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ECONOMICS AND ENVIRONMENTAL MANAGEMENT IN THE IMPLEMENTATION OF THE CONCEPTS OF SUSTAINABLE DEVELOPMENT TO FOREIGN ENTERPRISES

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The article analyzes the international companies' implementation of the concepts of sustainable development aimed at economic and environmental regulation.

Within the framework of sustainable development of the economic system of the Republic of Belarus the regulation of economic-ecological relations are of high practical value. Along with the positive trends in the regulation of economic and ecological relations, the world community constantly faces global problems and threats, the likelihood of which is increasing in recent years. The practice of recent years has shown the need for scientifically-based approaches to issues of economic and environmental regulations at micro, meso and macro levels.

Since the United Nations Conference of the year 1992 (3-4 June) in Rio de Janeiro, known as "Earth Summit", many foreign enterprises in addition to economic efficiency of their activity simultaneously try to care for the environmental component of their activities, both in terms of environmental protection and natural resources efficiency.

In April 2000, European Commission officially declared the new instrument, namely the "threefold model", of reporting on sustainability presented by John Elkington [5]. According to this company's accounting system the analysis is not all about economics and profit-making, it also takes into account both social and environmental costs. The results of corporate operations are estimated by three aspects which for greater visibility are shown in figure 1 (fig. 1).

So, in today's world no company regardless its size can ignore the ecological component of its activity. The growth of consumer's needs and education as well as new conditions requires more advanced enterprises' strategies. Companies are trying to find new ways of development and for the most part it is an eco-friendly policy. After all, the effective use of environmental perspectives can help to reduce costs and risks and to improve the goodwill of the business entity. In terms of this work, let us analyze the largest businesses with a steady image on the world stage. Thus, the international brand consultancy *Interbrand* has published a list of the most environmentally friendly brands of the year 2012 in Best Global Green Brands Report (Table 2).

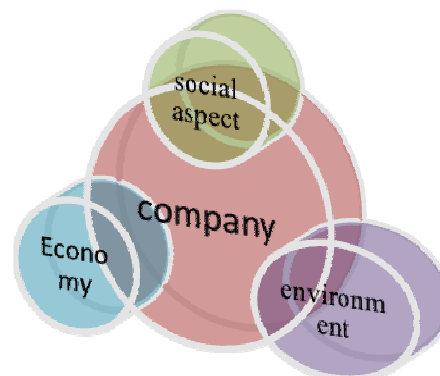


Fig. 1. Essence of John Elkington's "threefold model"

This top list presents global companies, which have lately distinguished themselves by their environmentally oriented strategies, products and technologies. The largest world's fast-food giant McDonald's took the 45-th place in the ranking and showed the highest negative coefficient which is –16.5. Among the analyzed companies a large in the sphere of information technologies US company *HP* occupied the 5-th place in the overall ranking and can be proud of the highest positive coefficient of 11.72, that was received thanks to its efficient environmental policy.

Economics

Table 2 – The rating of the most environmentally friendly brands of 2012 according to the Best Global Green Brands report

Trade mark	Rating position	Gap	Industry
Volkswagen	4	+4.20	automobile construction
HP	5	+11.72	information technology
Coca-Cola	23	-6.95	food processing
McDonald's	45	-16.15	catering

Thus, the first place among the analyzed brands considered by Interbrand's Best Global Green Brands takes "Volkswagen" concern. In general automobile construction shows good results for the environment. The emergence on the world stage of cheaper and more efficient producers has given impetus to the improvement of activity by producing more advanced cars with more efficient engines and exhaust pipes causing no environmental damage. The analyzed automaker with a powerful industrial potential and a reputation as a leader in diesel technology has achieved success in social-economic development. Let us note some activities carried out by the manufacturer in the field of economic-environmental management [1]:

Volkswagen has become the first manufacturer of a car, consuming less than three liters per 100 kilometres;

Automaker *Volkswagen* was the first to give their employees the right to buy shares at a discounted price.

Volkswagen creates worldwide eco-efficient technologies and applies them throughout the life cycle of the product. They are most effectively used in the production of energy and fuel to maintain a minimal impact on the environment and save resources. There is an effective system of control over the implementation of environmental policies, as well as over the efficiency of the environmental management system.

The fifth place in the ranking is taken by a world famous brand in information technologies *HP*. This company pays great attention to questions of liability in the field of environmental protection: creates environmental protection programmes at the enterprise, which include standards for partners and suppliers, as well as the improvement of environmental standards. The principle of active citizenship is the basis of *HP*'s international policy. Innovations and developments in the field of environmental protection are not a new trend at the enterprise and are already quite long.

The support for cleaner production is one of the main elements of *HP*'s international corporate policy. So, in 1992 the company successfully integrated the environment into one of their strategies by running the program "Design for Environment" to optimize the environmental performance of products, equipment and services. The main objectives, laid down in the framework of a programme, and their substantive provisions are [2]:

energy saving: *HP* offers its customers and clients with energy-saving products and services. They are also going to introduce at their enterprises worldwide energy conservation procedures;

So, in 2006 the company launched a Dynamic cooling system – energy management solution for data-processing centers. This system reduces energy costs for cooling data-processing centers by 45%, and reduces CO₂ emissions by 18000 tons per year. In addition, special components of desktop PCs allow you to save up to 481 kWh per hour and to reduce CO₂ emissions by 241 kg a year. Therefore, the reduction of carbon emissions of every twelve computers with such functions is equivalent to the fact that there would be one car less on the road per year.

Innovation in the materials used: the absence of heavy metals in packaging, the use of components that are easy to update, recycling of products and its weight loss that helps to reduce fuel consumption for transportation and to minimize the negative impact on the environment;

Recycling and reuse of materials: in 1987 *HP* started the implementation of their programmes on recycling, which nowadays are carried out in more than 40 countries, regions and areas. Each year 2.5 million units of production are processed by *HP*.

HP cooperates with multiple partners within the framework of the environmental initiatives. The environmental aspect of the activity of the enterprise is the development and implementation of the following programmes and activities [2]:

– together with the Wildlife Fund (World Wildlife Fund) *HP* has launched a project to reduce energy consumption and development of objectives in the field of energy saving as well as has made a substantial contribution to a number of projects on climate changes;

– *HP* international program *Workplace Transformation*. These are projects for the gradual transformation of the working space, introduction of new technologies and the optimization of working areas;

– *HP* participates in a special educational campaign (European Commission's Sustainable Energy Europe Campaign) for clients in the field of energy saving;

– *HP*'s programme *Managed Print Services* helps customers to reduce costs and energy consumption;

– the environmental programme of *HP Planet Partners* provides free recycling service and return of inkjet and laser cartridges;

– HP participates in the Climate Savers Computing Initiative. It implies all-round introduction of energy efficient computing facilities, as the rational use of energy would reduce its consumption as well as the amount of greenhouse gases in the atmosphere.

In general leading companies, regardless of the industry, think broadly in time. After all, the lack of attention to the changing requirements and conditions, including the environment, can be quite expensive. So, Coca-Cola company has established Advisory Council on the environment. CEO Doug Daft explained his vision of a new group: “With a company’s market value of 115 billion dollars, Coca-Cola asset book value reaches only 15 billion dollars and intangible assets are 100 billion dollars”. Daft realized that when you own a massive global company, errors in relation to the environment may cost billions [6].

Let us analyze the concepts of sustainable development aimed at economic and environmental regulation of the international company Coca-cola in seven directions [3]:

Water resources: in order to control the efficient and economical use of water resources there is the ratio of water consumption per unit of output. In recent years the company supports this index of 1.5, which is quite different and this is the lowest in comparison with other companies of a similar profile.

Soil and ground water: installation of a new treatment plant for waste water treatment mounted in a ground position and automatically controlled by computerized settings; various kinds of non-poisonous waste are carefully collected and disposed of in a special place or are sent for further recycling;

Air emissions: Boilers, installed at the factory, run on fuel. It was decided to replace the brand of fuel by the one that produces significantly fewer emissions into the atmosphere for the neighboring and working there people breathe as clean air as possible.

Energy: The latest technologies were applied in order to reduce energy consumption at the enterprise: bottling is produced at a surrounding temperature instead of cold process bottling; the use of computerized monitoring systems, etc. So, in recent years the index of energy consumption is 0,25 mega joule per liter, which is an excellent result.

Production waste: From 1997 onwards the company consistently implements a system of measures aimed at reducing loss of raw materials in the manufacturing process. In recent years the solid waste index, that shows the ratio between the amount of solid waste and the amount of produced drinks, is 0.68 g that is a good value in comparison with other companies in this industry.

Recycling and reuse of waste: The company collects, sorts and sends for recycling plastic bottles, jars, plastic pallets, cardboard, crushed paper, plastic wrap, etc. taking into account the index of secondary use which shows the content of the above materials in the total volume of waste. In recent years as a result of the use of the programme on collection and processing of waste at production lines as well as collection of empty beverage containers within the enterprise and in the offices of the company, this figure varies at the level of approximately 70%.

Treatment of hazardous chemicals is purely professional, that is, in accordance with the established rules. This concerns storage, transportation, use, first-class record of all hazards, labeling, taking the necessary protective measures, etc.

The company employs special prompt response group equipped with first-class equipment and trained to handle harmful substances both in usual circumstances and in an emergency.

Summing up, it should be noted that in the course of our analysis many foreign organizations are actively involved in the eco-efficiency of their activities in close relation with set goals to achieve social and economic results.

Analysis of the concepts of sustainable development, currently used at large foreign enterprises, identified the characteristics of the implementation of the concept of eco-efficiency principles for the achievement of environmental benefits as well as environmental policies. In view of positive foreign experience we see a possible way to develop the concept of governing the sustainable development of economic-environmental relations at microeconomic level.

Further, on the basis of this analysis and taking into account the identified positive foreign experience we are going to develop the concept of governing sustainable development of economic-environmental relations at the enterprise level.

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