BUSINESS AND THE ENVIRONMENT

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WYDAWNICTWO
UNIWERSYTETU
ŁÓDZKIEGO

http://dx.doi.org/10.18778/8088-016-0.04

Chapter 3

ECO-LABELLING

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3.1. Corporate environmental responsibility

Increased interest in environmental issues has given firms new challenges. The incorporation of environmental considerations into economic practice determines business activities and integrates tasks connected with the protection of the environment with all goals, functions and development strategies of enterprises. The same is true of the international expansion of economic operators and the extension of the scope of their operations. According to Malara (2006, p. 276), contemporary enterprises should take a comprehensive approach to the issues of production and consumption in relation to environmental schemes, and take advantage of economic instruments that stimulate the efficient use of resources and protect the ecosystem against degradation.

Thus, we may speak of a specific business model in the modern economy, the so-called **Environmental Corporate Social Responsibility** (ECSR), which incorporates the environmental factors at each level of corporate operations and takes account of stakeholders' needs "when delivering core values of an organisation, thanks to the awareness existing within the enterprise" (Chodyński et al. 2007, p. 188). Trying to present a methodological framework of the ECSR idea, we may identify its three main premises (Chodyński et al. 2007, pp. 188-189):

- it is a source of environmental innovation created to ensure the long lasting development and growth of a business;
- it guarantees effective reporting of standards of conduct to stakeholders with regard to the internal business operations of a firm (human rights and best practice concerning the rights of nature, work and technology, working environment and natural environment, etc.);
- it is a way to reduce business risk for enterprises.

Some authors see the environmental factor as a strategic one for business performance and highlight it when building business value. ECSR-based business models take account of (Seroka-Stolka 2012):

- internal business assumptions considering environmental criteria: environmentalisation of business processes, environmentally-friendly products;
- external business assumptions considering environmental criteria: environmental criteria as a key success factor, sector-specific environmental conditions;
- assumptions connected with meeting stakeholders' needs;
- assumptions connected with the development of internal corporate environmental and social responsibility centres, which measure and monitor strategies based on environmental criteria.

The notion of "a green corporation", which stresses the importance of environmental responsibility in business, links with the implementation of the ECSR model. According to many economists (e.g. Bansal, Roth 2000; Tran 2009), the emergence and development of such companies is determined, e.g., by increasing competitive advantage through implementing eco-innovations or the principles of green management. This leads to higher efficiency in the use of resources, a quicker return on investment, market expansion, product differentiation or the improved image of a corporation.

The use of the ECSR concept and declaring environmentally friendly operations become especially relevant, first and foremost, for consumers from developed countries, as the more affluent a society is, the better we see changes in the system of values and the higher social, cultural and, in particular, environmental awareness. The latter aspect touches, inter alia, the depletion of natural resources, the need to use renewable energy sources more effectively, or the negative effects of global warming. For that reason, we have recently increasingly often observed businesses shifting from a traditional operating mode (which on the supply side considers the basic production factors: land, labour, capital and products on the side of outcomes) to an environmental one, where we additionally include natural resources, contamination and waste.

Thus, in the era of globalisation, one of the conditions of the market success of a product is its ability to also meet those needs of societies which result from their environmental awareness. This is why we deploy eco-marketing, otherwise called environmental, green or ecological marketing, designed to increase

environmental awareness in consumers who are not that interested in environmental protection by influencing them to change their social behaviour, in particular their consumer choice (Zaremba 2004, p. 84).

Eco-marketing strategies facilitate the development of environmentally-friendly products which are labelled and offered to consumers with appropriate information about their environmentally friendly properties. Recently, we have witnessed a series of initiatives designed to label products and services meeting higher than average environmental protection standards. An attestation or a certificate received from a duly authorised organisation or institution serves as a guarantee of quality or the absence of any negative environmental effect. Environmental trademarks are thus important tools, through which enterprises communicate with consumers and have become clear strategies in the market fight for clients.

3.2. What is eco-labelling?

Polish literature offers numerous equivalents of the English terms of *ecolabel* and *eco-labelling*. There are terms used interchangeably, such as: ecolabels, environmental labelling, eco-marks, environmental labels, environmental declarations and (to identify the system) eco-labelling, environmental designation, environmental certification. All of them describe the same, i.e., marking products or services with an environmental label after the product or service has been analysed from the point of view of the burden they present for the environment. The process ends with the granting of a certificate that authorises the use of an environmental label. **Eco-labelling** means the product in question has less adverse effects on human health and the natural environment than alternatives serving the same purpose (Leśniak 2009, p. 105). Eco-labels can be found, inter alia, on food packaging, cleaning products and cosmetics; though the colours of signs may differ and inscriptions may come in various languages.

The confirmation that the producer has met the appropriate environmental requirements allows them to use a characteristic mark representing a specific marketing value, which also contributes to increased sales. Environmental labels and declarations are environmental management tools, they provide information about a product or service with respect to their general environmental characteristics and unique aspects. Their role is to efficiently impact purchase decisions (Environmental labels and declarations – General principles, p. 5).

Environmental labels may be positive when they are granted to environmentally-friendly products, negative when they warn consumers about any environmental

hazards connected with the use of the product in question, and neutral when they provide environmental information (Adamczyk 2004, pp. 174-175). Irrespective of what eco-labelling we find on products, it is intended to improve the image of a product in the consumer's eyes and to effectively shape the image of the company. To achieve it however, we need high environmental awareness of consumers and their ability to read the markings, and associate and interpret them.

The placing of a special marking (logo) is referred to as labelling. According to the definition of ISO (*International Organization for Standardization*), environmental labelling is a declaration identifying the environmental aspects of a product or service, which may be a claim, symbol or graphic mark on a product, label or its packaging, in texts concerning the product, technical bulletin, advertising, telemarketing as well as in digital or electronic media such as the Internet (Environmental labelling and declarations. Self-declared environmental claims, p. 7). Its purpose is to encourage the supply of and demand for products which cause less stress to the environment. By supplying the customer with verifiable, accurate and sound information about the environmentally-friendly aspects of products which he/she acquires, it stimulates the potential for market-driven, continuous environmental improvement.

All products available on the market, especially those which, on the one hand cause significant stress to the environment and, on the other hand, demonstrate real potential for improvement, should be subject to environmental assessment and eco-labelling. The last 30 years have witnessed numerous initiatives aimed at labelling products and services that exceed the average environmental standards. In order to unify the approach to the eco-labelling of products, ISO issued a series of standards addressing these issues, e.g. ISO 14020, ISO 14021, ISO 14024, ISO 14025, ISO 14040, ISO 14044.

3.3. Types of eco-labels

According to ISO, we may identify three types of eco-labelling which highlight the specific environmental merits of products:

- **type I** – a marking that confirms the fulfilment of environmental criteria, awarded by independent eco-labelling schemes following tests of compliance with a set of detailed criteria;
- **type II** – claims made by businesses (manufacturers, importers, distributors, sellers or anyone wishing to benefit from such claims), based on their own environmental standards, which make reference to a selected product's properties, e.g., biodegradability or recycling;

- **type III** – environmental claims approved by independent schemes. They do not assess how much a product is environmentally-friendly but provide quantitative data (e.g., CO_2, NO_x emission) that may be used by consumers and motivate them to purchase a more environmentally-friendly product. Environmental claims may impact the improvement of not only product design in technical terms but also its economic exploitation and the modification of manufacturing technology.

The most common marking applied in practice is an eco-label which informs the purchaser about the specificity of a product, and is placed directly on it or on its packaging. Additionally, there are also marks connected with specific industries, energy efficiency labels as well as symbols visible on packaging and indicating a product's properties, not its merits.

Table 3.1. Characteristics of eco-labelling

Types of eco-labelling	Characteristics
Type I environmental labels and declarations	– awarded by an independent party upon the fulfilment of environmental criteria based on a simplified life-cycle examination, – may be national, regional or international.
Type II environmental labels and declarations	– introduced by the manufacturer, the so=called self-declared environmental claims, which may refer to: • manufacturing and distribution (e.g. the content of recycled material, energy), • use of a product (e.g. reduced consumption of energy or water, extended life-cycle of a product), • disposal of expended products (e.g. recyclable, compostable, degradable).
Type III environmental labels and declarations	– awarded by an independent party, – based on independent verification of data from product life-cycle assessment, analysis of data concerning the LCI – *Life-Cycle Inventory* or on IT modules in accordance with adopted standards and, if necessary, on additional environmental data, – developed by using pre-defined parameters, – administered by the scheme operator, who can be an enterprise, a group of enterprises, industry or trade association, public authorities, agency, independent scientific institutions or other organisations.

Source: Author's study based on: *Environmental labels and declarations. Environmental labelling type I. Principles and procedures,* PN-EN ISO14024:2002; *Environmental labels and declarations. Self-declared environmental claims (Environmental labelling type II)*, PN-EN ISO 14021:2002; *Environmental labels and declarations. Environmental labelling type III. Principles and procedures,* PN-EN 14025:2009.

As we have mentioned, in order for an eco-mark to be awarded to a particular product, the product must meet specific criteria identified for a group of products serving the same use that compete in the market. This is especially critical for type I and III labels, as the latter additionally covers the entire life-cycle analysis (LCA), also referred to as the eco-inventory. The method may be referred to as the examination of a product and its manufacturing "from cradle-to-grave". The LCA refers to the environmental aspects and to the impact of manufacturing on the natural environment, while additional economic or social effects often remain outside the scope of analysis (*Environmental management – Life-cycle analysis – Principles and structures*, 2002, p. 21). The studies usually include all stages of product manufacturing and exploitation, from the design stage through to waste disposal. The first stage is a critical point of each undertaking or product, its future properties and pressure exerted upon the environment. At this stage, raw materials, materials and their use are selected, i.e. factors decisive for the necessity to use natural resources. At the design stage, we also decide on the life-span of a product, how easily it may be repaired, dismantled and re-used (e.g. recycled). It means that the initial stage is decisive for the entire life-cycle of a product, and it takes the fullest possible account of any product – environment relationship.

Each stage of a product's life-cycle is analysed from the point of view of the consumption of raw materials, water, energy, waste production and its recycling or user-friendliness. Specific aspects that may also be considered include noise emission, the use of space, ease of handling, the composition of the product itself or the comprehensiveness of the instruction manual. These are assessed by experts, who identify when various ecological threats may emerge. It is vital that experts represent all stakeholders: manufacturers, traders, ecologists, researchers, authorities, ecological or consumer organisations, mass media, and experts in advertising. They consider the possibility of how to eliminate the negative effects of manufacturing, the product's impact on the natural environment as well as anticipate the impact of improved products upon the market (Shawn 2009).

An adequate level of safety should also be ensured for all logistic operations within the entire environmental life-cycle of a product. For example, electronic waste was transported from the United States to China, India, and Pakistan where it was manually dismantled, which posed a threat to the natural environment and human health. To minimise risk, the United States developed a new strategy for public procurement. Firstly, they selected suppliers by imposing on them the obligation to have environmental management systems in line with ISO 14000 and EMAS.[18] Secondly, they analysed the energy efficiency of the equipment and changes in environmental

[18] A voluntary Eco-Management and Audit Scheme open to organisations (businesses, institutions, and authorities).

characteristics of products through eco-labelling and certification (important for environmental safety). Thirdly, the manufacturer's contractual liability was extended (e.g. to recycling or withdrawal of harmful materials) (Chodyński 2010).

3.4. Eco-labelling and its functions

Eco-labelling may be an element of the creation of the image of a business and its products or services. Usually it has the following functions:

- information – by highlighting the environmental characteristics of products;
- identification – as it helps us identify products by type and origin, and facilitates the distinction between environmentally friendly products and other alternatives;promotion – a marketing tool, which builds up a business's image and reputation; helps the perception of product quality through a brand, which may be an eco-label; and facilitates sales of products associated with it. Eco-labelling helps to convince consumers that a business puts prevention of the negative effects of product manufacturing or exploitation at the centre of its attention rather than instigating corrective measures, and that it acts in compliance with all legal regulations and constantly improves its performance;guarantee – it ensures the maintenance of product quality at an appropriate level; stimulant – it encourages producers to initiate environmental undertakings and enhance the interest of the business through environmentally-friendly actions;
- education – it deepens knowledge about the environmental characteristics of products and identifies alternative product handling possibilities at all stages of its life-cycle.

Additionally, eco-labels which are registered trademarks and may not be used by unauthorised persons may be valuable business assets, encouraging businesses to invest in maintaining or improving the quality of their products. They may also contribute to the success of firms which have decided to place environmental labels on their products, and may come in useful when applying for external funding. Governments of many countries promote environmental actions, therefore, joining an eco-labelling scheme gives an entrepreneur the possibility to apply for preferential bank loans for environmental investment projects or facilitates access to environmental funds. A systemic approach to minimising any potential hazards puts a company in a better position than their competitors who disregard the rules of environmental protection.

3.5. Characteristics of environmental certification

For a system of environmental certificates to be effective and efficient, it must be based on a duly designed and legally framed system of attestation. The International Chamber of Commerce and Global Eco-labelling Network, which bring together the biggest organisations involved in environmental certification, drafted guidelines which identify the basic conditions for attestation applied to eco-labelling. The most important of these are (www.iccwbo.org 2015; Introduction to ecolabelling 2004):

- any product may be subject to certification, appropriate marking will be awarded to those which pose the least stress to the environment. The cost of applying for and awarding an eco-label is born by product manufacturers or importers;
- labelling should be accompanied by information justifying why the product has been considered more environmentally-friendly than others;
- awarding eco-labels is voluntary, and may not be enforced by any legally binding instruments, neither may it be a condition for placing a product on the market. In other words, eco-labelling should not create unnecessary barriers in international trade. Manufacturers should be encouraged to join certification schemes by both the market and consumer preferences. The latter, in turn, may be shaped with the involvement of the State, which reaps concrete benefits from promoting participation in eco-labelling schemes; environmental certification schemes should be available on an equal basis to domestic and foreign manufacturers;
- attestation criteria should be flexible and adapted to progresses in science and technology. This is attained through awarding certificates for a limited period of time (e.g. 3 years), following which, the licence is re-verified and possibly extended. A temporary review of information and data based on which eco-labelling is awarded, allows the awarding body to take account of new and available innovations;
- environmental criteria must be attainable using universally available technologies. The cost of adjusting the manufacturing process and products to the requirements must be acceptable to manufacturers, and it should not significantly impact the cost of an eco-labelled product;
- the eco-label awarding criteria should be open and available to all interested parties;

- attestation and eco-labelling should be paid for from fees collected for the use of the labels. External subsidies of the scheme should be minimised or completely excluded.

3.6. Principles of environmental certification

As we have already mentioned, the goal of environmental certification is to confirm that an eco-labelled product is less harmful to the environment than other similar products offered on the market. Environmental labelling schemes are fully voluntary, one do not need the label to place a product on domestic or international markets. Neither do eco-certificates inform the consumer about the possibility to re-use or process (recycle) the product in question; there are other markings, e.g. "Green point"[19] that cover such properties.

There are no detailed international recommendations regarding how certification should proceed or what methods should be used in product attestation.[20] They differ due to cultural diversity, different wealth levels between societies, industrialisation, availability of high technologies as well as other factors. As a result, each country takes a different approach to the eco-labelling of products. Usually, we need to analyse economic circumstances together with the social, political and cultural context and, depending on a country's characteristics, any individual parameters of the manufacturing process which are subject to environmental assessment (e.g. in a region with a high unemployment rate it is recommended to pursue labour-intense activities).

Specific requirements vis-à-vis a product or manufacturing may be identified by various teams. They may be teams representing central administration, industrial, trade or scientific associations or consumer organisations. In environmental certification, criteria must also be linked with environmental protection,

[19] "Green Point" is a registered trademark owned by Duales System Deutschland A.G. (DSD), in Poland its exclusive licensee is Rekopol Organizacja Odzysku S.A. The trademark is protected pursuant to the Act *Industrial property law and Law on combating unfair competition* (Dz.U. of 2003, No. 119, item 1117, with further amendments). Using the "Green Point" trademark is not mandatory in Poland or in any other EU Member State, and the decision to use it is made by the entrepreneur. www.rekopol.pl/zielony_punkt/zielony_punkt (access: 30.08.2015).

[20] The International Chamber of Commerce and Global Ecolabelling Network – an institution bringing together major organisations active in environmental certification – drafted only the guidelines that identify basic attestation conditions applied to eco-labelling. See, e.g., www.iccwbo.org; *Introduction to ecolabelling*, Global Ecolabelling Network Information Paper, 2004, www. globalecolabelling.net/pdf/pub_pdf01.pdf (access: 30.08.2015).

meaning, we need to use scientific knowledge in the field when developing them. Besides this, requirements may relate to ergonomics or health protection.

Individual environmental certification schemes differ mainly in the specific criteria for products or their manufacturing, some are based on the cradle-to-grave approach, other address one specific product feature (e.g. the origin of raw materials needed for its manufacturing) or its corporate management system. Some eco-labels have been created for just one type of product (e.g. cosmetics, wood products), others cover a variety of fields.

An entrepreneur wishing to be awarded an eco-certificate is obliged to adjust their product and its manufacturing to the detailed requirements, which may be a lengthy and costly process. They may also need to avail themselves of professional assistance, which is why many certifying bodies have their own equivalents which render such services. Then, a producer applies to an appropriate body for an eco-label. The certifying body must be independent and accredited by an organisation responsible for a given certification scheme. Following a series of checks, reviews and tests, which may be conducted in a specialised laboratory, a document is issued that confirms compliance. Confirmation of compliance with environmental requirements allows the placement of an appropriate label on the product. This label carries a specific marketing value and may help a company in winning customers' trust by helping to convince them that the enterprise in question:

- puts its main stress on preventing any negative effects of product manufacturing or exploitation, rather than on later corrective measures,
- acts in compliance with binding regulations,
- continuously improves in all fields of its activity.

Thus, the eco-label is a measure of excellence, and manufacturers must strive to deliver products that will ensure environmental leadership in the market. This is how the principle of permanent improvement is enforced together with increased self-monitoring and accountability.

3.7. Benefits to enterprises

Consumer environmental awareness has been growing in recent years. Increasingly, it is not just the quality of a product but also its manufacturing that are decisive when making a purchasing decision, which is why various eco-labels,

along with their environmental and information role, have also acquired stimulating and marketing functions. They are intended to contribute to the success of firms who have decided to place environmental labelling on their products.

Green consumerism in numbers – the case of the United States and Poland
In the United States, 77% of consumers believe that buying eco-products leads to ethical and environmental shopping. 62% of respondents also make an effort to find products offered by environmentally responsible firms. 68% of consumers claim it is worth paying more for a green product or service when it is offered by a brand that they trust. Nine out of ten interviewees claim firms have a duty to protect the environment, and they should be accountable for their actions. 77% more favourably perceive firms involved in environmental actions. The share of people who purposefully do not buy products from firms associated with environmentally irresponsible behaviour is 27% of respondents (Green in the Economy II, 2011).
In Poland, 27% of consumers admit that they consider the environmental impact of a product when making a purchasing decision. 39% of Poles know the environmental impact of the products that they use, and only 8% know nothing about it. Between 2008 and 2011, the percentage of Poles declaring that they avoid buying products harmful to the environment increased by 30% (to over 70%) (www.mos.gov.pl, 2015; www.odpowiedzialnybiznes.pl, 2015). Almost 80% of young people (not older than 39) say they are unable to differentiate between the environmental labels on organic products, which shows their low environmental awareness and lack of knowledge about the labelling of organic food. However, for a clear majority of consumers (85%) the presence of an eco-label on a product increases their trust in the product (Chudzian, Chatys 2014).

Source: Green in the Economy II (2011); www.mos.gov.pl; www.odpowiedzialnybiznes.pl; Chudzian, Chatys (2014).

An Eco-label is a modern way to promote a product and a firm in line with the principle of sustainable development. In the times when it is "fashionable" to promote a healthy lifestyle benign to the natural environment, buyers are attracted by various environmentally-friendly actions. For this reason, the biggest economic benefit to an entrepreneur is the increase in sales and profit from economies of scale. A business can thus establish a market niche and reinforce its positive corporate image, position and strength of product brand associated with respect for environmental protection principles (Introduction to ecolabelling 2004, p. 5).

The economic benefits for the business which decides to label its products with type I and III eco-labelling (therefore obliged to meet certain environmentally-friendly criteria) may also be connected with the ability to recover certain second-hand raw materials, waste management or higher efficiency of infrastructure. For this reason, other advantages of being a part of a certification scheme may include savings of energy, raw materials and materials used in production or products, and services designed to reduce the consumption of natural resources without compromising on quality. A business may also benefit from paying less for the economic exploitation of natural resources, or restrict the occurrence of incidents that create a financial burden connected with, e.g., the need to clean up contaminated sites and pay compensation to those affected. Due to the fact that governments in many countries promote environmental actions, joining an eco-labelling scheme helps a business get access to soft loans for environmental investment projects or facilitates access to environmental funds. A systemic approach to minimising potential hazards gives such businesses the ability to stay ahead of their competitors who disregard environmental protection principles.

Moreover, an eco-label may help a firm to win a client's trust, as it helps to convince them that an enterprise:

- puts its main stress on preventing any negative effects from product manufacturing or exploitation, rather than on corrective measures,
- acts in compliance with binding regulations,
- continuously improves in all fields of its activity.

Thus, the eco-label is a measure of excellence, and manufacturers should strive to deliver products that will ensure environmental leadership in the market. This is how the principle of permanent improvement is enforced together with increased self-control and accountability. Examples of non-financial benefits that may also be gained by enterprises using environmental labelling include adding to their competitive credibility in domestic markets and the ability to overtake competitors in modern development strategy. They are also considered credible business partners. Moreover, by improving the quality of their products and implementing new technologies, firms with eco-labels may more easily enter international markets, as the quality of their products is higher.

Hence, there are numerous benefits awaiting an enterprise that decides to make the effort to place eco-labels on its products. While the financial effects are felt the most quickly, others may come with time (e.g., improved image, increased client's trust).

Because of the multiplicity of eco-certificates, consumers find it increasingly difficult to unambiguously interpret them, and to be familiar with the criteria met by products so labelled. Information made available on eco-declarations are easily (types I and II) or relatively easy (type III) available, and are especially useful when confirmed by external experts. However, consumers are not always aware of this and manufacturers, taking advantage of ”organic products” being fashionable, place labels on packaging that imitate officially recognised eco-labels. As a result “fake” eco-labels are more and more common, and many products are labelled with flowers or trees, which can be used without the need to introduce environmentally-friendly solutions in product manufacturing or exploitation. Placing such a logo on a product is cheap, however, it brings no marketing benefits. To avoid misleading a consumer, it is not recommended to use unclear and imprecise environmental claims (type II) or claims that only generally suggest that the product in question is beneficial or environmentally-friendly. For this reason, it is not recommended to label products with claims like green, pollution-free, nature-friendly, soil-friendly, ozone layer-friendly (Environmental labels and declarations. Self-environmental claims, op. cit., p. 17). Using a “fake” environmental logo may lead to legal consequences for the manufacturer. If the label in question bears an unambiguous association with the specific characteristics of a product (e.g. it suggests that it was made of recycled raw materials), a consumer may make a claim against the seller if the manufacturer attributed qualities to the product that it does not possess (Dębicka-Fobke, Jankowska 2004, p. 69).

3.8. Environmental labelling programmes

The first eco-labelling scheme (*Blue Angel*) was introduced in the 1970s in Germany. Subsequent eco-labels emerged in Canada (*Environmental Choice Label Scheme*), in the countries of the Nordic Council (*White Swan*), Austria (*Eco-Mark*), and in the Netherlands (*Eco-Mark*). In the early 1990s, well-developed eco-labelling schemes were also in operation in India, Japan, New Zealand, Singapore, South Korean, and in the United States. Currently, globally, there is a plethora of national environmental certification programmes. There is, however, one aspect which remains unchanged: eco-labels are voluntary and are awarded by an authorised body upon compliance with strictly specified criteria (for Type I and III labels).

Organisations which promote the use of eco-labels (*Global Ecolabelling Network*) bring together 26 national and international organisations which administer

specific eco-labelling programmes. They can be found in 35 countries, e.g., in Brazil, Croatia, China, Hong Kong, Indonesia, the United States, South Korea, and Ukraine.[21] As mentioned above, consumer environmental awareness clearly increases in highly developed countries. Already in the 1990s, in the United States, more than 80% of environmentally-conscious buyers were seeking out organic products, in Germany this was true of every second customer, while in the United Kingdom more than 80% of respondents preferred to choose products which are not harmful to the environment. In the same period in Poland, such products were not sought by almost 60% of respondents and ca. 17% were not familiar with the term "organic product" (Targosz-Wrona 2010).

It is also important how many eco-labels emerge in a given market and are known to consumers. The longer they exist, the more attention buyers pay to products labelled with them. In Belgium, every second respondent was able to recognise only 4 out of 11 different eco-labels they were shown, whereas in Denmark and Sweden buyers can identify and describe most eco-labels present in the market. Likewise in France, where people are familiar with eco-labels, ca. 80% of respondents demonstrated basic knowledge on the subject. In Japan almost 92% of consumers correctly interpret the major national eco-labels (Rubik, Frankl 2005, pp. 80–82, 116).

As already mentioned, there are multiple eco-labels in the world, and not all of them are recognisable to consumers. On the website www.ecolabelindex.com, we can find the majority of eco-labels registered all over the world. Thus, when in doubt or when we do not know symbols or labels on packaging, we may use the alphabetical index on this site.

The list of best known eco-labels includes:

1. **Organic production** – European Union – a logo uniform across the EU was introduced in March 2000. The objective was to increase the credibility of food produced using methods that are not harmful to the environment and highlight products on the market. To be labelled with the logo a product must comply with a series of criteria (e.g. at least 95% of product ingredients must have been produced using organic methods, products are sold directly by the producer or in closed, secured and labelled packaging).

2. ***Ecolabel,*** "Daisy" – European Union – a flower surrounded by twelve stars, is an alternative to national organic trademarks which guarantee a certain

[21] A complete list of countries is available, inter alia, on the website: www.globalecolabelling.net (access: 30.08.2015).

quality. The logo is awarded after a shortened analysis of product life cycle. Tests focus on the environmental impact at the stages of: getting primary raw materials, manufacturing, packaging, transportation, product use and disposal. At each stage there are many environmental aspects which are assessed, e.g., waste generation, contamination of soil, water and air, noise, consumption of natural resources and energy, and, additionally, impact upon environmental systems. The award of the logo is equivalent to meeting the most stringent environmental standards. It is awarded in 24 categories, which include, household equipment, detergents, textiles, and paper (www.ec.europa.eu/environment/ecolabel access: 20.10.2015).

3. **European ecolabel for Organic Farming** – European Union – a logo awarded by the European Commission since 2010 to organic products produced in the EU and meeting binding Community standards. It does not cover products imported from outside of the EU.

4. **Blue Angel** (*Der Blaue Engel*) – Germany – products with this logo represent better environmental characteristics than other products from the same product group. The assessment takes account of, e.g., contamination of air, water, soil, noise, potential to form particularly hazardous substances, user safety, comfort and aesthetics. At present, the label is awarded in 75 product groups, e.g., tyres, refrigerators, construction materials, household chemicals, paper products, deodorants. It does not however cover food products and pharmaceuticals. It is worth mentioning that the German logo is also placed on products manufactured by foreign companies, which account for 13% of all enterprises holding the certificate (www.blauer-engel.de access: 20.10.2015).

7. **Swan** (Svanen) – Scandinavian countries – products labelled with this logo have a less negative impact upon humankind and the natural environment. They must meet specified criteria relating to selected qualities of the product and its manufacturing, and are verified by an accredited testing authority. Along with progress in science and technology, environmental requirements are gradually increased and compliance with certification criteria is systematically monitored. The “Svanen” scheme is considered one of the most comprehensive and objective eco-labelling schemes in the world (www.svanen.nu access: 20.10.2015).

8. **Falcon** (Falkon) – Sweden – “Good Environmental Choice” The Falkon logo has been in existence since 1992, and abides by the criteria of the

non-governmental environmental organisation – The Swedish Society for Nature Conservation. Attestation takes account of only the organic qualities of the product. Currently, there are several hundred products in the market labelled with this logo, mainly detergents and paper.

12. **Krav** – Sweden – the logo awarded by the Association of Organic Farmers since 1985. Food products so labelled are produced without the use of artificial fertilizers and chemical pesticides. They are top quality products. The logo appears also in a "Krav-import" version, which guarantees consumers that imported food comes from organic products.

13. **Milieukeur** – the Netherlands – the logo awarded by an independent SMK organisation, bringing together consumers, producers, sellers, the government and environmental organisations. Demanding criteria (some of them reviewed on an annual basis) to be met by products are often more stringent than those included in legal regulations (www.smk.nl access: 20.10.2015).

Polish manufacturers may also apply for most eco-labels available in the world. However, due to differences in the terms on which they are awarded, the fact of being given one eco-label does not automatically guarantee the possibility to place other eco-labels on the product. For that reason, each manufacturer should focus on those eco-labels preferred by consumers or business partners. Eco-labels with the biggest geographical scope are not always the most recognisable in the local market. For example, in Scandinavia consumers trust first and foremost local not Europe-wide labels (Dębicka-Fobke, Jankowska 2004, p. 70). Polish experience in the use of eco-labels is still rather limited; most eco-labels that we see in Polish stores come from Germany and Scandinavia, i.e., from leading countries in environmentally-friendly market solutions. Foundations for a system of eco-labelling were laid in Poland when the Minister of Environment and the Managing Director of the Polish Centre for Testing and Certification (Polish abbr. PCBC)[22] signed, on 13 July 1998, principles of certification for the

[22] The beginnings of the PCBC date back to 1958 when the Polish Committee for Standardisation Measures and Quality Control established the first organisation in Poland to deal with quality issues – the Quality Mark Office (in the 1970s transformed into the Central Office for Product Quality, which in 1994 became the Polish Centre for Testing and Certification). Since 1 January 2003, PCBC S.A has been a one-man State Treasury company and operates based on the Act of 30 August 2002 (with further amendments) on the Compliance Assessment System (Dz.U. of 2002 No. 166, item 1360). PCBC is a member of international organisations active in the field of testing and certification, e.g. EOQ (European Organisation for Quality), IQNet (International Network of

"Eko-znak" (Eco-mark) registered by the Polish Centre for Testing and Certification. The detailed principles and mode of awarding the "Eko-znak" in Poland and its logo (registered in the Patent Office in 2003) were specified in consultation with the Minister of Environment (Decision of 23 October 2003) based on the Act on Testing and Certification (Dz.U., 28 June 1993, No. 55, item 250) and the regulation of the Minister of Economy on the certification of products (Dz.U. 16 March 2000 r., No. 17, item 219).

Since 2005, "Eko-znak" in Poland has been awarded based on the same criteria for products and services as those listed in the decisions of the European Commission, which specify environmental criteria within the framework of the programme for awarding European environmental labelling (*Ecolabel*). Pursuant to the decision of the Committee for "Eko-znak" and *Ecolabel,* entrepreneurs may be awarded with both labels at the same time on favourable financial terms.

"Eko-znak" can be used by domestic and foreign products which do not produce negative environmental effects and meet certain criteria in the area of the protection of health and the environmental and economical use of natural resources. "Eko-znak" is an official Polish trademark, awarded to products which comply with the environmental standards listed as the compliance criteria (*Program przyznawania wspólnego znaku towarowo-gwarancyjnego – znak ekologiczny EKO* 2009, p. 9). There is a committee for "Eko-znak" at the PCBC entrusted with the task of developing these criteria and standardising them as requirements vis-à-vis certified products.

Authorisation to use "Eko-znak" may only be given to a product meeting all utility (safety and those relating to its functions) requirements. When the aforementioned is confirmed by an appropriate document (e.g. a manufacturer's declaration of compliance), certification relates to meeting environmental criteria over an entire product life-cycle, the "Eko-znak" licence is granted for a specified period of time (up to 3 years). If eco-criteria have not been amended, the licence can be renewed/prolonged or, when there have been amendments, the product must be retested. "Eko-znak" is most frequently chosen by manufacturers of fertilizers, textiles, paper and chemical products. By the end of 2014, PCBC S.A. had drafted criteria for awarding the "Eko-znak" to more than thirty product groups, inter alia, detergents, interior paints and varnishes, portable PCs, TV sets, toys, and hotel services.[23] In 2009, they launched the certification of new product groups based on criteria taken from the requirements applied in Nordic

Certification Bodies), IECEE (International Electrotechnical Committee for Electric Equipment). PCBC's representatives represents Poland in the works of the EUEB (European Union Ecolabelling Board). See www.pcbc.gov.pl (access: 30.08.2015).

[23] For a detailed list see www.pcbc.gov.pl (access: 30.08.2015).

countries for the eco-label ”Nordic Swan”. These criteria cover the following product groups: cosmetics, toys, stationery, packaging paper, and printed paper products.

EKOLAND is another eco-label recognisable in Poland. It is awarded to food products, and it certifies that products were manufactured in an environmentally-friendly way, without the use of mineral fertilizers and in accordance with the natural cycle of substances in nature. The right to use the label is awarded to products originating from manufacturers, processing plants and traders who meet the requirements of the Act of 25 June 2009 on organic farming (Dz.U. 2009, No. 116, item 975) and Council Regulation (EC) No. 834/2007 of 28 June 2007 on organic production and labelling organic products certified by a competent body. Farms that wish to label their products with this symbol must acquire attestation from the Polish Association of Organic Food Producers. A farmer who wants to go organic must remember that it may take over 2 years (until the moment when he may receive the certificate). Within this period, the farm is monitored by an accredited certifying body, which inspects the farm at least once a year to find out whether best practice on the farm complies with principles laid down in the act on organic farming. Criteria for organic farming and Ekoland Association are strictly specified and drafted based on the guidelines of International Federation of Organic Agriculture (IFOAM) (see Kryteria rolnictwa ekologicznego Stowarzyszenia Ekoland 2013).

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In the era of globalisation, eco-labelling has become one of vital elements shaping the model of consumption which is linked to continuous enhancement of the environmental awareness of societies. In response to buyers' needs, enterprises initiate steps leading to the creation of the image of an ecologically-friendly business by, e.g., meeting specific requirements and applying for environmental certificates. It means that, on the one hand, thanks to eco-labels, consumers can identify a product more easily and, on the other, market processes shaped by an environmentally-conscious buyer may impact the environmental behaviour of economic operators.

Eco-labels have become special trademarks. They are used as marketing instruments that help achieve an advantage over competitors in a competitive market. In order to keep them, enterprises must implement environmental strategies and be active in the field of environmental protection. Such activities are no longer treated as costs to enterprises and they have become important promotion tools.

This being said, protection of consumer interests is one of the major benefits of eco-labelling. It should provide buyers with information that facilitates the

making of rational choices. Thus, we should expect that activities undertaken by governments or organisations to promote environmental issues will quickly bring effects, and enterprises will start supplying the market with products and services bringing the least burden to the environment.

The environmental labelling of products is not common in Poland, while in other countries (mainly in highly developed ones) eco signs are more important in the buying process. This is mainly due to the lack of knowledge among entrepreneurs about the issue and costs involved in certification and using environmentally-friendly labels. Although "Eko-znak" has already been awarded for more than 15 years, it is still recognisable to only a limited group of consumers. This is caused by the lack of promotion and difficult access to information about products so labelled. Obviously, efforts that could improve the environmental awareness of Poles are fundamental for the promotional success of "Eko-znak", which is confirmed by the increased number of people able to recognise environmental labelling for the purpose of making consumer decisions.

Questions and assignments

1. Define eco-labelling and its main types.
2. Describe the functions of eco-labels.
3. Describe the major benefits to entrepreneurs resulting from the use of eco-labels on products.
4. List and describe 5 selected eco-labels.
5. Identify eco-labels on products that you use every day and point out their meaning.

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Considering environmental protection requirements in business operations may, in the long run, determine if a lasting comparative advantage can be achieved. That is why our textbook, rich in case studies, identifies not only the threats a business may pose to the environment but stresses the ways of reducing its negative impact. It discusses, among other things, the concept of corporate social responsibility, environmental management systems, methods and the importance of eco-labelling goods and the so called green public procurement in the private and public sectors. The book is addressed primarily to students of courses in economics and management. We hope it will also make interesting reading for entrepreneurs, representatives of business environment organisations and the staff of public administration at different levels.

Project: The creation of new interdisciplinary curricula in the field of economics of environmental protection (in Polish and English) at the University of Łódź. Project supported by a grant from Norway through the Norway Grants and co-financed by the Polish funds.

The aim of the project is to improve the knowledge and awareness of Polish and foreign students, the faculty and alumni of the University of Łódź in the fields of sustainable development, ecology, international business and finance.

Grant amount: 533 083 PLN

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ISBN 978-83-8088-016-0