

## Externalities of cross-border cluster systems as a factor contributing to Euroregions' competitiveness

*The work is dedicated to research of externalities, positive effects of a meso-level of international integration formations represented by network structures of intra-industrial and inter-industrial cooperation in a form of cross-border cluster systems.*

*Major objectives of the work are, as follows: to prove statement, that international integration schemes in the form of cross-border clusters generate positive externalities which catalyze euroregional competitiveness; to apply newer approaches to revealing and systematization of cluster externalities; to emphasize special part played by network externalities and effect of «knowledge spill-over» within the cluster framework being of utmost importance for formation of cross-border cluster systems and increasing their competitiveness. Basing on the above research it seems reasonable to formulate specifics of cluster model in cross-border cooperation as the most adequate in modern conditions of global economy development and current stage of integration of Ukraine in general and, in particular, within the framework of the EU economic space.*

*Keywords: externalities, synergy effect, cross-border cluster system, European integration, euroregion, innovations, competitiveness.*

The cross-border clusterization is the most essential trend in modern euroregional economy development attributable to its globalization, saturation with IT and post-industrial innovative development. (The «Cluster» term, in other words, may be interpreted as «batch, block, and conglomeration»). Euroregional and inter-regional clusters are regarded as inter-industrial complexes of the top priority which determine development of post-industrial information economy both on national and regional meso-level [1, p. 8]. Their development is attributed to economic globalization and information economy industrial structure formation. Processes of globalization and advance in international competition being inherent with modern economy came out as an objective precondition to changes in competitiveness management paradigm, which consists in leaving traditional industrial policy for a newer, innovative one, based on network clusters. Cross-border clusters become one of institutional forms facilitating cross-border cooperation in trading, agriculture, tourism, transport and infrastructure which is beneficial for economic development of territories adjacent to state borders [2, p. 21].

According to the institutional theory, it is resource of personal relations based on trust and cooperation between business entities operating in unstable environment that construes the main source of economic growth and improvement of competitiveness representing a social capital, or social assets. This resource receives its development in the cluster concept grounding upon forming newer relations between business entities (network cooperation) and between state authorities bodies and business (governmental and private partnership) resulting to implementation of competitive advantages of cluster in such spheres, as speeding up innovations, development of human capital, marketing improvement. Peripheral territories' development is also linked to processes accompanying formation of industrial structure of post-modernistic information economy. Postmodern is sometimes called «an age of disappointed modernization» with vanishing reality replaced by network structures forming virtual economic space.

Development of postmodern economy occurs as a result of leaving centralized system of management for pluralism and, in prospect, vertical hierarchies for horizontal networks. Challenges for Ukraine in its striving to innovative type of development lie, in particular, in a necessity to form innovative cluster systems within Euroregional structures, with consequent positive effects (externalities).

Problems of development of forms and instruments of cross-border regionalism on the quasi-integration basis in terms of newer economic order and newer challenges imposed by global instability are reviewed in works by national economists, such as: B. V. Bourkinsky, V. M. Heyets [3], M. I. Dolishniy [4], V. S. Kravtsiv,

Yu. V. Makogon [5], S. I. Sokolenko, S. V. Filippova, and many others, studying various aspects of development of innovative forms of networked cooperation, including well-grounded strategies of economic growth in view of problems associated with European integration of Ukraine. Works by the enlisted authors determine theoretical and methodological aspects of competitive cluster development. Nevertheless, it is worthwhile to note, that mechanism of formation of cross-border cluster systems in Ukraine is not researched practically, which causes necessity to take a deeper look into this theme.

Analysis of inter-industrial relations within the cluster and reasonable choice of instruments enabling to identify and to evaluate clusters' levels of development has been performed applying the methodology of Expenditures-Production model with reference to works by national scientists, such as M. P. Voinarenko, V. I. Zakharchenko, N. A. Mikula [6, p. 130], as well, as foreign researchers, such as W. Isard, V. Leontief, P. Neikampf. There is a notable lack of Ukrainian researches and publications about problems of cross-border industrial clusters so far. As a rule, they are of general or declarative nature. Furthermore, there are obvious signs of scientific studies and development of practical steps being far behind from steps already made by business and certain adjacent States towards clustering of economic areas within Euroregions. At the same time, results of researches if problems of cross-border regional competitions achieved in the Institute of Problems of Market and Economic and Ecological Researches of National Academy of Sciences of Ukraine formed a necessary theoretical foundation, which enabled to adapt Porter's cluster conception to national realities. However, the demand to fill a gap between theoretical construction of industrial cluster model and public administration and business entities need for bringing scientific foundation under already adopted strategic solutions on the meso-level [7, p. 112]. It means that methodological instruments should be developed enabling to apply the model to trends and steps of cross-border industrial policy, strategy and programs of development of the Black Sea regions, and to competitive corporative strategies. Besides, cluster theory is also linked with corporation theory, innovative development theory, economic growth theory. However, with all available rather substantial researches dedicated to network clusters these structures still remain insufficiently studied in terminological and content areas in the cross-border aspect.

Among the multiplicity of definitions term «cluster» may be met alongside with «clustered systems» and «cluster structures». Cluster systems represent a complicated hierarchic structure formed by a grouping of subjects cooperating with each other on a stable basis in such forms as services exchange, personnel exchange, ideas exchange, information exchange. Such cooperation enables them to gain competitive advantages against similar, but not «systematically organized» business entities [8, p. 31].

The aim of the proposed work consists in research of external effects, or cluster externalities, which are results of euroregional economic self-organization, involving Ukraine, in the form of cross-border cluster system and construe a factor of their competitiveness. Major objectives of the work are, as follows: to prove statement, that international integration schemes in the form of cross-border clusters generate positive externalities which catalyze euroregional competitiveness; to apply newer approaches to revealing and systematization of cluster externalities; to emphasize special part played by network externalities and effect of «knowledge spill-over» within the cluster framework being of utmost importance for formation of cross-border cluster systems and increasing their competitiveness.

Growing significance of special component of network clusters' development transfer the cluster externalities definition into more virtual, multi-dimensional area demanding newer approaches to their identification and evaluation.

Increasing number of research worldwide indicates that geographical proximity of appropriate kinds of economic activities enables to gain a higher level in productiveness and innovations. Clusters, i.e. final manufacturers, suppliers, researching laboratories, educational establishments and other institutions within appropriate branch of economy are essential moving forces in regional economy development. Nowadays in Ukraine cluster models are addressed more and more often in search for solutions

for problems of regional economy development. Clusters creation already occupied its place in the agenda of regional and local public authorities in Ukraine.

For the past decades clusters became a basis of competitiveness of entire states and regions. Despite differences in approaches majority of European states worked out cluster strategy of their own. Significant number of economists admits that regions with clusters being formed at their territory gain leading positions in national economy. It are those regions, which begin to determine competitiveness of national economy. Clusters influence positively on regional economy status worldwide. And clusters cannot be left aside or ignored with increasing international competition in certain spheres. Cross-border clusters are formed in adjacent regions of two, or more, states overlapping their administrative borders. They encompass adjacent territories of neighboring states and include institutions and corporations situated at both sides of the borders. Therefore, cross-border clusters may be defined as groups of independent companies and associated institutions, which possess features, as below: they are geographically located in cross-border region; they cooperate and compete simultaneously; they specialize in various branches of economy; they are linked to each other with common technologies and skills and mutually contribute to each other, which enables finally to obtain synergic and networked effects, knowledge and skills diffusion (Fig. 1).

*Cross-border cluster systems (CBCS)* are proposed for consideration as objects of strategic planning. The CBCS are defined as social and economic systems which are

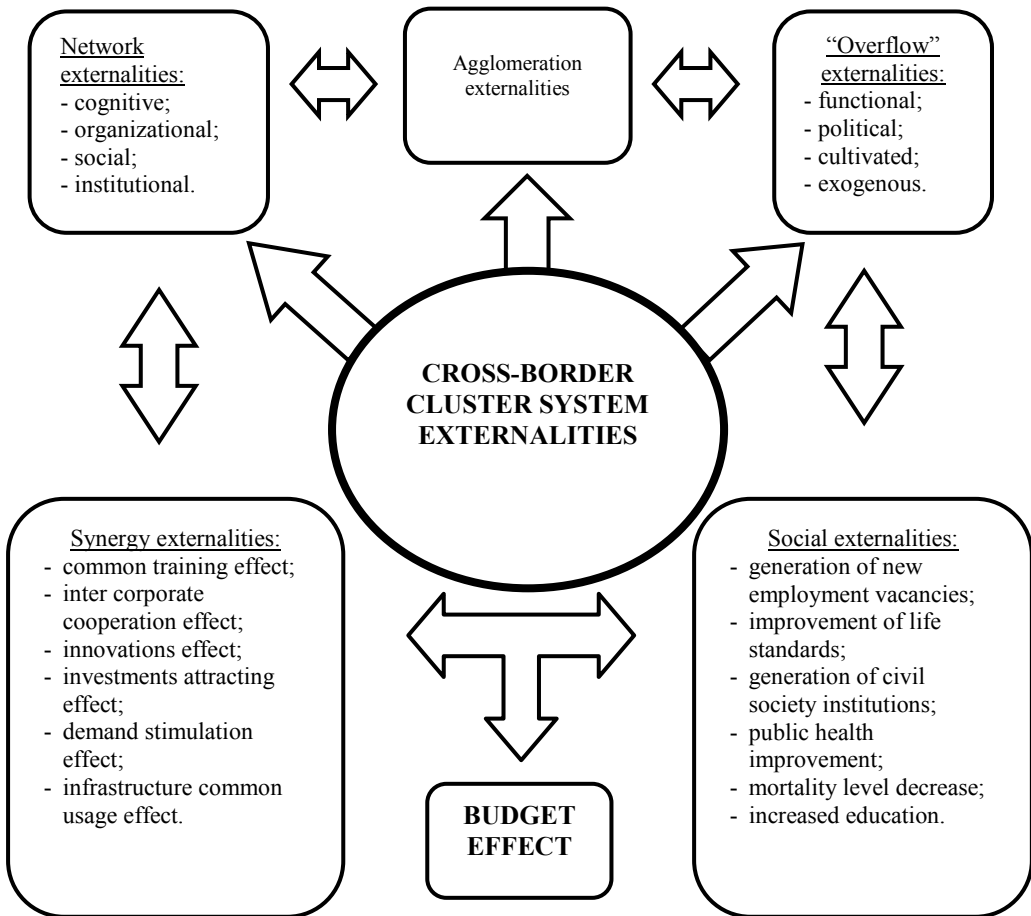


Fig. 1. The CBCS effects field

territorially localized, established by a group of independent business entities residing at both sides of a state border and approved and authorized by public authorities of states of the relevant Euroregion and civil society bodies. They interact with each other by means of exchanging with information, services, personnel and finances gaining higher efficiency in comparison with other, not systematically organized, objects. The CBCS may become centers of regional development by means of attracting investments, spreading innovations, forming human capitals of newer formation and quality, improvement of business relations culture, development of adequate institutions aiming to solve problems of entire national economy modernization. The CBCS are considered as a network organization of business entities linked in territorial and common activities contributing to each other located at both sides of national border (including specialized suppliers, services, manufacturers and customers) concentrating around scientific and innovations center.

This organization is connected vertically with local public authorities to improve competitiveness of business entities, regions and, finally, national economy of appropriate adjacent states. Cluster externalities are caused by the fact, that activities of a particular business entity affect activities of other business entities. Benefit and advantages spread along all the directions of links within a cluster: new manufacturers originating from other branches speed up the progress of entire cluster stimulating advance of scientific researches and development; information exchange runs freely and innovations are spread along the links running from suppliers or consumers contacting with multiple competitors due to network cooperation; communications between cluster lead to newer methods of competition facilitating innovations.

Cluster form of business organization leads to special form of innovation – «summarized innovation product». Cluster formation based on vertical integration forms not a spontaneous concentration of various scientific discoveries and technological inventions, but a certain system in spreading newer knowledge and technologies. Essential condition for inventions to transform into innovations and innovations, in their turn, into competitive advantages consists in formation of network of stable communications linking all the parties involved into cluster. Communications in the framework of international technological cooperation are particularly important since they beneficially contribute to international clusters generation. Clusters create a pre-condition for regional innovations systems formation.

Euroregional cluster is a spacious agglomeration of similar and associated economic activity lying a basis for local environment for cross-border economic area, enabling to overspill knowledge and to stimulate various forms of training and adaption at both sides of the border. Normally, such clusters consist of minor and medium-size business entities and the crucial element of their success is concentrated in social resources and geographical proximity. Another inherent feature lies in their components being not so dependent and related to each other as it is with industrial clusters.

Distinguishing feature of a cluster lies in generation of a number of positive effects within its framework, which enable to gain comparative advantages of such form of organization of inter-corporate relations. The first of them is an effect of manufacturing scale based on a core of innovation activeness represented by an individual business entity within the cluster. The second positive effect, typical for clusters, is a scope effect. In general, it appears with existing manufacturing factor, which may be used simultaneously to obtain multiple kinds of production. With corporations grouping into cluster the scoping effect increases substantially, since an opportunity appears to use such a multi-functional factor with various enterprises with minimum transaction expenses accompanying its transfer. The third positive effect of a cluster is that of synergy, which is generated, for example, when unified standards for production are applied. Once efficient cooperation is achieved, synergy effect appears. It consists in interaction of two, or more, factors with their joint feature substantially exceeds effects produced by each particular component in the form of their adding to each other. This effect displays itself in decreased integral corporate expenditures as a result of multi-functional resources spending. The revenue

obtained from synergic effect, i.e. from two, or more, elements' combination increases so, that productivity of such combination exceeds effect gained from a sum of its individual elements.

With all these three effects (scale, scope and synergy) in action non-profitable cluster participants may overcome the lower border of profitability with the help of specialization which enables to increase productivity and reduce costs of production. Thus, cluster participants gain additional competitiveness. Furthermore, innovations cluster is associated with so-called triggering effect. This effect occurs when primary innovations or initial production require to carry on a number of expensive secondary alterations. As a result, the revenue derived from the basic innovation or production may appear to be even less than expenditures for required re-organization. Facing such a situation for an individual business entity is very likely. Cluster participants may minimize costs for such secondary alterations, which enable them to implement most various technologies. Communications networks inherent with clusters create the most favorable conditions for their prompt spreading.

In view of current global economic trends and priorities in development of society social development becomes a strategic prospect to achieve stability and competitiveness of a peripheral territory. So, the part to be played by socially oriented network clusters in a Euroregion increases substantially. M. Porter and M. Enright revealed three main motives to stimulate development of cluster systems.

- 1) They facilitate to increasing labor productiveness and manufacturing efficiency;
- 2) They stimulate innovations;
- 3) They make it easier to commercialize knowledge and production.

Clusterization provides certain positive externalities within the framework of traditional (territorial) approach. They are, as follows:

- 1) Labor resources' pool formation (according to Alfhred Marshall concept) pool;
- 2) Specialized infrastructure reducing expenditures;
- 3) Generation of newer economic formations (an indication of dynamic development);
- 4) Spin-off effects [8, p. 64].

The cross-border cluster systems (CBCS) are considered herein as, on the one side, localized system including enterprises of an individual branch and, on the other side, as urbanized agglomerations encompassing multiple branches of economy and generating agglomerated effects as a result of their:

- Localization;
- Urbanization;
- Jacobs' externalities;
- Advantages resulting from interrelated variety.

The CBCS participants may have a common access to well-developed infrastructure, highly-qualified labor personnel or specialized services at both sides of a state border bringing benefits to all kinds of business in various branches within the region. (Fig. 1).

As it was stated by Jane Jacobs, expert in urbanization, the urbanization played a decisive part in regional economic development. Newer knowledge appearing in cities contribute to newer economy branches generation and development of human potential (Jacobs, 1969). It is important to note, that scale of cities and variety of their residents provide a multiplicity of mutual relations generating newer ideas.

Creating and development of newer products and technologies («new works», as they were called by Jane Jacobs) are the source of economic development. Comparing costs-saving effects from localization and urbanization, Jane Jacobs insisted on the point of view that urbanization had had a higher priority and included into her concept new types of diversification, other than branches' diversification. Nowadays, cost-saving from urbanization are defined as *Jacobs' Externalities*.

Attention should be also paid to the fourth revealed category of externalities – advantages of interrelated variety from the point of view of cross-pollination with ideas. This type of externalities is in less dependence on cluster localization and seems to be the most prospective. The field of effects produced by international cluster systems may be clear to percept in the context of well known «triple spiral» model



combining efforts applied by three categories of involved parties – business, public authorities and science – proposed by Henry Itzkovitz from Stanford University and Loet Leidesdorf from Amsterdam University. In order to reveal effects of international cluster system this principle is overlaid upon already noted types of proximity between the parties involved into network cooperation – all, except geographical as its significance decreases gradually:

- Cognitive (formation of uniform knowledge base, possibility to develop alliances in scientific research activities);
- Organizational (agreements of organizational nature between partners which may smoothen or correct market failures);
- Social (formation of trust area and canals for knowledge spill-over);
- Institutional (establishment of informal institution capable to spread and influence corporations beyond the cluster).

Corporations within an individual cluster gain their advantages from an entire set of positive externalities: access to developed institutional environment; skilled labor personnel; legitimacy; spillover of reputation and status; and others. As noted by M. Porter in 1998, potential benefits from clustering may include: increased and simplified access to specialization factors; ease access to market and technologies information; complementarities and cooperation between corporations; access to infrastructure; competition [9].

Furthermore, there are other externalities of non-economic nature which make a cross-border cluster a prominent solution in such aspects, as manufacturing deployment or even a strategy based on knowledge. These externalities are connected with gain in legitimacy and infinity reduction by means of simulation.

From the point of view of development of exterritorial information clusters so called *network externalities* gain the highest significance. There is a regulation, confirmed for technological network (e.g. in telecommunications area) – the larger is a network, the higher is its value for an individual participant, since it provides access to a greater number of potential partners. This advantage does not require extra expenditures for individual participants in the network and is a classic example of external savings (externalities). However, in the cluster context, this phenomenon should be also evaluated from the point of view of access to other infrastructural resources. As it is stated, in particular, the externalities occur as a result of advance in education system, which provides specific qualification skills and permanently supplies labor resources for development of corporations in cluster [10, p. 76]. Level of qualification available with system of education or in other companies involved into cluster represents an external saving (externality) [11, p. 28]. Total improved qualification level and extent of specialization meeting the needs of cluster development represent external resources accessible for an individual corporation free of charge. From the point of view of positive network externalities it is not geographical concentration being the key feature, but the extent of their interconnection, which to greater extent meets the modern idea of international mutual relations in an individual cluster and between clusters [12, p. 11].

To the author's opinion, effects of international cluster systems are formed by a combination of spill-over effects within the framework of international integrating formations and industrial and innovative clusters. Such combinations provide also an opportunity for synthesis of cluster development concepts and those of international economic integration. For this purpose, probable spill-over effects should be determined for international integration processes and industrial and innovative clusters being externalities in their essence and, overlapping each other, form effects of cross-border cluster systems [13, p. 118].

Analyzing concepts of international economic integration, theory of neofunctionalism attracts a certain interest. Being rather disputable, it brings an important, to the author's opinion, idea of «*spill-over*» explaining certain motivating forces of integration processes. In general, «*spill-over effect*» was interpreted by neofunctionalists as a situation, in which certain action undertaken with a certain

purpose generates a situation, in which the original aim may be achieved only by means of undertaking other actions, which, in their turn, generate needs and conditions for yet other actions, and so on. A kind of «toothed gear effect», as suggested by Jean Monnet to describe a process of European integration, where each decision in cooperation on European level should inevitably draw the parties to enter into another agreement deepening the integration [14].

Neofunctionalists (E. Haas, L. Lindberg) identified two types of «spill-over effect»: *political* and *functional*. Later on, they were added with *cultivated*, i.e. artificially developed, and *exogenous* spill-over effects [15].

It is the functional effect, that occupies the top priority for international cluster systems' development. The chain reaction of involvement of related and supporting branches into integration process is a cornerstone for international cluster systems formation, whether being cross-border clusters in traditional branches of economy, or virtual information clusters involving the newest hi-tech sectors. Functional type of spill-over effect in CBCS is explained by tight and close interrelations in modern industrial economies. Therefore neither sector may be separated from others. Thus, should participants states integrate either sector of their economies, its relation with other sectors will inevitably cause the integration spill-over to other sectors (e. g. it is impossible to perform an insulated integration for a certain power generating resource production, since it causes spill-over effect within entire branch).

Creation of super-national self-administration models similar to those predicted by neofunctionalists, which emerged later on in the EU. Political spill-over leads to generation of super-national political elites applying pressure from top to deepen integration processes.

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Network externalities and knowledge spill-over should be marked as those of great significance for international cluster system formation among other cluster externalities. Both these effects are directly related with quality aspect of development of international economic integration. Therefore, the possibility of their development should be provided at the very start of forming of any integration structure. From the point of view of development of cooperation in territories adjacent to state borders within the framework of international integration formations, the crucial criterion of its efficiency, to the author's opinion lies in transfer to unified cross-borders region by means of development of contact function of the state border in the format of network interactivity.

Basing on the above research it seems reasonable to formulate specifics of cluster model in cross-border cooperation as the most adequate in modern conditions of global economy development and current stage of integration of Ukraine in general and, in particular, within the framework of the EU economic space. Thus, the synthesis of concepts of cluster development and international integration formations is possible, since both subjects possess externalities inherent to cross-border cluster systems.

So, cross-border clusters and cross-border united formations being newer for Ukraine forms of cross-border cooperation generated with participation of regional clusters may be gradually implemented with regulating their activities firstly at local level spreading successful and positive experience to regional level of international cooperation. Analyzing foreign experience in cross-border clusters and other forms of international cooperation, optimum implementation of various forms of cross-border cooperation may be achieved appropriately to national interests of Ukraine and demands of time being.

## References

1. Assembly of European Regions (1996). *Declaration on regionalism in Europe*. Strasbourg Cedex, France. Retrieved from [http://aer-www.ameos.net/fileadmin/user\\_upload/PressComm/Publications/DeclarationRegionalism/DR\\_GB.pdf](http://aer-www.ameos.net/fileadmin/user_upload/PressComm/Publications/DeclarationRegionalism/DR_GB.pdf)
2. Oxford Research AS (2008, January). Cluster policy in Europe. A brief summary of cluster policies in 31 European countries. Europe Innovation Cluster Mapping Project.
3. Heyets, V. M., Semynozhenko, V. P., & Kvasnyuk, B. Y. (Eds.). (2007). *Stratehichni vyklyky XXI stolittya suspil'stvu ta ekonomitsi Ukrainy [Strategic challenges of the XXI century for society and economy in Ukraine]* (Vols. 1-3): Vol. 3. Konkurentospromozhnist' ukraïns'koyi ekonomiky [Competitiveness of the Ukrainian economy]. Kyiv: Phoenix. [in Ukrainian].
4. Dolishniy, M. I., Belenki, P. Y., & Homolska, N. I. (2006). Stratehichni faktory hlobal'noyi konkurentsyyi i mekhanizmy zabezpechennya konkurentospromozhnosti rehioniv [Strategic factors of global competition and mechanisms to ensure the competitiveness of regions]. In *Competitiveness: Problems of Science and Practice*. Kharkiv: INGEK, pp. 9-31.
5. Makogon, Yu. V. (2004). Chernomorskiye oriyentiry yevropeyskoy integratsii Ukrainy v mirovoye khozyaystvo [Black Sea guidelines for European integration of Ukraine into the world economy]. In *Problemy i perspektivy razvitiya sotrudnichestva mezhdru stranami Yugo-Vostochnoy Yevropy v ramkakh Chernomorskogo ekonomicheskogo sotrudnichestva i GUUAM [Problems and prospects for development of cooperation between Southeast European countries within the Black Sea Economic Cooperation and GUUAM]* (pp. 22-38). Svistov-Donetsk: Donetsk National University.
6. Mikula, N. A. (2008). Stratehiya formuvannya ta pidtrymky rozvytku transkordonnykh klasteriv [Strategy of formation and support the development of cross-border clusters]. In Y. I. Boyko (Ed.), *Sotsial'no-ekonomichni problemy suchasnoho periodu Ukrainy [Socio-Economic Problems of the Modern Period of Ukraine]: Vol. 71(3). Klasteri ta konkurentospromozhnist' prykordonnykh terytoriy [Clusters and competitiveness of the border areas]* (pp. 129-141). [in Ukrainian].
7. Kleiner, G. B. (2004). *Evolutsiya institutsional'nykh sistem [The evolution of institutional systems]*. Moscow: Nauka Publishers.
8. Marshall, A. (1928). *Elements of Economics of Industry: being the First Volume of Elements of Economics*. London: Macmillan.
9. Porter, M. E. (1998). Clusters and competition: new agendas for companies, governments, and institutions. In M. E. Porter, *On Competition*. Boston, MA: Harvard Business School Press.
10. Porter, M. E. (1990). *The Competitiveness Advantage of Nations*. London: Macmillan.
11. Armstrong, H. W., (1995). The Role and Evolution of European Community Regional Policy. In B. Jones, M. Keating (Eds.), *The European Union and the Regions* (pp. 23-62). Oxford: Clarindon Press.
12. Anderson, N. V. (2007). Ukraine-EU Trans-Border Cooperation: Developing Euro regions on the Border (The Case Study of Lower Danube). In: *Democracy vs. Authoritariry*. Abstracts of Warsaw East European Conference 2007 (pp. 11-12). Warsaw.
13. Rekord, S. I. (2012). *Metodologiya razvitiya klasternykh sistem kak mezourovnya mezhdunarodnoy ekonomicheskoy integratsii [Methodology for the development of cluster systems as a meso-level of international economic integration]*. Saint-Petersburg: Saint-Petersburg State University of Economics and Finance.
14. Rekord, S. I. (2010). *Razvitiye promyshlenno-innovatsionnykh klasterov v Yevrope: evolyutsiya i sovremennaya diskussiya [Development of industrial-innovative clusters in Europe: evolution and modern discussion]*. Saint-Petersburg: Saint-Petersburg State University of Economics and Finance.
15. Pessoa, A. (2011, Oct.). The cluster policy paradox: externalities vs. comparative advantages. *Working paper 4319*. CEFUP, Faculdade de Economia, Universidade do Porto.

## Список використаних джерел

1. Declaration on regionalism in Europe / Assembly of European Regions. – Strasbourg Cedex, France, 1996. – 12 p. Retrieved from [http://aer-www.ameos.net/fileadmin/user\\_upload/PressComm/Publications/DeclarationRegionalism/DR\\_GB.pdf](http://aer-www.ameos.net/fileadmin/user_upload/PressComm/Publications/DeclarationRegionalism/DR_GB.pdf)
2. Cluster policy in Europe. A brief summary of cluster policies in 31 European countries : Europe Innovation Cluster Mapping Project. – Oxford Research AS. – 2008. – January. – 34 p.
3. Стратегічні виклики XXI століття суспільству та економіці України : в 3 т. / Ред. : В. М. Гець, В. П. Семиноженко, Б. Є. Кваснюк. – Т. 3 : Конкуренентоспроможність української економіки. – К. : Фенікс, 2007. – 556 с.
4. Долишній М. І. Стратегічні фактори глобальної конкуренції і механізми забезпечення конкурентоспроможності регіонів / М. І. Долишній, П. Ю. Бельський, Н. І. Гомольська // Конкуренентоспроможність: проблеми науки і практики : монографія. – Харків: ІНЖЕК, 2006. – 248 с. – С. 9-31.
5. Макогон Ю. В. Черноморские ориентиры европейской интеграции Украины в мировое хозяйство / Ю. В. Макогон // Проблемы и перспективы развития сотрудничества между странами Юго-Восточной Европы в рамках Черноморского экономического сотрудничества и ГУУАМ : сб. науч. трудов / Донецкий национальный университет. – Свиштов-Донецк, 2004. – С. 22-38.



6. Мікула Н. А. Стратегія формування та підтримки розвитку транскордонних кластерів / Н. А. Мікула // Соціально-економічні проблеми сучасного періоду України : [зб. наук. пр.] / Інститут регіональних досліджень НАН України ; Є. І. Бойко (відп. ред.). – Львів, 2008. – Вип. 3(71). Кластери та конкурентоспроможність прикордонних територій. – 546 с. – С. 129-141.
7. Клейнер Г. Б. Эволюция институциональных систем / Г. Б. Клейнер. – М.: Наука, 2004. – 240 с.
8. Marshall A. Elements of Economics of Industry: being the First Volume of Elements of Economics. – London: Macmillan, 1928.
9. Porter M. E. Clusters and competition: new agendas for companies, governments, and institutions / M. E. Porter // Porter M. E. On Competition. – Boston, MA: Harvard Business School Press, 1998.
10. Porter M. E. The Competitiveness Advantage of Nations. – London: Macmillan, 1990.
11. Armstrong H. W. The Role and Evolution of European Community Regional Policy / H. W. Armstrong // The European Union and the Regions / B. Jones, M. Keating (Eds.). – Oxford: Clarindon Press, 1995. – P. 23-62.
12. Anderson N. V. Ukraine-EU Trans-Border Cooperation: Developing Euro regions on the Border (The Case Study of Lower Danube) // Democracy vs. Authority. Abstracts of Warsaw East European Conference 2007. – Warsaw, 2007. – P. 11-12.
13. Рекорд С. И. Методология развития кластерных систем как мезоуровня международной экономической интеграции / С. И. Рекорд ; Санкт-Петербургский государственный университет экономики и финансов. – СПб., 2012. – 211 с.
14. Рекорд С. И. Развитие промышленно-инновационных кластеров в Европе: эволюция и современная дискуссия / С. И. Рекорд ; Санкт-Петербургский государственный университет экономики и финансов. – СПб., 2010. – 109 с.
15. Pessoa A. The cluster policy paradox: externalities vs. comparative advantages / CEFUP, Faculdade de Economia, Universidade do Porto // Working paper № 431, 2011 Oct.

#### **Коваленко С. І. Екстерналії транскордонних кластерних систем як фактор конкурентоспроможності євро регіонів.**

*Досліджено екстерналії – позитивні ефекти мезорівня міжнародних інтеграційних об'єднань, що становлять собою мережеві структури внутрішньогалузевого і міжгалузевого співробітництва у вигляді транскордонних кластерних систем. Серед кластерних екстерналії, які мають велике значення для формування міжнародних кластерних систем, необхідно відзначити мережеві екстерналії (network externalities) і «перелив знань» у межах кластера: обидва види ефектів мають пряме відношення до якісного розвитку міжнародної економічної інтеграції, тому можливість їх розвитку має закладатися з самого початку формування будь-якого інтеграційного об'єднання. З точки зору розвитку прикордонного співробітництва в межах міжнародних інтеграційних об'єднань, критично важливим критерієм його ефективності є перехід від прикордонних до єдиного транскордонного регіону шляхом розвитку контактної функції кордону у вигляді мережевих взаємодій. У контексті синтезу теорії міжнародної економічної інтеграції та кластерної концепції обґрунтовано, що кластерний підхід є найбільш ефективним механізмом розвитку транскордонних економічних взаємодій і, зрештою, становить собою мезорівень конкурентоспроможних міжнародних інтеграційних систем і необхідною умовою якісного зростання євроінтеграції України.*

*Транскордонні кластери формуються в транскордонних регіонах двох і більше країн «поверх» їх адміністративних меж. Вони охоплюють суміжні прикордонні території сусідніх держав, до складу яких входять інституції та фірми, розміщені по обидва боки кордону. Тому транскордонні кластери можна визначити як групи незалежних компаній та асоційованих інституцій, які: географічно зосереджені у транскордонному регіоні; співпрацюють і конкурують; спеціалізуються у різних галузях, пов'язані спільними технологіями та навичками і взаємодоповнюють одна одну, що в кінцевому підсумку дає можливість отримання синергетичних і мережевих ефектів, дифузії знань і навичок.*

*Таким чином, синтез концепцій кластерного розвитку та міжнародних інтеграційних об'єднань можливий, оскільки обидва види суб'єктів володіють екстерналіями, характерними для транскордонних кластерних систем.*

*Зроблено висновок про доцільність упровадження кластерної моделі прикордонного співробітництва як найбільш адекватної сучасним умовам розвитку глобальної економіки і етапу інтеграції України, зокрема, у межах Єдиного економічного простору ЄС.*

*Ключові слова: екстерналії, синергетичний ефект, транскордонна кластерна система, євроінтеграція, євро регіон, інновації, конкурентоспроможність.*

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