance for employees, and provision of meals).

Managerial factors are as follows:

- Company management (activity of executive bodies, efficiency of the board of directors, independent audit, and transparency of the company for shareholders);
- The company's line of conduct (business reputation, corporate ethics, transparency in the tax sphere, absence of corruption, and fair competition in the market).

These factors are key in studying the possibilities of implementing the sustainable development strategy at an enterprise. The state of the company with high performance indicates its leading position in all areas of activity.

There is an ESG rating, which is formed by independent research agencies based on the analysis of open data about companies. Such a rating reflects the company's reputation and is considered by creditors and investors, who are now becoming more demanding of investment objects. The transparency of its activities, the implementation of ESG factors in the enterprise and the provision of open data on them, plays a key role in guiding investors in the stock markets. The trend for responsible investment and increased interest in the environment is growing annually (Bobrova, 2022).

As a new strategy for nature management, sustainable development, as well as advanced technologies and requirements, will reduce the negative impact of industrial enterprises on the environment. It is possible to assess the environmental aspects of a particular economic entity through a set of criteria.

Russian companies interested in foreign investment began to actively implement ESG principles in their activities in 2020–2021. Already in 2022, Russian businesses faced economic uncertainty, sanctions restrictions, blocking foreign accounts, and breaking business ties. It would seem that this situation should have suspended the introduction of the sustainable development principles into the strategy of enterprises, but the relevance of environmental issues, climate change, and social well-being still affect the interests of millions of people and cannot be ignored. In turn, the influence of partner countries friendly to Russia (e.g., India, China, Turkey, and the United Arab Emirates) is growing; these countries are actively practicing in the development of climate regulation and the reduction of harmful emissions into the atmosphere.

In 2019, the League of Green Brands appeared in Russia, representing the Clean Line cosmetic brand. In 2022, after reputable international rating agencies for assessing the ESG maturity of companies left the market, the Line of Green Brands, together with Roskachestvo and the intellectual partner Business Solutions and Technologies, began developing the National Green Standard. Such a systemic approach to assessing enterprises and the specific formulation of national standards allows manufacturing companies to certify their products under the "Green Brand." Assessment methods were developed based on international

principles and UN standards, EcoVadis, Green Rankings, SASB, GRI, etc. (Kozlova et al., 2021).

The rating system considers the opportunities and risks for a particular industry. For example, the amount of waste, the possibility of recycling, and working conditions for employees are important for the chemical industry. Product packaging, a wide range of quality products, and greenhouse emissions control are important for the food industry. Control over the depletion of raw materials, pollution of water, soil, air, etc. are important for machine-building complex.

Currently, the participants of the League of Green Brands are such large companies as Domestos, Dove, Tele2, Vkusno i Tochka, PJSC Lukoil, UCC Uralchem JSC, Tetra Pak, X5 Retail Group, and many others. A systemic approach to assessing the sustainability of manufacturers provides confidence from consumers, partners, and investors.

Maintaining a balance between the three factors of sustainable development is the basis of the League of Green Brands. To join this League, a company must meet several criteria: the quality of corporate governance, the depth of the environmental footprint, and the impact on social development. A responsible approach to production and consumption is confirmed by numerous surveys of the population – 85% of consumers vote for the sustainability of brands. The assignment of a single "green" badge to products that meets all international requirements will allow the buyer to better navigate the choice and distinguish a truly environmentally friendly product.

The presence and implementation of a sustainable development strategy should become one of the main goals of a company because it is the basis of effective management. In practice, the implementation of a sustainable development strategy in an enterprise is the task of management, which forms and "inculcates" a new system of company values. Without the manager's leadership and personal initiative to incorporate ESG principles into the company's operations, it is difficult to succeed in this endeavor. Along with effective management, there must be responsible execution by the employees of the enterprise as a stakeholder in the process. Personnel will be motivated to build the company's strategic sustainability as a result of improving their working conditions and society.

ESG factors have been actively introduced at foreign enterprises for more than a dozen years; there is a big delay in Russia. Therefore, these processes are expected to accelerate in connection with the introduction of a carbon tax in 2017 and with an increase in the cost of financing the entire industry.

The role of the regulatory policy of ESG transition projects at Russian enterprises is one of the key factors determining the speed of decarbonization.

The Russian oil and gas sector was under scrutiny. The study found 12% of carbon emissions here, which is comparable to agriculture but significantly higher than the industrial sector. It must be understood that 74% of the country's energy sector is produced by the oil and gas sector. In this volume, methane and carbon emissions pose great threats to the environment. Most oil and gas companies' approach to decarbonization is influenced primarily

by the valuation of greenhouse gas emissions, such as a direct carbon tax. The most progressive companies operate not only on tax but on some long-term investment forecasts.

The trend of decarbonization projects of various companies in the global market has increased since 2019 due to the more active inclusion of the "green" agenda in the strategy of countries and the promotion of carbon neutrality obligations. Nowadays, there are two drivers for choosing a priority for companies at the international level – government regulation and the investment community. One cannot ignore the increasing pressure from various communities, the workforce, and the public at large.

Interested Russian oil and gas companies use the following low-carbon development approaches:

1. Corporate practices (dumping underperforming assets, partnerships, carbon offsets);
2. Reorientation to renewable energy sources;
3. Replacement of own energy supply with low-carbon energy sources;
4. Investments in new technologies and projects aimed at reducing carbon emissions into the environment;
5. Work on deep decarbonization projects – carbon dioxide capture, storage, and development of a hydrogen economy.

Discussion

Restructuring energy systems is an extremely difficult task, especially for Russia, following the path of a fully resource-based economy. The transformation of the oil and gas sector according to the ESG criterion requires considerable efforts and material investments. However, it will allow companies to remain relevant in the global fuel and energy complex. Apparently, without the participation of the state and its appropriate regulatory and financial support, it is almost impossible to implement such decarbonization transformations within a certain time frame. Nevertheless, a number of domestic sectors, such as the metallurgical industry and the agro-industrial complex, being part of global competitive markets, have long independently undergone ESG changes towards low-carbon products.

It is impossible not to mention hydropower, which, being a renewable energy source, harms the environment by flooding forests and lands, destroying ecosystems, and reducing biodiversity. According to studies, methane emission in domestic hydropower reservoirs, due to the cold climate and low trophicity, is low and amounts to 0.4%. Considering the absorption of carbon by bottom sediments, hydropower plants are practically carbon neutral. In 2020, to assess the criteria for the sustainable development of hydropower facilities, the Hydropower of Russia Association, together with the audit company KPMG, developed a methodology that contains a set of requirements for each stage of the life cycle: initiation, design, construction, and operation. More than 209 ESG criteria are included in three main blocks: environmental protection, social and economic responsibility, and assessment and management. This technique helps give an objective assessment of the compliance of energy facilities with the criteria for sustainable development and identify all potential sources of negative

environmental or social impact, which may even be only indirectly related to the activities of generation facilities (Lushnikov, 2022).

According to experts, the only way for sustainable development is the implementation of the points of the green economy, one of which is the renewable energy program. The renewable energy program is a direction that has a complex mechanism and allows dozens of other directions to develop around itself, which form the demand for new equipment and technologies, such as storage energy, hydrogen energy, digital technologies, etc. A strategy that will allow the Russian economy to transform and grow should include clear and ambitious goals and specific measures to achieve them (Popova, 2019).

Since 2023, a system for certifying sources of origin of electricity (the so-called green certificates) has been launched in Russia. This document is issued upon the fact of electricity production at facilities with a low carbon footprint (SR, WF, HPP, and NPP). It is a financial instrument to support renewable energy sources. Having received green certificates, the owner has the right to sell them to interested companies that seek to offset their carbon footprint by supporting such green projects. Such certificates are actively used as a financial instrument in the world exchange market.

International experience also uses white certificates – documents certifying the achievement of a certain reduction in energy consumption. They are issued to manufacturers whenever there is a saving in the energy spent. These certificates can be sold to other companies that have been able to achieve similar indicators and have exceeded the established standards. In Russia, there is great potential for using white certificates, which, in turn, will help stimulate the introduction of energy efficient technologies and form a culture of consumption (Prokopova & Nishatov, 2021).

The launch of new directions in production and investment projects that have a minimal impact on the environment may require large financial costs. It is important to encourage and support such initiatives at the state level. The program for concessional financing of green projects started working in 2021. The initiative of banks to provide favorable lending conditions for mature ESG borrowers should be stimulated by government preferences and accelerate the pace of implementation of ESG principles in the activities of organizations.

Issues of state support for businesses involved in reducing carbon emissions were included in the draft plan for the implementation of the Strategy for Russia's socio-economic development until 2050.

In 2007, the European Investment Bank issued a new instrument for financing projects in the field of alternative energy sources and energy efficiency – green bonds. In 2012, such securities are rapidly covering the global market; since then, their number has been steadily growing. By issuing green bonds, the company receives various benefits, including attracting investors, raising its status, and benefits and favorable conditions for eco-projects. Russian Railways was one of the first Russian companies to place green bonds on the foreign market in 2019. In 2021, Moscow issued green bonds for the population, which allowed citizens to invest in the city's most important environmental projects. PJSC Sberbank, the largest bank in Russia and Central and Eastern Europe, is also guided by ESG principles and issues green

bonds. The received funds are directed to lending and financing projects related to environmental protection (Romanovskaya et al., 2022).

The principles of the green economy as part of the concept of sustainable development will help reduce the pressure on the ecosystem and improve the well-being of people. The rational use of natural resources, the restoration of degrading areas of nature, and the reduction of harmful emissions and waste should be considered in the new model of economic development of countries. The first steps in the implementation of the green economy will be the following (Safronov, 2022):

- Revaluation of natural goods and resources for the state economy;
- Strengthening environmental laws and increasing fines and tax rates for damage caused to the environment;
- Facilitating the introduction of advanced environmentally friendly technologies in production;
- Investing in green projects;
- Transition to alternative energy sources at the industrial and domestic levels;
- Transition to environmentally friendly transport;
- Application of IT technologies to track and monitor the operation of production systems, the level of pollution, and the volume of waste;
- Changing consumption patterns;
- Strengthening the role of the state and creating a national strategy and programs for reforming the economy.

Conclusion

The sustainable development agenda in Russia is relevant even in the face of the current complex geopolitical factors and sanctions restrictions. In the realities of 2023, an export-oriented country cannot ignore common global standards and principles. It should be understood that even if exports are reoriented to Eastern markets, Russian products may not be competitive due to no less close attention to them in these matters.

The following leading countries are in the top ten according to the rating of environmental efficiency on the planet: Finland, Iceland, Sweden, Denmark, Slovenia, Spain, Portugal, Estonia, Malta, and France. The USA took 26th place and Russia only 32nd place.

One of the main goals of any business is to make a profit. However, the choice of tactics of action depends primarily on the owner. The search for new opportunities and the constant personal development of a leader are the foundations of stability and success. The company's stability depends largely on how socially useful its activities are. Today's business models must match the pace of scientific and technological progress. Business investments in science and innovation are very important regardless of the payback period because they open up prospects for all of humanity.

The world community has a lot of work to do to improve the current global environmental problem. Only by joining forces is it possible to bring the world into a comfortable and dignified environment for the development of mankind.

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