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INNOVATIVE MARKETING STRATEGIES TO PROVIDE ECOLOGICAL SAFETY AT REGIONAL AND GLOBAL LEVELS ¹

The article deals with an approach to form innovative marketing strategies to provide ecological safety due to its ecological orientation position. The approach to choose an optimal innovative marketing strategy to provide ecological safety, based on the index of ecological safety rate evaluation, is proposed. A set of marketing tools to provide ecological safety at regional and global levels are suggested.

Keywords: ecological safety, innovative marketing strategies, evaluation of the ecological safety, marketing tools.
DOI: 10.21272/mmi.2017.4-33

Problem statement. One of the main problems within formation of the sustainable development conception is an insufficient use of economic tools to provide ecological safety in practice. The existing methodic approaches to choose tools and strategies to provide ecological safety, do not allow considering ecological consequences, do not motivate business entities to the production ecologization. It leads to non-compliance with norms and rules of the rational natural resources use and environmental pollution. Within the framework of ecological problems aggravating, the formation of innovative marketing strategies to provide ecological safety, become urgent. They would let to reduce negative impact on the ecological state of some territories through marketing tools use.

Ecological safety provision foresees complex approach at all levels of ecosystem, particularly, at the state, regional, enterprise and a consumer's levels.

The scientific research observes ecologization process from position of relation with production and economic activity, oriented to environmental enhancement and as a rule there are tools through which one can achieve it. That is why, ecological safety provision requires scientifically grounded approaches to choose strategies and tools.

Analysis of the recent research and publications. Problems of ecological safety control, innovative activity ecologization, environment protection and natural resources use control are observed in a number of scientific works both of Ukrainian and foreign researchers, among which: O.I. Amosha [1], N.N. Andreyeva [2], O.O. Veklych [3], Z.V. Herasymchuk [4], S.M. Ilyashenko [6], L.H. Melnyk [7], O.V. Prokopenko [8, 9], E.V. Sadchenko [10], S.K. Kharichkov [11], D. Esty [12] and others. However, the problem to develop marketing strategies for ecological safety degree provision, which comprise all objective constituents, remains observed not in full.

The goal of the article is to develop innovative marketing strategies to provide ecological safety at

¹ The paper was written according to budget money from the Ministry of Education and Science in Ukraine, given to develop research topic № 53.15.01-01.15/17.3Ф "Methodology of forming mechanism of national economy innovative development based on alternative energy".

regional and global levels. For its solution the following tasks are set: to investigate an approach to form innovative marketing strategies of ecological safety provision based on ecological safety rate index evaluation; to develop marketing tools to provide ecological safety at regional and global levels.

Results. The innovative marketing strategy to provide ecological safety is proposed to be understood as establishment of the urgent ecological and economic objectives and directions of activity, optimal marketing tools selection, based on innovative approaches to run international activity, and their introduction to provide ecological safety under globalization conditions.

Marketing strategies to provide ecological safety concerning their ecological orientation are suggested to be observed, based on:

- reduction of negative impact on environment (amounts of emissions and wastes, polluting waste interception in drain water, soil pollution etc.) and improvement of the natural environment state through funding the compensation of negative impact while production realization;
- increase of the enterprise's production ecological properties via innovative technologies and achievements implementation in the sphere of scientific and technical progress;
- growth of the production ecological compatibility through using of either positive motivation tools (financing of ecological projects and programs, tax breaks, subsidization of prices on ecogoods, discount crediting) or negative motivation tools (payments and fees for environment pollution and implementation of resources, fees, selling of rights for pollution, price regulation);
- ecologization of consumer's behaviour (consumers' motivation and stimulation to purchase ecological goods).

Analyzing the distinguished marketing strategies to provide ecological safety concerning their ecological orientation, it is necessary to point out key positions of their ecological directions.

We suggest to observe an ecological orientation as innovative marketing strategies to provide ecological safety, demonstrated in fig. 1

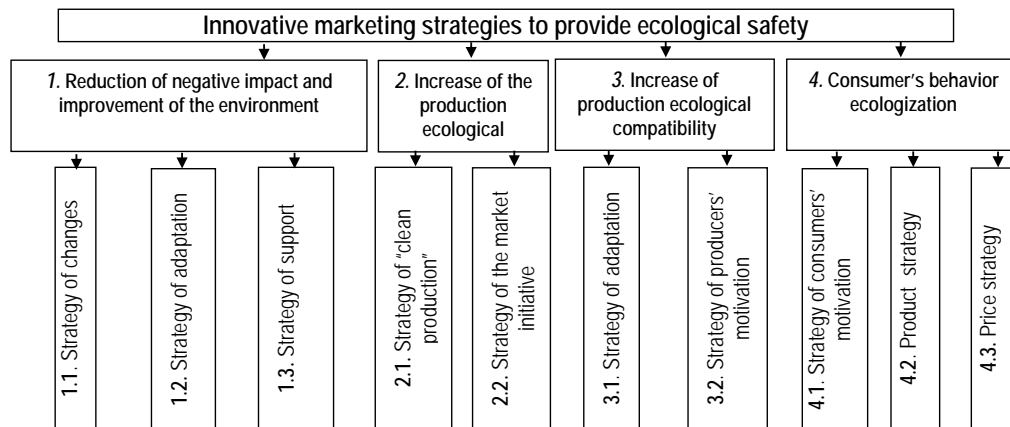


Figure 1 – Innovative marketing strategies to provide ecological safety at the regional and global levels

In the light of strategies, oriented to reduce negative impact on the environment and to improve it, we distinguish the following strategies:

1. Strategy of changes, which consists in changing of the whole equipment, renewing of material and technical base at the enterprise and improving of technical processes security system. It will assist improving of the production process technological features. Introduction of these changes will let to

achieve high level of the ecological safety, and accordingly, negative impact on the environment will be reduced. As a result, there will be an opportunity to realize activity of the enterprise with high degree of ecological compatibility.

2. Strategy of adaptation, connected with enterprise's adaptation to external factors' impact on its activity, and consists in the maximum reduction of the negative impact on the environment.

3. Strategy of support provides a support and control of the ecological safety sufficient level.

Within the production ecological compatibility increase, one suggests to distinguish the following strategies:

1. Strategy of "clean" production, based on the idea to keep from environmental pollution and is oriented to improve ecological parameters in production, constructive solving of ecological problems. Let us notice that this strategy is based on the innovative approach to solve ecological problems at the enterprise. Realization of this strategy provides: production optimization with purpose to reduce amounts of natural resources and energy carrier's consumption; decrease of production wastes and their recycling; modernization of final production parameters taking into account their keeping conditions. Choice of the "clean" production strategy lets to solve problems concerning production process realization at the initial stage.

2. Strategy of initiative is based on personal persuasions and enterprise owners' (stockholders') responsibility for production ecological compatibility. Realization of the given strategy is related to high level of risk and great investment cost.

Within increase of the production ecological compatibility, the following strategies are suggested to distinguish:

1. Strategy of adaptation, connected with enterprise's adaptation to the external factors impact on its activity, and consists in maximum reduction of the negative impact on the environment.

2. Strategy of producers' motivation, based on positive motivation tools (state orders, programming, financing of ecological projects and programs, tax breaks, subsidization of prices on ecogoods, discount crediting), directed to creation of material interest in the ecologically accepted and oriented production; and on negative motivation tools (payments and fees for environmental pollution and resources using, fine sanctions, selling of rights to pollute environment, price control), create an opportunity to collect funds from producers of the ecologically dangerous goods to replenish ecofunds, using of which is necessary to contract their destructive impact on the environment, and also to motivate ecologically favourable production.

In light of strategies, oriented to the consumer's behaviour ecologization, the following ones are proposed to observe:

1. Strategy of consumers' motivation, based on increasing of ecological goods consumption, that, by itself, stimulates enterprises to produce ecological goods. The result of it is prevention from environmental pollution and improvement of inhabitants' health;

2. Product strategy, based on improvement of production quality, change in the assortment and production nomenclature to the ecologically oriented goods;

3. Price strategy is based on the established extra charges for ecological compatibility.

Identification of the proper innovative marketing strategy to provide ecological safety gives opportunity to make managerial decisions in various directions, particularly:

1. Depending on the selected optimal innovative marketing strategy to provide ecological safety, to define necessary levels of indices, achieving of which will help to realize and to provide the proper rate of ecological safety.

2. Depending on the achieved results, by the time of managerial decision and ecological safety degree making, to select an optimal marketing strategy to provide ecological safety and its financing owing to the acceptable impact on the environment for this activity.

The process to select an optimal innovative marketing strategy to provide ecological safety, we

suggest to carry out in the following order:

1. To define concrete marketing strategies for provision of ecological safety concerning their ecological direction. The objective of this stage is to determine specific peculiarities to realize the enterprise's activity directions, which is reasonable and rational within the chosen strategy.

2. To determine complex of indices and characteristics, which cause parameters to achieve marketing strategy to provide ecological safety. At this stage, it is necessary to distinguish indicators to evaluate ecological safety with defining of sufficient and insufficient index for the enterprise activity.

3. To ground the rational use of the financial and material resources by enterprise with purpose to realize its activity relying on ecological safety level on the basis of the distinguished balances between the chosen marketing strategy, to provide ecological safety, and achieved criteria of correspondence to the enterprise's strategic objectives.

Choice of the marketing innovative strategies, to provide ecological safety at regional and global levels, is suggested to carry out owing to ecological safety level evaluation, presented in works.

There are the following levels of ecological safety [9]:

I level – level of natural safety, which points at the fact that all constituents of the index are located at the sufficient level, and that is why, the environment state is not changed by the human's economic activity (local nature feels only weak impacts from global manmade changes).

II levels – level of the fixed-ratio safety, which points at the fact that one of the ecological safety estimation index constituents is located at the insufficient level, speed of the reactivation processes is high or is equal to the manmade breakings. The current deviations can be revealed through profound research and on the basis of the received data to take actions concerning this problem avoidance.

III level – level of crisis safety, which points at the fact that two of ecological safety level estimation index are located at the insufficient level. Speed of the manmade deviations exceeds nature self-restoration rates, but nature systems are not greatly changed.

IV level – level of critical safety, which points at the fact that three of ecological safety level estimation indices are located at the insufficient level. Reconstructive substitution of previous ecological systems under the manmade impact for less effective systems strengthening. It is necessary to organize actions to improve the ecological safety.

V level – level of catastrophic safety. Level of the ecological safety is insufficient simultaneously by four constituents. Hard reconstructive substitution of previous ecological systems under the manmade impact on less productive ones, strengthening of the less effective systems. It is necessary to introduce actions to improve the ecological safety.

VI level – loss of the biological effectiveness in the region.

I-II levels of ecological safety provide ideal conditions of human functioning, reconstruction and development, III-IV levels place under threat future generations' functioning, regeneration and development, V level – of current and future generations, VI – leads to human and other biological species death.

Within every strategy, there are marketing tools (table 1), introduction of which can be complex or top-priority, owing to the economic system resource provision and expected indices of the economic system development.

Marketing tools are suggested to be chosen on the basis of economic system development, which is observed as a complex of economic, ecological and social subsystems, every of which is characterized by the indices group, and is analytically written by way of main case multiset to form the final variant for choice (formula (1)).

$$V = \{V_j\} = (f, X^{(s)}, Z, F_j) \rightarrow opt, f : \{X^{(s)}, Z\} \rightarrow \{F\} \quad (1)$$

where V – economic system development case multiset; V_j – action of j -case selection; $X^{(s)}$ – set of

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functions of s -subsystem state; Z – set of marketing tools, $Z = \{z_1, z_2, \dots, z_k\}$; F – set of values f , which correspond the whole group of cases, $F = \{\omega_j, I_j, PEБ_j\}$; ω_j – frequency (speed) of the system synchronous development; I_j – index of consumers' reaction to the marketing tools, which correspond j -case; ESD_j – expected ESD of the economic system while realizing j -case.

Table 1 – Marketing tools to provide ecological safety (authors' investigation)

Direction of the strategy realization	Strategy	Tools
Reduction of negative impact on the environment state improvement	Changes	1. Ecologization of the whole commodity life cycle; 2. Creation of economic and settlement agreements for ecologically dangerous wastes utilization; 3. Consumers' involving to the secure utilization of wastes; 4. Creation of infrastructure on wastes utilization;
	Adaptation	1. Production of ecologically oriented goods; 2. Distribution of goods by more ecological transport; 3. Cooperation with ecologically responsible wholesale and retail companies;
	Support	1. Stimulation of consumers to consume ecological goods; 2. Production of ecologically oriented products; 3. Involvement of consumers to secure wastes utilization;
Production ecological compatibility increase	"Clean production"	1. Minimization of production impact and its package on environment; 2. Minimization of production impact on consumers' health; 3. Reduction of natural resources use; 4. Reduction of waste amount and their recycling; 5. Modernization of the final production parameters considering its storing terms
	Market initiative	1. Using of innovative technologies; 2. Firm style of a good/company represents its ecological initiatives; 3. Distribution of goods by more ecological transport; 4. Minimization of production transferring while its distribution; 5. Cooperation with ecologically responsible whole sail and retail companies; 6. Considering of cost for another ecological projects support
Ecologization of consumer's behavior	Consumers' motivation	1. Creation of advertising company to stimulate consumption of ecological production; 2. Ecological marking on goods; 3. Creation of the informing system about possible consequences of extremal situations; 4. Involvement of inhabitants to the ecological education programs
	Product	1. Minimization of goods impact and its package on environment; 2. Minimization of goods impact on consumers' health; 3. Ecological marking on products
	Price	Introduction of extra charge for improved ecological features of goods
	Adaptation	1. Use of innovative technologies; 2. Production of the ecologically oriented goods
	Motivation of producers	1. Collection and spreading of information about production ecologization and enterprise's activity; 2. Top-priority state orders of ecological goods producers; 3. Introduction of extra charge for improving of the goods ecological compatibility; 4. Creation of positive image owing to ecological goods output; 5. Introduction of marketing programs on state financial support involving; 6. Creation of economic and settlement agreements for ecologically safe utilization of waste; 7. Involving of consumers to the safe utilization of waste; 8. Setting of discounts for production for consumers, who are involved in the safe waste utilization; 9. Creation of advertising company on ecological goods consumption stimulation; 10. Collection and spreading of information about goods ecological compatibility and enterprise's activity 11. Formation of the firm style for a product/ company, which shows its ecological initiatives

Conclusions and perspectives for further studies. Thus, the developed theoretical and methodic approach to choose and use innovative marketing strategies to provide sufficient rate of the ecological safety at the regional and global levels, foresees the following actions: reduction of the negative impact on environment; increase of the production ecological compatibility through using of tools, both by positive and negative motivation; consumer's behaviour ecologization. Theoretical and methodic approach to choose marketing tools to provide ecological safety is proposed. It is carried out within the previously selected marketing strategies to provide ecological safety, based on element-by-element analysis of the ecological safety constituents. Introduction of these tools can be complex or top-priority, owing to the resource provision of the economic system and expected indices of the economic system development.

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Інноваційні маркетингові стратегії забезпечення екологічної безпеки на глобальному та регіональному рівнях

У статті розроблено підхід до формування інноваційних маркетингових стратегій забезпечення екологічної безпеки виходячи з позиції їх екологічної спрямованості. Запропоновано підхід до вибору оптимальної інноваційної маркетингової стратегії забезпечення екологічної безпеки на основі показника оцінки рівня екологічної безпеки. Запропоновано комплекс маркетингових інструментів забезпечення екологічної безпеки на регіональному та глобальному рівнях.

Ключові слова: екологічна безпека, інноваційні маркетингові стратегії, оцінка екологічної безпеки, маркетингові інструменти.

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Иновационные маркетинговые стратегии обеспечения экологической безопасности на глобальном и региональном уровнях

В статье разработан подход к формированию инновационных маркетинговых стратегий обеспечения экологической безопасности исходя из позиции их экологической направленности. Предложен подход к выбору оптимальной инновационной маркетинговой стратегии обеспечения экологической безопасности на основе показателя оценки уровня экологической безопасности. Предложен комплекс маркетинговых инструментов обеспечения экологической безопасности на региональном и глобальном уровнях.

Ключевые слова: экологическая безопасность, инновационные маркетинговые стратегии, оценка экологической безопасности, маркетинговые инструменты.

Отримано 11.03.2017 р.