

Functional Model of Environmental Insurance in the Context of Risk Management of Enterprises with Hazardous Production

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Abstract

The article focuses on the role of environmental insurance in the concept of security of enterprises with increased production and environmental risk. It outlines the importance of environmental insurance as a strategic tool of risk management in industrial enterprise. The importance of environmental insurance is outlined and guidelines for the development of risk management in enterprises with hazardous production are formulated.

Keywords: environmental insurance, environmental risk with technogenic nature, risk management, environmental pollution responsibility, environmental management, environmental insurance auditing

Introduction

In the competitive market conditions and in a globalized world, the goal of business entities in different sectors of the economy is to achieve financial sustainability and high environmental safety. The continuous changes in the external and internal environment in which the industrial entities operate require the implementation of adequate risk management. The study, evaluation and control of environmental risk factors are a prerequisite for effective risk management of enterprises. The management of environmental risks of technogenic nature is increasingly becoming the main focus of many researches and is the basis of the strategic management of enterprises with hazardous production. The inclusion of environmental insurance as an essential element in the concept of security of enterprises with increased risk of environmental pollution is a factor for sustainable development of the business unit. In this regard, the article puts forward several current issues, namely:

First, to substantiate the importance of the insurance concept as part of a security concept in the context of the economic concept of the industrial entities;

Second, to emphasize the role of environmental insurance in the economy of the industrial enterprise;

Third, to formulate guidelines for effective risk management of enterprises in different economic sectors.

Challenges related to climate and resources require decisive action by the Member States of the European Union (EU). The goal of the EU is to continue to interact with other parts of the world in search of a solution to the global problems of climate change and environmental protection. The aim is to achieve stronger economic governance and to implement an industrial policy contributing to global competitiveness in the globalization era.¹

Regarding the risk of industrial accidents and consequent pollution of the environment, the European Parliament and the Council of the EU adopted Directive 2012/18 / EC on the risk control of major-accidents, involving hazardous substances (effective July 4, 2012). Under the Directive, major accidents can „have trans-border consequences, and the ecological and economic cost of an accident is borne not only by the establishment affected but also by the relevant Member States”. For this reason it is necessary „to develop and implement safety measures and risk mitigation of possible accidents, reducing the risk of accidents and minimizing their effect, in case they arise, thus providing the opportunity to guarantee a high level of protection across the Union”.²

¹ EUROPE 2020. A strategy for smart, sustainable and inclusive growth. COMMUNICATION FROM THE COMMISSION, EUROPEAN COMMISSION, Brussels, 3.3.2010, COM(2010) 2020, p. 6.

² DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0018&from=EN>.

In recent years, the strong dependence on fossil fuels such as oil as well as the inefficient use of raw materials expose consumers and businesses to „harmful and costly price shocks”. This could jeopardize the economic security of countries and lead to climate change. In Bulgaria, for example, as a member state of the EU the implementation of the strategy „Europe 2020” is directed towards reduction of carbon dioxide emissions by at least 20 % compared to the levels of the 90s or 30% in the presence of suitable conditions; increase the share of renewable energy sources in our final energy consumption, which should reach 20%; increasing energy efficiency by 20%.³

Effectiveness of risk management and the achievement of positive results from the implementation of a sustained security concept in practice can be sought in the following **areas**:

First. Using an **integrated system approach**, which is the best tool for managing the environmental responsibility of the business units. Implementing a system of environmental management (EMS) aims to transform the potential systemic inconsistencies in „simple, integrated and functionally sustainable and secure system”. The implementation and certification of companies in accordance with ISO 14001, respectively ISO 14001 – ISO 14001:2015, and in line with the forthcoming edition of BS OHSAS 18001 – ISO 45001 will lead to increasing trust in international aspect. The system turns the environmental obligations and responsibilities of the entities in reality and provides environmental management of high level. The systems for environmental management are a powerful tool to achieve sustainable social, economic development and conservation of natural resources. EMS help organizations achieve their economic goals as well as the objectives of environmental protection.

Second. The implementation of **changes in management approaches** to solving environmental problems, which is associated with the expansion of initiatives of enterprises regarding environmental activity. The conceptual and normative-methodical fundamentals of ecological management are changed. Changes in approaches on environmental protection are expressed „in the gradual withdrawal from the traditional command-administrative methods of management and transition to modern market mechanisms of ecological regulation”.⁴ The characteristic features of this process are the following:

- Increasing corporate social responsibility of enterprises;
- Increase the environmental responsibility of economic entities;
- Transfer from passive to active position regarding the management of the environmental risks of technogenic character;
- Expansion of preventive activity in the context of the environmental security of businesses;
- Optimization of resources to combat environmental risks and increase the impact of their implementation in businesses;
- Achieving a positive impact on the environmental activities of industrial enterprises on their competitiveness, expand production, increase quality of production;
- Active cooperation with investors, consumers and all stakeholders on ecological aspects of activity of enterprises with hazardous production.

Third. Using the **advantages of insurance protection** in the industrial enterprise, which should be carried out within the process of corporate risk management. In other words, one of the key moments in the consumption of insurance services „is the effectiveness of insurance as the main activity of risk management”.⁵ The role of liability insurance against environmental pollution must be sought not only in its positioning among insurance types, but also in its priority among security measures for the normal development of society.⁶

The implementation of the insurance audit for the purposes of environmental insurance should be based on information from the environmental audit carried out in business enterprises with increased risk of environmental pollution. This is important due to the fact that „the environmental audit is regarded as one of the directions of the activity of environmental protection”.⁷ Its standard component is the assessment of potential risks in terms of protecting the health and safety of the population.

³ Ibidem, p. 9.

⁴ Дерягина С. Е., Астафьева О. В., Струкова М. Н., Струкова Л. В. Экологический менеджмент на предприятии. Екатеринбург: ИПЭ УрО РАН – УГТУ, УПИ, 2007, с. 3.

⁵ Смирнов В. Процесс управления риском. – Управление риском, 1997, №4, с. 9-12.

⁶ Misheva, Ir. The social and economic nature of environmental risk insurance. – Economic Thought, Economic Research Institute at BAS, Sofia, UNWE Printig House, 2/2015, ISSN 0013-2993, p. 74-91.

⁷ <http://www.ceppi.ru/uslugi?id=38>.

Fourth. The rational **combination of risk management activities** in an effort to curb production and environmental hazards. This requirement is determined by the need to harmonize insurance with activities such as: prevention, limitation of losses and self financing of losses in enterprises with hazardous production.

Fifth. Use of **environmental insurance** as a strategic tool of risk management in the industrial enterprise. The place of environmental insurance in the economy of enterprises with hazardous production is presented in Fig. 1.

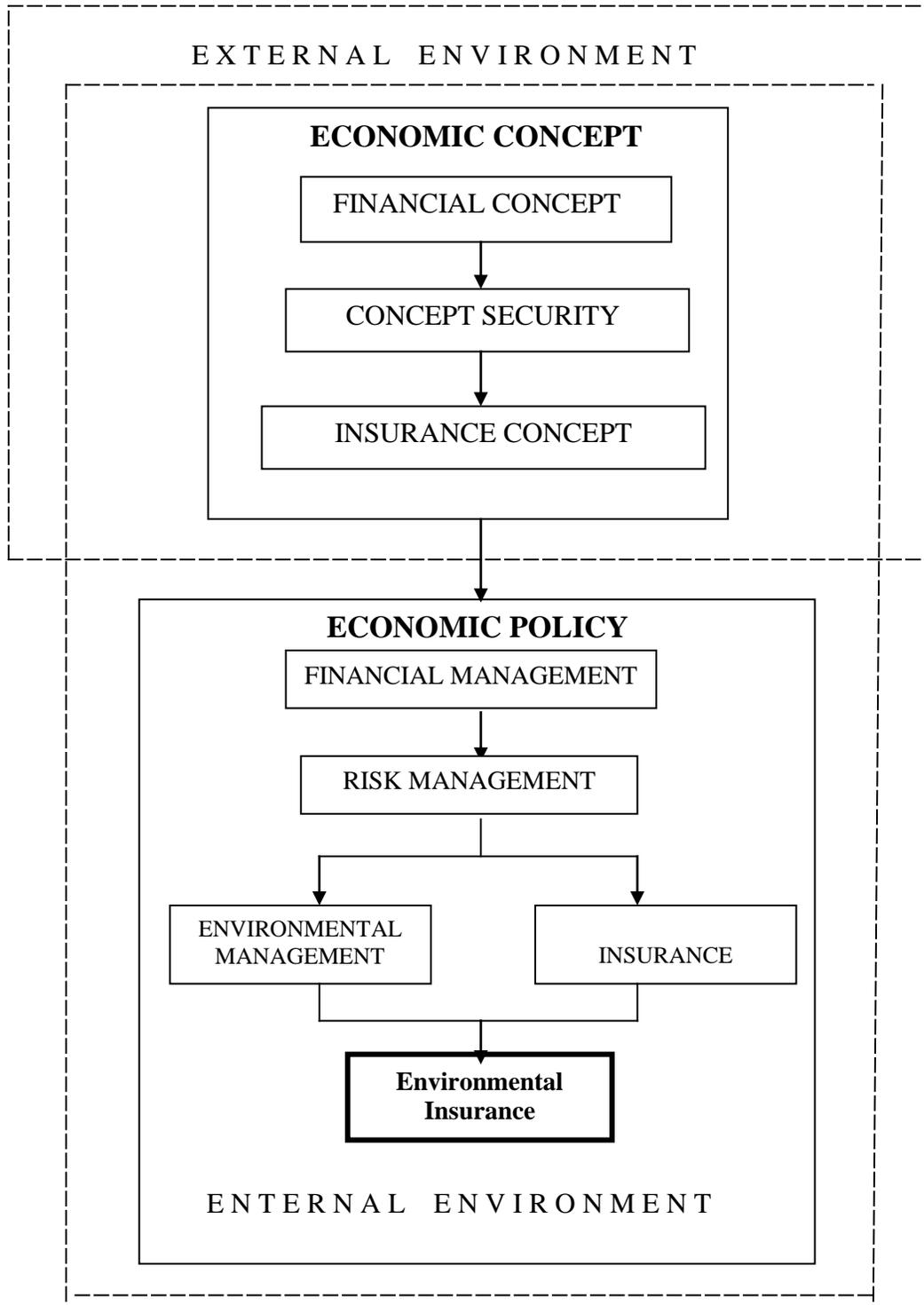


Fig. 1. Environmental insurance in the economy of the industrial enterprise

The basis for environmental insurance implementation in the activity of industrial enterprises is the accepted safety concept. An inseparable part of this concept should be the insurance concept. The idea behind is to offer a wide variety of insurance products to the risk managers from the branch of „Environmental insurance” which meet the insurance needs and interests to highest extend possible.

Conclusion

The experience of European countries shows that the achievements of enterprises in solving issues related to the environment , are due to the application of systematic approach to environmental management including the implementation of international standard ISO 14001 , the British Standard BS 7750 and standard EMAS.⁸

Implementing environmental insurance is a guarantee of the effectiveness of the security measures undertaken in industrial enterprises. With the help of environmental insurance and a rational combination of measures is achieved to combat risk of "environmental pollution" caused both by industrial accidents as well as the nature of production activity.

Practice shows that environmental insurance is one of the most important tools of risk management and one of the most effective measures in the concept of security companies. This requires insurance companies to improve insurance protection against the increased demands of society. Insurers should be attuned insurance products to individual risk situation of businesses and to support risk managers in choosing the best insurance service.

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⁸ Misheva, Ir. Insurance audit as a factor for the effective environmental pollution liability insurance of enterprises with hazardous production. Second International Conference on Advances in Management, Economics and Social Science – MES'15, 18-19 April 2015, Rome, Italy, organized by Institute of Research Engineers and Doctors – IRED, USA, published by SEEK Digital Library, ISBN: 978-1-63248-046-0, p. 159-163.