

Improving the comprehensive economic analysis of the airline's environmental sustainability

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Abstract. The theoretical provisions of a comprehensive economic analysis of environmental sustainability have been developed, including: the author's formulated definition of environmental sustainability, revealing it as an economic characteristic determined by the rational structure of the corporation's capital for financing environmental activities, exposed to external and internal factors of the corporation's economic activities, reflecting the dependence of environmental sustainability on the degree the impact of these factors on the state of the natural environment; grouping of external and internal factors of the implementation of economic activities, allowing to identify the destabilizing and stabilizing environmental sustainability of the organization of the aviation industry in Ukraine. Based on the results of the analysis of theoretical premises, approaches to defining the essence and distinctive characteristics of environmental entrepreneurship, a list of criteria for classifying a firm's business activities as environmental entrepreneurship is logically substantiated. Taking into account the proposed criteria, the author's definition of the concept of "environmental entrepreneurship" was formulated, the difference of which is in the most complete reflection of the features of environmental entrepreneurship.

1. Introduction

Over the past three decades, the UN has reached an understanding that social and economic problems cannot be considered in isolation from the laws of conservation and environmental change. The importance of environmental problems in Ukraine is aggravated by the raw material nature of the domestic economy, in which the problems of rational environmental management are the driving force and the basis for long-term economic sustainability. Reforming the environmental management system in accordance with the ecological concept presupposes the development of an economic entity towards achieving social, economic and environmental sustainability. The term "environmental sustainability" has been actively used by economists and ecologists for more than two decades, however, until now, there is no clear understanding of the content of the environmental sustainability of an airline company, its place in the sustainability system of an economic entity has not been determined. Promotion to the first place, along with the financial stability of the company, environmental and social sustainability in the aggregate contributes to the disclosure of the content of sustainable development of an economic entity and highlighting aspects of its analysis.

2. Materials and Methods

The research methodology is based on the use of such general scientific methods of cognition as analysis and synthesis, consistency and complexity, concretization and abstraction. The main theoretical provisions of the research and complex methodological developments can be used in the activities of corporations of various types of economic activities, including the aviation industry of Ukraine.

3. The aim of the work is to develop theoretical and organizational and methodological provisions of economic analysis of the environmental sustainability of corporations aimed at substantiating solutions to applied problems in the field of environmental management of corporations, ensuring sustainable development of the corporation of the aviation industry of Ukraine and meeting the requirements of the state and owners in the field of environmental protection.

4. Results

Environmental sustainability is a state of a corporation that does not have a negative impact on the environment under the influence of internal and external factors in the implementation of the corporation's economic activities, is characterized by the availability of funding sources for environmental protection facilities.

The definition reveals environmental sustainability as an economic characteristic [1]:
determined by the rational structure of the corporation's capital to finance environmental activities;
exposed to external and internal factors of the company's business;
reflecting the dependence of environmental sustainability on the degree of impact of these factors on the state of the natural environment.

These aspects allow us to consider environmental sustainability in modern conditions as the most important object of economic analysis, with the help of which it becomes possible to identify the degree of influence of external and internal factors of economic activity on the environment, assess the sufficiency and rationality of the structure of financial capital for environmental protection activities, and its effectiveness.

Speaking about environmental responsibility and control in corporations, it is impossible to ignore the problem of the formation and development of environmental entrepreneurship in Ukraine [3, 5, 6]. The analysis of the theoretical premises of the concept of ecological entrepreneurship showed that scientists, both Ukrainian and foreign, use the following theoretical concepts to explain the emergence and development of this phenomenon: the theory of market and state failures; theory of entrepreneurial opportunities; the concept of ecological modernization; theory of innovation; sustainable development concept; needs-based economic development theory.

Despite the variety of concepts used, it can be noted that they do not contradict each other and are often combined by researchers in various combinations. The theory of market and state failures is applied in synthesis with the theory of entrepreneurial opportunities; the concept of ecological modernization - with the concept of sustainable development and the theory of innovation. Most of the considered theoretical concepts are associated with the concept of ecological and economic needs and interests.

The definition of environmental entrepreneurship includes two aspects. On the one hand, this type of activity is a kind of entrepreneurship in general, which means that it obeys all its laws; on the other hand, an environmental entrepreneur achieves his main goal – making a profit by solving environmental problems. In Ukrainian sources, the prevailing point of view is that a distinctive feature of environmental entrepreneurship is the targeted environmental use of the results of its activities. Foreign authors adhere to both this and other approaches.

Researchers measure the difference between environmental entrepreneurship and other forms of environmental behavior of entrepreneurs by the ratio of the priority of environmental goals over economic goals and the planned market effect of the business. According to the value-based approach, the difference between environmental entrepreneurship and more traditional ones is, in addition to

combining environmental and economic goals, in the transformation of consumer disvalue into consumer value.

In modern studies, environmental entrepreneurship is considered as one of the types of sustainability entrepreneurship, but with its own characteristic features. Environmental entrepreneurs primarily seek to make money by taking advantage of opportunities arising from public interest in environmental issues. Thus, the researchers believe that environmental entrepreneurship is different from traditional entrepreneurship, as well as from other types of sustainable entrepreneurship.

Considering specific types of activities in the field of environmental entrepreneurship, Ukrainian authors often point to «products and services of environmental protection». In foreign studies, the products of environmental entrepreneurship are understood as a much wider range of goods and services: from the development and sale of resource and energy-saving technologies to eco-restaurants. Some Ukrainian scientists also refer to environmental entrepreneurship (along with the production and sale of environmental, resource-saving equipment and technologies) the production and sale of environmentally friendly products.

From the point of view of purpose, there are two groups of activities in the field of environmental entrepreneurship: activities aimed at eliminating the negative consequences of human economic activity and the replacement of environmentally hazardous goods with environmentally friendly ones.

Thus, taking into account all of the above, the following list of criteria for classifying a business entity as ecological was developed:

1. The nature of the activity carried out, the products manufactured or the services provided: the activity, the results of which (technologies, products or services) are aimed at preventing, limiting or eliminating environmental harm, for example: development, sale, services for the implementation of environmentally friendly technologies, the use of which minimizes the use of raw materials and environmental pollution and / or technologies for the production of environmentally friendly products; products and services for environmental protection (services, devices, tools, structures for the prevention or elimination of environmental harm); production of environmentally friendly products; waste processing (recycling); recreational and other services, for example, ecological tourism, eco-restaurants, etc.

2. Target setting: making a profit by solving environmental problems and meeting the environmental needs of society.

3. Search and use of entrepreneurial opportunities associated with growing and changing environmental needs and problems of society, environmental policy of the state.

4. The presence and role of non-market goals: the desire to contribute to solving environmental and sustainable development problems; solving environmental issues as an integrated part of business.

Based on the developed criteria, the definition of the concept of «environmental entrepreneurship» has been improved: entrepreneurial activity aimed at finding and using entrepreneurial opportunities related to meeting the environmental needs of society and solving environmental problems, the purpose of which is to make a profit. The difference between the proposed definition lies in the most complete reflection of the distinctive features of environmental entrepreneurship based on the consolidated consideration of opinions and approaches to the definition of the concept of domestic and foreign scientists.

Waste processing (recycling) as a field of entrepreneurial activity corresponds to the developed list of criteria for classifying a business entity as ecological (Table 1). Factors that have a significant influence on the company's impact on the environment, set the level of environmental sustainability of the economic entity and serve as sources of reserves for reducing the cost, and as a consequence, increasing the financial results of the economic entity.

Within the framework of the study, a grouping of external and internal factors (Table 2) is proposed, based on the allocation of stabilizing or destabilizing environmental sustainability of the corporation, which will allow the management to make the right management decisions in the framework of improving and optimizing environmental protection.

Table 1. Recycling as a direction of environmental entrepreneurship

<i>Criterion</i>	<i>Description of the criterion</i>	<i>Compliance with the recycling criteria</i>
The nature of the activities carried out, products or services provided	Activities, the results of which (technologies, products or services) are aimed at preventing, limiting or eliminating environmental harm	Recycling aims at limiting or eliminating potential environmental harm from the resulting waste from production or consumption
Target setting	Make a profit by solving environmental problems and meeting the environmental needs of society	The profits of recycling companies are directly related to solving a global environmental problem are an increase in the amount of waste generated
Finding and seizing business opportunities	Search and use of entrepreneurial opportunities related to the growing and changing environmental needs and problems of society, environmental policy of the state	Waste recycling as a field of entrepreneurial activity is most developed in those countries where society has environmental and economic needs, and the state represented by the government ensures the creation of favorable conditions and the elimination of barriers in this area
The presence and role of non-market targets	Striving to contribute to solving environmental problems and sustainable development; solving environmental issues as an integrated part of business	In the recycling industry, addressing environmental issues is an integral part of business

Source: systematized and developed by the author [3, 6]

In this study, the analysis of environmental sustainability does not stand out as a separate independent area of comprehensive economic analysis. However, in the context of the growing interest from various stakeholders of aviation companies to information about the level of its sustainability, the effectiveness of its environmental performance in other aspects, it becomes necessary to single out a separate independent direction of economic analysis of the company's activities - the analysis of environmental sustainability.

Table 2. Grouping of factors influencing the environmental sustainability of an airline

<i>Group of factors</i>	<i>External factors</i>	<i>Internal factors</i>
<i>Destabilizing factors</i>	Irrational use of natural resources	Low responsibility of manufacturers for the environmentally friendly disposal of their products
	Low level of scientific and technological development of innovations	Insufficient funding of funds for environmental protection
	Decrease in effective consumer demand	Lack or ineffective environmental policy of the corporation
	Imperfection of legislative acts on control over the corporation's activities in the field of environmental protection	Outdated technologies and technical equipment of corporations, ensuring its compliance with environmental requirements
	Lack of ecological culture in society and	High environmental costs exceeding the growth

	inadequate education in matters of environmental protection	dynamics of cash income Irrational composition and structure of assets, sources of their formation, including reserves and reserves, their composition and structure
Stabilizing factors	Financing the implementation of state policy in the field of environmental development	Encouraging investment attraction for environmental protection
	Development, approval and implementation of state programs in the field of environmental development of Ukraine	Introduction of new technologies and technical equipment of the corporation in order to comply with environmental requirements
	Incorporating environmental issues into new educational standards	Implementation of a complex of environmental protection measures in order to reduce current and capital costs in the field of environmental protection
	Establishment of the practice of compensation for harm caused to the environment	Insurance of environmental protection facilities based on the corporation's participation in property and real estate insurance programs
	Implementation of environmentally efficient innovative technologies	
	Ensuring environmentally friendly economic growth	
	Increasing responsibility for violation of the country's legislation on environmental protection and ensuring the inevitability of punishment for environmental crimes, etc.	

Source: systematized and developed by the author [2, 4]

On the basis of a systematic approach to the economic analysis of environmental sustainability, it has been substantiated that the economic analysis of environmental sustainability is an integral part of a comprehensive economic analysis system that combines logically interconnected components (blocks) aimed at achieving a single goal (figure).

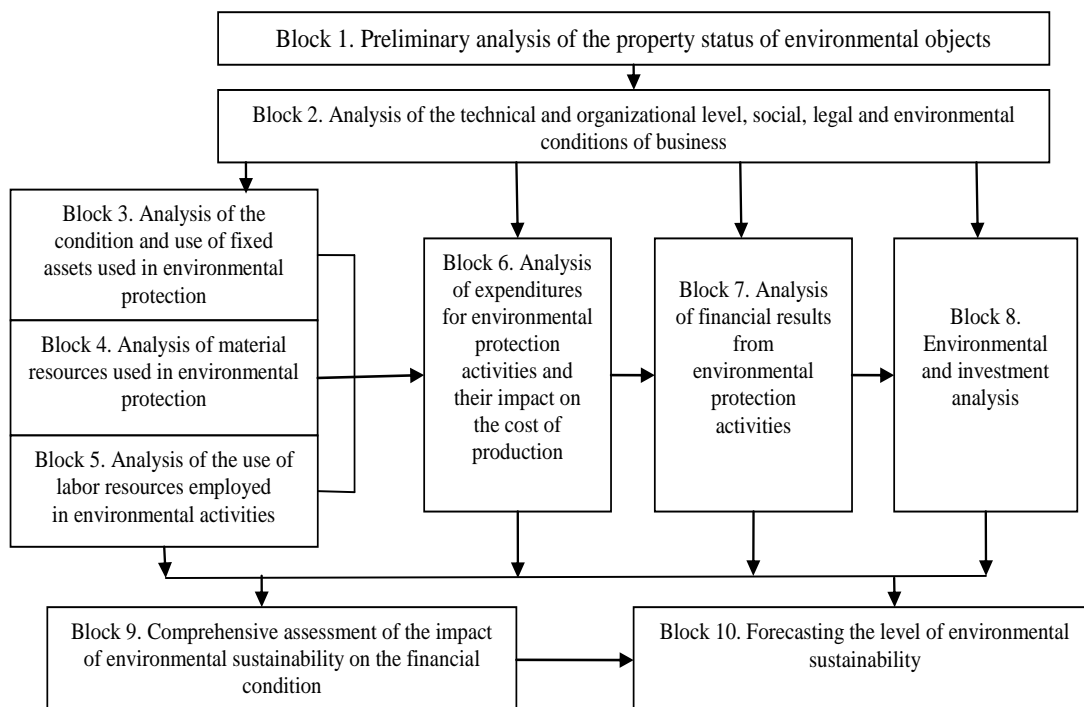


Figure. Environmental sustainability analysis chart for a corporation

Source: compiled by the author

During the study process it was founded that in order to obtain reliable and complete information about the level of environmental sustainability of a corporation, it is necessary to build an effective system of internal environmental control, the functioning of which should be carried out on the basis of clear regulation of its organization and implementation [1].

It was determined that industrial environmental control is carried out on the basis of collecting, analyzing and documenting a large amount of specific information about the environmental activities of the aviation company in order to: comply with the requirements of the environmental legislation of Ukraine; monitoring the effectiveness of the management system in the field of environmental protection; fulfilling the obligations of the environmental policy and strategy of the aviation company.

It should be noted that industrial environmental control in aviation companies is aimed at identifying violations of environmental legislation, assessing the factors of their occurrence, taking measures to eliminate and developing preventive measures to prevent the occurrence of such facts in the future. Conducting industrial environmental control ensures the safety of corporate assets and the timely elimination of costs and losses, the development of measures to effectively monitor and manage the risks of reducing environmental sustainability. A prerequisite for conducting an economic analysis of environmental sustainability is the procedure for conducting industrial environmental control in an aviation corporation, the use of which will allow identifying potential problems, effectively organizing the work of structural divisions in order to prepare recommendations for improving the environmental sustainability of the corporation and rational use of natural resources.

The proposed regulation on industrial environmental control in order to manage the environmental sustainability of the corporation contains basic information on the scope of the regulation; general provisions; goals and objectives of industrial environmental control; components and forms; directions and objects; controlled parameters; requirements for methods and means of eco-analytical control; organization of industrial environmental control; responsibility and rights of officials participating in it; the order of organization; planning; carrying out control measures; registration of the results of control measures and decision-making based on the results of inspections and control over their implementation.

This regulation reflects the procedure for conducting industrial environmental control in the corporation, within which the stages of carrying out and the documentation drawn up based on the results of the control procedures are highlighted. Thus, industrial environmental control in aviation corporations is aimed at identifying violations of environmental legislation, assessing the factors of their occurrence, taking measures to eliminate and developing preventive measures to prevent the occurrence of such facts in the future. Conducting industrial environmental control ensures the safety of corporate assets and the timely elimination of costs and losses, the development of measures to effectively monitor and manage the risks of reducing environmental sustainability.

Conclusions. In previous studies, insufficient attention was paid to an integrated and systematic approach to the analysis of environmental sustainability. In this work, a scheme for a comprehensive economic analysis of environmental sustainability has been developed, a mechanism for the interaction of individual areas of analysis has been identified, for each of which indicators for assessing environmental sustainability are systematized, which make it possible to form a logically completed integral concept of the analysis of environmental sustainability as an independent direction of a comprehensive economic analysis of the corporation's activities.

The role of industrial environmental control in ensuring the completeness and reliability of information on environmental sustainability has been substantiated, its main directions, performers and stages of implementation are highlighted, the implementation of which allows, based on the interaction of subjects of control and information, to form a set of measures to ensure an acceptable level of environmental sustainability of the corporation; internal regulations have been developed that regulate the procedure for conducting industrial environmental control in the corporation for the purpose of managing its environmental sustainability.

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