INNOVATIONS AND MARKET OF BIOLOGICALLY ACTIVE SUBSTANCES IN FEEDING AND COSMETICS

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Abstract

This article present a model of the markets for nutritional supplements and cosmetics using as a fundamental processes of efficient coordination of activities, access to innovation, quality management through a systematic approach and strategic goal is the improvement of competitiveness. It is based on the system interoperability, which enables its integration to the common strategy and further developing. Using semantic approach allows for the integration of different systems, storage, processing and re-use information from different sources.

Keywords: *semantic interoperability, GLP, regulatory documents*

1. INTRODUCTION

The creating of a model containing database allows access of all stakeholders to information contained claims for each product. The manufacturers thus earn the confidence of customers, using the data based on scientifically-grounded methodology. The quality of data characterizing the products is a fundamental requirement for the creation of networks for exchange of information about the content and activity of food and cosmetic products.

The new knowledge creates new horizons for creating technologies, brands and products with high quality and safety. Create new foods - food supplements, nutricosmetic products, functional foods, etc., the interest that is growing more and leads to mass consumption of all segments of the population, regardless of health status. This fact required market research on various products to direct control to the safety of their health administration.

The proposed data model ensures interoperability of information concerning the characteristics of products and markets, intended for publication in the global network in the field of nutrition and cosmetics. It refers mainly to the science of Public Health, but in addition to the main scientific field can be added to a number of scientific areas and fields such as information technology, Semantic data structures and electronic health (e-Health) and Semantic health.

2. MANAGEMENT OF THE PROCESSES IN ANALYTICAL PRACTICE

The management of the processes in analytical practice is a precondition for providing adequate data for publication in global network. The overall objective is quality assurance process in analytical practice in a manner allowing the use of the obtained results to fill the databases, which are accessed by semantic data model.

The realization of this objective implies the following tasks:

- Implementation of the good laboratory practices (GLP) and the management system (MS), corresponding to the requirements of BS EN ISO / IEC 17025: 2006. Presenting the elements of MS and demonstrating its significance by presenting specific parameters to ensure accuracy of the results;
- Selecting of biologically active components, significant for the market, types of research and appropriate methods of analysis and validation in accordance with the procedures of the MS;

- The quality and reliability of laboratory results depend on the influence of various factors, most important of which are:
- Related to resources: infrastructure - rooms, installations, equipment, working environment; technical equipment and apparatus; human resources; manipulation and control of testing samples;
- Methodological: implementation of valid test methods; ensure the quality of results through traceability of measurement, processing and presenting the results in an appropriate manner;
- Mechanisms for control and management, influencing the quality and reliability of the results: rational procedures and instructions; plans for operation and maintenance of equipment; staff competence – training, improving the qualification and monitoring; participation in recognized collaborative comparisons and proficiency tastings.

It is necessary the analytical laboratory to ensure the traceability of measurements to provide the reliable analysis results in the databases by:

- use un adequate equipment, maintained and inspected in accordance with the requirements of the management system;
- implementation of validated and checked for relevance test methods;
- use of pure substances - certified reference materials or only reference materials traceable to standard;
- keep complete, properly stored and protected from unauthorized access data by competent staff that are sufficiently qualified and regular inspected.

All of these principles of good control are necessary to generate reliable data from laboratory analyses. The data generated go to the repository (self-organizing network of repositories - in the net, which store and maintain data in the form of files that can then be distributed), which are constructive elements of structured semantic network of biologically active components analysis results.

3. MARKET ANALYSIS

The unification of analytical methods and approaches for assessment is a precondition for data comparability about the composition and the activity of bioactive components in feeding and cosmetics. The creation of unitary laboratory for analyzing of products manufactured by various stakeholders allows a correct labeling and claims formulating for each product. Thereby the producers earn the confidence of consumers, using data based on standard, scientifically grounded methodologies. The quality of data characterizing the products is a fundamental requirement for the creation of networks for the exchange of information on the content and the activity of biologically active substances.

The market for food supplements is characterized by rapid growth and for last decades showed massive expansion and significant enrichment of assortment. Assessment at the global level shows consistency in consumption growth of food supplements, fortified foods, functional foods and beverages. Global nutraceuticals market grew by an average of 6% per year, in its various segments growth ranging from 5 to 15-20% per annum.

The market for nutritional supplements in Bulgaria was strongly influenced by global manufacturers, trends in consumer interest and popularity of bioactive products. As a member of the European Union since the beginning of 2007, Bulgaria actively harmonizes requirements concerning the production and distribution of food supplements with European requirements. Bulgarian market has great potential for manufacturers of dietary supplements, as opposed to other countries where the consumption of these products has reached stable levels, the Bulgarian consumers become more responsible and informed about opportunities for benefit of health. Major share in the increase in consumption of food supplements in Bulgaria is the use of these products in cardiovascular diseases (Bulgaria is one of the

first places worldwide in morbidity and mortality from cardiovascular disease), diabetes, insomnia and digestive disorders.

On the Bulgarian market, especially popular are nutritional supplements Ginko Biloba and Ginseng, in group of vitamins, with the highest consumption are multivitamin preparations, vitamins for children, vitamin C and others. Analysts in this market consider that some pharmaceutical companies use exactly Bulgarian market for test of produced food and cosmetic products.

The strong development of information technology leads to provide quality opportunities to accelerate the development of science and the rapid achievement of excellence to their end users. The use of these new opportunities, however, for each subject area is linked to the development of this specific subject area and organizational semantic infrastructure, including specific information about these area components. Development of components such information constitutes research, as related to information technology and the relevant subject area. Thus ensures that any interested person to use current knowledge worldwide, and contribute to the development of this (global) knowledge in the subject area.

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4. THE INNOVATIONS ROLE IN CLUSTER DEVELOPMENT

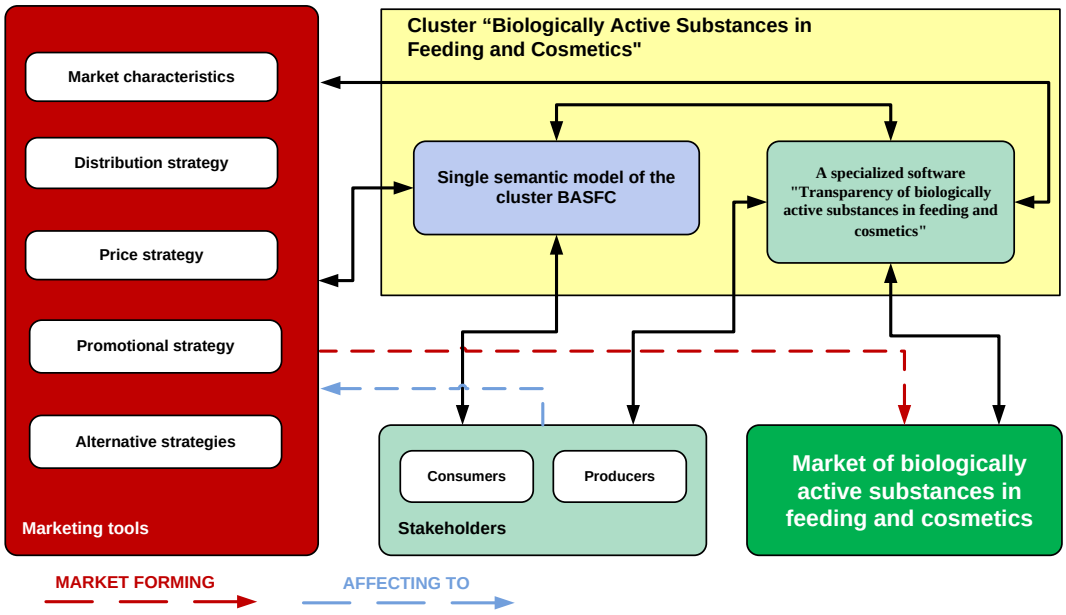

Fig.1 The proces schema of the cluster "Biologically Active Substances in Feeding and Cosmetics"

The presentation of the marketing components in the context of a unified semantic of the cluster allows you to search and model indirect link between the market of biologically active components, the stakeholders /producers and consumers/, economic and market parameters of market of biologically active substances in feeding and cosmetics.

The decision making system can sought answers to the following questions:

1. How the behavior of producers and consumers affect the market?

A key factor for business success in an ever-growing competition and market dynamics is the knowledge of consumer behavior. Increasingly important place occupied a studying of this behavior, on the other hand its understanding.

The answers of following questions are searched: which are the consumers; what they buy; how they buy; where they buy; when they buy; how the choice is made; who and how involved in purchasing decisions; how the purchases are consumed. Answering these questions helps making important management decisions, because the role of marketing is to find and keep for a long time the most - valuable clients in the client portfolio.

On the other hand the studying of consumer behavior allows solving of important tasks: the definition and segmentation of the markets; development of marketing strategies and programs; implementation of marketing strategies and programs; assessment of their success.

2. What changes in market parameters must be made to achieve certain market results?

On a given market which offers a product, the competition occurs as a process of interaction between business, respectively commercial companies where each try to realize its interests, regardless of other market players. The perception of quality as a set of characteristics of an object (product or service) that determine its ability (suitability) to satisfy certain needs is what united them.

3. What are the relationship and the influence of market parameters on stakeholders and vice versa?

The company culture and policy can be represented as a set of requirements and rules for action and behavior that make up the company to the public and must be respected by all involved in it. The most important part is to create maximum comfort to buyers in the acquisition of products. Corporate culture as a set of values, norms and symbols is to make them an integral part of everyday life of the company. Each business is directed to some customers. The reasonable compromise between the individual needs of people, the company's objectives and the interests of society as a whole are searched.

4. How should to change some parameters to achieve a certain result?

The structure and process of decision-making, respectively management process, is intertwined and overlap to some extent with the functions, stages or phases of management. This is because in management as a process the objectives, approaches, ways and means are structured, as well as actions and deadlines for objectives implementation. The management process is continuous and takes place in several stages, which are relatively independent and the relationships between them determine the management cycle.

5. How to influence the market of biologically active substances in feeding and cosmetics?

Bulgaria is a small country with a small market, but is part of the World and European market. In terms of perfumery and cosmetics there are not lagging behind. Cosmetic companies have no problems with the supply of raw materials and all these ingredients that are necessary for the preparation of cosmetic products as they work with leading companies in the industry and leading suppliers of raw materials. The Bulgarian producers of cosmetics are well established in international markets with cosmetic series that combine outstanding quality based on the use of active ingredients, extracts oil and unique medicinal plants, as the expense of acceptable prices offered to international markets. The breakthrough on foreign market goes through a long certification procedure. Then it is subjected to analysis by the regulatory authorities of the concerned country.

5. CONCLUSION

In the recent years policy for research and promotion of practices such as cluster approach to stimulate growth, regional and national is a priority at European level.

Clusters are an important factor for enhancing the competitiveness of European economies. The national and regional economic policies in Europe are increasingly moving to use the advantages of the cluster approach. The using of semantic approach allows integration of different systems, storage, processing and re-use information from various sources, which enables us to find an answer to the main question: How to influence on the market of biologically active substances in feeding and cosmetics?. This would allow realizing the idea of ACTIVE marketing and influence, modulating and directing of the market. And as Bill Gates said: "Information technology and business are becoming increasingly interlinked. Serious conversation on one of these topics, without mention to the other, is simply meaningless. "

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Наредба за принципите, инспекцията и удостоверяването на Добрата лабораторна практика (Приета с ПМС № 207 от 06.08.2004 г.) (Обн., ДВ, бр. 74 от 24.08.2004 г. - в сила от 01.07.2005 г.)

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