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# THE EFFECT OF COMPETITION FORCES AND COMPETITION STRATEGY IN THE MARKET OF ORGANIC PRODUCTS

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**Abstract**

**Rapid increase of organic farming areas is observed after Latvia acceding to the EU, and alongside with the support available for organic farmers in the scope of agro environment programmes. In order to ensure the growth of the sector, it is necessary to identify level of the sector's development and analyze competition environment that affects the market attractiveness, and consequently – the changes in the capital investments investigation. In order to perform research authors made analysis of the existing competitiveness forces in the market (competition environment), identified the life cycle level of the market of organic products (the attractiveness of the sector for the development of business activities), characterized the most appropriate strategic formulations of the competition between organic farms and suppliers of conventional farming (the competition advantages in the level of enterprises), studied the elements of the product value formation (the competition advantages in the level of enterprises and the sector).**

**The indicators, characterizing the market of organic products, give evidence, that organic farming at present faces the transition period from the period of growth to the period of maturity, which points at the expected considerable changes caused by the influence of competition forces. Under the conditions of external environment factors' consistency, the market of organic products at present has depleted its potential for the development, and only the state intervention in the management of the competition forces regarding substitute products and consumers will be able to stabilize and renew the growth of the organic market.**

**The analysis of the value chain prove that the organic farming in Latvia is peculiar with poorly developed elements of inlet and outgoing logistics, where few suppliers of agricultural products perform minimal activities in the area of marketing, and the complex of support activities necessary for the organic farming – scientifically practical research, consultations, availability of market information – is also insufficiently organized.**

**Basing on the research factors, which affect the organic farming market environment, the competition forces and elements of the product value formation chain, the authors created a hierarchy analysis model to detect which of the factors, existing in the market environment, are the most important for the promotion of the organic product market development and the stimulation of exactly which value chain core activities element can cause the most considerable effect on the development of organic product market.**

**The method of the hierarchy analysis comes up with a convincing answer, that at present the priority measures for the promotion of the development of organic products should be the increase of the production amounts and the implementation of the integrated marketing communication activities, secondary - facilitation of the processing and the outgoing logistic.**

**Key words:**

**Organic products, market, life cycle, value chain, competitiveness.**

## Introduction

Sustainable development of a national economy is a precondition for wealth of the society.

Organic farming implements agriculture participation in the socially guided market relations, providing not only sustainability of agricultural production, but as well a facilitating solution of ecological, social and ethical problems.

However, incisive discussions between scientists and politicians still occur about the importance of organic farming in the elimination of global climate changes, security of food supply and its economic significance for a national economy.

Alongside with discussions, dedicated to the necessity to promote the development of organic farming production, the market situation testifies a rapid increase in the demand for organic farming products and services, which incorporates high potential for organic farming development and defines the necessity to investigate the main conditions for competitiveness of organic farming products and preferable market development strategy.

In the world's scale the development of organic farming market is very little investigated in the marketing categories.

The research object

The competition processes in the Latvia's organic market.

The objective of the research

Analyze the competition conditions and forces in the organic market to find out appropriate competition strategy that increases competitiveness of organic products.

Research methods applied in the research

- Monographic method – for the theoretical substantiation and formation of the discussion;
- Method of analysis and synthesis – for researching the market structure and processes, evaluation and interpreting of the research results;
- Statistical methods – illustrating the advancement of the processes;
- Logically-constructive method – for interpreting the research results, forming structural and hierarchy schemes, formulation of the findings and conclusions;
- Porter's competition forces' analysis for analyzing of competition forces affecting organic product market and analyzing of product life cycle in order to define Latvia organic farming market development phase;
- Method of analytic hierarchy process – for taking a decision about the most significant value chain component and priority regarding the implemented activities for the promotion of organic farming market development.
- Novelties of the Research
- The regularities of formation of organic farming competition advantages have been identified;
- The life cycle period for the development of organic farming has been identified;
- The method of analytic hierarchy process is applied for the choice of the necessary measures enabling increase of organic farming competitiveness and further organic market development.

## The development of organic market and formation of the competition advantages of organic products

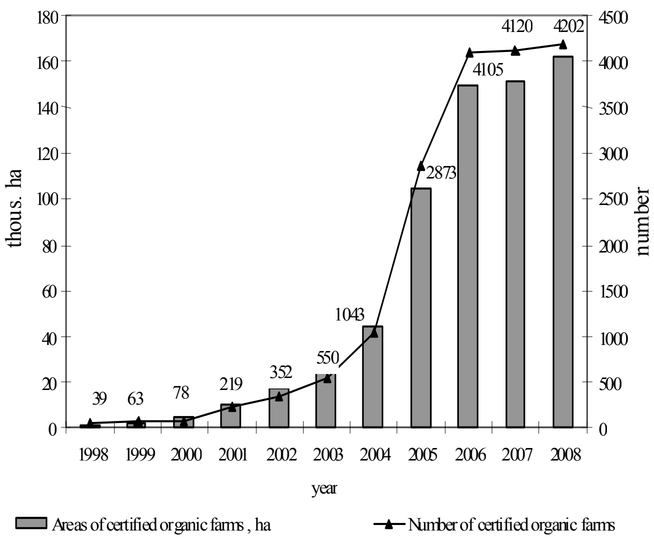
Organic farming is based on the multi-sector production conception and can be organized for implementation of common and uncommon, traditional or for the particular culture non-traditional agricultural production kinds. In the author's opinion organic farming is collateral obligations, duties and responsibility, that a farm takes charge of in order to get a possibility to perform its activities in an agricultural product market, which is limited by market barriers. By this the farm gets competitiveness advantages and access to the financial instruments, created for the support of organic agriculture.

At the end of 2006 in the world in total in the organic farming system there were 700 thousand farms managing 30.4 million ha of land, which constituted only 0.65 % of the world land areas used for agriculture.

The largest organic farming areas is in Oceania and Australia – 42 %, in Europe organic farming areas constitute 24 % and in the South America – 16 % of the entire world's total organic farming areas. *(Willer, Yussefi-Menzler, Sorensen, 2008)*

The purposes for organic farming land use in different world's regions vary. In Europe and the North America significant organic farming areas is allocated to the arable land. Whereas, in Australia, Oceania and the South America perennial grasslands prevail in the cultivated organic areas. During the couple of last years there has been an increase in the amount of certified areas for collection of wild production, which in 2006 in the entire world constituted 3 million ha.

In the scope of the European Union, in the organic farming system 6.8 million ha of land were organized in 2006, which consisted of 4 % of agricultural land and which was managed by 180 thousand of rural farms. *(Willer, Yussefi-Menzler, Sorensen, 2008)*




*Source: created by the authors according to the data of the Republic of Latvia Ministry of Agriculture, 2006, 2007, 2008, 2009*

**Figure 1. Land areas of the certified organic farming and number of farms in Latvia in 1998 – 2008**

The main benefit for the society from organic farming could be availability of qualitative products in the market for a reasonable price. Unfortunately, only the producers of honey, fruit and berries can sell more than 50% of the produced outcome as an organic production (see Table 1). Especially hard situation is developing in the dairy production, where only one third of the production, which was produced in 2008, was sold as organic, although in total in the market there are realized 80% of the produced organic milk. *(Vēveris, 2009)*

The comparison of the amounts of the produced and sold production and their changes in dynamic, reveal that the most attractive markets for organic production are fruit and berry cultivation, production of eggs and honey, since with the increase of this production amounts, significantly increase also the specific weigh of the realized organic production. In the production of cheese and cream, potatoes and grain, as well as production of sheep meet there have already been observed traits of market saturation, as alongside with the significant increase of production amounts, possibilities to realize this production as organic does not increase significantly. Consequently, in these markets producers have limited possibilities to receive higher sales price for conventional products.

**Table 1. The specific weigh of the sold organic production in Latvia in 2007 and 2008, %**

| Products | 2007 | | 2008 | |
|---|---|---|---|---|
| | Sold from the total produce | Sold as organic produc-tion, % from organi-cally produced produce | Sold from the total produce | Sold as organic produc-tion, % from organi-cally produced produce |
| Beef | 88 | 33 | 93 | 41 |
| Sheep meet | 63 | 19 | 71 | 41 |
| Milk | 73 | 20 | 80 | 34 |
| Cream | 63 | 69 | 57 | 37 |
| Cheese | 46 | 64 | 43 | 40 |
| Eggs | 27 | 21 | 31 | 24 |
| Honey | 56 | 45 | 68 | 56 |
| Grain | 59 | 11 | 44 | 31 |
| Potatoes | 19 | 6 | 22 | 12 |
| Vegetables | 40 | 16 | 74 | 44 |
| Fruit, berries | 66 | 16 | 91 | 78 |

*Source: Vēveris, 2009*

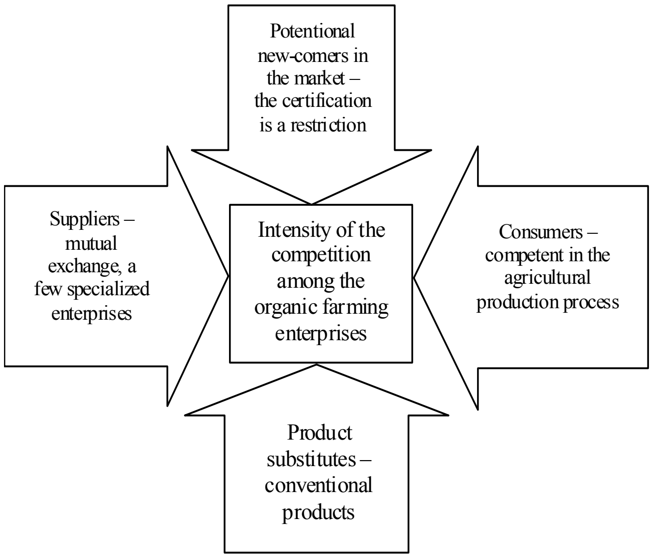
Being unable to receive higher price for the produced produce, after the termination of the five-year contractual obligations, a significant number of farms may discontinue organic production. *(Vēveris, 2009)*

The research of competitiveness is widely applied; however there is no one definite approach used for the measuring of competitiveness – there is consistently different choice of indicators and methods of analysis.

Initially the competitiveness was explained by the factors, which determined the failure of one economic unit as a success of the other one (from Engl. – *„win-loose”*). Nowadays the necessity to win the other party is open to argument, but each of the economic units instead should use their strength and cooperate with others in order to achieve its aims. (from Engl. – *„win-win”*). Moreover, the international marketing experience of the enterprises gives evidence that the financial indicators of an enterprise increase if the enterprise collaborates with its competitors but not waste its resources for fighting with competitors for better market positions. *(The Competitiveness of Latvia Economy and the Importance of Investment for its Advancement, 2009, Голубкова, 2008)*

The competition advantage is a difference between enterprises in any comparable dimension, which enables one enterprise to compete better than others. *(Портер, 2006)*

The competition in the market of particular goods is formed by the five main forces of competition – intensity of the competition in the scope of the sector, the force of the consumer market, the force of the product substitutes, the force of the suppliers and the threats of the potential new-comers. (See Figure 2)




*Source: created by he authors after Porter, 1980; Портер, 2006; Forands 2009*

**Figure 2. The competition forces of the market of organic products**

The interaction of these forces determines the profitability in the particular sector or commodities market, which is measured as a return from the invested capital. After the evaluation of the competition forces in a particular sector or market it is possible to discuss the potential profitability of the sector, as well as its competitiveness. *(Портер, 2006, Forands, 2009)*

There is no intensive mutual competition among organic farming producers in Latvia. It is more associated with the supply of such agricultural products, which have a typically seasonal character of supply and short period for the realization of the produce. At times goat breeders and vegetable planters face difficulties in realization of their products due to the market saturation.

However, in the market environment there are conditions, which can raise the mutual competition of organic farms:

- The producers have little possibilities for differentiation of the production;
- High barriers for the market withdrawal (five-year period of contractual obligations since the beginning of the receipt of the area support payments);
- The decrease of the population's purchasing power;
- The stagnation of the market of organic farming.

Since the organic products, offered in the Latvia market, are supplied fresh or minimally processed, consumers can easily make comparisons both among the organic and conventional products. The main objective for minimizing of the consumers' force over the organic enterprises is the positioning of organic products against the conventional products.

Latvia inhabitants regard conventional products as substitutes for organic products, and conventional products influence the price level of organic products also. The most considerable substitute product groups for organic products are regarded the products of the national quality scheme, which are marked with the trademark "Qualitative Product".

In the organic farm the suppliers' force may reveal by concluding the deals regarding the supply of seed material, agents for the soil improvement, plant protection agents, feed, feed fixings and agents used for the preparing of feed supplies. In most of the cases the suppliers of the above mentioned goods are specialized and more concentrated enterprises than organic farms. This places them in a more advantageous position for the pricing. Since the economic and financial condition survey made by authors in 2009 indicates that only 5% of organic farms faced the difficulties regarding purchasing of organically cultivated seed, reproduction or planting material, obtaining of an animal for the renewal of the herd and auxiliary materials for the production, the conclusion can be drawn that at present the suppliers' force in the market of organic products is neutral.

Whereas, the formation of new organic enterprises in Latvia is still advisable for increasing of the production capacity, which could further the achievement of the critical mass for the industrialization of the sector. The expansion of foreign organic farming enterprise activities in the Latvia market of agricultural products would not be advisable.

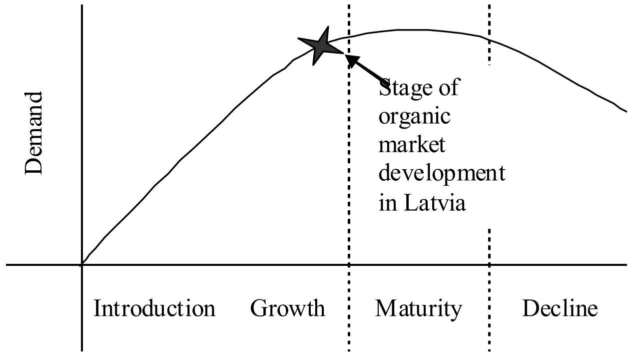
In general, agriculture is a sector, where there are little possibilities to create a unique value. The attractiveness of the organic product market for the producers is defined by the market entry barriers, which enables to positioning the products as a different and special supply, set heightened price in comparison with the conventional products, as well as earn higher profits and for the shareholders – higher return of the invested capital. Therefore most appropriate strategy for organic enterprises is differentiation strategy. The focusing strategy is more suitable for those enterprises, which practice direct supplies, work in the network of the environment health farms, service the customers of the budget organizations or work in the sector of the public catering. The focusing strategy will be suitable also for small enterprises, which have no intentions or abilities to increase the amounts of the production, but which can improve in this way their professional performance in the market.

**The development level of the market of organic products**

The structure of the sector's market is inconsistent in the time, and in order to formulate the strategy for an enterprise, it is necessary to take into consideration the development level of the sector. In every level of the development the proportion of competition forces is exposed to changes. Therefore, it is necessary to formulate the adequate development strategy for the sector or an enterprise. The level of the sector's development affects the market attractiveness, too, and consequently – the changes in the capital investments. *(Porter, 1980)*

Basing on the economic and financial conditions of the organic farming survey organized by authors in 2009 and on M.Porter's defined life cycle indications of a sector, the present market development stage of the market of Latvia organic products was identified.

The indicators, characterizing the market of organic products, give evidence, that organic farming at present faces the transition period from the period of growth to the period of maturity, which points at the expected considerable changes caused by the influence of competition forces. The comparison of the market life cycle development with the dynamic of the areas managed by organic farms reveals that since 2006 there are observed stabilization processes in the development of organic production – consequently, the market of organic products had started to stagnate already during the period of a rapid Latvia economy growth (See Figure 3).




Source: *created by he authors after Porter, 1985*

**Figure 3 Development of Organic Agriculture in Latvia in the Concept of Life-Cycle Model**

Under the conditions of external environment factors' consistency, the market of organic products at present has depleted its potential for the development, and only the state intervention in the management of the competition forces regarding substitute products and consumers will be able to stabilize and renew the growth of the organic market. Otherwise, it is possible that the market could even narrow, as farmers could discontinue their organic farming after the termination of the contractual obligations bound for receiving of support payments for organic farming. In this case it will be more difficult to restore the producers' trust in national policy than the present efforts to maintain it consistent and supportive.

**The importance of the value chain for the obtaining of the competitiveness advantages in the market of organic products**

Agribusiness is characterized by the deals of low profitability products, where the competition forces are based on the production costs close to the added value, thus resulting in an insignificant profit norm. The analysis of the value chain in agribusiness has become a valuable instrument, helping to generate the competitiveness advantages. *(Bryceson, 2006)*

The analysis of the value chain is performed after dividing the value creation process in separate components, after that each of them is analyzed separately. The core activities are connected with the production of the produce and its supply in the market, whereas support activities ensure the implementation of the core activities. *(Caune, Dzedons, Pētersons, 2000)*.

The organic farming of Latvia is peculiar with poorly developed elements of inlet and outgoing logistics, few suppliers of agricultural products perform minimal activities in the area of marketing, and at present only in particular cases alongside with organic products there are offered services (for example, delivery at door, modification of the product according to the customer's needs etc.). The complex of support activities necessary for the organic farming – scientifically practical research, consultations, availability of market information – is also insufficiently organized.

In the scope of the sector the value chain can be viewed not only from the perspective of the elements of the process but also as the level of the activities of enterprises within the total food supply chain. Each enterprise positioning itself at the particular level and belongs to at least one supply chain, although usually simultaneously collaborates with several suppliers and agents.

Thus the performance of the supply chain is influenced not only by other market participants of the appropriate level but also by business partners in other levels of the supply chain.

Being influenced by globalization, agribusiness becomes an even more complicated market system. The competing firms join together in the value chain of agricultural products, which enables them to use the possibilities of competition and cooperation at the same time. The building of such relationships in the practice demonstrates that both enterprises get more benefit from such cooperation than from independent deals or deals with different partners. *(Ondersteijn, Wijnands, Huirne, Kooten, 2006)* Basically, it is the expansion of the enterprises in the way of building partnerships, by cooperation, integration or forming clusters.

Basing on the findings of organic farming specialists *(Bierande, Būmane, 2006; Skagale, 2008)*, initially the main emphasis in Latvia organic farming was put on the advancement of the quantitative development by setting an aim to increase the number of organic farms and the amount of organically managed land areas. Since 2008, when the criterion for the EU support payment has been defined a particular level of income from the sales of organic produce, the qualitative development of the sector is being furthered (it is connected with the increase of work productivity).

At present the novelty in the business management, innovation, regional development advancement is activated by the cluster or partnership development advancement. Clusters embrace both those enterprises, which perform the core activities in the product value chain and those, which provide the support activities.

In the scope of the relationships of the market participants involved in Latvia organic farming, it is possible to detect the indications of a growing cluster, where the informal role of cluster cooperation advancement is undertaken by Association of Latvian Organic Agriculture (ALOA).

The formal creation of an organic farming cluster could considerably further the efficient use of the social capital accumulated within informal cluster for the achievement of the critical mass in the sector, which, in its turn, could stimulate the dynamic further development of the cluster.

The present task would be the establishment of the national organic farming cluster, but already in the next years it would be necessary to plan the accession to the stronger Scandinavia or Germanic language countries organic farming market cluster.

Alongside with the establishment of the organic farming cluster in Latvia, the activities of the market participants would be coordinated to the creation of as high as possible the added value in any process of the value chain core activities. Therefore it would be possible to implement coordinated activities also in science, political and infrastructure support areas.

The formal necessity for the cluster formation is defined by the present slowdown of the organic farming market development due to the sector entrance in the maturity phase. In this phase the mutual competition of the market participants' increases and the establishment of the cluster could lessen the useless mutual competition among the enterprises and could advance the cooperation for the achievement of the common goals.

### The approaches for the promotion of organic farming market development

In order to study the organic market development promotion possibilities, the authors have applied the method of the analytic hierarchy process (AHP), which allows systemizing the information obtained during the research to detect the optimal solution for the initially set tasks.

Basing on the research factors, which affect the organic farming market environment, the competition forces and elements of the product value formation chain, the authors created a hierarchy analysis model to detect which of the factors, existing in the market environment, are the most important for the promotion of the organic product market development and the stimulation of exactly which value chain core activities element can cause the most considerable effect on the development of organic product market.

The higher purpose of the algorithm of the AHP was defined "The development of organic product market" (1st level), and its assessment is based on the criterion groups of the PEST analysis (2nd level):

- Political criterions,
- Economic criterions,
- Social criterions,
- Technological criterions.

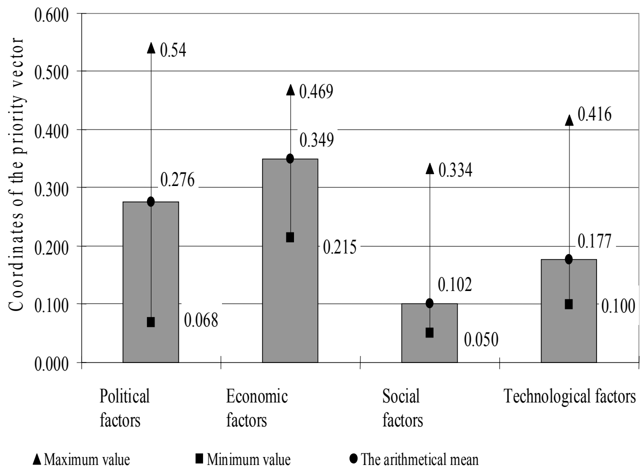
In the third level the authors included the most important criterions for the evaluation of the value chain elements in the context of organic farming market development. In the fourth (the lowest) level – the core activities' elements of the value chain process for obtaining of the competitiveness advantages.

Basically, there are integrated three methods in the research of the promotion of the market of organic farming – AHP, PEST and analysis of the value chain.

The Experts' panel was formed by:

- A professor of Latvia University of Agriculture, the doctor of agronomy sciences, long-experienced president of ALOA;
- Two officials, working at the organic farming policy developing at the Ministry of Agriculture of the Republic of Latvia;
- An official, working at the implementation of the agricultural policy at the Ministry of Agriculture of the Republic of Latvia;
- A high-level official, representing ALOA;
- A director of the organic product wholesales enterprise;
- A director of organic product retail enterprise;
- PhD student of Latvia University of Agriculture – one of the authors of the article.

The priority vector's coordinates of the variant evaluation criterion groups reveal – how relevant these criterion groups are for the development of organic product market in the experts' point of view. (See Figure 4.)




*Source: created by the authors after the results of the experts' assessments, 2009*

**Figure 4. The Experts' evaluation of the criterion groups**

The experts with a relatively common assent consider that the most important is the group of economic criterions (0.349) for the development of the market of organic farming; lower assessment (0.276) experts have given to the political factors' role in the development of the market of organic products; but considerably lower influence on the development of the market of organic products in experts' opinion have technological (0.177) and social (0.102) factors. (See Figure 4)

If the experts' opinion was comparatively equal on the criterion group with the highest given assessments – economic factors (variation coefficient 27%), then, regarding the other criterion groups, the experts' opinion varied: in the group of political factors the amplitude between the minimum and maximum coordinate of the priority vector was 64%, in the group of technological factors – 71%, but the most considerable differences in the experts' assessments were detected within the social factors' group, where the variation coefficient indicated 94% amplitude.

In the group of political criterions the highest importance by the experts was admitted the necessity to reduce the VAT rate on the organic products (0.22) and organize the government purchase of organic products (0.17).

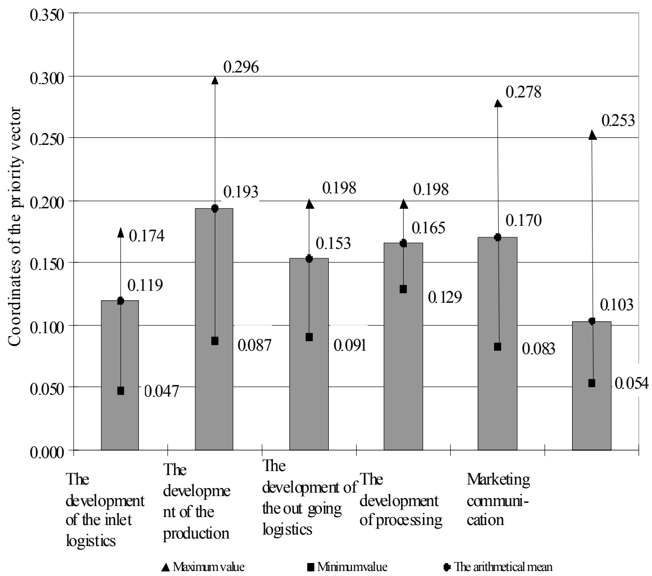
In the group of economic criterions in the experts' opinion the most important activities are provision of support for the formation of organic farming clusters (0.22), as the next most important measures experts claimed the necessity to retain higher support intensity for organic farming than conventional (0.19), support the cooperation among producers (0.18) and facilitate the crediting conditions regarding investments in organic farming (0.17).

In the group of social criterions experts with certainty point out, that the most important it is to implement the educational marketing communication about organic products (0.42), and as the next most important activity experts mentioned the necessity to popularize the environmentally friendly lifestyle in the society (0.30).

In the group of technological criterions in the experts' opinion the most urgent is a necessity to increase the number of the trade units (0.23), expand the assortment of organic products (0.23), as well as ensure harder control over the spread of GMO (0.22)

After the criterions were interactively evaluated, the experts assessed the alternative variants of the 4th level with each of the 23 criterions; in the result the experts indicated that element of the product value formation, which at present is the most important for the development of the market of organic products.

As it is illustrated in the Figure 5, in the assessment of the elements of the organic product value chain the highest importance is assigned to the necessity to increase the amounts of production (0.193), and the experts' opinion regarding this issue was comparatively similar (variation coefficient 33%), after which the next most important element of the value chain is implementation of the marketing communication (0.170, the replies vary within 38%)




*Source: created by the authors after the results of the experts' assessments, 2009*

**Figure 5. The experts' total evaluation of the elements of value chain process by all criterions**

The equal importance to marketing activities in experts' opinion is the necessity to develop the processing (0.165, variation coefficient 13%), only slightly lower importance in experts' opinion is the necessity to develop the outgoing logistic (0.153, variation coefficient 22%). Whereas the promotion of the inlet logistic (0.119, variation coefficient 44%) and the development of the export markets (0.103, variation coefficient 58%) in the experts' opinion at present are less important elements of the value creation chain for the development of the market of organic products.

In general the method of the hierarchy analysis comes up with a convincing answer, that at present the most important measures for the promotion of the development of organic products should be the increase of the production amounts and the implementation of the integrated marketing communication activities, as well as facilitation of the processing and the outgoing logistic.

### Conclusions

Organic farms of Latvia implement a multi-sector production, whereas the largest produce amounts are formed in the beef and dairy product industry leading development of Latvia organic farming towards energy intensive production.

There is no intensive mutual competition among organic farming producers in Latvia. Since the organic products are supplied fresh or minimally processed, consumers can easily make comparisons among the organic and conventional products. Latvia inhabitants regard conventional products as substitutes for organic products, and therefore conventional products notably influence the price level of organic products. The suppliers' force in the market of organic products is neutral, and formation of new organic enterprises in Latvia is still advisable for increasing of the production capacity, which could further the achievement of the critical mass for the industrialization of the sector.

Evolution of organic agriculture in recent years has reached the transition stage from the period of growth to the period of maturity, and comprise potential for further development if notable investments will be continued into the sector.

Initially the main emphasis in Latvia organic farming was put on the advancement of the quantitative development. Since 2008 the qualitative development of the sector is being furthered. The present task would be the establishment of the national organic farming cluster, but in the coming years it would be necessary to access to the stronger Scandinavia or Germanic language countries organic farming market cluster.

The supply chains of organic farming products in Latvia are characteristic of low efficiency, as the assortment, which reaches the market, is narrow and with typically seasonal supply and low added value, which is mainly realized by the agricultural produce producers themselves.

The experts' evaluation in the scope of the detecting the most important element of the value chain for the development of the market of organic goods confirmed that it is necessary to further the development of a complex organic products' supply chain: alongside with the stimulation of the production, the recognition of the organic products should be raised in parallel with the development of outgoing logistic.

**References**


Bierande R., Būmane I. (2006) Bioloģiskā lauksaimniecība: nākotnes izredzes vai strupceļš? *Agropols*, Nr.14, jūlijs, 13.-20.lpp.

Bikse V., Rivža B., Rivža P., Rivža S. (2009) Ekonomikas lejupslīdes cēloņi, tās stabilizācijas programmu izvērtējums Latvijā. *Latvijas Universitātes Raksti*, Nr.743, Rīga: LU, 251.-265. lpp.

Bryceson K.P. (2006) "*E" Issues in Agribusiness: The What, Why, How*. Oxford: CABI Publishing. 372 p.

Caune J., Dzedons A., Pētersons L. (2000) *Stratēģiskā vadīšana*. Rīga: Birznieka SIA „Kamene". 232 lpp.

Cheng E.W.L., Li H., Ho D.C.K. (2002) Analytic hierarchy process (AHP): A defective tool when used improperly. *Measuring Business Excellence*, No 6,4, p. 33-37

Chou Y.C., Hsu Y.Y., Yen H.Y. (2008) Human resources for science and technology: analyzing competitiveness using the analytic hierarchy process. *Technology in Society*, No 30, p. 141-153.

Forands I. (2009) *Biznesa vadības tehnoloģijas*. Rīga: Latvijas Izglītības fonds. 308 lpp.

Kotler P. (2007) *A Framework for Marketing Management*. New Jersey: Pearson Prentice Hall. 360 p.

*Latvijas ekonomikas konkurētspēja un investīciju nozīme tās veicināšanā* (2009). Red. E.Dubra. Rīga: LU Akadēmiskais apgāds. 168 lpp.

*Latvijas lauksaimniecība un lauki* (2006): LR ZM ziņojums. Rīga: LR ZM. 151 lpp.

*Latvijas lauksaimniecība un lauki* (2007): LR ZM ziņojums. Rīga: LR ZM. 152 lpp.

*Latvijas lauksaimniecība un lauki* (2008): LR ZM ziņojums. Rīga: LR ZM. 116 lpp.

*Latvijas lauksaimniecība un lauki* (2009) [tiešsaiste]: LR ZM ziņojums. Rīga: LR ZM. [Skatīts 2009. gada 20.augustā]. Pieejams: http://www.zm.gov.lv/doc_upl/LLL_2009_part_1.pdf

Ondersteijn C.J.M., Wijnands J.H.M., Huirne R.B.M., Kooten O.V. (2006) *Quantifying the Agri-Food Supply Chain*. Dordrecht: Springer. 243 p.

Porter M.E. (1980) *Competitive strategy.* New York: The Free Press, p. 157-188.

Porter M.E. (1985) *Competitive Advantage, Creating and Sustaining Superior Performance*. New York: The Free Press. 557 p.

Saaty T.L. (1980) *The Analytic Hierarchy Process*. New York: McGraw-Hill International. 287 p.

Skagale G. (2008) Nozares pašattīrīšanās ir neizbēgama. *AgroTops*, Nr.5, maijs, 14.-18.lpp.

Vēveris A. (2009) Bioloģisko lauksaimniecības produktu grūtais ceļš uz tirgu. *Agropols*, 6.novembris, 3.lpp.

Willer H., Yussefi-Menzler M., Sorensen N. (2008) *The World of Organic Agriculture: Statistics and Emerging Trends*. London:Earthscan. 267 p.

Голубкова Е.Н., Сейфуллаева М.Э. (2008) *Международный маркетинг*. Москва: Дело и сервис. 256 с.

Портер М.Е. (2006) *Конкурентная стратегия: методика анализа отраслей и конкурентов*. Москва: Альпина Бизнес Букс. 454 с.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