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VITALII LUTSIK

*doctor of Economics, Associate Professor,
head of marketing and agrarian business department
Vinnitsia National Agrarian University,
Vinnytsia, Ukraine
e-mail: LutsiakVV@gmail.com*

IRINA FURMAN

*candidate of Economics, Associate Professor of the Administrative Management
and Alternative Energy Sources Department Vinnitsia National Agrarian University
Vinnitsia, Ukraine
e-mail: irina_furman@ukr.net*

METHODOLOGY OF COMPETITIVE INNOVATIONS DEVELOPMENT BY THE FOOD INDUSTRY ENTERPRISE

В статті розроблено методологічний підхід до створення інновацій та подані результати її практичної реалізації на підприємстві харчової промисловості з пропозиціями можливих напрямів розвитку. Практичним аспектом використання запропонованої методології є визначення характеристик, що використовуються в процесі управління створенням інновацій. Як практичний результат використання описаного підходу, представлено формування асортименту устаткування для виробництва продукції з горіхів грецьких. Отримані результати дозволяють поставити питання про створення нової підгалузі масложирової промисловості.

Ключові слова: виробничо-торговельне підприємство; маркетинг; методологія; інновації; теорія обмежень; управління; проектування.

The global food market is in the state of continuous transformation, which has been developing rapidly in recent years due to elimination of trade barriers. Fast technological attainments due to the transfer make technology available to everyone in the world on the acceptable terms [3]. Such a state of the economic environment and foreign trade provides significant opportunities for domestic enterprises, but it also strengthens the requirements for them with increasing tension in the competition [2].

One of the most important problems in the enterprise activities is the insufficient use of knowledge, first and foremost, it relates to the knowledge necessary for effective enterprise management. The greatest responsibility of managers includes proper management of the enterprise resources in order to achieve or maximize profits. In addition, the global economic crisis has highlighted the need to develop new business models [3].

Such complex problems can be solved only through mobilization of the entire scientific,

technical, socio-economic, humanitarian and personnel potential on the basis of innovative development. Innovation is a defining characteristic of modern scientific, technical, industrial, socio-economic and all social processes, and scientific, technological and social progress in Ukraine depends on the acquisition of the innovative mechanisms of development [9].

Ukraine has a significant export potential for food production, but its implementation is burdened by a low competitiveness of both enterprises and their products. According to the State Statistics Service of Ukraine, in 2017, in the structure of Ukraine's foreign trade, vegetable products occupied 21.3%; fats and oils of animal or vegetable origin – 10.6% (with the trade of ready-made food products in this commodity class is more than 60%); mineral products – 9.1%; non-precious metals and its articles – 23.4%; machines, equipment and machinery, electrical equipment – 9.9% [15]. Statistics data show availability of raw material base and foreign trade potential of the food industry in

Ukraine. In addition, import of machinery has increased in Ukraine in recent years. This indicates a gradual update of the technical and technological base in the leading branches of the Ukraine national economy, including food industry. On the other hand, the domestic food industry has not yet reached its competitive position in the global market. This may be due to the lack of conditions for the emergence and development of competitive abilities in the form of specific knowledge, methodology and skills for organizing innovative processes aimed at competitive innovations development.

The methodology of management based on the detection and use of constraints first proposed by E. Goldtratt (1990) [8] was further studied by such scholars as V. Mabin (1999) [12], A. Coman and B. Ronen (1995) [4], L. Sheinkopf (1999) [16] and others. A rational management approach was developed by R. Acoff (1978) [1] and other scholars. Russian scientists proposed an actual cybernetic approach to management in the form of a common enough theory of management (CETM) [18].

Theoretical foundations of marketing were developed and systematized by R. McCarthy (1960) [13], and then they were further developed by F. Kotler (1988) [11] in his individual practical approach and used by M. Porter (1993) [14] to develop the theory of competition.

Marketing problems in a transitive economy were considered by a wide range of domestic scientists such as S.C. Harkavenko (2002) [5], A.V. Voychak (1998) [17], V.G. Gerasimchuk [6], V.E. Khrutsky, I.V. Korneeva (1991) [10].

A number of works by domestic scholars highlight general provisions on the possible directions of innovation activity and include guidelines on the organization of the relevant processes at the enterprises. The works of foreign scientists present practical results tested in real market conditions, but they are too far from consideration of the characteristics of the domestic entrepreneurship. Content analysis of scientific publications on this problem has revealed the need for a methodology for the development of competitive innovations by the food industry enterprise, improvement and adaptation of the methodological base for the implementation of innovation activities in the competitive environment at the international level.

The purpose of the paper is to develop a methodological approach to the innovations development at the production & trading enterprise and to present the results of its practical implementation at the food industry enterprise with the provision of the possible directions of strategic development.

Marketing concept in innovations development management. In the process of formation of a modern economic environment, which proceeds continuously with the changes inherent to it, the requirements for modern production are constantly being transformed. To ensure meeting of these requirements, a modern production & trading enterprise of the food industry should be built on the basic principles of marketing.

Consideration of approaches to setting basic principles of innovative marketing activity management in the production & trading enterprise has allowed to generalize these principles in the following form:

- concentration of efforts on achieving the final result of the enterprise's production and sales activities [10];
- focus on long-term goals [6];
- organization and implementation of the influence on the customer inquiries and consideration of the market requirements [6];
- search and realization of reserves for increasing the productivity of production and sales activities [5];
- scientific approach to the solution of marketing problems, consisting in a systematic market analysis, the use of effective management methods, marketing research and feedback [17];
- developing the concept of competition and ensuring competitiveness [14].

Marketing and innovation management is carried out through the influence on enterprise's controlled factors of the internal environment, which form a system of a marketing complex. Therefore, the factors through which a production & trading enterprise can manage marketing and innovation at the enterprise meet the main key groups of the marketing tools [11], in particular, product factors; price factors; sales factors; and promotion factors.

The use of marketing tools involves the fulfillment of marketing functions that determine the nature, form and content of organizational

and managerial innovation activities at the food industry enterprise.

A fundamental classification of core elements of the marketing mix is considered the one suggested by Richard McCarthy, which includes Product, Price, Place and Promotion – 4P [13]. These constituent elements define the basic functions of marketing in the enterprise innovation activity, i.e. product management (creation of a new product, formation of a product range, product diversification, etc.); price management (setting a price for a new product, price change in accordance with the stage of the product life cycle, price differentiation according to the markets, etc.); sales management (formation of the distribution channels, search for mediators, marketing logistics, etc.); promotion management (use of marketing communications, creation of advertising projects, ensuring of constant public relations, brand management, organization and implementation of sales promotion, etc.).

In general, one may consider the marketing and innovation management approach at the enterprise as a demand management, since the demand management is aimed to influence the volume, time of occurrence and structure of the demand, while marketing and innovation management is intended to develop a product concept, set prices, promote services and ideas that satisfy consumers and, therefore, are aimed at meeting the demand. In fact, marketing and innovation management as well as demand management are two sides of the same marketing process.

Management of the process of creating consumer value in the form of goods production is a content aspect of the marketing projects management at the production & trading enterprise supported with the strategic decisions related to the definition of target market segments and coordination of production and marketing processes for selected consumers groups.

The above-mentioned suggests that the marketing and innovation management at the production & trading enterprise is aimed at creating a product and its concept characterized by a consumer value that is able to meet the needs.

Basic Principles of Competitive Innovations Development. The ultimate goal of using the

methodology of the TOC, CETM and the Rational Management Approach is to ensure the enterprise's positive development. The common feature of these methodologies is concentration on the problems in the activity, which create constraints for achieving productivity. These approaches differ by the attitude towards problems or their positioning. According to the rational model, when the problem is identified the direct directives intended for execution by all enterprise's divisions are specified. Similarly, in CETM, formation of the vector of deviations and errors is the task of the head management, after which it is necessary to achieve direct directives. Combination of the soft TOC approach with the rigorous Rational Approach and the CETM provides a more in-depth understanding of the role of all actors in the constraints, creating a coherent picture of the situation vision in the organization divisions and the distribution of responsibility among them in the process of development through the creation of innovations.

One of the really possible forms of the enterprise development is the enterprise access to a new market. Regardless of whether entering a new market involves the adaptation of products to conditions of the existing market or creation of a new market, these marketing problems are methodologically related to overcoming the constraints in the struggle for consumer attention.

The main constraints (problems) of the strategic level in the marketing of production & trading enterprises when entering a new market are the limitation of the information perception by the subjects about their being, which leads to incomplete consumer information; constraints in the consumers' understanding of the problems, which leads to the lack of desire to solve them as well as lack of motivation to make a purchase; constraints in product availability for the consumer.

These constraints on their essence are characterized by the availability in the work with both mediators and end users; relative continuity of its existence in time; common properties within the same environment, which determines the nature of constraints. These constraints concerning the effectiveness of their overcoming are characterized by the possibility of applying universal approaches to overcome them and de-

pendence of their overcoming on the innovative activity of management subjects.

In the production part, all marketing constraints are aimed to ensure quality characteristics of the product in accordance with the supply objectives. Accordingly, innovation activities are aimed at the development of technologies and support of these technologies with the appropriate equipment.

Development of Competitive Innovations by the Food Industry Enterprise. The results of theo-

retical studies carried out by the authors of given paper are actively implemented in the food industry enterprises, entrepreneurs' activities, through all-Ukrainian public organizations and regional departments of international cooperation and economic development. An example of implementation of the above-mentioned methodological ideas is the organization and support of entrepreneurship in the oil and fat industry (Table 1).

Lack of equipment and technologies for walnut processing into foodstuff contributes to mass

Table 1 – Characteristics of the State of Production & Trading enterprise

State of the Enterprise	Characteristics of the enterprise's state	
Current state	Activities in the domestic market. Production technologies have been developed. An assortment of food products from the main raw materials has been developed. An assortment of non-food products from the main raw materials has been developed. A range of equipment for production of the luxury goods has been developed. Contacts with manufacturers of machinery have been established both in Ukraine and abroad to ensure mass production. Search for partners.	
Desired state	Activities in the foreign markets of Europe, Asia, Australia. Wider and deeper assortment. New technological developments are to be implemented. More productive machinery. Availability of foreign partners. Growth of income.	
Constraints	Market accessibility. Specific needs of consumers in the new markets are not investigated. Resource constraints. Technical constraints. Technological constraints.	
Conditions of Development	Marketing - mix	Product policy: innovations (can be considered at five levels of consumer value, both together and separately: key value; main product; expected product; improved product; potential product); quality (can be considered at three levels, both together and separately: main benefit; product in the real execution; product with reinforcements); complex use of raw materials. Pricing policy: cost pricing; market pricing; price discounts. Sales policy: participation in exhibitions; retail sale and personal delivery; wholesale for entrepreneurs and enterprises. Promotion: advertising in the media; promotion of a healthy lifestyle; propaganda of natural food; direct sales; sales promotion (offer of the set of goods; use of the network marketing).
	Consumers' expectations	Support for normal body development; improvement of immunity; faster healing of injuries; improvement of mind and brain activity in general; memory enhancement; improvement of vision; improvement of the fetus development during pregnancy; prevention of cardiovascular diseases; prevention of atherosclerosis; use as a spice in cooking; suitability for storage; long shelf life; ease of consumption; attractive appearance; affordable price; availability of products.
	Products	Polyunsaturated acids content; macronutrients content; micronutrients content; color; way of use; content of mycotoxins, content of toxic elements; content of radioactive substances; pesticide content; GMO content; convenience of packaging; tightness of packing; packing material; volume of the container; color saturation of the label; appearance of packaging; content of the promotional text on the label.
	Product components	Walnut oil; box; bottle; jar; sampler; label; leaflet; web-site; information support; consultation; delivering; loyalty program.
	Production process	Cold press; kernel drying; heating; settling; filtration; mixing; packing.
	Products	Sanitary control; fire security; logistics; management of production personnel; quality control; accuracy control; special production equipment; special equipment for performing support operations.
Ways of constraint overcoming	Certification and standardization according to the international standards. Research of consumer needs. Study of the expert opinions of mediators. Improvement of the technology and expansion of the technical base. Improvement of the technology and introduction of new technologies. Search for partners. Conclusion of franchise agreements.	

Source: developed by the authors.

walnut selling by the private sector to the procurement structures. To overcome this constraint, the enterprise had developed special equipment and technology (Table 2). The study of consumer demand in the markets of Europe and Asia revealed the expediency of differentiation of the production technology based on the cooperation with contractors both in Ukraine and abroad, which let the products meet the quality standard requirements in the selected market segments.

Table 2 – Assortment of Equipment for the Production of Walnuts Food Products

№	Name and conditions of production	Technology code
Own production		
1	Mini press for the household use	Technology 1-OF (oil-oilcake-flour)
2	Manual press for the micro enterprise	
3	Press with a hydraulic drive for small-scale production. Model D.	
4	Press with a hydraulic drive for small-scale production. Model S.	
National partnership production		
5	Automated press for the industrial production of walnut oil. 4 kW.	
International partner production		
6	KK8 automatic industrial (universal) 1 kW	Technology 1-OS (oil-meal)
7	KK 20 F automatic industrial (universal) 2-3 kW	
8	KK 40 F automatic industrial (universal) 5 kW	
9	KK 100 F automatic industrial (universal) 7.5 kW	

Source: developed by the authors.

Feedback on the results of the advertising campaign made it possible to urge about the mass production of the developed equipment and formation of sales channels to ensure mass production of walnut goods.

This equipment has a potential for mass application both at the enterprises and for consumer needs, which reduces the volume of ex-

ported raw materials, increases added value in the value chain and leads to the development of the walnut raw material base in Ukraine.

Today, as a result of the market research, differentiation and diversification, the product assortment of the given enterprise consists of two groups, namely, production equipment and food products. The range of food products includes 9 product varieties and contains up to 30 assortment items. Thus, the production & trading enterprise ensures assortment harmonization through the organization of two technologically independent production plants. As a result, the given enterprise offers 15 types of products and more than 30 assortment positions only by the types of the main products. Taking into account auxiliary materials and all elements of the industrial design, the nomenclature can include several hundred titles in different quality and price categories.

To improve the competitiveness of domestic food industry enterprises, it is necessary to ensure high quality production at the national level. On the other hand, top management of each separate enterprise must understand that the only way to establish, maintain and develop its competitive abilities is to innovate, differentiate technological solutions and provide high quality outputs to meet the needs of the target segments and niches in order to achieve the advanced goals experienced by the businesses.

The obtained results on the partners' activity enable to raise the question of a new oil and fat industry sub-sector organization with its own environment in order to ensure a complete cycle of reproduction in the production of walnut food products in Ukraine.

Transition of the food industry management to new principles based on the methodology of development of competitive innovations will ensure production expansion and increase competitive production, which in its turn will ensure food security, reduce unemployment and increase Ukraine's competitiveness on the world market.

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Луцяк В., Фурман І. Методологія створення конкурентоспособних інновацій підприємством харчової промисловості

В статті розроблено методологічний підхід до створення інновацій і представлені результати її практичної реалізації на підприємстві харчової промисловості з пропозиціями можливих напрямків розвитку. Практичним аспектом використання запропонованої методології є визначення характеристик, використовуваних в процесі управління створенням інновацій. Як практичний результат використання описаного підходу, представлені формування асортименту обладнання для виробництва продукції з горіхів грецьких. Отримані результати дозволяють поставити питання про створення нової підгалузі масложирової промисловості.

Ключові слова: виробничо-торгове підприємство; маркетинг; методологія; інновації; теорія обмежень; управління; проектування.

Lutsiak V., Furman I. Methodology of competitive innovations development by the food industry enterprise

The objectives of this paper are to substantiate the methodological approach to the innovations development in the production & trading enterprise and to present the results of its practical implementation at the food industry enterprises with the possible suggestion of strategic development directions. As a result of the research the methodological approach for developing competitive innovations was proposed. On the basis of the given principles the development of competitive innovations by the food industry enterprise were considered. The process of innovations development was harmonized with characteristics of the state of production & trading enterprise. Equipment assortment for the walnuts products production was developed as a practical result of the described approach. The received results of the partner-entrepreneurs and partner enterprises activity allows to raise the question of new oil and fat industry sub-sector organization.

Keywords: Production & Trading Enterprise; Marketing; Methodology; Innovation; Theory of Constraints; Management; Projecting.

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ВАЛЕРІЙ ГОРЛАЧУК

*заслужений діяч науки і техніки України, доктор економічних наук,
професор, завідувач кафедри управління земельними ресурсами
Чорноморського національного університету імені Петра Могили,
м. Миколаїв, Україна*

E-mail: alina.gorgots@ukr.net

**РЕАЛЬНИЙ ШЛЯХ АКТИВІЗАЦІЇ РОЗВИТКУ
СІЛЬСЬКИХ ТЕРИТОРІЙ ТА СІЛЬСЬКОГОСПОДАРСЬКОГО
ЗЕМЛЕКОРИСТУВАННЯ**

В статті обґрунтовується, що земельна реформа в Україні стала головною руйнівною причиною зниження життєвого рівня людей, зруйнування, колись потужного, агропромислового комплексу і всієї інфраструктури на селі.

Особлива увага приділена розвитку кооперативних сільськогосподарських підприємств на засадах спільної часткової власності на землю, які є найбільш досконалою формою організації виробництва і праці.

Вказується на великий злочин перекачування грошових коштів, отриманих від господарської діяльності на землі, в офшорні зони. Тільки безвибіркова кримінальна відповідальність за порушення цієї вимоги дозволить запобігти цьому та наповнити український бюджет, в результаті чого будуть створені умови для інвестицій їх суб'єктами господарювання на землі під відсотки на рівні європейських. Розглянуто питання диверсифікації господарських виробничих структур, які визначають початок нової ери фундаментальних змін на селі.

Ключові слова: аграрне виробництво, сільськогосподарське землекористування, оренда, ринок земель, мораторій, земельна рента.

Основним ключовим напрямом прогресивних змін в аграрному секторі економіки – це досягнення сталого розвитку сільськогосподарського землекористування, збереження і примноження ресурсного потенціалу сільських територій, в умовах посилення інтеграційних процесів і загострення конкурентної боротьби на внутрішньому і світовому ринках.

Ясна річ, що у розв'язанні цієї проблеми вирішальну роль повинна б була відіграти

земельна реформа, розпочата 15 березня 1991 року, яка проголосила права володіння, користування і розпорядження землею. Влада переконувала, що економічний зміст реформи полягає у всебічному розвитку сільських територій, підтримці дрібних і середніх сільськогосподарських товаровиробників, активізації участі селян в економічному і соціальному житті села, що забезпечить зростання добробуту кожної сільської сім'ї.