

IN THE SEARCH FOR AN ENVIRONMENTAL STRATEGY MODEL FOR THE COMPANY – *CASE STUDY*

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Abstract: The purpose of the article is to identify and assess environmental practice implementations focusing on the environmental strategy as a model. Available references provide scarce information on the very existence of business practices which enforce organizational changes and introduce model strategic behaviors of the company towards the natural environment, which is indicative of a cognitive loophole. The study provides authorial proposals of an environmental strategy as a model. A case study was carried out as part of the project, and its results have led to a conclusion that the implementation of environmental practices is not a one-time act, but rather an evolutionary process which takes place in stages, sequences. Furthermore, as a model of environmental practices, the strategy is developed through evolution, proceeding in a sequential manner.

Keywords: company, strategy, model, the natural environment.

Introduction

Ecological problems “did not fit” within the strategic management models developed by companies, and were therefore treated as a non-business or additional issue (Leśniak-Łebkowska, 2008, p. 196). This situation has changed and companies have started to include ecological objectives in their general and functional strategies. The strategies which refer to the natural environment (environmental strategies) are generally included in the companies’ sustainable development strategies. They are usually construed as functional strategies (Ingaldi, Ociepa-Kubicka, Seroka-Stolka, 2016, p. 101). More recently, functional strategies have been recurrently placed on a par with general strategies (Krupski, Niemczyk, Stańczyk-Hugiet, 2008, pp. 100-101), and can therefore set the directions for future business initiatives. They can be also allocated within CSR strategies (Skowron-Grabowska, Tomski, Dunay, & Illes, 2016, pp. 7-16).

Available references specify three types of strategies which apply different models and their concepts. One of these business strategy concepts is the assumption that it is founded on a repeatable and coherent pattern of conduct which “regulates the decisions and activities of the

company” (Obłój, Obłój 2006, pp. 9-12). This concept also applies to the formulation of business strategies pertaining to the natural environment (environmentally-friendly practices) which affect the strategic change of the company. What is important in explaining strategic change is determining whether there are any company practices which cause the change, and if yes, then what are the practices (routines) which determine organizational change and produce the company’s strategic behavior patterns relative to the natural environment? Considering the cognitive loophole identified, the purpose of the article is to identify and assess environmentally-friendly practices applicable to the description of the environmental strategy pattern based on the examined company X (*case study*).

1. Pattern of strategic behaviors pertaining to the natural environment

In the evolutionary perspective, strategic problems derive from H. Mintzberger’s and J. Quinn’s works. In the opinion of these authors, a strategy is shaped under the influence of external factors and changes in an evolutionary manner under the influence of exogenous impulses (Mintzberg, 1994, Quinn, 1980). It is therefore an evolutionary reaction to changing conditions in the environment. It develops and emerges incrementally in time in a progressive, successive or sequential manner. In practice, this strategy is a combination of emergency plans and changes (Stańczyk-Hugiet, 2013, p. 101).

One of the basic mechanisms of the evolutionary theory of organization is organizational routine. The notion of “routine” applied in a broad context. According to the definition coined by the authors of organizational routine, as referred to by Nelson and Winter (1982), routine can refer to a repeating activity pattern recurring throughout the organization, or to a single skill. “The organizational skill of a single person is an analogy to organizational routine” (Nelson, Winter, 1982). Organizational routines are construed as rules, procedures, behavioral patterns throughout the organization, as well as programs or practices. Routines are to serve the mitigation of conflict and, in evolutionary theory, they “play the role of genes in organization” (Stańczyk-Hugiet, Piórkowska, Stańczyk, 2016, pp. 7-15).

According to M. Kuraś, routines take formalized (provisions) and non-formalized forms, i.e. comprise non-transcribed, repeatable behavioral patterns. Routines emerge in a company as a result of organizational learning, mimicking the routines adopted by other organizations (companies) and as a result of adaptation to the environment (Kuraś, 2008, pp. 9-17). J. Strużyna thinks that they are more than mere repeatable business behaviors. He emphasizes that encoded behaviors affect the future approach of companies to non-routine problems. Furthermore, these “programs” can be construed differently by authors. In the opinion of J. Strużyna, the notion of “routine” should not be leveled with conformity with standards. Nonetheless, routines are a response to standards (Strużyna, 2013, p. 30).

With reference to Nelson and Winter's publications (1982), changes to organization of a company are brought by innovative measures which change the technical and organizational routines applied by companies predominantly in a given industry (Nelson, Winter, 1982). In this context, routines are defined to resemble practices, which are key to including environment protection processes in business strategies. In the next part of the article, these routines will be treated similarly to environmentally-friendly practices (good environmental practices).

Environmental business practice described as a pattern of environmental practices can be found in the works of I. Henriques and P. Sadorsky. These authors approach environmental strategy as a changing model of environmental practices changing in time as a result of a change of the management's perceptions of stakeholders' expectations, construed as an external force. Environmental practices become apparent in the context of a change caused by pressures of the environment (external stakeholders) as well as pressures from the members of the organization, in charge of taking pro-ecological measures (Table 1).

Table 1.
Evolving environmental practice model

Type of environmental strategy	Environmental practices
Passive	lack of support and involvement from upper management
	environmental management is not necessary
	lack of environmental reporting
	lack of environmental training for employees and lack of commitment
Defensive	selective involvement of upper management
	environmental measures taken when necessary only
	observance of selected environmental regulations only
	small involvement of employees in environmental measures, low level of environmental trainings
Adaptive	partial involvement of upper management
	environmental management is worth the commitment
	internal reporting present, low level of external reporting
	some employees are trained and committed to environmental issues
Proactive	the upper management supports and fully participates in environmental measures
	environmental management is an important business function
	internal and external reporting
	employees are trained and their commitment is supported by the upper management

Source: Own study on the basis of: Henriques, Sadorsky, 1999, pp. 87-99.

In this typology of environmental strategies, their scope increases in an incremental manner relative to the natural environment. The differentiation of practices entails the multiplication of elements to induce a change in the strategic reaction from passive to proactive. Nonetheless, the absence of reaction (passivity) can be recognized as the absence of business strategy towards the natural environment. In the face of tightening environmental requirements posed by the surroundings, these practices must be perfected to maintain at least "temporary" competitive advantage. The differentiation of environmental practices has resulted in a change – or evolution – of the environmental strategy model, adapting it to the surroundings. This evolution is related

to a change in the state, i.e. from homogeneity to heterogeneity. *We can therefore conclude that the differentiation of environmental practices to include more environmentally-friendly patterns is also an evolutionary mechanism of the environmental strategy of companies.*

This strategy can be a part of the model and the other way round (Nogalski, 2009). Assuming that this model can determine the focus of the strategy, available references provide a model for the proactive environmental approach adopted in companies. This model integrates environmental practices into a single pattern: the practices of planning and organizing the system of environmental management, practices of communication with the environment and operational practices (González-Benito, González-Benito, 2006, p. 91). In this approach, an environmental strategy can be construed as a cohesive model of (consciously) implemented practices (or routines) which regulates the decisions and activities of the company in relation to environment protection. Planning and organization practices refer to the most routine behaviors according to the provisions of ISO 14001: 2015, whereas organizational practices refer to changes limiting the impact of products and processes on the natural environment. The purpose of operational practices is to develop and implement ecologically-conscious production and operational processes (e.g. eco-design). Based on this model, environmental strategy can be defined as a cohesive pattern of environmental practices which refer to three dimensions: planning and organization of environmental practices, communication with the surroundings and operational (process and product) practices. However, the pattern of practices can differ in terms of the type and strength of practice implementation, as well as the outcomes, depending on the reaction of the company on the environment.

Based on domestic literature, environmental strategies can be classified in terms of their market appeal and the degree of technological activity of the company relative to the market, i.e. into (Penc, 1995, p. 172):

- preservative (reactive) strategy – when the company adapts to the observance of necessary and minimum laws, systems of orders and bans regulating the use of the environment and the use of the “end-of-pipe” technology,
- technological strategy – primarily concerning technological changes aiming at developing “clean” technologies minimizing the impact on the environment, although it can also be construed as both the innovative and defensive strategy,
- planning (offensive, proactive) strategy – focused on preventing the production of contaminations and minimizing them through the implementation of “clean” technologies, development of eco-products, pro-ecological organizational structure and management style, pro-ecological marketing and ecological organization culture.

In this approach, a change of the environmental strategy model starts from the company’s observance of the basic statutory requirements regarding environment protection and production control in terms of environmental requirements (reactive response) through gradual popularization of new, environmentally-friendly process, product and organizational measures. Based on this typology, a change in the reaction of the company from a passive to a proactive

one involves the company's adaptation to the requirements of the legal, market or technological environment. This approach to environmental strategy is similar to the typology of strategies coined by Miles and Snow. To fulfill all applicable requirements related to environment protection, a company conditions its behaviors on finding the solution to three problems: administrative, entrepreneurial and technological (engineering) (Martins et. al., 2014, p. 22). Therefore, the objective consisting in the adaptation of environmental strategy is dynamic in character. In conclusion, in the dynamic approach, environmental strategy is *a cohesive pattern of environmental practices, the implementation of which is not forced solely by environment protection regulations, and which complies with pre-determined ecological objectives of a company, ones that refer to three strategic dimensions: the administrative, entrepreneurial and technological dimension.*

2. Research method and material

In pursuing the objective, I have completed a *case study* based on the application of various research tools, including: an interview and observation. Standardized, non-structuralized interview (anthropological or ethnographic interview is classified as non-standardized and non-structuralized interview) was applied in the qualitative study (Kostera, 2003, p. 24). Interpretation of results is a recurring issue for qualitative studies. They are representative in the statistical sense, which is why they cannot serve as the basis for generalizations. A much smaller number of cases is what distinguishes qualitative studies. In these conditions, arbitrary selection is necessary. The final selection of cases is a particular challenge for the researcher, as the majority of *case studies* can be focused on explaining the features of a larger population (Seawright, Gerring, 2008, pp. 294-308). To fulfill the requirements and criteria for these studies, the company was selected arbitrarily, adequately to its attainability and the willingness to take part in the study. Company X was selected on the basis of the type of environmental strategy adopted and the impact of its industry on the natural environment (Seroka-Stolka, 2017, p. 236). Due to the character of the data obtained from company X, which could affect its functioning, and a condition imposed by the company, the case studied was presented anonymously. Its highest-ranking manager was asked to assess an authorial set of environmental practices (Seroka-Stolka, 2017, p. 269) as part of a standardized interview.

As study was also carried out for a large Polish joint-stock company from the food industry. The company has implemented an environmental management system according to ISO 14001. The company manufactures and distributes a product (a commodity) and operates on numerous international markets. The market of company X products is very dynamic. The overall strategy of the company is based on innovation and product offer modeling to adapt it to growing consumer needs. The purpose of the company is to responsibly launch products on the market.

The company is governed by specific marketing requirements which are based on effective laws and regulations, as well as its internal by-laws. As a leader in Poland, the company creates trends, leads in the industry, maintaining a quantitative share on the market of 21.1% (data for 2015).

3. Results

An assessment of environmental practices applied in company was carried out on the basis of the interview by a top-ranking manager in charge of water, energy and carbon dioxide emission management. Environmental practices were grouped according to the following dimensions: planning and organization, open communication practices, support of practices by top management and operational practices. The last dimension of environmental practices was isolated thanks to its importance to stimulating strategic changes and forcing management to implement environmental practices. Assessment of practices was carried out according to a 5-star Likert scale.

Among the analyzed environmental practices, the “support of environmental practices” dimension of top management operations is key for commencing the process of environmental strategy change and implementation. This dimension includes such practices as: “involvement of management in the process of implementing environmental practices”, which is specified in the partial and annual objectives, as well as “motivation and involvement of employees in the implementation of environmental practices”. Various models of motivating employees are applied in company X. Stimulating employees to employing innovative thinking is the most difficult practice to implement. At the same time, the latter practice is not common to company X. However, the “support of practices” dimension is necessary for initiating the process of transformation and implementation of an environmental strategy developed by company X. This type of practices is characteristic for the first stage of environmental strategy implementation.

The second group of environmental practices includes open communication with external and internal stakeholders which were implemented in the second stage. Practices involving communication with the environment are the result of pressures from external stakeholders and the will to promote the company. These practices include regular environmental reporting (minimum once a year) about all pro-ecological measures taken. Company shareholders are particularly interested in these environmental reports and the results of environmental practices. In company X, employees are regularly informed of emerging pro-ecological problems. They are however much more often informed of the positive outcomes of new projects, to positively reinforce their commitment to pro-ecological measures. Company X implemented open communication practices in the second stage.

The third group of practices comprise planning and organization. Company X is in the progress of implementing them. This third stage of implementation has not been completed yet by company X (as of March 2017). The highest-assessed practices employed by company X include: “treatment of environment protection as a priority in the general strategy”, “measures to surpass environment protection laws”, and “delegation of responsibility to functional personnel in the search for methods to improve the ecological efficiency of the company” and “delegation of responsibility to interfunctional teams making decisions pertaining to the natural environment”. Team work is a means to improve the ecological efficiency of company X and to improve the process of making decisions and resolving problems related to environment protection. Planning and organization practices streamline the process of establishing continuous improvements and systematically controlling a satisfactory level of completions of environmental objectives. They order all processes involving management of the natural environment. Team work is a manifestation of the proactive approach.

The fourth dimension of practices includes operational practices contributing to changes in production and operations which help limit the negative impact of company X on the natural environment. Practices involving control and restriction of consumption of materials, energy and water in production processes in favor of innovative solutions were graded the highest. This is however a manifestation of practices that are characteristic for the reactive pattern related to end-of-pipe control measures. The company stressed the importance of technologies aiming at minimizing the impact of processes on the natural environment and their growing importance after 2020 due to the growing requirements of the “*Europe 2020*” strategy. Practices devoted to designing an environmentally-friendly product are still under preparation due to difficulties related to the impact of company X on the consumer market, e.g. in terms of environmentally-friendly packaging (the product is a commodity).

In conclusion, an evaluation of environmental practices indicated that company X has gradually implemented practices in individual dimensions. Stage one of implementation of environmental practices requires full support and commitment from the management. In stage two, company X practices open communication with the stakeholders, since external stakeholders exert pressures to implement pro-ecological measures. In stage three, company X plans and organizes the implementation of environmental practices, and in the last stage – the company proceeds to implementing environmentally-friendly operational practices.

In establishing a matrix for assessing the pre-determined environmental priorities, a company can monitor and gradually implement environmental practices in their individual dimensions, starting with observing the minimum requirements (reactive strategy) and ending with leadership (proactive strategy). The results of evaluation of practices in the subject company X are presented in table 2.

Table 2.
Evaluation of environmental practices in the studied company

Environmental practices	Dimension of environmental practices	Implementation stage in the subject dimension	Assessment of individual practices from 1 to 5*
We treat environment protection as a priority in the general strategy	Planning and organization of environmental practices	No. 3**	5
We have clearly defined long-term environmental objectives			4
We take measures “in excess” of the basic environmental laws			5
We integrate environmental practices into the general strategy			4
We delegate responsibility to functional teams searching for means to improve the company’s ecological efficiency			5
We delegate responsibility for environmental issues to interfunctional teams making decisions concerning the natural environment			5
We organize regular training sessions to broaden ecological knowledge and awareness of the employees			3
We conduct regular seminars to broaden the ecological knowledge of the management/company owners on voluntary pro-ecological solutions			3
We conduct regular seminars to broaden the knowledge of the management/company owners on the application of “clean” environmental technologies in equipment and procedures			2
We conduct regular trainings to perfect the organizational skills of the management/company owners pertaining to the implementation of environmental practices			4
We regularly inform internal stakeholders (shareholders and owners) about the pro-ecological measures taken	Open communication practices	No. 2	4 (min 1 x year)
We regularly inform external stakeholders of any pro-ecological measures taken by the company			4 (min 1 x year)
We regularly inform employees about emerging pro-ecological problems			4 (min 1 x year)
The management is fully committed to implementing environmental practices	Top management’s support of environmental practices	No. 1.	4
The management motivates and involves the employees in the process of implementing environmental practices			4
The management stimulates the employees to employ innovative thinking			3
We apply technologies to minimize the impact of our products on the natural environment	Operational practices	No. 4	3
We apply technologies to minimize the impact of our processes on the natural environment			4
We systematically control and limit the consumption of raw materials, energy and water in production processes, in favor of innovative solutions			5

* Select one of five values on a scale from 1 to 5 where: 5 means “totally agree” and 1 means “totally disagree”.

** The stage is in the progress of implementation of environmental practices in company X. Source: own study on the basis of an interview (standardized) conducted in company X.

4. Discussion

The evolutionary (progressive) approach to environmental management strategy has gained momentum, as exemplified in pertinent literature (Azzone et al., 1997, pp. 478-571; Garcés-Ayerbe et al., 2016, pp. 1118-1134). This evolutionary approach to strategy emphasizes the adaptive character of strategy and competitive advantage (Stańczyk-Hugiet, 2013, p. 117). Based on an analysis of a case study, Post and Altman (1994) determined that there is a transformative model of organizational change that includes three stages: the adaptation stage (oriented at establishing conformity with laws and regulations), anticipation stage (practices “surpassing the law”) and the stage of implementation of innovative practices which limit impact on the natural environment (Post, Altman, 1994, pp. 64-81). The complexity of environmental practices employed stands for better adaptation to the environment. Little is however known about the order of practice implementation and whether this has any importance to the completion of the overall environmental strategy.

Some reports claim that companies tend to focus on practices involving the perfection of production processes implemented at medium intensity first, only to proceed to management practices implemented at higher intensity later. The ultimate change is made in products and supply chains, superseding old solutions with more environmentally-friendly ones. What is noteworthy is that this practice implementation sequence is usually a continuum of strategic change, with reactive and proactive practices on both extremes. Researchers claim that another dimension of eco-innovative practices should be also introduced. This model is however characteristic to innovative strategies (Garcés-Ayerbe et al., 2016, pp. 1118-1134).

According to J. Murillo-Luna et al. (2007), each environmental strategy pattern is a unique configuration of environmental (ecological) objectives and the allocation of internal resources, all adapted to ambient requirements. Researchers discern four models of environmental strategy, from passive to proactive, which has been evolving under the influence of changes occurring in the environment by adapting to the current requirements and to the requirements of the new strategy (Murillo-Luna et al., 2007, pp. 35-46).

The implementation of increasingly advanced (complex) environmental practices is indicative of a passage from environmental practices which are less adapted to the environment to ones that are more adapted. As a pattern of environmental practices, a strategy can be evolutionary, proceeding sequentially or successively in time.

5. Summary

The case study indicated that an environmental strategy pattern can comprise environmental practices: in planning and organization, open communication, management's support of practices and operational practices. In each of the studied dimensions, environmental practices were implemented successively (sequentially). The result described above points to a conclusion that, as an environmental practice pattern, a strategy can develop in an evolutionary, sequential manner in time. It is noteworthy that this sequential character of practice implementation can take place in a specific phase of the said evolution. The dominant forces affecting an environmental strategy include: management's support and growing pressures from external stakeholders. As a pattern, strategy tends to change the more adapted to the environment it gets, and its implementation must be supported by full commitment from top management. Implemented sequentially, good environmental practices (environmentally-friendly practices) help companies adapt their environmental strategies to growing requirements pertaining to environment protection. It must be noted, however, that the endeavors made by a company in the individual dimensions of the environmental strategy can vary significantly, which can impact the outcomes of the strategy.

It is therefore justified to look at the diversification of good environmental practices from the point of view of how they are affected by external forces and variables which moderate this impact in the search for these practices, which determine the forces which change the models of strategic reactions of companies in the point where they converge to form the future direction of quantitative studies.

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