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MODELS OF NETWORKING IN AGRICULTURE OF SERBIA⁶

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Abstract

Business networking has become a modern strategic need and the global trend. Through the cooperation of economic actors in the agrarian sector of Serbia enhances their market position and bargaining power in the "value chain". In addition, strategic management network enables organizations to decrease costs, increase profits and better responsiveness to changing market conjuncture. The rich knowledge in the business, increasing the importance of concentration researchers, consultants and laboratories in one location, and thus increases the possibility to create such innovations, ie the value and quality of the offer, that distant rivals can not easily be copied and overcome. The paper analyzes three models of networking in the agrarian sector of Serbia: clusters, cooperatives and business incubators. Practice has shown that networking organizational structure, business processes, and scientific research etc. comes to the key knowledge, skills and other benefits that are on the market valorized as competitive. The greatest chance of success are those associations in agriculture that have consensus on common objectives and activities, which have a clear framework for cooperation and which are created based on your own initiative.

Keywords: networking, clusters, cooperatives, business incubators, competitiveness.

Introduction

In developed economies of the world there are nowadays different forms of association in agriculture. Consumers cooperatives are the most developed in Great Britain, producers-workers' cooperatives in France, credit unions in Germany and agricultural cooperatives in France, Germany, Denmark, Italy and the Netherlands. In those countries have also been considerably represented service cooperatives (housing and health care cooperatives). The agricultural cooperatives are the most important in countries in which dominate farmers and peasants husbandries. In agricultural countries of market economy with development of productive forces are revealed the concentration of capital in activities which produce means of production for agricultural needs and deal with finishing, processing and turnover of agricultural products as agribusiness segments. Those processes at the same time cause the changes in primary production. There comes to intensification of production, the

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production structure changes, the subjects from the primary production connect with capacities of processing industries and trade organizations.

A key goal of business networking consists of realization of their useful economic and organizational effects (direct and indirect). It explains in literature through its fundamental principles of establishment and a functional specificity of existence, which reflects in a dynamic tendency of organizational development, constant expansion and specialization aiming to achieve as better position and success on the market as possible. In that sense business networking substantially represents a self-organized polycentric structure, oriented to the concrete tasks.⁷

Network economy significantly changes performances of international trade and competition in general. The business networking doesn't appear as a substitute of traditional hierarchical-bureaucratic organizational-managerial structures, but as a new management strategy, even a paradigm used by many world (especially global) companies which base their success and development on a modern structuring of business processes. The networking improves the abilities of adjustment to changes, innovativeness, modernization and training in regard to the hierarchic-bureaucratic organizational structures.

Development, nature and characteristics of cooperatives in Serbia

The international cooperative alliance had persistently worked in its one-century long existence as a guardian of cooperative values. On the other hand, in many countries' practice, the cooperative movement had been encumbered by different dilemmas, ambiguities and confusion carried by constant changes in the world we live in. For revival of the cooperative movement through the transition process for our countries can be very useful historical and modern experiences of countries with developed market economy, which cooperative organizations use as an alternative to the modern capitalism in several directions. Among those directions are the principles of:

- Preservation of human dignity through self-employment,
- Equitable distribution of created national wealth,
- Economic and social emancipation,
- Greater individual responsibility toward the community he lives and works in,
- Raising general awareness for sustainable development, etc.

In the field of cooperative identity innovation there are neglected institutional researches. The public has not been well informed on this problem. In order to perceive a real value of the cooperative movement, which was built on the existing ideas and concepts, it is necessary to spread knowledge about the movement. Thereby it is necessary to accept the prevalent concept present in every form of cooperative, which reflects in the following: group of people, small or large, access with loyalty to a joint action based on democratic principles and with mutual support in order to provide a business activity or services useful for all participants of these actions.

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² Drašković, M. (2006): "Klasterizacija kao komponenta globalne konkurencije", *Montenegrin Journal of Economics No 4*, str. 168.

³ Simonović, Z., Arsenijević, Ž., Mihailović, B. (2008): "Zadrugarstvo Srbije u uslovima evolucije i tranzicije", *Economics of Agriculture*, No. 3 (237-338) 2008, pp. 319-328.

In our further presentation we have paid our attention to the problem of the Serbian cooperative evolution, which comprised the period from 1957 to 1990, but also the transition, which has started since 1990 when the Serbian cooperative had entered a new phase of its development. Transition lasts to the present day. The Serbian cooperatives had undergone many trials in past fifty years. This was the period which had encircled time of socialism, but also the modern period characterized by the transition. In each these movements, i.e. different experiments which had happened to be, the Serbian cooperative still had managed to survive. This shows how institution of the cooperative is resistant and capable to survive in all social-economic systems. Modern Serbian cooperative has caught up with application of newest cooperative principles, which was also valid internationally, according to the draft of the Law on Cooperatives. Agricultural cooperatives in our region have not been mostly powerful organizations in economic sense, but they are necessary for small and medium-sized agricultural producers, which in most of cases could neither base their production, nor to make concrete terms for realization and payment for their products. At the same time, the cooperatives have a great significance for processors, intermediaries in trade and final consumers, which buy via cooperatives the adequate quantity of goods, in one place, instead of negotiating and buying with numerous agricultural producers.

Modern cooperative sector of business activity bases on founded cooperative principles and values. It was built on businesses which contributed to economic and social welfare of wide range of people of different professional orientation. Developed cooperative sector contributes to its members' benefit through provision of new services and development of new businesses on cooperative basis. Lack of clear visions and strategies of association in agriculture sector has caused also the agrarian policy which represents the heritage and prolongation of policy from the socialist period, without significant structural changes. An important part of agricultural land is in private ownership, which provides major part of an agricultural product. Also, the policy which implements is oriented to provide assistance and to maintain the agricultural land, which was formerly socially owned, along with gradual guidance of the policy toward the commercially oriented agricultural producers. Consequentially, the agricultural sector in Serbia is not capable to engage itself in an equal match with competition from the EU countries. It is extremely difficult to compete with the surrounding countries due to accumulated problems which refer to: 10

- commodity exchange for inputs, mostly agricultural products, covers up the real costs and values of products, so that agricultural producers do not get real signals on prices, but their potential profit overflows to others,
- Land market, which should provide adjustments regarding the size of land, as well as more efficient structure of households, doesn't work properly. The reasons lie in an obsolete register of land and a cadastral system, impossibility to offer for sale or lease the land of the state agricultural husbandries, lack of long-term crediting for land purchase, unsuccessful apply of law for paying the lease, as well as the uncertainty in wider economic sense which discourages the long-term investments,
- the market of rural credits hardly operates due to the general lack of crediting, lack of liquidity, knowledge and experience in banking sector for agricultural credits, absence of

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⁴ Zakić-Vujatović, Z. (2000): Coop management, Dunav Grupa, Dunav Preving, a.d., p 17.

⁵ Strategy of agriculture of Serbia, Ministry of Agriculture, Forestry and Water Management, Belgrade, 2004, pp.8-9

agricultural profitability, high risk, absence of rights over land which could provide guarantee,

- Privatization is slow, with poor foreign investments, so the state still represents a main carrier of ownership in many processing factories and major of combines (factory farms). In other transitional economies foreign investments are a main form of industry revival, as in Serbia is not the case,
- Market infrastructure, institutions and organizations develop slowly. Efficiency of production is low and there is also lack of knowledge on market performance and marketing. Production performance in many husbandries is very low. Processing capacities, unlike producers, do not have problems with small capacities and fragmented production, but often the monopoly and high level of subsidies through cheap credits and debts write-off, seem to maintain the inefficient production,
- Working of market is limited by deficient legislation and absence of an institutional frame, which especially hinders the engagement of commercial family husbandries in distribution of agro-food products,
- Institutions which support have not been adequately qualified in technical, organizational and personnel sense.

It is necessary to support joining and cooperation between agricultural producers, especially a horizontal one (for example, public grants which support making new cooperatives or production associations, or trainings and seminars aiming to strength cooperation culture). The horizontal cooperation in agricultural production represents a vital need, because the individual producers have no strength to negotiate effectively on prices and other terms with big distributive companies, as well as the strength to invest in innovations and quality of products, in order to increase their own competitiveness. By joining the agricultural producers achieves a synergy in business and reaching critical mass in improvement of the negotiating position, which affects improvement of the agrarian competitiveness.

Structure and factors of clusters development

According to Porter, strong competitive advantages in the global economy lie mostly in local issues – knowledge, relations, motivation – differences which competitors could not copy easily, and which can be develop through clusters. The cluster association is characterized by cooperation and connectivity (unification and complementarity) of members, their geographic, i.e. local boundedness, active channels for business transactions and communications, making a common product and/or a service or joint solution of some need or a goal. Main factors in clusters development can be companiesmembers. Only through their active participation, a cluster will grow stronger and develop. Educational institutions also have their role and they showed in some cases as an important catalyst in clusters development.

Universities may have educational role, but they also can be the key factors in research and development, as well as innovation in the clusters. An integral part of clusters are the organizations for providing business services with an expertise which is adequate to

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⁶ Porter, M. (1998): Clusters and the New Economics of Competition, Harvard Business Review, November-December, p. 78.

clusters needs, like marketing, consulting and other organizations. All these bodies can contribute to clusters development strengthening, and they can have a legitimate role in its development. Very important characteristic of clusters, which results from its essence is knowledge. In most of cases, clustering by the "bottom up" line leads to so called quasiclusters, to be more accurate-the associations, which pretend to become clusters. The following "clusters", i.e. the associations are worth mentioning: association Fruitland, cluster of agricultural producers in Kraljevo, "Rakovica agriculture cluster", association of vegetable producers Begec.¹² These "clusters"were initiated by members not for the reason to obtain state incentives but to make a better position of the companies within the cluster on the market.

Analysis of the existing cluster initiatives in Serbian agriculture shows that the local authorities, regional developmental agencies and other corporate entities have a significant share in encouraging the development of clusters by interventions, strategic directions, donations, making favourable conditions for development, organizing educational seminars by the regions, decreasing the risk for starting a business or while taking credit, etc. Accordingly, it is noticeable that there are several common elements in the way a cluster works:

- Core businesses businesses as leading participants of clusters and most often bring the highest incomes from users outside clusters.
- Supporting businesses businesses which directly and indirectly support basic business of clusters. Here belong the suppliers of specialized machines, components, raw materials, as well as other service firms, including also the financial/broker firms and their capital, lawyers, designers, marketing services and public relations services. Those firms are mostly highly specialized and they are located in the vicinity of core business firms.
- Intellectual supporting infrastructure in clusters which operate top-class, the core and supporting businesses do not operate separately, isolated. In successful clusters many members of a local community participates: local schools, universities, polytechnic institute, local trade associations, centres for economic development and many others which support the activities of a cluster and they are key factors in clusters. Quality of this intellectual supporting infrastructure, as well as the level of team work within the infrastructure, is very important factor in development of any cluster.
- Physical supporting infrastructure is, first of all, physical infrastructure: roads, ports, settled dumps for a classic or specific waste, communication network, etc. Quality of such infrastructure must be at least at the same level as the competitive one, and it is preferable to be even much better.

Contractual communities of agricultural producers in Serbia represent a valuable base for establishment of clusters. There should help agricultural producers, orally and in writing, and also with the best realized project to decide for production association, to choose a form of association. Realized results in implementation of certain solutions are the best groundwork both for the selection of form and way of production association.

⁷ Mihailović, B., Paraušić, V., Simonović, Z. (2007): *Analiza faktora poslovnog ambijenta Srbije u završnoj fazi ekonomske tranzicije*, Institute of Agricultural Economics, Belgrade, monograph, pp. 120-122.

Certain forms of association that have wider application in some developing countries can be implemented in our conditions.

Contractual community of arable farmers.

It usually mixes several agricultural producers (4-5) within or outside a cooperative, so they could rationally use agricultural mechanization in their husbandries. However, these contractual communities in Serbia should be larger according to a number of arable farmers, if we are to take on the exploitation of powerful tractors and their auxiliary machines, and in the present size of our family farms. Besides, when joining larger husbandries, there more powerful tractors within each individual husbandry can be used, because they manage with parcels of the appropriate size (5-10 ha). Taking it into consideration, we should seek for the adequate solutions by way of a special performance of land consolidation. Except grouping the land by ownership, the land consolidation should be characterized also by grouping the land of the same type of exploitation. The associations of arable farmers would be followed by joining parcels. The costs of production would decrease and performing mechanical activities would be easier by joining arable farmers, because the machines are fully exploited on a larger surface of land of associated farmers.

- 1. Contractual community of arable farmers, vine growers and users of other plantations. Such communities often form cooperative farmers or producers outside the cooperative, who have their parcels in certain preferred positions, and they want to take advantage of a large-scale (plantation) production. Plantations raise in the land of agricultural producers as a unique territory, independently on boundaries of individual agricultural producers' parcels, which can be marked, in order to mark the ownership of an individual. All activities, both in raising and utilizing that can be performed mechanized, perform in plantation independently on some parcels boundaries. Every manual work performs an individual in his parcel, or better to say his rows, which have been assigned to him proportionally to his land. In distribution of jointly produced product, they participate according to invested work. Transition to modern organized production frees cooperative members of hard manual works, and at the same time it provides sale of raw materials.
- 2. Contractual community of livestock farmers. Agricultural producers can associate in order to produce milk jointly. A herd is of size which provides rational business. These contractual communities of milk producers have significant advantages in regard to pretensions in our country to form mini-farms in terms of small family husbandries. Instead of 3 stables (each for about ten cows), it is cheaper to build a stable for 28-30 cows. Instead of three rooms with devices for cooling milk, it can build one with better mechanized devices. In our case, each producer must do some activities in the stable, which turn away many people to devote to this job. It is easy to understand the advantage of contractual communities in which are engaged the members of contractual community, without adduction of other rationalities in stables of larger capacities. It is natural that livestock farmers' communities can form in other lines of livestock production, too. Clusterization of Serbian economy is at the very beginning and clusters contribute to

⁸ Mirić, S. (1994): *Zadružno-proizvodno udruživanje poljoprivrednika*, A century of Serbian agricultural cooperatives, Belgrade Cooperative Union, Belgrade

development of competitiveness, through the productivity growth and creation of innovative strategies, which cannot be lost out of sight in the following period, when there should expect more intensive processes of clustering.

Business incubators as an assumption of Serbian agrarian sector development

Business incubators are the instruments of a local economic development for support to newly opened small enterprises in the first years of their growth and development, when they are the most vulnerable. 14 In order to minimize ignorance and inexperience in management, accountancy, expertness in market and running a business in the initial phase of these new small enterprises in agrarian sector of Serbia, these roles have been put together through the common services and occasionally guest performance of the consultants who have done these jobs for all enterprises in a hall - incubator of new enterprises. According to the same source, the most important services, which provide the capacities for incubation, enclose an organized access to expertise, experiences, consulting services, advices and mentoring in key business networks and groups.

Offer of physical facilities and these services to entrepreneurs increases the probability for success of an enterprise in regarding to some other which does business independently: research at the EU level show that mortality rate (in the first five years of business) of enterprises, which have started their business in the business incubator, was less than 15%, unlike those other enterprises with the mortality rate of 50%. The incubator works as a capacity in which enterprises go in and out, i.e. their stay in the incubator is limited (usually about 3 years).

Consulting services of business incubators to members, but also to wider local community, create in regard to the expressed needs, world practice in work of business incubators, but also local peculiarities. They are significantly determined by the available staff, finances and technical equipment. The consulting services provided by the business incubator are of the vital significance for development of enterprises-members, but also the business incubator. They can also be the source for providing additional funds in order to decrease dependence of the business incubator from subsidizing and donations and they can be crucial for self-sustainability.¹⁵

All consulting services provided by the business incubator are susceptible to changes, so some new can always add or some old expelled, depending on needs of the local community and members of the incubator. At the same time, a price of the consulting services can be changed depending on inflation, costs and supply/demand, but it should always be more favourable for members than market conditions and at the same time structured in a way to ensure income sufficient for the incubator sustainability. An adequate ratio between the consulting services and their price makes the business incubator into a very efficient mean of the local economic development.

Most of the consulting services should be included into a price of the membership fee for enterprises-members. According to the report of the European Commission

⁹ Danilović Grković, G., Kovačević B., Sedmak. A., Nedeljković. M. (2005): "Uspostavljanje biznis inkubatora tehničkih fakulteta u Beogradu", XIII Telekomunikacioni forum TELFOR 2005, Beograd, Sava Centar, 22.-24.11.2005.

¹⁰ Support to foundation of business incubators in southern Serbia, Feasibility study of the project"Business incubator in Vranje", January 2006; Analysis made by the expert team of Timok Club; Team leader: Dragan Milutinović.

"Evaluation of business incubators" (2002), "The basic value of business incubators work lies in a type and quality of business support to the clients. There are four key fields: training of entrepreneurs, business consulting, financial support and technological support."

The goal of business incubators has to be setting up the structure and form which suit the most to the specific needs of the local and regional economy. However, they cannot make economic development by their own. The business incubators, whether they are within the scientific-technological parks or outside them, must be a part of a broader strategy or program of economic development which refers to every dimension of economic changes, especially those in transition, where the incubators have shown the most efficient within the broader programs for development of small-sized enterprises sector.

Other forms of networking in agrarian sector

Taking into consideration that properties in Serbia are fragmentized, as well as dispersion of necessary equipment and mechanization, by creating the "machinery rings" would realize more efficient production due to more rational use of the existing resources, whereby there would fill up simultaneously the economy of scale and the economy of size. The machinery rings are a special form of agricultural producers' organization in countries with developed agriculture (prevalently in West Europe and Japan). A basic idea is to use an agricultural machine in the most rational and the most productive way. With this approach to the problem of land cultivation has come to division of agricultural producers into two basic categories, those who receive and those who provide services. This division has led us to services providers, who are narrowly specialized only for the specific operations, so the quality of provided services is at the highest level. Besides, by the maximal utilization of mechanization, a price of such provided services is lower. On the other hand, receivers of services can commit themselves to other problems in their agricultural production (inputs, sale of products), and not be handicapped by their "unutilized" mechanization.

In such conditions, the cooperatives should be oriented in their future work to businesses linked to the cooperative members. It is necessary to base their activities in the future period on respect for the cooperative principles. The cooperatives must restructure in organizational way, they also have to expand membership, formalize mutual relations by adequate normative acts and ensure their persistent implementation. It is necessary that cooperatives and cooperative unions, along with support of the state authorities, enable the cooperative audit in order to sanction successfully former and prevent future negative manifestations e.g. that only employed workers can be members of the cooperative and that only them can manage with the cooperative; not to enforce the law on cooperatives, etc. Thereby the cooperative would become the organizations of cooperative members in essence.

Conclusions

Important assumptions for increase of agricultural production of Serbia reflect in the following goals which should be achieved. These are production restructuring, ownership and management adjustment to a new situation. All of these should make better business

results in agricultural production. On the other hand, disintegration of social agricultural cooperatives and combines has left a free space in organizing agricultural producers in many regions. They have been left alone. There can be generally concluded that there are not enough agricultural cooperatives in Serbia for the reason of lack of knowledge of agricultural producers on the original values of the system of cooperative societies. Cooperative practice of the socialist period had significantly discredited an idea of cooperative self-organization. This period characteristic is that cooperatives had governed over agricultural producers and not the opposite.

Modern business conditions of agricultural producers contribute in many ways to their strategic thinking, which has been mainly directed to as efficient cooperative movement as possible. Association of agricultural producers makes easier their joint performance on increasingly demanding market.

The association can observe through many dimensions. Pooling resources and financial strengthening are the two most important components for long-term cooperation of cooperative associations. A certain kind of discipline suggested to them will not be easily achievable. Besides these two elements of strategic thinking there are also other elements which imply safety preservation of the cooperative movement generally, along with cooperation with the government institutions.

References

Danilović Grković, G., Kovačević B., Sedmak. A., Nedeljković. M. (2005): "Uspostavljanje biznis inkubatora tehničkih fakulteta u Beogradu", *XIII Telekomunikacioni forum TELFOR 2005*, Beograd, Sava Centar, 22.-24.11.2005.

Drašković, M. (2006): "Klasterizacija kao komponenta globalne konkurencije", *Montenegrin Journal of Economics No 4*, str. 165-173.

Mihailović B., Paraušić, V., Simonović, Z. (2007): *Analiza faktora poslovnog ambijenta Srbije u završnoj fazi ekonomske tranzicije*, monografija, Institut za ekonomiku poljoprivrede, Beograd, str. 120-122.

Mirić S. (1994): Zadružno-proizvodno udruživanje poljoprivrednika, 100 godina zemljoradničkog zadrugarstva Srbije, Zadružni savez Srbije, Beograd.

Podrška osnivanju biznis inkubatora na jugu Srbije, Studija izvodljivosti projekta "Biznis inkubator u Vranju", Januar 2006; Analizu izradio ekspertski TIM Timočkog kluba; Vođa tima: Dragan Milutinović.

Porter, M. (1998): Clusters and the New Economics of Competition, Harvard Business Review, november-december.

Simonović Z., Arsenijević, Ž., Mihailović, B. (2008): "Zadrugarstvo Srbije u uslovima evolucije i tranzicije", *Ekonomika poljoprivrede*, broj 3 (237-338) 2008, str. 319-328.

Strategija poljoprivrede Srbije, Ministartvo poljoprivrede, šumarstva i vodoprivrede, Beograd, 2004, str. 8-9.

Zakić-Vujatović, Z. (2000): Koop menadžment, Dunav Grupa, Dunav Preving, a.d., str. 17.