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ENVIRONMENTAL DIMENSION TO THE FUNCTIONING OF ENTERPRISES

Стаття присвячена дослідженню екологічних проблем підприємств. Доведено, що існує тісний зв'язок між економічною безпекою підприємств та їх екологічним захистом, ефективним використанням ресурсів, що призводить до отримання максимального прибутку. Досліджені традиційні і екологічні підходи до функціонування підприємств, зовнішні чинники, що його визначають. Зроблено акцент на важливості розробки екологічних стратегій для підприємств.

The article places an emphasis on the importance of environmental issues. It attempts to present the correlation among issues relating to environmental protection, efficient use of resources and functioning of enterprises that (according to neoclassical theory) strive after profit maximization. Particular sections of the paper will be dedicated to this objective. At first, traditional and ecological approaches to the functioning of enterprise will be presented. Environmental factors determining this functioning will be discussed. Then, the importance of environmental strategies for ecological activity undertaken by firms will be emphasized. Finally, ecological activity in question will be characterized in subsequent section of the article.

Ключові слова: екологічний захист, еколого-захисні компанії, екологічні стратегії.

Key words: environmental protection, eco-friendly company performance, environmental strategies.

Introduction

The problems of air pollution, waste products and the lack of interest in environmental issues have a significant influence on company performance. Seeking ways of minimizing the negative impact of businesses on the environment may bring both environmental and economic benefits.

As a result, more and more companies consider the environmental protection their goals and strategic tasks which may for example increase the company's value by the investments in the eco-friendly technologies (which, in turn, minimize the risk), by the creation of eco-brands via eco-friendly activities, or by operating according to the ECSR (Environmental Corporate Social Responsibility). The eco-friendly approach improves the company's image (creates the eco-image) in the eyes of local communities, and increases trust in the company. By eco-friendly activities, companies seek opportunities to become distinct and to obtain financial support for investments in environmental protection and innovative technologies.

This article is aimed at presenting the relation between the issues relating to environmental protection and the company performance. It also shows the environmental aspect of company performance through the environmental constraints of this performance and the eco-friendly actions. For those purposes, the article is divided into the following parts:

- Traditional company vs. an eco-friendly company;
- Environmental constraints of company performance;
- Environmental strategies of businesses;
- A selection of eco-friendly actions taken by businesses.

This paper is of theoretical nature. Any materials used in the article are theoretical materials available in the literature on the subject.

A traditional company vs. an eco-friendly company

The first step of discussing the eco-friendly company performance is a reference to the basics of the subject, i.e. the definition of a traditional company, its main goals and management style. Once we are familiar with these basics, we can analyze the environmental aspect of the company performance.

A company may be defined in many different ways. In a traditional theory of organization and management, it is assumed that a company is a relatively autonomous organization which pursues economic profits and is constituted by at least one body which regulates business activity. In a company examined from a traditional perspective, the input includes basic production factors, and the output includes the products and services which occurred in the process of production or rendering services.

It becomes clear that such a definition of a company excludes some very important aspects, without which it is difficult to imagine a modern company. If we examine a company from both economic and environmental perspectives, we conclude that the environmental perspective reaches much farther than the traditional perspective.

A company, which is an important part of economic processes and the economic activity as a whole, is at the same time a component of the natural matter cycles by the way it uses this matter in manufacturing processes and transmits it in the form of products and pollution to social and natural environment. Thus, while considering the production process, it is necessary to include natural resources in the input. By natural resources we understand mineral resources, energy sources as well as the geographical space and the assimilative capacity of the environment (the company's right to emit certain pollution). As well as end products, the output must also include the pollution, waste and the risk resulting from the production and the use of products manufactured by the company.

The next step is determining the scope of the analysis. In a traditional model, the analysis mainly refers to the phase of the in-house production which takes place in the company itself. This model does not analyze the phases of the resource or energy acquisition, the manufacturing of the semi-finished products and the phases after the products are finished, i.e. distribution, consumption and waste utilization. It can be easily concluded that the traditional model lacks the analyses of the pre- and postproduction phases in which some significant problems occur. Such ignorance results in for example the society being burdened with costs resulting from the necessity to liquidate the environmental effects of the preparation for production and the consumption of its products, and the danger of environmental barriers impossible to be foreseen at the company's level. It is necessary to broaden the scope of a traditional analysis of the production of goods and the rendering of services, in order to embrace a whole product lifecycle. The analysis of a whole product lifecycle allows to recognize the risk, the dangers and the opportunities. It further leads to the cooperation which creates common goals for the company and its commercial partners, consumers, producers, suppliers of raw materials or semi-finished products, and utilization firms [1, 238-240].

Environmental constraints of company performance

Nowadays, a business which operates in a free economy and wants to keep its market position has to take environmental constraints into consideration, in order to stay competitive.

For a long time, businesses used to take into account the basic environmental constraints, i.e. the constraints of the first and second degree. Today, however, every modern business which matters on the market considers environmental constraints to be also those actions that are connected with its eco-image, its market position and the commitments which every business makes, on accounts of using the natural environment (e.g. charges and fines).

The first degree constraints have a significant impact on company performance, on company's effectiveness, its competitive ability to gain access to limited resources ahead of other businesses on the market. Those constraints are connected with the use of raw materials and energy (limited resources) in the production process. The limited amount of those factors of production (raw materials, energy sources) forces the businesses, operating in a free economy, to utilize them reasonably. There is no business entity, which operates according to free-market laws, that can afford to act ineffectively for example by wasting raw materials and energy resources. Thus, there emerges the need for businesses, wishing to keep their position on the market or to expand, for a constant rationalization, manifested in the introduction of solutions allowing for cost reduction. It is also related to the technological and organizational development, which also economizes natural resources.

The second degree environmental constraints are connected with the need for using the assimilative capacity of the environment. In any production process, there are by-products manufactured besides the final product. Those by-products are the contaminants which affect the environment negatively and burden it. The amount and type of contaminants is closely related to the kind of business activity carried out by the company. It should be borne in mind that in the environment there is a law of mass/energy conservation, according to which the mass of substances in the input of the production process equals the mass of substances in the output of the production process. Thus, it is necessary to take into account the contaminants produced during the production process. The significance of those contaminants is related to the type of substances, their environmental nuisance and the way they are emitted. Such a constraint occurs when there is an assimilative capacity of the environment, the access to which is limited. Those environmental constraints are connected with the legal-economic mechanisms of the internalization of external environmental costs.

The consequences of the aforementioned environmental constraints, which translate directly into economy of a business, consist in current liabilities (charges) for the right to use the assimilative capacity of the environment, or the fines for a lack of or exceeding specified standards and norms. Businesses may be charged financially for the right to emit certain pollution with for example taxes, countervailing charges, pass-through rights of emission, or penalties in case of infringement of environmental protection regulations.

The next group of environmental constraints deals with the performance of the so-called modern business which has an anticipatory and future-oriented approach. Not only takes such a business into account the environmental constraints, but also it recognizes new very important constraints resulting from, among others, the social-awareness factors that are becoming increasingly important (when it comes to the environmental constraints, the increase in environmental awareness of the stakeholders acquires significance). They contribute to the fact that the society which is better environmentally educated, and whose ecological awareness is constantly rising, starts to pay attention not only to the quality and price of goods, but also to the environmental impact of the business which manufactures the goods, meaning its approach to the natural environment. It refers to actions such as the minimizing the negative impact on the natural environment through limiting the emission of pollution, increasing the use of raw materials and energy resources, developing ecological goods and obtaining eco-labels for these goods. If businesses adopt this approach towards the natural environment and combine it with marketing strategies skillfully, they will create their new image of ecological businesses, or eco-friendly businesses. Such a reception of a business by its surroundings constitutes an important factor of strengthening its position on the market. Both present performance and long-distance strategies of a business are affected by the 'ecological image' trends, the political popularity of ecological slogans and the ecological movements.

Businesses which take into account the environmental constraints in their strategies should be led by premises, according to which the ecological objectives and the economic, social and technological and productive objectives are integrated (Table 1). By doing so, the ecological objectives will become an integral part of the company's management.

Table 1. Hierarchy of main objectives of a company

The main objective of a company: survival and development			
Economic objectives	Technological and productive objectives	Social objectives	Regional and ecological objectives
- long- and short-term profit - strengthening the position on the market - increase in productivity - innovativeness	production maximization - quality improvement - reproduction of capital resources	- satisfaction of demand - increase in earnings - improvement of working conditions - increase in work satisfaction of the employees	- infrastructure development - regional promotion - environmental protection and renovation - rationalization of the use of natural resources

Source: [2, p. 108]

Table 2. Environmental strategies classification in a free-market approach

Strategy	Description
Passive (conservative)	This strategy only acknowledges the necessary environmental constraints (legal or economic) in order to prevent penalties, or to keep the company's positive image.
Defensive (one of technological strategies)	This strategy is adopted in order to: gradually withdraw from the market those goods which do not comply with ecological requirements, partially resign from outdated technologies.
Innovative (one of technological strategies)	Oriented towards making production and products ecological by: seeking and implementing new technologies, setting up closed production systems, manufacturing only eco-friendly goods, recycling any possible waste.
Offensive (one of planning strategies)	This strategy aims at: cleaner production, eco-products development, eco-organization and eco-management, eco-marketing, eco-culture of the company.

Source: [4, pp. 57-58]

Environmental strategies of businesses

The concept of an environmental protection strategy had not appeared until the second half of the 20th century and was a consequence of the increasing ecological awareness among societies and organizations. Throughout the years, the strategy has evolved from the dilution strategy, through the filtration, the waste neutralization, the re-circulation, to the waste minimization strategy and the strategy of «Cleaner Production.» Present environmental protection strategies are called «environmental strategies.» They are determined and realized in many manufacturing companies.

Their main characteristics include:

- they act as a bond between different business areas;

– they indicate what a company should do in order to minimize its environmental nuisance.

It is important for a strategy to be realistic and feasible (which means that the business needs

resources to realize it) as well as proactive, or future-oriented in other words. Businesses, which aim at realizing the environmental protection strategy, should adopt assumptions of the Dynamic Environmental Model [3, p.45].

We can distinguish many various classifications of environmental strategies. One of the most common is the classification of environmental strategies in a free-market approach, characterized in Table 2.

In companies, the most desired strategies are those strategies that provide economic as well as environmental and social development. The environmental strategy and the corporate social responsibility, both can be included in the main objectives of a business. Such objectives become the integral pillars of business activity, especially in businesses that create environmental nuisance, and thus have a big impact on society (especially when it comes to environmental protection, creating work places or social organizations, etc.), for example: heat and electric power production, mining, metallurgy, exploiting, cement production, petroleum refining, chemical industry, communal economy [5, pp. 33-61].

In a systemic context of business management, special attention should be drawn to the restructuring strategy in a dynamic approach. This strategy consists in the permanent improving and perfecting of the production and work management. While implementing this strategy, special structures and control procedures may be required, which form «an early warning system.» The effectiveness ratio of this strategy includes various diagnostic indices such as: the indicators referring to the use of manufacturing factors, the work effectiveness, the quality of goods and/or services, the profitability ratio, the financial liquidity, the liabilities and many others [6, pp. 58-60].

A selection of eco-friendly actions taken by businesses

It is necessary to explain the notion of an eco-friendly action before we start to discuss various kinds of such actions. In literature, we come across the term «an eco-friendly action,» but the term «an environmental action» is also frequently used. Those terms are often used interchangeably. It is difficult to find a clear distinction between an eco-friendly action and an environmental action. In spite of the fact that both terms occur in literature very often, it is hard to unequivocally explain the difference between them; even in the specialist literature, they are often applied interchangeably. J. Adamczyk makes a connection between an environmental approach of a business and its long-term performance and strategic decisions [7, pp.78-83]. He mentions the following among the environmental actions:

- reducing the use of natural resources;
- the strategy of secondary trade;
- replacing harmful technologies with eco-friendly technologies;
- offering eco-friendly products;
- eliminating environmental damages.

Businesses engage in eco-friendly actions in a number of ways. Some businesses implement environmental management systems conforming the international standards ISO 14000 (especially ISO 14001), or the EMAS system (Environmental Management and Audit Scheme), which is binding in the European Union¹.

¹ As a result of the joint work of the European Commission and the member states, the Regulation (EC) No 1221/2009 of the European Parliament and the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) was amended and published on 22 December 2009 in the Official Journal of the European Union L 342 (volume 52). The Resolution EMAS III went into force on 11 January 2010. In Poland, the EMAS system is based upon (apart from the Resolution) the Act of 12 March 2004 on the domestic eco-management and audit (EMAS) [Official Journal of Laws 631 as amended], and on the three executive orders of the Ministry of Environment. 631 z pozn.zm.] a także na trzech aktach wykonawczych Ministra Środowiska.

ISO 14001 and EMAS apply to all organizations which aim at the improvement of the environmental activity and the permanent reduction of the negative impact on the natural environment. Such organizations are monitoring their performance, services and products on a regular basis, and are identifying all environmental aspects of their activity. The implementation of the eco-management conforming with the ISO 14001 constitutes a stage of filing for registration in EMAS.

The difference between EMAS and ISO 14001 consists in the fact that when it comes to EMAS, the organizations are obliged to conduct a preliminary environmental review, to draw up and to publish an environmental declaration, to engage the employees in the eco-management process and to provide an open dialogue with the community. When it comes to ISO 14001, those matters are optional and voluntary. Another difference is that the final registration in the EMAS system is made by the State Administrative Body, and the verification is only done in a form of the certificate, in which it is confirmed that the information entered in the environmental declaration is true and the management style complies with the EMAS Resolution. Because the administrative bodies, which are responsible for the compliance with legal requirements, are involved in the process of registration in EMAS, it is understood that the organizations that are registered in EMAS must pay greater attention to lawfulness [8, pp. 69-134]. Regardless of the type of eco-management being implemented, a company needs to follow five basic rules in order to be an eco-friendly company:

1. The business should identify the problems and accept the eco-management as a tool in solving those problems effectively; it also should draw up its environmental policy.
2. The business should draw up a plan of the policy implementation.
3. The business should use all possible measures and mechanisms to comply with the policy and to achieve its goals and objectives.
4. The business should measure, monitor and assess its impact on the natural environment.
5. The business should permanently verify and improve its eco-management while trying to minimize the negative impact it may have on the natural environment.

Another solution is to participate in the environmental programs. One of them is the program «Cleaner Production,» which aims at adopting a preventive environmental protection strategy in order to minimize the dangers for the community and the natural environment, connected with the production and the products [9, pp. 34-68]. There are also a number of programs designed especially for specific industries/professions. An example is the program «Responsible Care,» in which the companies of the chemical industry participate voluntarily by being engaged in actions realizing the eco-ethics, improving working conditions, increasing safety of the production systems, and maintaining contact with the surroundings [9, pp. 68-72]. Businesses which implement any program's guidelines and which conduct their business activity according to the safety and health requirements for people and the clean environment, oblige themselves:

- to take an eco-friendly responsibility for the community and the environment entirely voluntarily and not as a result the binding laws and regulations;
- to first and foremost accept: the personal activity of people and the reasonable organizational and managerial changes as the crucial factors in achieving a visible change in the approach to the environmental protection and safety issues;
- to acknowledge the priority of seeking measures and adopting them for the purposes of gradual modernization, aiming at energy saving, waste reduction and air pollution reduction;
- to cooperate with other businesses and the local community in order to take responsibility and work for the environmental protection and safety;
- to promote the program «Responsible Care» and its rules among the businesses which are not registered in the Polish Chamber of Chemical Industry as well as in the countries from outside the European Union in Central and Eastern Europe.

Eco-friendly actions are taken by businesses more and more often because they bring many benefits. Thanks to eco-friendly actions, it is possible to: use raw materials and natural resources reasonably, save raw materials and natural resources, reduce waste, increase the profitability ratio, comply with law more easily, reduce the number of penalties, reduce charges, take preferential credits, increase eco-awareness, reduce the insurance rate, improve the work safety, eliminate any incompatibilities in the organization more easily, increase the company's attractiveness for investors, increase the company's competitiveness, improve the situation of the natural environment, improve the company's image, maintain contact with the local community, and gain new customers [10, pp. 14-15].

Conclusion

Various aspects of sustainable development and environmental protection determine to a large extent the starting up and carrying out of business activity. Nowadays, the issues relating to environmental protection and reasonable use of natural resources by business entities, especially companies, are becoming more and more important. Limited natural resources and increasing pollution are alarming and draw our attention to the need of managing them effectively. Modern businesses are taking into account both economic and environmental constraints while planning their long-term course of action.

It allows for drawing up specific strategies with reference to the natural environment.

Including environmental actions (especially such as clean and eco-friendly technologies), along with economic, innovative and technological aspects, into company performance, and implementing eco-management can bring many benefits, strengthen the company's position on the market or increase the company's share in the market.

By including the ecological aspect in company performance, right next to the economic and social aspect, we get its fuller and more actual picture.

«The article is recommended for publication by PhD».

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