

**CROSS-BORDER CLUSTERS AS THE FORM OF
TRANSPLANTATION OF INSTITUTIONS INTO ECONOMIC AREA
OF POSTMODERNITY**

Kovalenko Sergei I.

Досліджено механізм трансплантації інститутів мережевої економіки як необхідний чинник зростання конкурентоспроможності євро регіонів в умовах євроінтеграції України. На основі інституційного підходу обґрунтовано, що постіндустріальна економіка еволюціонувала в систему взаємодіючих інститутів формують новий економічний простір постмодерну в транскордонному вимірі. Розглянуто сутність та внутрішні взаємозв'язки транскордонного кластеру як чинника зростання конкурентоспроможності євро регіону.

Formulation of the problem in general terms.

Postmodernity is called an epoch of disappointed modernization, when the reality disappears and network structures forming virtual economic area come to the fore. The development of economics of postmodernity takes place as a result of transition from centralized system of economic area control to pluralism, and further transition from vertical hierarchical layers to horizontal networks. This process is identified by western scientists as “quasi integration”. The justification of theory and methodology of the regional science is closely connected with the development of postindustrial paradigm in the evolution of all sides of life in the European region including economical as well as social aspects. One of the current trends of the postmodern society development is the growing role of network communication. Network resources become a new source of competitive benefits of the periphery regions and as a matter of fact change not only the system of factors of accommodation, but also the structure of the economic area itself. In much measure, the implementation of cluster of the business organization in cross-border dimension contributes to the development of network structure of economic area, enhancing its unity and

integrity. International experience of the developed countries conclusively proves not only the effectiveness, but also inevitable consistent pattern of emergence of different kinds of cross-border network clusters.

According to the European practice, the border is the main deterrent of the boundary regions development. In this respect one of the main aims of boundary cooperation is the neutralization or cushioning of the negative effects of the borders [1, p. 4].

Information technologies resulted in the network society. Sophistication of the economic area accompanied with bifurcations inevitably leads to its self-organization. In the network society due to information technologies new connections are developed. They cause blurring of boundaries and conventions and as a result there appears a great amount of opportunities in the form of bifurcations such as electronic commerce, virtual communities, virtual enterprises, creation of cyber cities-states. Network economy is super-transparent and super-fast. But the most important thing is that it creates favorable conditions to import effective institutions forming new kinds of economic area organization.

Analysis of research and publications of recent years show great interest towards the problems of competitive capacity of boundary regions. The possibility of using market instruments in the process of clusterization is studied in the works of M. Porter [2 - 4], G. J. Bolt, J. Tolonado, P. Doyle, F. Kotler, H. Lay, J.-J. Lambin, A. Toffler, etc. The experience of the developed countries proves that improvement of the economics competitiveness can be reached only through transition to the innovative model of the development, the ultimate target of which is to raise the well-being of the people by means of speedup of economic growth.

Michael Porter in his work “The Competitive Advantage of Nations” comes to the conclusion that when the investment policies are being worked out emerging economies must aim at the development of interrelating industrial clusters on the ground of primary and secondary spheres. The approach to the evaluation of competitiveness of the region can be defined with the help of the concept of competitive advantage of the country, offered by M. Porter [3, p. 146].

In the works of J. Shumpeter [5, p. 182], K. Arrow, R. Nelson and S. Winter the problems of market structure organization and competitive development are studied as the factors of increasing innovation activity of economic systems. The scholars investigated the mechanism of market parties

integration, formation of new innovation structures with the aim to create the product, technological and organizational innovation. Other representatives of the institutional economics (O. Williamson, R. Coase, W. Nordhaus, F. Hayek) contributed to the solving of the given problem. In their research studies the scholars:

1) paid attention to the disadvantages of information that was the obstacle of mutually beneficial actions, the difference between explicit knowledge (which is codified) and implicit (tacit) knowledge;

2) focused on the study of the influence of transaction expenses on the advantages of various organizational forms preeminence. In modern scientific literature industrial regions, holdings, technological platforms, territorial-production complexes (TPC) that educate the regions, etc. are referred to spatial forms of industrial integration network. In the course of time the concept “industrial region” has evolved into the analysis of transformation of distinctive characteristics, that was worked out by A. Marshall, G. Becattini, O. Williamson [6, p. 211].

At present there exist various hybrid forms of cross-border quasi-integration such as clusters, business associations, strategic alliances, various network-societies, etc. They are the associations of the European regions economic entity with steady long-term relations between them and delegation of control on management of the general operations without any legally-issued transfer of the right to property.

The relevant topic is widely reflected in the works of many Ukrainian scientists: M. Dolyshni, V. Hayets’ [7, 8], Yu. Makohon [9], S. Maksymenko, P. Bielenki, N. Mikula [10], etc. Their scientific research results are connected with the study of spatial development and cooperation of the boundary regions in terms of the EU functioning, applying the corresponding experience for Ukraine.

Previously unsolved aspects of the problem.

One of the most important priorities of the Ukrainian regional economic policy has become the realization of the possibilities of each boundary region to overcome the crisis and providing the development of the economics by improving the quality of economic area. Such approach fully concerns the boundary regions in which the process of globalization and European integration brings the external economic factors to the forefront. Under their influence there occurs a transformation of the boundary regional economy which is connected with its structural changes, with the search of new forms of

economic area organization and with the competitiveness improvement of the region.

Nowadays the task is to work out the theory and methodological principles of strategic planning of the creation and development of cross-border cluster systems in different sectors of economy by taking into account their potential role as a purpose accomplishing and problem solving system focused on the solving the tasks of the modernization of the Ukrainian periphery regions.

Nonetheless, it is necessary to point out that the mechanisms of formation of cross-border cluster systems in Ukraine are not investigated practically. That is why it is necessary to investigate the topic. As Academy Fellow V. Hayets' states, there are no methodological approaches to the evaluation of economic effectiveness of the cluster formations in different spheres of economic activity, especially for the potential development of the regional formations as structurally integral and original territory administration units [8, p. 10].

Statement of the problem.

The task of the article is to work out the methodological approach to the usage of cluster forms of quasi integration for transplantation the institutes of cross-border economic area in conditions of network economy formation of postmodernity.

The main material of the research.

The European region as quasi-corporation is a great subject of property (regional and municipal) and economic activity. In this case the European regions become participants of competitive struggle at the markets of goods, services, funds (protection of the trademark of local products, investment rating). The European region as economic entity cooperates with national and transnational corporations.

Ukraine tries to implement an institution of cross-border cooperation by means of its transplantation from the most developed environment into less developed one. Thus, the state tries to speed up the institutional development, but there emerges the risk of rejection and dysfunction of transplanted institutions [10, p. 166].

In the translation of Douglas North's book "Institutions, Institutional Change and Economic Performance", in which the theoretical framework of institutions is developed, there are two concepts – "institution" and "organization". "Institution" is defined as the rules of play in the society, or, to

be more precise, restrictions invented by people, which direct the cooperation of people in a certain way. They form incentives in the process of the human exchange – political, social or economic. The institutional change determines the way by which people are determined in the course of time. Institutional restrictions can be official – the rules invented by people (legislation), and non-official – in the form of customs and code of behavior. Institutional restrictions embrace not only the prohibition of doing something, but also the conditions on which it is allowed to carry out certain activities, that is they form the basis on which human interaction is performed [11, p. 11, 12].

Like institutions, organizations also form human interaction. Organizations embrace political authorities (political parties, the Senate, city council, regulatory agency), economic bodies (firms, family farms, cooperatives, trade unions), public authorities (schools, universities, vocational training centers) and are established on this institutional basis. They are made of a group of individuals connected with each other by the common desire to achieve certain goals [11, p. 13].

But, if from English the word “Institution” is translated as – 1) establishment, 2) something established (law, custom, system), 3) organized society, establishment, office, institution, etc., in the Ukrainian language it also corresponds to the term “institution”¹.

Institutions identify opportunities in the society, but organizations are created in order to use these opportunities. Institutional changes occur with the help of the created symbiosis between “the rules of the play” and institutions (organizations) which were developed under the influence of the incentive structure created by the institutions and under the influence of feedback, when people realize their status and react to the changes in the amount of opportunities. Usage of the term “institutional changes” concerns the cases when the changes of organizations (structures) realizing (providing) “rules of the play” are meant.

Transplantation is the process of transferring the institutions, which developed in any other institutional environment.

Any process of transplantation includes three main stages:

- 1) choice of the transplant and the strategies of transplantation;
- 2) creation of the transplantation infrastructure; creation of auxiliary and intermediate institutions;

¹ Note. In Russian the translation of Douglas North’s book sounds as: Институты, институциональные изменения и функционирование экономики. – М.: 1997.

3) implementation of activities which facilitates adaptation of economic agents for new institution.

During the transplantation of the institution there appears a new scope of opportunities for the economic agents. There appear a wide range of strategies embracing new institutional and, in particular, legislative limits. Some of the strategies remain within those limits, other involve their violations. Transplantation is aimed at the change of the old equilibrium. The adoption of the new institution by the agents and its stable functioning depend on the transplantation expenses and on the value of transaction costs of the transplanted and the current standard of behavior. The expenses in their turn are controlled by the institutional structure and the cultural environment of the recipient country, macroeconomic situation, and mechanisms of coordination, impetus, inertia and education [12].

If the transplantation is successful the period of positive adaptation of the institution to a new institutional or cultural environment is relatively short: the institution plays the same role in the recipient country as in the donor-economics. Poland, Czech Republic, Slovakia, Hungary transplanted the institution of cross-border cooperation from the Western Europe and beneficially use its opportunities.

This process began in all the countries almost simultaneously (and in Ukraine as well), but, it can be pointed out that all the Central and East European countries in this question are one step ahead. Unlike Ukraine, the main aim of the above mentioned countries – to integrate into European Union – is achieved, and not the least role was by played the institution of cross-border cooperation as the proving ground for testing and adaptation of the European legislation, tools increasing the role of the regions, adaptation of financial support mechanisms. In Ukraine the development of the institution of cross-border cooperation was a bit slowed down and its functions were distorted.

V.M. Polterovich determines three types of dysfunction of new institutions: 1. Atrophy and degeneration. 2. Activation of alternative institutions and rejection. 3. Institutional conflict. 4. Paradox of transfer [12, p. 5-9]. It is useful to clearly imagine the strategy of transplantation for the dysfunctions not to appear.

In recent times a number of researchers stated that the most useful is the strategy of “growing” the institutions [13]. This strategy provides for the possibility of using the institution “from the past” of the donor country at any stage of its development. It is assumed that spontaneous evolution of

transplanted institution will – directly or indirectly – contribute to the creation of the form adequate to the conditions of the recipient country. The “growing” allows the simultaneous transplantation of some variants of the institution and their co-existence (competitiveness) with the same institutions of the recipient and, to our opinion, the possibility of correction of the transplantation process.

It is also useful to state that the institution of the cross-border cooperation may not be the institution of high priority, but it is one of the closest institutions to the individual citizen, to all the spheres of his vital activities in a boundary, periphery region. On the basis of this institution it is possible to test and adapt all the new mechanisms and instruments of socio-economic, political, ecological, cultural, educational and spiritual life of the population, transplanting all these from the most developed environment with the corresponding compliance with the technology and the chosen aim. Thus, one more role of the international cooperation of the regions is determined as ground for testing and adaptation of the European legislature, instruments for enhancing the role of the regions, adaptation of the financial aid mechanisms. This role covers all types of international cooperation of the regions and is widely used by the countries of Central and Eastern Europe in the process of transplantation of the institutions of cross-border cooperation.

The countries of Central and Eastern Europe had another significant incentive, which was supported by practically all the significant political forces – their return to Europe, faster integration into the main European institutions. The enforcement to harmonize their legislature with the European one left them fewer opportunities for institutional improvisations and made them be more consistent and rigid while rebuilding disciplinary mechanisms designed to protect new “rules of the play”.

Cluster strategy of the cross-border cooperation provides for the forming of geographically localized cluster unions of the boundary regions around foreign companies-innovators, the network agents of which (the manufacturers of innovative products and services, suppliers, the infrastructure objects, research centers, universities) cooperate on the basis of competitiveness and cooperation, generating synergy effect, mutually supporting each other and strengthening competitive advantages either of the companies themselves or of the cluster in general. Clusters are inevitably associated with the networks which are formal and informal organizations and which simplify information and technologies exchange and promote coordination and cooperation between the members of the clusters.

Cross-border clusters cover the neighboring boundary territories of the adjacent countries, which include institutions and firms located on the both sides of the borderline. That is why cross-border clusters can be determined as groups of independent companies and associated institutions which are geographically concentrated in the *cross-border region*; cooperate and compete; specialize in different branches, connected with general technologies and skills and which complement each other and as a result it enables to get synergetic and network effects, diffusion of knowledge and skills [14, p. 407].

Within a cluster there is created an additional economic effect which strengthens competitive advantage of the region. Enterprise not included into the cluster gets an additional synergetic effect by means of resource sharing (technologies and expenses strategy), market infrastructure (total sales) and fields of activities (synergy of management planning). The importance of the synergy strategy lies in the fact that it helps to get higher profitability of production in case if enterprisers-members of the cluster cooperate, than when it is managed separately [15, p. 145]. Synergetic effect is the increasing of efficiency as a result of connection, integration, arrangement of single parts within a complex system by means of the so-called positive systemic effect (effect of emergence) where the effect of cooperation between the participants of the union inside the integral system exceeds the sum of the effects of the activity of each participant separately (independently) [16, p. 29].

Investigating the problem of competitive capacity, M. Porter singled out three main advantages of the clusters. Firstly, they increase productiveness, making all the specialized resources and work available, facilitating access to information, institutions, public goods. Secondly, clusters stimulate higher rates of emerging new business-formations by converting workers of the operating companies into new entrepreneurs. Thirdly, they increase the capacity of the firms to innovate with the help of more rapid diffusion of technological knowledge.

The unique capacity of cluster to accelerate the diffusion of innovations helps to determine them as innovative economic agglomeration or as the area of high innovative activity. Any cluster is a network structure with the ideology of competitive cooperation (or co-competition) under which the development incentives created by the participants of the network are connected with the intensification of cooperation in mutually profitable direction. The network model organization of the economic area of the country becomes more advanced in contemporary conditions. On this model there are organized regions which were actively involved in the global system of exchanging goods,

finances, labour power, technologies and information. They represent the network of independent, but at the same time interchangeable enterprises. The enterprises specializing on the producing this or that good are concentrated on one territory which connects the branch with the given region, but does not lead to its centralization. Enterprises cooperate on the basis of agreements on cooperation or sub-contracting relationships. One part of the enterprises brings their production at the market, all the others perform operations on demand of the group of enterprises which initiated the given production. In general, all the enterprises located on a certain territory of the country create a network of cooperation and interaction or network cluster. The basic component of the cluster theory is a group of *institutional theories* determining the economy as the system of cooperating institutions. In this case the cluster itself can be defined as a modern institution combining in different proportions a system of formalized and non-formalized relations of either its participants between themselves or the cluster with its external environment. Besides, synergetic effect emerging as a result of cooperation of enterprises within a cluster is explained largely by the transaction cost savings in obtaining information, specification of property right, reduction of cost value, etc. Thus, R. Coase's theory of transaction expenses in addition to the non-classical theory is mostly applied to the explanation of synergetic effect and evaluation of the effectiveness of cluster development. In the narrow sense in the report made by European Commission, the global network economy is defined as environment in which any company or individual located at any point of economic system can easily and with minimal cost contact with any other company or individual concerning cooperation, for trade, to exchange ideas and know-how or just for pleasure. In the broader sense the emergence of network economy is connected with the development of information technologies which results in evolution of modern economic systems, development of non-market regulation mechanisms and network organizational structures. On the whole there appears a sort of non-branch economics predominantly based on horizontal relations.

For the development of the postmodernity economics virtual resources of development are important: information, innovations, infrastructure (communications), knowledge, skills and institutions of postindustrial society. To the recent trends of preserving competitive advantages of cross-border regions are referred: formation of postindustrial development institutions – the instruments of decision-making (clusters, holdings, associations, etc.) and increasing knowledge-intensity of production and consumption. In modern context of economic growth it is necessary to reach a new level of institutional

development – network institutions of decision-making. For cross-border region it means the usage of new concepts “trans-region context, atmosphere, environment”, intangible factors of cross-border culture, traditions, values in the given region. What was considered on default everywhere the same and what could be ignored in the era of new economics, becomes the source of competitive advantage. Economy of knowledge as a constituent part of the postmodernity economics now rests not on natural resources, but on human capital and that is why it opens the question before regional politics about the formation of the environment for reconstruction and development of human and natural resources on the both sides of the border.

Knowledge and information become key source of productivity and competitiveness of these two determinative factors of any economics. New network economics is organized around information networks having no centre and is based on the constant cooperation between the nodes of these networks no matter if they are local or global. Network forms of organization provide considerable flexibility of the firms, individuals and countries, enabling them to constantly adapt to the whirl-like change of the conditions of capital, demand and technologies. The only rule is the absence of any rules. Even if there are any, they use the majority of networks.

Conclusions and recommendations for further development.

Thus, in modern postindustrial paradigm of regional development the priority of the main factors of location is being considerably transformed and it changes the functions of periphery territory: from the physical basis - the location of material (related to resources) factors of production it is being transformed into the environment for the development of human capital assets, innovations and the insuring of self- development of the European region:

1. A new postmodernity reality is defined as the combination of postindustrial production and network structure of the economic environment that presupposes the transplantation of the institutions by means of self-organizing of hybrid network clusters on the both sides of the border becoming the factor of cohesion and free circulation of the capitals in the European regions. The competitiveness in the new mode of production is determined by the rate of innovation and the capacity to continuously upgrade.

2. In the modern economic theory the dichotomy “integration – disintegration” is supplemented by one more category – “quasi integration”, and the dichotomy “firm – market” is expanded by the category “hybrid”. Using the criterion of the resources control, the quasi integration can be

determined as the process of taking over the behavior of formally independent companies with no control over their property.

3. A key feature of the cluster as the form of quasi integration is its geographical location, which reflects the concentration on the limited territory of the interconnecting companies, specialist providers and service providers, which compete and cooperate at the same time. Many specialists define clusters as practically an only one source of investments and innovations. Clusters are still considered to be some theoretical construction which practically does not have any tangible shape and positive externalities. But in the long-term future these quasi integration forms will become the main motivation of the innovative development.

References

1. Європейська Рамкова Конвенція про транскордонне співробітництво між територіальними общинами або властями (21 травня 1980, м. Мадрид). Текст українською мовою.— Рада Європи. 35 с.
2. Porter M. E. Clusters and competition: new agendas for companies, governments, and institutions // Porter M. E. On Competition. Boston, MA: Harvard Business School Press, 1998.
3. Porter M. The Competitiveness Advantage of Nations. - London: Macmillan, 1990.
4. Porter M. Competitive Strategy: Techniques for Analyzing Industries and Competitors. N.Y., 1980.
5. Шумпетер Й. Теорія економічного розвитку (Исследование предпринимательской прибыли, капитала, кредита, процента и цикла конъюнктуры) / Йозеф Шумпетер; [пер. с англ.]. — М.: Прогресс, 1982. — 455 с.
6. Williamson O. The Economic Institutions of Capitalism. –New York: Free Press, 1985. – 450 p.
7. Економіка України: стратегія і політика довгострокового розвитку / за ред. акад. НАН України В.М. Гейця. – К.: Ін-т екон. прогнозів.; Фенікс, 2003. -1008 с.
8. Геєць В. Кластери і мережеві структури в економіці – тема досить цікава, але на сьогодні ще до кінця не вивчена // Економіст.- №10. – 2008. – С.10 -11.
9. Макогон Ю.В., Ляшенко В.И. Формы и направления

межрегіонального трансграничного співробітництва: Монографія, изд. 2-е, исп. и допол./ -Донецк: ООО "Юго-Восток, Лтд", 2003. -512 с. - С. 176-177.

10. Мікула Н.А. Проблеми трансплантації інституту транскордонного співробітництва в Україні // Проблеми и перспективы развития сотрудничества между странами Юго-Восточной Европы в рамках Черноморского экономического сотрудничества и ГУУАМ. – Сб. научн. тр. Донецк-Мариуполь: ДонНУ, 2004. - С.166-169.

11. Норт Д. Інституції, інституційна зміна та функціонування економіки / Пер. з англ. І.Дзюб. – К.: Основи, 2000. – 198 с.

12. Полтерович В.М. Институциональные ловушки и экономические реформы // Экономика и математические методы. 1999. Т. 35. Вып. 2.

13. Полтерович В.М. Технология трансплантации экономических институтов. // Экономическая наука современной России – 2001. - № 3. – 25 с.

14. Коваленко С.И. Стратегия трансграничной кооперации ЕС как фактор глобальной экономической безопасности / С.И. Коваленко // Міжнародна економічна політика. Спец. випуск. - Частина 1: Науковий журнал Київського національного економічного університету імені Вадима Гетьмана. - Київ: КНЕУ, 2012. – С. 405 – 411.

15. Коваленко С.І. Транскордонний кластер як форма просторового розвитку євро регіонів / С.І. Коваленко // Вісник соціально-економічних досліджень. Зб. наук. пр. №3 (50), Частина II Одеського національного економічного університету. – Одеса: ОНЕУ, 2013. – С. 140-147.

16. Войнаренко М.П. Кластери як полюси зростання конкурентоспроможності регіонів // Економіст. - №10. – 2008. – С. 27-30.

Abstract

Kovalenko S.I.

Cross-border clusters as the form of transplantation of institutions into economic area of postmodernity

The mechanism of transplantation of network economics institutions is studied as the necessary growth factor of competitive capacity of the European regions in terms of European integration. By means of institutional approach it is justified that postindustrial economics evolved into the system of interlocking

institutions, forming a new economic area of postmodernity in cross-border dimension, in which such virtual resources of development are necessary as: information, innovations, ways of communication, knowledge and other institutions of postindustrial society. The subject and internal connections of cross-border cluster is investigated as the growth factor of competitive capacity of the European region in terms of tightening the integration process and the necessity of enhancement of the role of peripheral regions economics under cross-border cooperation.

It is concluded that a new postmodern reality lies in the combination of postindustrial production with the network construction of economic area, involving transplantation of the institutions by means of self-organization of hybrid network clusters on both sides of the border that becomes the factor of integration and free circulation of the funds in the European regions.