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The Nanotechnologies Promotion on the Regional Level

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Annotation: *The main tools to regional market promote of nanotechnology products are analyzed in the article. The article considers the global experience in distributing nanoindustry goods.*

According to the forecasts of the leading researchers and expert organizations, the global nanotechnology development in the medium term will cause a radical change in the structure and scope of the "commercial world", will lead to the restructuring of traditional markets and the rapid formation of new segments and niches, reconfiguration of competitive forces and advancing to a qualitatively new satisfaction level requirements (4).

The progress in nanotechnology objectively and regularly creates the impetus to the development of marketing technologies in the sphere of nanoindustry. Therefore, there is a need for a systematic analysis of the contradictory trends and controversial changes in the marketing caused by the nanoboom. (1)

It is believed that the products of nanoindustry change the principles of creation and properties of materials and build a new foundation for the development of all sectors of the economy. The forecast of nanogood's and nanoservice's market, prepared in January 2011, suggests that in 2013-2015 the annual growth of investment in nanotechnology development will be 19%, and the market of goods produced using nanotechnology will reach 1.6 billion dollars at an annual growth rate in 2009-2013 will be about 50%.

No wonder that in the domestic list of critical technologies, at least seven are in this area. Six critical technologies are connected with the sciences of life, the same number applies to energy conservation, increase of the efficiency of consumption and alternative energy sources. This development of nanogoods and nanoservices generates many disputes about the economic and socio-economic consequences of the nanoindustry's development. (3).

Currently, the further development of the nanotechnology industry has been under numerous disputes similar to those that were typical of the earlier discussions over nuclear energy, GMO, biotechnology.

It should be taken into consideration that the opinion of the society will be changing from time to time: there will be new arguments in favor of the fact that nanotechnology is the potential for the economy, society and the environment. On the other hand, there will be skeptical ideas about known and unknown risks associated with the development of nanotechnology. Nanotechnologies and their applications will also be analyzed in terms of the ethical, legal and other social consequences by some state institutions and social organizations. As history shows, almost all of the technological revolutions faced tremendous public resistance. Public opinion had opposite directions, often reaching total euphoria, or getting into the opposition.

It is necessary to understand that, despite the skepticism of some groups of researchers regarding the development of the nanotechnology industry products, the number of goods promoted to the market is constantly growing. Here are some facts. Thus, according to «The

Project on Emerging Nanotechnologies (<http://www.nanotechproject.org>), which continuously monitors the consumer goods of nanoindustry, there is a steady growth of these products (Image 1). As of October 2013, the nanotechnology consumer products inventory contains 1628 products or product lines.

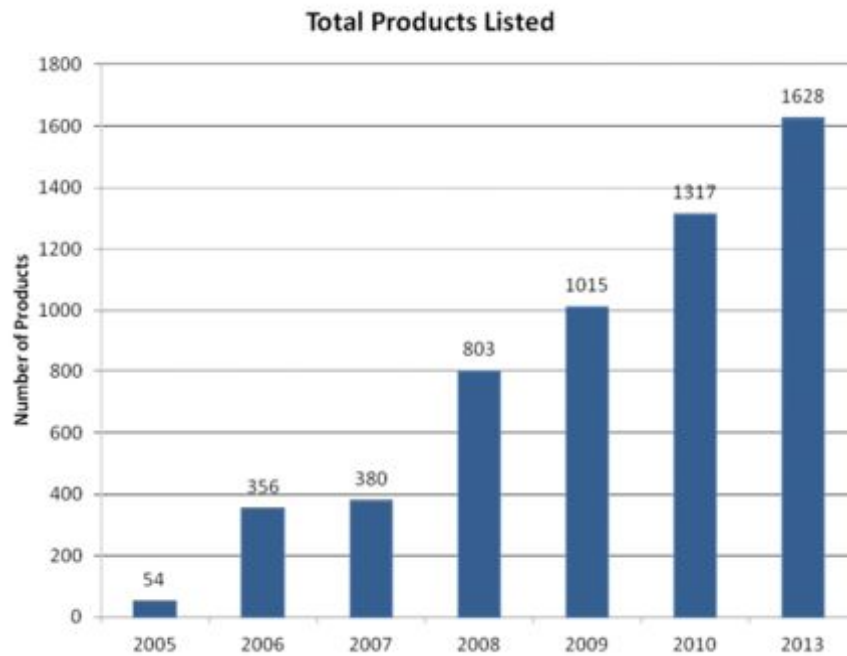


Image 1. Number of total products listed, by date of inventory update, with regression analysis.

Also as part of this inventory, it was established that the largest category of products is the nanotech products connected with health and fitness, the total is 788 products (Image 2). This includes such products as cosmetics and sunscreens.

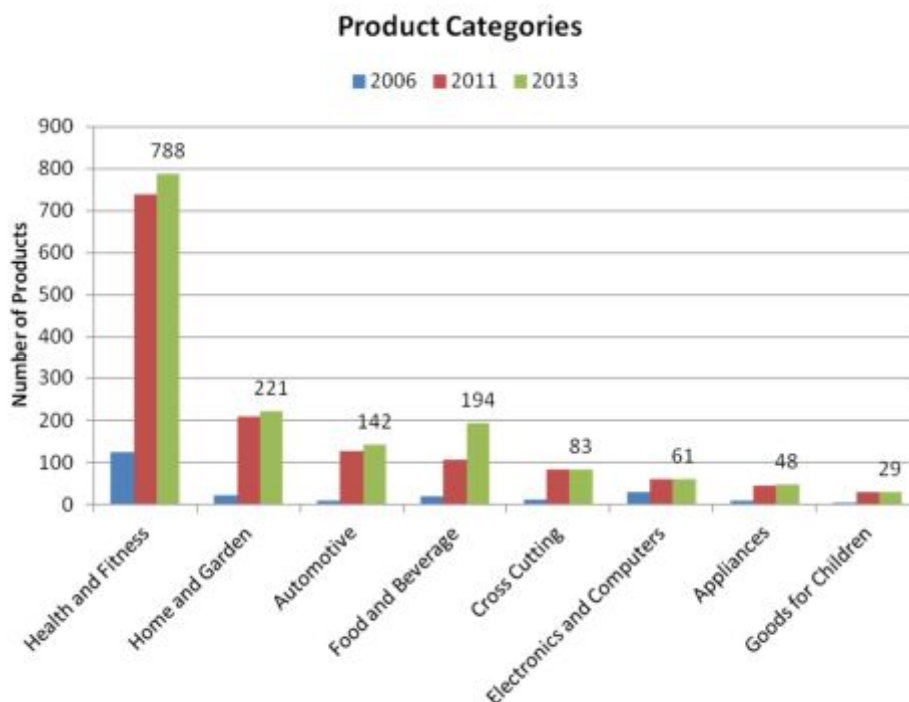


Image 2. Number of products, according to category.

It should be noted that the inventory facts takes into consideration the information about nanogoods from 30 different countries. Figure 3 shows the distribution of products by regions and shows that companies based in the United States produce the greatest number of products, the total is 741, followed by companies from Europe (UK, France, Germany, Finland, Switzerland, Italy, Sweden, Denmark, the Netherlands) own 440 products. Unfortunately, the Russian market of nanogoods didn't get into this inventory.

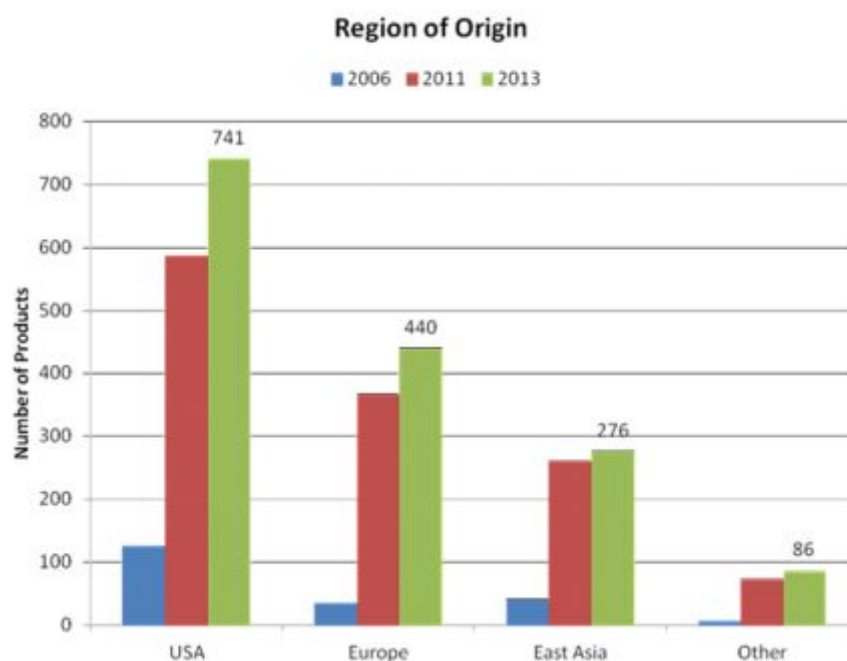


Image 3. Numbers of products, according to region.

Such researches, as well as the researches of the world's major analytical agencies confirm the main idea that the nanoindustry products are transferring from fantastic goods to real ones, for which it is necessary to develop a marketing plan, generate the demand and analyze people's attitudes towards these goods.

In this connection, a set of measures for the promotion of nanotechnology goods is becoming greatly important. Today sales promotional merchandising means a set of different activities aimed at raising the awareness to potential customers about the advantages of the product and stimulating the desire to purchase it.

The role of promotion is to establish communication with individuals, groups of individuals and organizations by direct and indirect means to encourage the sales of the product to the organization (5, p. 480).

Based on this definition we can formulate the goal of developing strategies to promote nanotechnology industry products in the regional market as the formation of stable regional demand for nanogoods by securing a positive image of these products with an emphasis on the unique qualities and innovations.

Professor D.P. Frolov in his article "Marketing Management of Russian nanotechnology industry," writes that "the main objectives of the strategy should be: the formation of a positive image of the nanotechnology industry; public awareness with in regard to the nanotechnologies and the growth of nangood's positive ratings; increase the representation of Russian nanomanufacturers and research centers on the Internet, including its English-speaking part;

Exit to the path of sustainable growth in sales of nanoproduction on domestic and foreign markets" (9, p. 57).

To achieve this goal it's necessary to consider all possible ways and tools to promote products and to identify the most appropriate ones.

In today's marketing it's decided to allocate four major tools of promotion: advertising, direct sales, propaganda and sales promotion. Considering the nanotechnology's products as the object of promoting, emphasis should be placed on expanding the knowledge of the nanotechnology industry, nanotechnologies and goods created with these technologies.

Therefore, emphasis should be placed on the promotion of instruments such as advertising and promotion. Forming in the minds of consumers a clear picture of what are the products of the nanoindustry, what their competitive advantages are and what positive effects are they bring to the consumer, we can talk about direct sales and sales promotion.

Advertising is an integral part of a modern market economy. For most consumers the commonplace phrase "Advertising is the motor trade" become familiar (6), and the representatives of the modern theory of marketing consider it's "non-personal form of communication carried out using paid funds of disseminating information with clearly specified source of funding" (5, p. 283).

It's accepted to divide advertising on advertising in general and as part of marketing. Thus the main function of advertising in marketing is the information function; it is possible to convey information to consumers about consumer properties of goods and manufacturers. Advertising of nanoindustry's goods should be built precisely based on this aspect of advertising - informing the general public about the unique properties of nanoindustry products and specific benefits for the consumer.

It should be used as objective arguments logically revealing features advertised nanotechnology products and subjective arguments, which are used to form the consumer's certain emotional background and associations (eg, reliability and security).

Also, when we speak about advertising of nanotechnology's products we must consider an "information noise" around the prefix "nano". Today in the world there is a large pool of products that contain in their name prefix "nano" without any relationship to nanotechnology. The main danger is the fact that these products are formed in the mind of the consumer the confidence that there is no real advances in nanotechnology, there is only a speculation about a buzzword.

As examples of the operation of the prefix "nano" solely for promotional purposes can lead supercheap and supercar produced in India under the name «Tata Nano», miniature player from the Apple Company - Ipod Nano. It even affected the tobacco market. For example, tobacco brand Kent offers cropped slim cigarettes Nanotek, and Pall Mall - Nanokings (7). All of these items are not related to nanotechnology, in this case, the prefix "nano" refers to miniature size in comparison with competitors. In this case, we can say that with the same success in the names of these products we could use the prefix "mini".

Thereby, the preparation of the advertising campaign of the real nanoindustry's goods it's necessary to focus the consumer's attention that this product is the result of scientific achievements, which improve consumer's quality at the expense of the unique properties of nanoparticles. It's necessary to generate an interest in the real goods of nanotechnology industry, as for more than 90 % of the respondents, not only in Russia but also in Europe and the United States, the term "nanotechnology" or the further development of the nanotechnology industry do not have any clearly defined values, and usually are outside their interests or knowledge.

In our view, the second element of promoting products of nanoindustry should be "propaganda" or "publicity". It is worth noting that there are diametrically opposed views, the authors of which believe that "the most important task of marketing support of nanotechnology industry isn't so much a propaganda and advertising of nanotechnology as

education of general public." (9, p. 55).

If you consider the definition of the term "propaganda", you can see that this term is very similar in nature to the term "education". For example, a large Soviet Encyclopedia defines propaganda as "the spread of political, philosophical, scientific, artistic and other views and ideas with a view to their introduction into the public consciousness and intensification of mass practical activities. Key elements in the promotion are: its subject (social group whose interests expresses propaganda), content, forms and methods, means or channels of propaganda (radio, television, print, lecture propaganda system, etc.), the object (the audience or social communities whom propaganda is addressed).

Crucial for understanding the process of propaganda are social interests of its subject, its relation to the interests of society as a whole and the groups to which propaganda faces. It defines its content and has a significant influence on the choice of forms, methods and means of propaganda. (8)

In today's marketing propaganda is considered as a component of public relation and the main function of propaganda is to create a positive image of the company and / or production that the company produces. As the part of the promotion of nanotechnology's goods, especially in regional markets, it is necessary to attract reputable media and "opinion leaders", with whose help will be the dissemination of quality and accessible information on specific developments.

Promotion program with use of propaganda should be developed taking into account the target segment and inquiries of potential customers. It is necessary to take account of possible contacts with both the organizations, and from the various target audiences of consumers.

At the initial stage of propaganda products of nanoindustry the main task is to inform the target audience and to establish a positive image of nanotechnology and products created by using these technologies in the business community and the consciousness of the average consumer. Means to achieving is the concentration of broadcast and the subsequent positive information about the development of nanotechnology and nanoproducts on a global production and the most relevant aspects. The main activities should be such actions as: a) demonstration of the positive experience of participation of regional representatives in projects for the development of nanotechnologies; b) information about the participation of government and corporate structures in nanotechnology industry investing; c) wide coverage of the region's enterprises participating in projects which are directed at producing nanoindustry's goods; d) the publication of reviews from the end-users of nanotechnology's goods.

You also need to provide coverage of public companies engaged in the production of nanogoods as participants of the national project. An important element of propaganda of nanoindustry's goods in the region should become regional scientific and educational institutions involved in the development of nanotechnology and nanomaterials and / or personnel training.

Active use of these two instruments, advertising and promotion, in our opinion, will give a good effect to create demand for nanogoods and ensure successful promotion of innovative products in the regional market.

If you want to provide effective promotion of nanoindustry products in the regional market, with the use of these instruments you must ensure:

- a) strict coordination and correction at every stage of the actions of all participants in the promotion program: manufacturers of nanoindustry's goods, marketers, communicators, scientific and educational institutions;
- b) compliance with the principles of consistency in the implementation of planned activities in the nanotechnology industry promoting products in the regional markets;
- c) implementation of continuous monitoring of public opinion, correction actions, if it's necessary.

As the part of the promotion of nanoindustry's goods the regional market should focus on the rational motives , revealing consumers values and the possibilities of nanotechnologies goods. The main promise of notional communication should center the user's attention that the goods of nanotechnology industry - is something more than simply high-tech product , it has a competitive advantage. You also need to take into account individual motivations of potential customers , which will focus on advertising and / or promotion . You need to create a positive image of the nanogoods in the individual consciousness , destroy negative stereotypes and dispel fears. If all of these factors are considered, you can expect on the successful introduction of products to the regional market by promotional instruments we had considered.

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