

Social-geographic bases for the formation of component structure of agrarian clusters as perspective forms for cooperation of farming economies in Ukraine

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ABSTRACT: Cluster approach to organization of production and development of economy is a world-spreading trend of the last decades. Numerous economic reforms introduced in developed countries are now oriented towards clusters (it is only in the EU countries that over 150 regional innovation cluster-based strategies were realized). Said reforms aim at development of competitive production as growing-points of regional economics, and, proceeding from such economic basis – at provision of higher living standards within the region. Many countries of the world (including Ukraine) today individually economically approbate cluster formations and familiarize with advanced experience to form regulatory and legal framework for their establishment. It is agrarian clusters that should become the driving force in regional and global aspects in agrarian-industrial countries. The present work deals with basic questions of agrarian cluster formation and functioning, the cluster essence and its role in provision of social-economic development of rural territories, specificities of cluster associations organization and their component structure, formation of internal and external interrelations with the purpose of rational use of regional development factors.

Key words: agrarian cluster; farming economies; component structure of agrarian clusters; cooperation of farming economies; farm-centric cluster model; social-geographic factors of agrarian clusters formation; Ukraine.

INTRODUCTION

Development of entrepreneurial activity in Ukrainian regions, by way of consolidated efforts of self-governments, business circles, scientific establishments and other supportive agencies and associations, manifests itself in the formation of such effective production structures of market economy as clusters, alliances, partnerships, techno-parks, pools, etc. Said structures may be active in the form of both formal and informal developments that presuppose enterprises' synergy of efforts towards clusterization.

Fundamentally, clusterization is a tendency of enterprises with close specializations to cooperate under geographical (territorial) principle. The outcome of clusterization is achieved not only but also at the expense of interaction of its elements, consolidation of efforts in joint use of the territory resources and complementarity in effectuating of different kinds of activity[1]

English term "cluster" denotes aggregation, concentration; a butch, a bunch; a swarm; a clump; a group, etc. Generally, "cluster" is interpreted as a grouping of homogeneous elements that may be considered as a separate unit having certain properties, exercising joint function with efficiency that exceeds that of its single element and is managed as a unit [2].

The present work aims at substantiation of social-geographic bases for the formation of agrarian clusters; disclosure and analysis of the factors of their formation; development of farm-centric models, and identification of their component structure elements.

Review of Literature. Scientific substantiation of the formation of productive dislocations, industrial districts, industrial clusters, and "growth centers" is presented in works by A. Marshall, M. Weber, M. Porter, F. Perroux, J. Schumpeter, B. Higgiston, De Bresson, E. Hoover, C. Rosenfeld, P. Deringer, J. Thunen, A. Losch, D. Turkle, P. Krugman, P. Sabluk, O. Shabliy, O. Topchiev, M. Kropyvko, M. Sokolenko, I. Ranets, O. Palamarchuk, D. Stechenko, M. Voynarenko, etc.

According to M. Porter, clusters represent geographically concentrated groups of interconnected companies, specialized suppliers and service suppliers; firms in corresponding branches and related organizations that though compete but are also jointly active [3].

That is, cluster is a territorial-branch competitive-coordination grouping of entrepreneurial structures, public organizations and scientific establishments that provides competitive positions on meso, macro and mega levels.

Cluster concepts concentrate on linkages and interdependence between corporations combined into a net (vertical) structure for production of commodities, services and innovations that extend beyond the limits of horizontal systems, act on a common market and belong to a single industrial and financial group. Cluster approach should be considered as efficient direction that would allow for balanced dynamics of financial and industrial sectors of development. It is worth noting that standardized rules in the sphere of clusterization are absent, while the clusters themselves are of unique and individual character[4].

The practice of cluster development on national and regional levels in world countries with different levels of development is rather successful and can be implemented in Ukraine, certainly in terms of resurgence of gains. It can not but be accentuated that dissemination of positive experience in implementation of new instruments for cooperation of small, medium and large enterprises (clusterization, sub-contracting) was among the measures approved by the Cabinet of Ministers, Ukraine (No 569 of 21 June 009) in its Plan of Measures to Support Export Activity of Small, Medium and Large Entrepreneurship[5].

STUDY RESULTS

Clusters are the structures of geographically close geospatial interconnected companies and organizations that cooperate and jointly act in the area of production, have joint business profile, and complement one another.

These may include a certain number (from two or three to tens) of differently large companies and organizations, which allows each of them for the advantages from the effect of synergy. The clusters' outstanding feature is that cluster-comprising companies and organizations preserve juridical independence. At the same time, due to joint activity and in the first turn due to extension and acceleration of innovativeness of production processes they achieve significantly higher rates of labor productivity [6].

Development of new forms of corporate enterprise combinations is influenced by different factors such as geographic location, nature-resource, labor-resource and consumption potentials; level of market and communication infrastructures development; formed innovational-investment climate of the territory; economic attractiveness of the region and opportunities to generate new economic brands, etc.

Geographical concentration represents one of the most important cluster features. This is connected with advantages the firms commonly located on a certain territory can have:

specific nature resources or other unique local assets are more accessible;

geographic closeness provides for lowering of transactional costs, especially in organization of access to knowledge and knowledge transfer;

suppliers' profile in factor markets as to labor, capital and technological resources can be improved and deepened;

means for organization of access to and joint use of information on market or technological changes can be more efficient;

interaction with local consumers generates more stable demand.

With development of private forms of economy, Ukrainian agriculture is today experiencing generation of economic structures, organizationally and legally represented as small agrarian business. The deeper integrative processes, inclusive of clusterization, the higher will be the levels of competitiveness and provision for complex development of rural territories. Clusterization in Ukrainian agriculture can become one of the most efficient mechanisms to form new type of economic relations to help raise competitiveness of agrarian economy and deepen its social orientation.

Agrarian clusters' formation is influenced by the following factors:

Accessibility of local agro-resource potential. Availability of capacious agro-resource potential is among the main determinants for cluster's rate of return. Geographical location, agro-climatic and orographic conditions, land, labor, material-technical resources, internal and external food market capacity, etc. - all these are the components of the agro-resource potential.

Availability of capital goods and other resource suppliers. Most part of contracts effected between closely located producers of capital goods and their consumers provide for support of innovations of company interaction in many regions. At the same time, a cluster functioning in a region significantly increases the purchase efficiency. Moreover, availability of a bigger number of agro-producers significantly decreases risks of purchase since product supplier can be easily changed or similar product of higher quality can be easily chosen. If a farmer (producer) is not a cluster participant producing cluster-competitive goods, he would be

gradually forced out of market having none advantage available with clusters. Participation in cluster allows for farmers' wider access to specific methods of work and modern technologies as well as for more efficient material-technical supply.

Closeness of product marketing. This factor of agrarian cluster formation and development is especially important for those whose products are not easily transported, or where process of production requires uninterrupted interaction with raw material/element suppliers or continuous contacts with customers. In the proper network sense, the distance between two points will be shorter if both of them represent nodes in this or that net formation.

Scale effect in production. Transition to a "new" economics is stimulated by market liberalization, this involving strengthened capital mobility, standards globalization and telecommunications development. With reaching high levels of agrarian clusters development in Ukraine, there would be all preconditions for the increase of the scale of production and entry into international food markets.

Availability of infrastructure. Efficient clusterization of agrarian economy is impossible without modern infrastructure. At pressure of both globalization and regionalization that speeded up privatization processes, some firms and clusters are increasingly inclined to invest into different special types of infrastructure. Due to these initiatives showed within clusters, the producers, including farmers, are allowed for the access to special infrastructure, refill with least costs their divisions with employees trained within the frame of local programs and other social services. It is undoubted that provision of cluster opportunities requires costs, too, but these are lesser than those for cluster non-participants. The infrastructure of this kind is developed in many countries by the state. Special purpose in common conditions is allotted to the so-called collectively used infrastructure called to provide service to agglomerative formations at the expense of corporate labor resources and local supplier associations. Thus, local capacities of collectively used infrastructure allow for higher level of specialization and, consequently, for higher production efficiency.

Access to information. Quality of information determines reasonability of decisions and efficiency of production functioning. Information, necessary for efficient decision-taking should be apt, accessible, correct and actual and the importance of these parameters continuously increases. Cluster-participating structures accumulate huge volume of technologies and knowledge on the market and marketing as well as the other special information. Farmers' access to information can be best organized and least expensive within the clusters themselves. Free information exchange and instant circulation of novations within cluster linkages would lead to new ways of success in competitive struggle and generate unique possibilities unthinkable for a single farming economy.

Provision with special man power. This includes graduates selection, education grants, implementation of scientific ideas, joint research, etc. Social relations between labor and capital tend to change with the former becoming more global and the latter – more local and decentralized under the influence of network structures. Clusters represent the instruments of required profile labor engagement. Agrarian clusters may associate agricultural producers, agricultural product processing companies, commercial structures (inclusive of suppliers, distributors, etc), and scientific-research institutions, consultative centers and advertising agencies. Agrarian cluster's component structure includes its nucleus (the leader that initiates cluster formation) and infrastructural (internal, external) blocks that form the cluster's determinant – its direct formal and informal linkages (see Fig 1)[7]. Cluster's generation is possible 1) in the branch aspect (under the principle of specialization); 2) as geospatial concentration (under the principle of geographical closeness); and 3) as combination of both specialization and geographical closeness (cooperation for provision of joint manufacture of ready product by territorially close subjects).

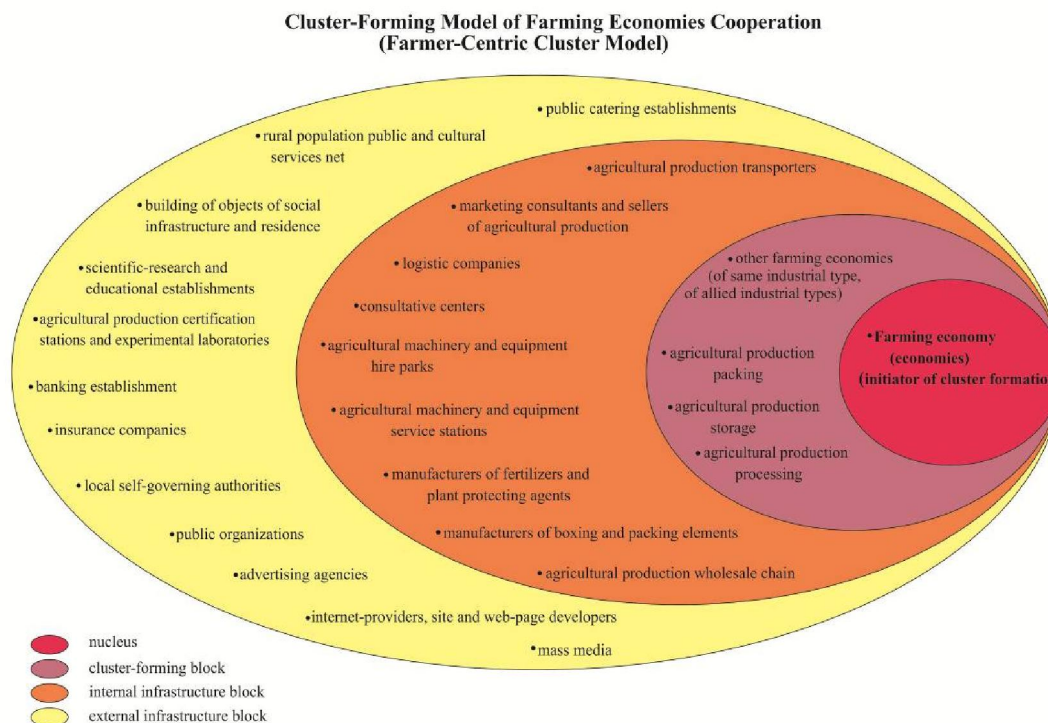


Figure 1. Cluster-Forming Model of Farming Economies Cooperation (Farmer-Centric Model)

P.T. Sabluk and M.F. Kropyvko determine major organizational principles of agrarian type cluster associations as follows: 1) availability of brand, common for all cluster participants (goods, services, trademark, etc); 2) availability of leader – a company that determines long-run economic and innovational strategy of all cluster participants; 3) independent companies’ voluntary involvement and participation openness in a cluster; 4) common distribution network to introduce commodities into the market; 5) cooperation and confidence that base on the participants’ parity exchange of production chain; 6) higher standards of manufactured product; 7) availability of arbitration (inside the cluster); 8) close interaction of cluster association with authorities and self-governing bodies on the basis of private/state ownership [8].

To help remove headaches of technical equipment, agrarian clusters may decide to organize truck leasing stations, associate for joint use of machinery (of individual or joint ownership), provide services of agricultural labor, etc. Significant portion of agricultural products is produced by numerous household and small farming economies (it is in the first turn potatoes, vegetables, fruits, etc) that lack individual capacities to form big lots of products for sale. Such situation is often taken use of by sub-purchasers who unreasonably lower procurement prices simultaneously raising user prices.

It is evident that farming economies are interested in those associations (inclusive of clusters) that would allow for stepping onto higher levels of their development on the basis of joint procurement and trading activities. Farmers, with no doubt, are made to act as entrepreneurs-managers and directly as employees. Besides, they are brought to have knowledge and skills of accountants, marketing managers, technicians, agronomists, plant-breeders, jurists, etc. Taking into account that it is only a smaller part of Ukrainian farmers who have some educational/qualification level in one specialty (sometimes with no relation to their activity), there appears necessity in different-aspect consultations. The problem can be solved by way of mutual exchange of experience by cluster participants or by formation of consultative body. Territorial closeness of farming economies within a single cluster formation may become factor into lowering of production price (e.g., due to joint cultivation of agricultural lands). Development of farming economies is to some extent slowed by the fact that farmers are not aware of the methods of preparation of business plans and do not analyze necessary information concerning short-term and midterm external and internal markets of agricultural production. The cluster may therefore employ corresponding specialist-consultants, including those from state managerial structures.

Thus, the formations of this kind would considerably contribute to competitive environment since proved to be able to optimally incorporate customers' specific requirements to final production; provide for spreading of innovations, marketing skills, linkage formation which is finally crucial in competitive struggle; raise productivity and balanced development.

CONCLUSIONS

Ukraine as a state with one of the most capacious agro-resource potential, significant number of backyarders (farming economies, individual economies, etc.) possesses all pre-conditions for successful clusterization of agrarian economy. Despite problems and difficulties occurring in the process of cluster formation and functioning, the course of clusterization is rather dynamic and gives hopes for success. In the perspective, it would provide for increase in production, stable competitive strengths, implementation of innovations, and marketing development. As well, it would heighten the level of regional enterprises and make Ukrainian agrarian product high-demanded and competitive not only on local but also on international markets.

Cluster-forming block with agricultural producers as its nucleus, and internal and external infrastructures represent basic elements of organizational-components structure of agrarian cluster. Models may vary from mono- to poly-functional clusters depending upon specificities of the formation of its nucleus (agricultural producers, wholesale market, agricultural production processing enterprises, etc), though internal and external linkages will stay to be the cluster's major advantage.

Thus, farming economies' association into agrarian clusters with high level of specialization under the principle of geospatial closeness in Ukrainian regions must become one of the priority tasks of regional agrarian policy in general and farming in particular.

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