

DEVELOPMENT AND IMPLEMENTATION OF SUSTAINABILITY-ORIENTED INNOVATION IN POLISH SMALL AND MEDIUM-SIZED ENTERPRISES

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Summary: Innovation is key for companies to stay competitive and to successfully compete in changing markets and environments. One way of innovation with rising importance for companies is sustainability, a concept which aims to integrate ecological and social dimensions into conventional management. Sustainability relates to the triple bottom line and implies that besides conventional economic, ecological and social aspects are to be met in order to truly achieve long-term “sustainable” solutions. The main objective of the study is to identify the potential of Small and Medium-Sized Enterprises (SMEs) in Poland to undertake challenges and actions in the sphere of Sustainability-Oriented Innovation (SOI). The study included an analysis of the response of SMEs to increasing environmental requirements and the impact of investments in eco-innovation on the competitive potential of Polish enterprises. Furthermore, the research covered the development potential of SOI among SMEs. Development level of markets for technologies, products and services characterised by high environmental values was analysed. For the purposes of this study, the following broad definition of SOI was adopted: Sustainability-Oriented Innovation (SOI) is the commercial introduction of a new (or improved) product (service), product-service system, or pure service which – based on a traceable (qualitative or quantitative) comparative analysis – leads to environmental and (or) social benefits over the prior version’s physical life-cycle.

Keywords: Sustainability-Oriented Innovation (SOI), Small and Medium-Sized Enterprises (SMEs)

1. The concept of Sustainability-Oriented Innovation (SOI)

With the ongoing discussions on innovation recently, an interesting picture emerges, blending in with the problems of the present article. Now, innovation has long been understood and described primarily in terms of economic benefits. Today, it is increasingly defined as a strategic objective socio-economic activities of modern enterprises. This concept becomes so more capacious semantically. At the moment it is no longer only about innovations within the meaning of the creation of goods or services that provide companies a return on investment, but also on such innovative activities that would increase social welfare, would protect the environment and encourage the development of societies.

For companies more and more important is sustainability as a one of the alleys of innovation (Paramanathan, 2004; Roome, 1994; Sharma, 2002; Wagner & Schaltegger, 2003). Sustainability relates to the triple bottom line and implies that besides conventional economic, ecological and social aspects are to be met in order to truly achieve long-term “sustainable” solutions (Klewitz & Hansen 2011). In the future, firms will need to adopt more sustainable practices and outputs if they are to retain their legitimacy — their social licence to operate — and thrive. Accordingly, Sustainability-Oriented Innovation (SOI) aims at improving or entirely building new product concepts in which economic, ecologic and social criteria are the guiding principles (Hansen et al., 2009). The ability to innovate in the domain of sustainability is a capability that firms need. The concept of SOI builds on Wagner and

Llerena (2008) and considers SOI not as a qualitatively new form of innovation, but as innovations with a positive net effect on the overall capital stock. The concept takes on the notion that the objective and absolute evaluation of an innovation's sustainability effects is currently unfeasible.

Hansen, Grosse-Dunker and Reichwald (2009) define SOI as innovations which are individually perceived as adding positive net value to the overall firm's capital stock. Applying the sustainability concept of the constant capital rule on the field of innovation, it is arguable that sustainability innovations are innovations which maintain or increase the overall capital stock (economic, environmental, social) of a company. Wagner and Llerena (2008) describe "sustainability-related innovations" as better-managed innovations, "[...] where more target criteria are integrated and made mutually compatible". For the purposes of this study, the following broad definition of SOI was adopted (Hansen & Grosse-Dunker 2009): Sustainability-Oriented Innovation (SOI) is the commercial introduction of a new (or improved) product (service), product-service system, or pure service which – based on a traceable (qualitative or quantitative) comparative analysis – leads to environmental and (or) social benefits over the prior version's physical life-cycle. Because the sustainability orientation incorporates social and environmental dimensions alongside economic ones, it introduces new challenges also for Small and Medium-sized Enterprises (SMEs) in Poland. Especially as it progresses, SOI requires more integrated thinking. Firms must reconsider their capabilities, stakeholder relationships, knowledge management, leadership and culture.

2. Building competitive edge of SMEs based on development and implementation of SOI

Innovation projects undertaken is one of the main sources of competitive advantage for companies in the global economy, which is reflected in the introduction of innovative products or services (Blaetter - Miech 1998). In particular, in the face of diagnosed depletion of non-renewable natural resources, great potential lies in the implementation of innovations based on the principles of sustainable development (Chen 2008, The driver of [...]; Chen, 2008 The positive Effect [...]; Janicke & Jacob 2004) being an element of innovation in a broader sense.

In the years 2013-2014 was carried out their own qualitative research in the formula IDI (Individual In-depth Interview) on a group of 29 randomly selected SMEs in Poland, based on the assumption that the results of the quantitative study prepared CATI (Computer Assisted Telephone Interview) on a sample of 278 respondents. The main objective of the study was to determine the potential of SMEs, which seems necessary to take on the challenges of development and implementation of Sustainability-Oriented Innovation.

The majority of surveyed companies believe that the introduction of SOI in the company affect the company's competitiveness both domestically and internationally. This is dictated largely convinced that the introduction of SOI has an impact on building the company's image. According to experts ratio between the level of SOI and image of the company already operates or begins to function in Poland. This information is confirmed by the results of quantitative research - more than half of the surveyed companies were of the opinion that innovation based on sustainability may be an element increasing their advantage in the market, and almost 60% are of the opinion that innovation based on sustainable development has a positive impact the company's image. In the next few years it is expected to be increasingly common for businesses to take marketing activities aimed at promoting the image of the firm conducting the foundation of sustainable development.

The most common views about the value of SOI actions in building a competitive edge in the market are companies that recognize the impact of their activities on the environment and implement such solutions already or plan to do so in the next 3 years.

Respondents of the qualitative survey were mostly opinion that the ratio between SOI and the level of awareness of image of the company either already exists or begins to form. One expert said that companies are increasingly using the slogan talking about the fact that the technology is green. He also emphasized that he believes we will see more and more entrepreneurs marketing campaigns that will be directed at promoting pro-environmental action of the product.

The study participants could not agree when replying to a question about awareness of eco-innovation relationship with the image of the company among entrepreneurs. Slightly more often respondents stated that most traders are aware of the fact that the image can be built for pro-ecological and social innovation, and that in the countries of the former European Union level of awareness of eco-innovation relationship with the image of the company is stronger than in Poland, the greater the awareness of those entrepreneurs who export goods to the European Union. It was found, for example, that overseas trade union about issues of ecology is said to have long and seriously, while in Poland entrepreneur treat ecological issues as a necessary evil. However, there have also respondents who said that on the Polish market, yet in general such a link can not be seen, because of the lack of environmental awareness among consumers and pro-social milestones and targets. Lack of awareness of the fact that in this way you can build its market position is also present, according to participants in the qualitative study, at the very entrepreneurs.

Based on studies it can be concluded that, as ecological consciousness of the whole society influences the desire to build the image based on the ecological message, so the message in return affects social consciousness. Half of the surveyed enterprises using the CATI method emphasize, that in its marketing strategy eco-friendly nature of the product/service, with the majority of companies (58% of responses) as the reason for the ecology of the strategy indicates expectations/demands of the market, while 37% of companies using ecology as a part of shaping its image. Eco-friendly activities in their marketing plans significantly more often emphasize the company's characterized by a high impact on the environment. Companies that have already introduced SOI in the area of products, in organizational or marketing, or are planning its introduction, in the belief that SOI constitute a competitive advantage, would like to use for this purpose with the support of funds from the European Union.

In sum, more than half of the surveyed companies believe that SOI may be a form of part to increasing their competitive advantage in the market. One in four surveyed companies plan to introduce sustainable solutions that will allow them to achieve market advantage (so the vast majority of companies planning to such action assumes that they will be a source of competitive advantage). This position is also in line with the opinion of the majority of environmental experts. In their view ratio between the level of SOI, and the image of the company is just starting to function in Poland and in the next few years considerably develops.

3. Motivation for development and implementation of SOI in SMEs

The main motivation for the use of the aspects of sustainable development in the strategy of most companies (58% of responses) are the expectations of the market, while 38% of companies use it as an element in shaping their image. Such a system of incentives is probably dictated a stronger link between enterprises operating in Poland with companies from highly developed countries of the European Union, where the level of awareness of the SOI connection with the building of competitive advantage is much stronger. This position is supported by the fact that more awareness is also characterized by those Polish entrepreneurs who export to the EU countries.

It should be noted, however, that the use of ecological aspects in the development strategies of SMEs is not always associated with the actual activities undertaken by entrepreneurs in improving their environmental and social impacts. Often companies use these elements to self-promotion, considering that these are the expectations of the market, although in reality no action in this regard are not taken.

Adopting a pro-ecological activities often depend on external factors beyond the control of entrepreneurs. These factors can stimulate one hand, to take action to improve their own environmental impacts, on the other hand can be a barrier, whose defeat for the entrepreneur is often impossible. It should be noted that the implementation of environmentally friendly solutions is often associated with considerable financial outlay. Reducing pollutants emitted into the air or noise reduction requires significant investment, often beyond the budget of Polish SMEs. Thus, among the factors supporting the involvement of entities in this area, most often respondents indicated the possibility of obtaining financial support for the implementation of this type of investment. It is not just about funding opportunities covering part of the investment, but for all kinds of tangible support in the financial aspect, for example use of tax exemptions.

The majority of respondents stated that they are interested in the activities of SOI is mainly related to the economic aspect of the company. External stimuli which affect the innovation should use this opportunity. It was also pointed booster aspect of social consciousness, which directly affects the SOI interest among small and medium-sized enterprises. Some of the participants interviewed mentioned a state policy that can act as both motivating and demotivating. As examples of incentives for included: information activities, control activities, and building systems for financial support for entrepreneurs. State policies have a negative result on interest innovations in the field of sustainable development are associated with wide-ranging and long bureaucratic administrative procedures.

It is clear that the respondents even a small amount, compared with the contribution incurred financial assistance from the state or any other type of relief would have been a great support for Polish SMEs. The increasing awareness, increasing search by consumers "green products", dependence cooperation with a specific contractor from fulfilling his legal environmental requirements, is the main stimulus to boost the activity of entrepreneurs in this field. It should however be noted that the respondents' answers show that the most significant impact on the activities undertaken by SMEs with ecological character, played by economic factors such as the level of society's wealth, income level, the pace of economic development. Respondents indicated a significant, positive correlation between consumers' wallets and the level of interest and the search for environmentally friendly solutions, which translates according to the respondents to motivate SMEs to implement environmentally friendly innovations.

The majority of respondents say they will keep an upward trend in the implementation of SOI in small and medium-sized enterprises. In this context, there are often comments about the economic crisis, which will force entrepreneurs a more rational use of resources. The study participants also mention at this point about the effects of the climate package, so that probably will reduce the demand for electricity. In the presented opinions prevailed positions of the existence of three main barriers: economic, administrative, and legal.

4. Conclusion

The level of awareness of Polish SMEs in the development and introduction of SOI, is still at a low level. A factor that can have a positive impact on raising awareness of entrepreneurs are environmentally friendly and pro-social attitudes of consumers, who - taking election-oriented products or services, may affect the necessity of providing such goods. The vast majority of

entrepreneurs from the SME sector do not decide to implement SOI even on the scale of the company, and most of those who take such actions - makes it at that level. Almost half of businesses include in their plans the opportunity to focus their development strategies for the implementation of projects of sustainable development. One in four intends to make such an investment in order to improve their competitive position. Implementation of the actions of a sustainable development requires new technologies and the introduction of innovative enterprise management solutions and organization. It is necessary to build in it these organizational structures that integrate sustainability activities with all the tasks of the company. It also noted entrepreneurs who increasingly use various instruments contributing to the improvement of the social and environmental effects of entrepreneurial activity.

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