

Roman GAKH

head of physical culture and sport chair

Anastasiya VIRKOVSKA

lecturer of economic theory chair

Ternopil national economic university

IMPLEMENTATION OF ECO-INNOVATIONS INTO BUSINESS STRATEGIES

Nowadays, society is becoming increasingly sensitive to the loss of environmental quality, as the negative experience of several past decades undeniably suggests the limited ability of the ecosystem to absorb waste of human negligence. However, the most important is the fact that an adequate adjustment of the economic environment, even if only declared in the future, let alone in individual national economies, already today prompts the most open to innovation part of entrepreneurs to look for ways to ecologize their activities.

Eco-innovations mean the creation of new and competitively valued goods, services, processes, systems and procedures designed to meet human needs and ensure a better quality of life for everyone, which is achieved with minimal use of natural per unit of output, as well as the minimum emissions of toxic substances.

It is important to note that the effect of introducing eco-innovations is viewed throughout the life cycle of a product (service, system) rather than limited to design and production processes, as it usually is. And this already means the possibility of changes in consumer behaviour, their way of life and the use of products [1].

Depending on the level of integration of innovations, distinguish the innovation of processes, products and system innovations. According to experts, the processes are the easiest to be ecologised.

Eco-innovation processes are characterized by the application of a new or noticeably improved production and delivery method. To the same category belong organizational innovations, such as the application of new methods in the practice of business, the organization of the working space or in external organizations, as well as training and retraining of staff. At the final stage innovative processes are applied to marketing of innovations (design, packaging, placement and promotion of products), in particular, the environmental labelling of products and processes. There are such relevant approaches as leaner production, zero waste and resource efficiency.

Eco-innovations consider products (services) that have a minimal impact on the environment throughout their life cycle. Reducing the resource and energy imprint of products is more complicated as it covers all parts of the life cycle, and therefore may require infrastructure development, changing habits, and appropriate consumer information. The design and production of these products are based on the following approaches: ecodesign, environmental technology, technological sustainability innovations and dematerialization of products [2].

The 9th edition of the Global Innovation Index shows us the report features a ranking of world economies' innovation capabilities and results, and an in-depth look at how innovation is born across the globe.

Table 1

Global Innovation Index 2016 rankings

Country/Economy	Score (0–100)	Rank	Income	Rank	Region	Rank	Efficiency Ratio	Rank	Median: 0.65
Switzerland	66.28	1	HI	1	EUR	1	0.94	5	
Sweden	63.57	2	HI	2	EUR	2	0.86	10	
United Kingdom	61.93	3	HI	3	EUR	3	0.83	14	
United States of America	61.40	4	HI	4	NAC	1	0.79	25	
Finland	59.90	5	HI	5	EUR	4	0.75	32	
Singapore	59.16	6	HI	6	SEAO	1	0.62	78	
Ireland	59.03	7	HI	7	EUR	5	0.89	8	
Denmark	58.45	8	HI	8	EUR	6	0.74	34	
Netherlands	58.29	9	HI	9	EUR	7	0.82	20	
Germany	57.94	10	HI	10	EUR	8	0.87	9	
Korea, Rep.	57.15	11	HI	11	SEAO	2	0.80	24	

As the above table 1 shows, Switzerland is the highest ranked country for global innovation, while the USA makes the Top 5. With the exception of Singapore and the USA, most countries in the Top 10 are located in Western and Northern Europe. The report looks at a variety of factors that fall under seven pillars: institutions, human capital and research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs, and creative outputs [3].

The implementation of systemic eco-innovations in business strategies gives the greatest return, but also requires the greatest effort. These innovations touch not only technological systems, they require fundamentally new technologies that change the market conditions and cause various types of systemic changes: in production, society and behaviour. The relevant terms can be life-cycle analysis, eco-efficiency, cradle-to-cradle strategy, material flow analysis flow analysis, integrated environmental assessment, integrated sustainability assessment, closed-loop-material-cycles, decoupling, factor-4 and factor-10, sustainable production and consumption, ecosufficiency, immaterialization, user-oriented systems and sustainable lifestyle [4].

Like any other changes, eco-innovations have their own driving and deterrent factors. Under conditions of ecological globalization, society becomes more sensitive to environmental issues. Therefore, one can hope that public interest, rethinking of values, changing legal and institutional environment will create the appropriate ground for accelerated deployment of processes of taking into account environmental constraints in all spheres of public life.

The formation of the information society - a distinctive trend of the present - will contribute to the better informing of all its members about the environmental implications of their activities and on the best ways to prevent eco-destruction.

A powerful catalyst of these processes may also be the increase in natural resource prices, given their limited and exhaustive nature. The rapid increase in the costs of natural disasters and man-made disasters will force governments to shift reactive environmental policies to proactive in all areas of its implementation.

As for the deterrent factors, one must first of all recall the inertness of human thought and behaviour, the lack of our knowledge of the global ecosystem, its synergistic nature, the lack of adequate mechanisms for internalizing external effects, as well as the usual financial constraints that arise from the self-centeredness and limitations of our interests.

Strengthening the drivers of eco-innovation and overcoming obstacles will allow us to internalize external effects, the existence of which decrease competition between companies, and contribute to the formation of an environmentally balanced economy through the spread of successful eco-innovations at the global level [4].

Uncertainty due to carbon price volatility, non-internalized externalities, eco-destructive subsidies, and inadequate macroeconomic indicators that overlap the true nature of human activity, make the cost curve indifferent to environmental degradation, inhibit the processes of environmental production, contribute to the growth of the already uneconomic growth.

It is important that business receives signals from leading markets and understands its benefits from the prompt updating of activities, both material and intangible. In conclusion, effective environmental policy, consumer and economic science, which should prepare the groundwork for the formation of an environmentally balanced economy, should help it.

Literatura

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