

UKRAINIAN BUSINESS IN EUROPEAN INTEGRATION PROCESS: A CLUSTER APPROACH

Tamara Kachala and Yanina Kovalchuk

Cherkasy State Technological University, Cherkasy, Ukraine

ABSTRACT

This article deals with the investigation of the mechanisms for the activation of businesses in the Ukraine. It is possible through increasing the cooperation with the European Union (EU). The paper emphasizes the need for radical changes in the conduct of Ukrainian businesses in order to enhance investment and innovation. This paper proposes that today the international integration processes in the Ukraine require new approaches and technology cooperation, promotion the transfer of innovation, and the investment processes. Indicated in this paper are the current approaches and new challenges that have arisen today which require rapid reorientation of the close relationship of science and industry and the development of information and in the infrastructure sector. The authors propose the use the cluster integration processes in the region for intensification investment and innovation activity that is necessary today to strengthen cooperation with the EU. The paper is presents a method of complex analysis of the regional development characteristics and regional cluster initiatives; and their reflections on a map.

Keywords: business development, opportunities, potential, innovation, investment, cooperation, cluster, regional economy.

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INTRODUCTION

Current global trends could open up new avenues for the Ukraine and present new horizons for growth. The Ukraine is a young developing country that is building a market economy and is setting the current legislative provisions for the effective regulation of businesses. The need for new mechanisms for state control of the economy is caused by the opening of the European market for domestic producers.

The need to intensify Ukrainian policies in the direction of cooperation with the EU caused a number of advantages that are specific to the European standards of living: level of economic development, high quality of life, human rights, democracy, energy security, free tours.

There are also new problems of industrial and regional growth: the need for cooperation between the Ukraine and countries of Europe, and the reorientation of markets, growth of

competitiveness and the quality of Ukrainian products, the establishment of clear strategic guidelines for industrial development. The main objectives that are strategically important in developing of Ukraine are defined by global leadership in the production of food and energy, which is caused by the presence of significant untapped potential in these areas. So, the implementation of effective mechanisms of activation is planned in these fields.

We have proposed our own interpretation of the need to establish effective linkages and the integration definitions of cluster models of integration.

We consider the mechanisms of integration relations of cooperation based on value chains of participants who develop models, which are based on mutual interrelation chains and the effects of cooperation within the integration association.

In turn, we review the cluster integration model as a feature of the inter-regional economy

that provides dynamic measures which are based on increasing profits and innovation. This is important in connection with external effects and enhances the strengths of the participants.

Such key concepts as cooperation, cluster and innovation - are interrelated, because by attracting innovations in such integration associations in cooperation as a cluster, it makes it possible to maximize the results from arising synergy effects.

The main goals of our research are:

- Identification of the main features of Ukrainian business;
- identification of the opportunities of development in today's challenging environment;
- determining the need for the intensification of innovation and investment activity to ensure the identified opportunities;
- the analysis of the current cluster activity in Ukraine;
- present proposals for intensification of such activities.

Results of the implementation of the goals formulated proposals for the revitalization of Ukrainian business towards European integration by enhancing innovation and investment activities, using new possibilities of development based on cooperation and the formation of cluster initiatives.

LITERATURE REVIEW

Today in Europe there is a clear focus on innovation and the development of mechanisms for implementation of innovative technologies in action. In most of the economic papers the importance of such processes is emphasized. Back in 2003, it was determined that **"The innovation can be incremental or radical, it can result from technology transfer or through the development of new business concepts, it can be technological, organizational or presentational. Achieving an innovation performance that makes the European Union a world reference for innovation represents an enormous opportunity that can translate into raised living standards over the coming years. Progress towards such a more innovative European economy is however proving tentative and fragile"** (Brussels, 2003).

Today, the EU defines innovation development

a priority, as evidenced by the following: "We need to do much better at turning our research into new and better services and products if we are to remain competitive in the global marketplace and improve the quality of life in Europe. We are facing a situation of 'innovation emergency'. Europe is spending 0.8% of GDP less than the US and 1.5% less than Japan every year on Research & Development (R & D). Although the EU market is the largest in the world, it remains fragmented and not innovation-friendly enough. And other countries like China and South Korea are catching up fast. The Innovation Union is a crucial investment for our future. For example, achieving our target of investing 3% of EU GDP in R & D by 2020 could create 3.7 million jobs and increase annual GDP by € 795 billion by 2025", (Brussels, 2003).

In the Ukraine today there are new prospects, but there is a need to identify the mechanisms for the activation of investment and innovation processes. One such mechanism is the cluster.

For the first time to the phenomenon of "clustering" was identified by A. Marshal (1920), when he noticed a tendency towards concentration of specialized companies in the industrial area. Schumpeter (1934) stated the fact of the innovation cluster.

However, the founder of the theory of clusters considered to be Michael Porter because he was developing his theory of competitive advantage. He drew the attention of the authorities to the concept of industrial clusters. Michael Porter still continues today to develop the concept, helping to improve theoretical approaches to the analysis of cluster effects. **Special attention is paid Porter's regional aspects of cluster and notes the positive trends depending cluster activity and employment growth in the region.**

Thus, the most widely used definition of cluster is **Porter's interpretation that defines a cluster as a group of geographically neighboring interconnected companies and associated organizations operating in a particular area and featuring the activities and complement each other** (Porter, 1985).

In the world there are different approaches to the interpretation of this category. G. Swann and **M. Preveser (1996) stated, "cluster – a group of companies within the same industry, which are located in the same geographic region"**. S. Rosenfield (1997) indicated "cluster – a concentration of firms that are able to provide a

synergistic effect due to geographic proximity and interdependence". W. Elsner (1998) also defined a cluster as being: "Cluster – a group of firms that are functionally linked both vertically and horizontally". L. Van den Berg, E. Braun, and W. van Widen (2001) stated that "Clusters – localized network of specialized organizations in which production processes closely linked due to the exchange of goods, services and knowledge".

Despite a long and constructive study the problem of innovation in performance and cluster development, these issues remain relevant and need to have a developed process for practical mechanisms for implementation.

We propose to continue the development of scientific achievements in innovation and cluster by unification of these concepts into single interconnected mechanisms of intensification for Ukrainian businesses and for promising a new direction in terms of cooperation with the European Association.

REQUIREMENTS AND OPPORTUNITIES THAT ARE IN FRONT OF UKRAINIAN BUSINESSES TODAY

During the last year there have been changes in the structure of exports in the direction of increasing exports from the Ukraine to EU countries. So, during six months in 2014 compared with the previous year the percentage of exports to the EU increased from 28% to 33%.

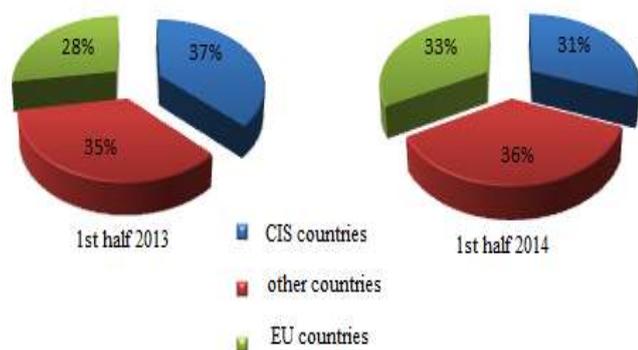


Figure1. Structure of Ukrainian export (*State Statistics Service of Ukraine*)

Today transformations in Eastern Europe make it possible to establish trans-border cooperation among Ukrainian and European businesses, to contribute to the development of new joint projects, and to revitalize tourism in both directions. Today, Ukrainian businesses are ready to introduce new forms of cooperation, such as the organization of clusters, tech incubators in

various areas of both production and services (tourism) in order to attract foreign expertise and investments.

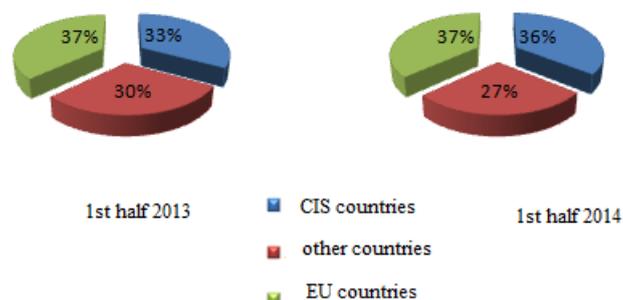


Figure2. Structure of Ukrainian import (*State Statistics Service of Ukraine*)

Export growth in Ukraine is possible when there are significant changes in approaches to business. The basis for modern changes in business in the Ukraine has been the increasing investment attractiveness and innovative activity.

Ukrainian businesses today are in fairly difficult conditions for development. Existing problems, as well as in the internal environment business structures and in the environment in which they are located contribute to the problem.

In turn, the difficult conditions for the functioning business structures within the country have made it complicated for their work in foreign economic activity.

The main problems inside the country for business development are:

- accelerating inflation, falling revenues;
- imperfect tax system, which is too burdensome for small producers;
- high level of illegitimate businesses;
- low level of management, lack of knowledge, experience and culture of market relations;
- lack of business support infrastructure;
- the lack of complete and reliable information on the state and market conditions, low levels of consultancy services and special education programs;
- the virtual absence of state financial support;
- western partners distrust and negative mental attitude of the population to the business;
- the lack of an effective mechanism for

implementing government policy to support business;

- imperfect system of accounting and statistical reporting of small businesses.
- At the same time, Ukrainian businesses have several positive characteristics that should interest foreign partners. Ukrainian businesses have strong potential.
- resource potential (availability fertile lands and minerals);
- personnel potential (highly qualified professionals);
- research potential (presence of a large number of scientific institutions using advanced scientific developments);
- infrastructure potential (availability of powerful industrial objects and institutions for their functioning).

But today there are also a number of negative features that hinder the efficient operation of Ukrainian businesses in the international market.

1. Political and legal problems arising from imperfections or lack of necessary legislation, arbitrary interpretation, preservation of the potential of abuse of political stability in our country and in our foreign partners

2. Organizational and structural problems of business due mainly to causes such as imperfect and underdevelopment of the domestic market infrastructure institutions slow the Ukraine's entry into the international political and economic structures, conservatism in decision-making and more.

3. Economic problems are caused by lack of business convertibility of the currency, a violation of the principles of market pricing imperfections of real economic incentives, lack of an effective system of international marketing as a condition of effective communication between supply and demand internationally.

4. Socio-economic problems of business due to conservative economic thinking, lack of professional management experience in a large part of the subjects of international economic relations, rejection of a certain part of society some forms of international business, lack of knowledge of foreign languages and more.

We believe that the possibilities of cooperation between Ukrainian and international business partners should be joint ventures and integration organizations.

In order to ensure sustainable business growth on selected strategic goals it is necessary to justify qualitatively new investment and innovation development models that will provide modernization and transfer of modern technology. Such models include the organization of clustered forms of associations in business and create tech incubators. The importance of establishing regional and cross-border clusters is caused by the need to consolidate resources for strategic development areas. In terms of the global innovation mechanism development of economic systems are obtained by the development of innovative technologies, which are based on new physical principles and effects, as well as new systems and business practices. Therefore, the cluster is being implemented as not only an optimizing mechanism, but it becomes the trigger and promotion of new technical and socio-economic systems activities, and a mechanism of technical re-equipment of the previous technological structure.

Today international integration processes in the Ukraine require new approaches and technology cooperation, promoting the transfer of innovation and the investment processes. The strategic choice of the Ukraine is directed into the integration and cooperation with the European Union. But the difficult political situation in the Ukraine today has a negative impact on the development of innovation and investment attractiveness.

One of the promising areas in the field of innovation and investment cooperation between the Ukraine and EU is that the Ukraine is going to become an associate member of the EU Framework Programmer for Research and Innovation "Horizon 2020" (HORIZON 2020). This program provides an innovative breakthrough and active investing involved in scientific research that establishes the relationship of science and immediate implementation of its results. These issues are extremely important for the Ukraine today. Effective experience in setting up and the implementation of financial instruments will ensure the competitiveness of Ukrainian goods and services.

Current approaches and new challenges that have arisen today require rapid reorientation of the close relationship of science and industry, the development of information and infrastructure sector. Ukraine businesses need knowledge-

based technologies. The Ukrainian economy needs to direct investment processes to the most promising economic activities with the ultimate goal of selling products or services towards the European Union. The restructuring, which today has become extremely important, involves changes in energy, manufacturing, agriculture and tourism.

THE NEED TO INTENSIFY INVESTMENT AND INNOVATIVE ACTIVITY AND CLUSTER AS A MECHANISM OF SUCH IMPLEMENTATION IN UKRAINIAN REGIONS

There are new challenges in development which makes the Ukrainian manufacturer use modern advanced technology. Only this measure can provide to improve the quality of products and services and improve their performance. Therefore, the intensification of innovation, investment and integration processes today are complementary and interdependent.

The Ukraine owns a significant innovation potential, but there is a lack of a mechanism for the transformation innovation into the practice of using.

The current approaches and new challenges that have arisen today require rapid reorientation of the close relationship between science and industry. There needs to be a development of information and infrastructure sector. Ukraine businesses need knowledge-based technologies. The Ukrainian economy needs to direct investment processes to the most promising economic activities with the ultimate goal of selling products or services towards the European Union. The restructuring, which today has become extremely important, involves changes in energy, manufacturing, agriculture and tourism. The implementation of regional development strategies based on the dominant industrial production to the economic development strategy, based on knowledge is very important. In order to determine the relationship between R & D and regional economies management it is necessary to strengthen regional conditions for the development of innovative processes.

Operation of the regional economy depends heavily on the strength of the local cluster and the number of innovations.

Research competitiveness and economic development tend to focus on the nation as the

unit of analysis, and on a national basis and policies as drivers. Regional scientists and economic geographers have long understood that there are significant differences in economic performance between regions in virtually every country. This suggests that many of the major determinants of economic operation can be found at the regional level.

To investigate these differences in regional activities in the method described by Porter (Porter, 2005) proposed to consider the various industries that make up the regional economy. Distribution of economic activity in industry shows three common types of industries with very different models of spatial competition and territorial behavior. Their distinction is important to test hypotheses about regional performance (operation).

Effective mechanism to attract modernization processes in the enterprises of the region is the organization of regional innovation clusters, which are the scope of cooperation between governmental, industrial and academic institutions. Cluster - a voluntary association of independent entities that retain their autonomous legal status, but are working together for the sake of competitive production and overall economic and personal benefits. Clusters are formed in a particular area of business, provided that members of the cluster are linked technologically and, often, on the basis of geographical proximity (Porter, 2005). This cluster approach is a modern international recognized alternative implementation of innovative modernization through an established mechanism of interaction.

Thus, we select the cluster concept as a regional association of regional governments and business to the area, together with that of industries; science and education, due to the effect of interaction significantly affect the potential of the region.

Today in all the developed countries in the areas of big business attempt intensified mergers and acquisitions to form a super-multinational companies, strategic alliances and partnerships between them. Small and medium business head towards the formation of regional clusters.

Cooperation in the region at different levels is a prerequisite for innovation and increase the competitiveness of both enterprises and regional economy.

Innovation is a key driver of business and

regional competitiveness. They are seen as an interactive learning process, involving various social and economic actors who deal with a variety of information and knowledge.

Possible areas of involvement innovation in regional space to develop regional strategies for modernization (Figure 3):

- purchase of innovative implementations of the environment;
- development of innovations in R & D institutions in a particular regional space.

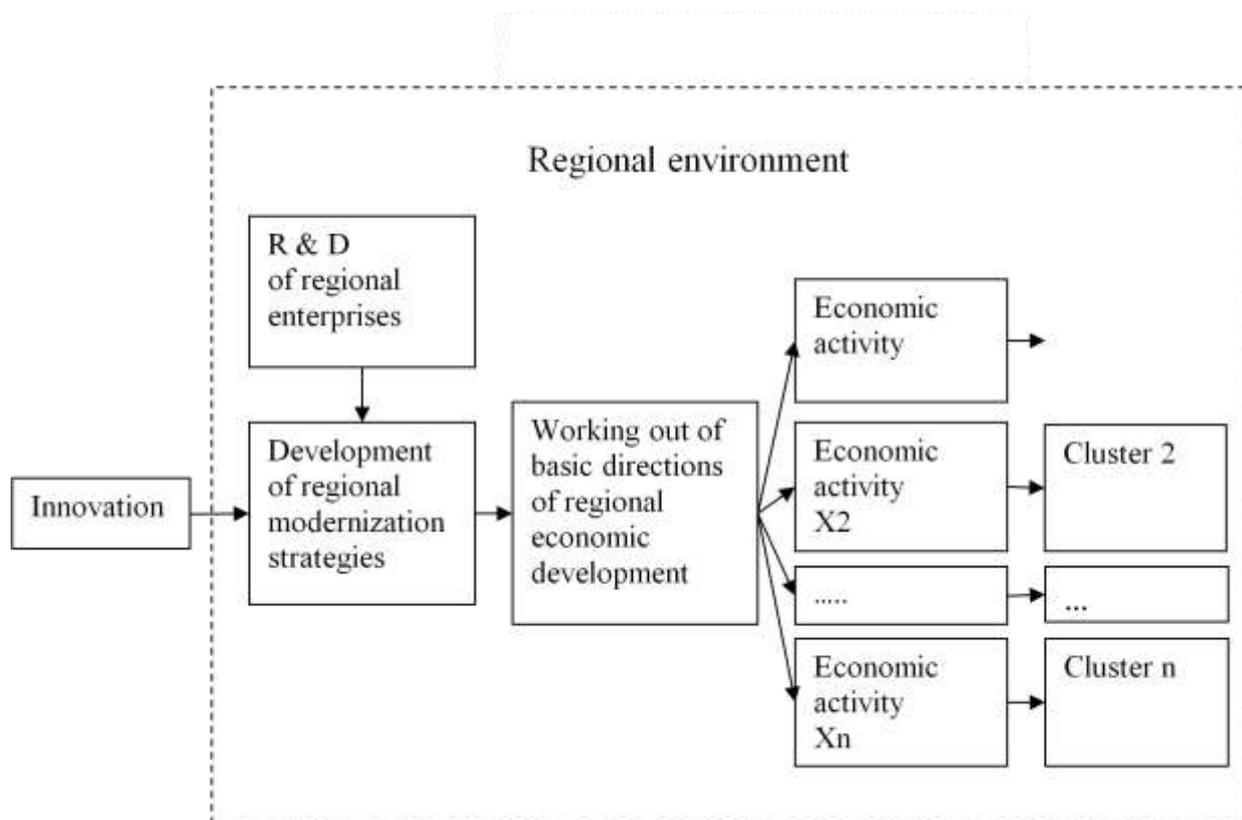


Figure 3. The mechanism of attraction innovation achievements into the cluster activity

As shown in Figure 3, the development of regional strategies of modernization based on the basic directions of economic development of the region, which includes the future organization of a number of cluster groups for each area of economic activity in the region and further their cooperation in the areas of intersection of interests.

The strategy of national modernization in the Ukraine is one of the objectives of innovation as defined with infrastructure and technology transfer. Implementation of this task is provided by creating a network of innovative clusters. So,

today government focuses on promoting the creation of industrial clusters producing competitive products.

The main purpose of realization of the cluster policy in the region is to ensure high rates of economic growth in the region and diversified economy by improving the competitiveness of all members of the cluster association. Positive aspects of regional clusters become possible due to favorable geographical location of the cluster members within the region, increased access to innovation, service and highly qualified personnel.

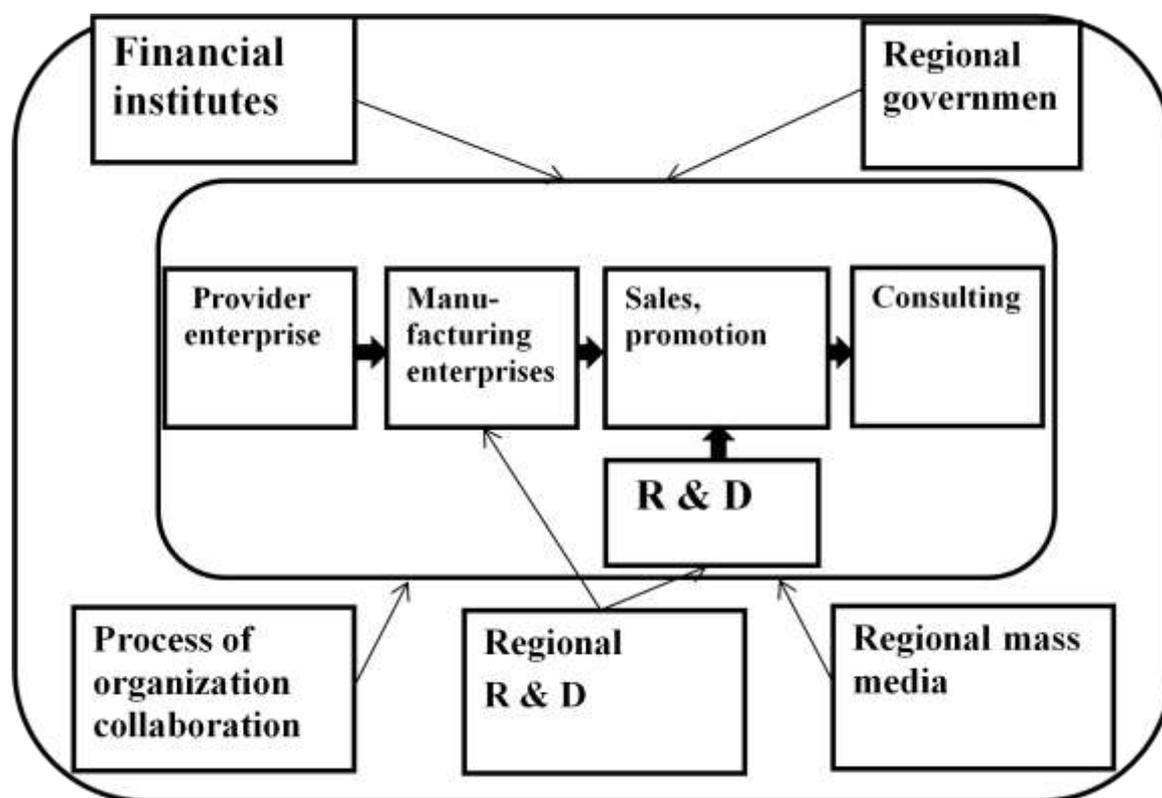


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COMPREHENSIVE ASSESSMENT OF REGIONAL ECONOMIC DEVELOPMENT IN UKRAINE

According to the opinion of Porter, competitiveness should be considered in the light of the international competitiveness and clusters - groups of companies of different industries with fundamental importance to the ability of these clusters efficient use of internal resources. After analyzing the competitive opportunities of more than 100 branches in ten countries, Porter concluded that the most competitive multinationals do not usually spread by country and tend to be concentrated in one country, and more - in one region of the country.

The authors studied the characteristics of regional development in the Ukraine based on the following factors: the volume of industrial production, capital investments, imports and exports, innovation activity in the region, agricultural production, the volume of construction works [State Statistics Service of Ukraine]. In addition, the analyzed cluster activity and found promising regions for clustering area (Fig. 5).

We presented the grouping of regions by a comprehensive assessment of the above indicators, which makes it possible to identify specific features of regions.

Also, the presence of regional cluster initiatives

in the work is shown. Moreover, the regions that are in the top five for specific indicators are marked with individual labels. So in that area, in which the region is a leader, and there are cluster initiatives necessary to develop such a trend toward specialization.

Regions that are characterized by low levels of economic development, but with cluster initiatives have directed themselves towards unused potential.

Table 1 provides a list of existing clusters and cluster initiatives in regions of the Ukraine.

The analysis showed a significant differentiation in the developing regions of Ukraine, as well as the existence of significant untapped potential for investment and innovation development areas.

We propose for consideration several successful functioning of clusters and cluster initiatives in Ukraine.

Since August 1998, The Association “Podillya

Pershyi” popularized the concept of “clusters” and engaged in the practical implementation in the territory of the Podolsk region. As a result, there have been several information sessions, forums, lectures, a prepared a number of publications in the local press and the national press, published scientific articles in such newspapers as: Ukrainian Centre for Policy Studies, State Committee for Enterprise Development, etc. (Association “Podillya Pershyi <http://www.ppngo.org/eng/index.php>).

Under the auspices of the constant and active support of the Association were established and developed sewing cluster, cluster of construction and tourism cluster. These clusters of Association repeatedly were presented at exhibitions in Khmelnytsky, Kiev, and Vienna. Intensive work companies and organizations in clusters led to the joint development and introduction of fundamentally new for Ukraine products that are in demand in the domestic and foreign markets.

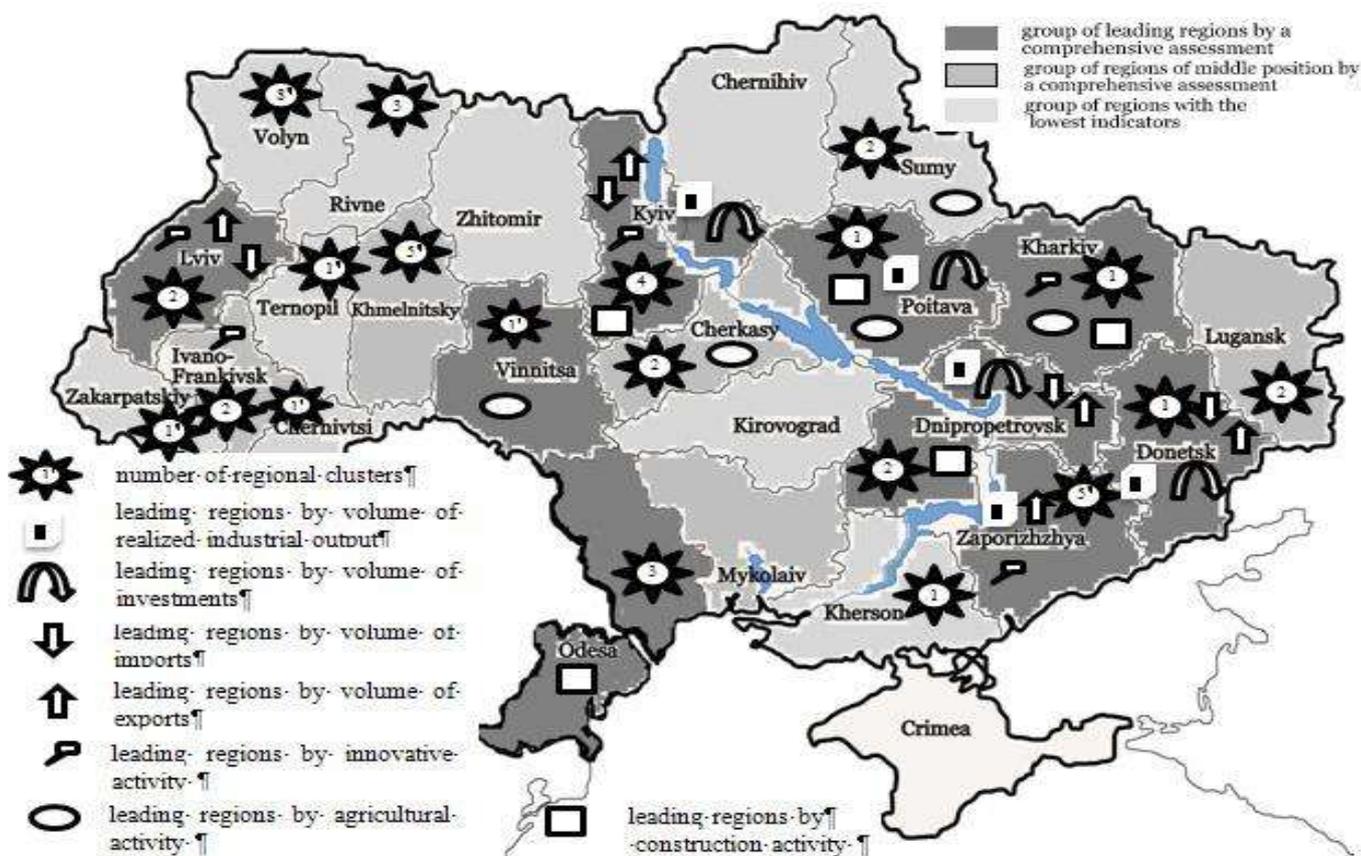


Figure 5. Map of Regional Economic Development of Ukraine

The philosophy of the Association is based on the fact that it is impossible to achieve the desired changes in the economy and management without elements of civil society.

Therefore, the issue of economic development and the building of a European civil society has always considered together.

The mission of the Association - improve socio-economic conditions of the population Podolsk region by promoting economic development at the micro-level and create a favorable social infrastructure that meets the standards of the European Union.

Activities and objectives of the Association:

- Creation and maintenance industry industrial clusters;
- Support and development of cross-sector dialogue and partnerships;
- Conduct socio-economic analysis Podolsk region;
- Implementation of educational projects and business;
- Introduction of innovative technologies in education;
- Promoting cooperation business, scientific and educational institutions;
- Activity Centre in the implementation of the Ukraine's European choice, cross-border and interregional cooperation, and participation in space programs of the European Union.

Brief descriptions of the successful examples of the Association, 1998-2014:

- local economic development: clusters;
- analysis of the needs of the community;
- information Centre for European Integration;
- tenders Electronic structure of the portal;
- strategic planning for local communities;
- citizen advisory committees;

- information and Training Center for community organizations of Khmelnytsky region;
- cross-border cooperation: Ukraine-Poland;
- promoting administrative-territorial reform;
- the involvement of Peace Corps volunteers;
- corporate Social Responsibility;
- expanding economic prospects of young people.

The concept of combining the integration efforts through clusters picked up in many other regions of the Ukraine. Considering the Khmelnytska region as a training center, a platform within which to search for the most suitable models for their regions combining its natural and intellectual resources. We should recognize that the most persistent and dynamic regions in the past decade have achieved considerable success in the study of ways and development of its cluster model.

For the next two-three decades we should recognize the southern regions – Odessa, Kherson region, as well as the Carpathian region – Ivano-Frankivsk, Zakarpattia and Lviv region. In almost all the regions marked (and those they seek to catch up) was observed, as international experience shows, only the first stage of clustering of the regional economy, bring together business, science and power is exercised in the areas of most rapid return on invested capital and profits in the field of tourism, construction, and either or light industry.

Table 1. Characteristics of clusters in Ukraine [*Ukrainian clusters*]

<i>Region</i>	<i>Characteristics</i>
Vinnitsa	Vinnitsa food processing cluster
Volyn	Agricultural, tourist and recreational, educational, flax, transport, automotive, feed, and wood.
Dnipropetrovsk	National Innovation Cluster "New construction machinery and cluster"
Donetsk	National Innovation Cluster "New technologies of nature"
Transcarpathian	Transportation and Logistics Cluster
Zaporizhia	Green tourism, beekeeping (cluster Honey "Bee knows no boundaries" (Melitopol) and Agricultural Engineering Innovative technology cluster "Ahrobum" (Melitopol) Food Cluster "Buy Zaporozhye. Choose your "
Ivano-Frankivsk	Cluster folk crafts "Constellation" Cluster Izhnykarstva

Kiev	National innovation cluster "Energy for Sustainable Development" (Kyiv, Polytechnic) National Innovation Cluster "Technology Innovation Society" (Kyiv, Polytechnic) National Innovation Cluster "Innovation Culture Society" (Kyiv, KNU. Shevchenko) National Innovation Cluster "new food" .
Lugansk	Cluster "Luhanskinvest" includes light industry and commercial enterprises Cross-border nanoclusters
Lviv	A cluster of information technology and business services [http://it-bpo.lviv.ua/] Cluster Biotechnology
Mykolaiv	Clusters of Mykolayiv region.
Odessa	Regional Centre clustering economy helps businesses Odessa region to create network businesses (clusters) Cluster "transit potential of Ukraine" Clusters Danube
Poltava	Regional clusters of environmentally friendly products (Poltava region).
Rivne	District NGO "Cluster woodworking Rokytno region Polesie" Forest Cluster Recreational cluster
Sums	Sumy cluster of clean Agricultural Products Sumy building cluster
Ternopil	Innovation and investment cluster
Kharkiv	Kharkiv industrial park "Technopolis"
Herson	Transport and Tourism Cluster "Southgate Ukraine"
Khmelnysky	Association "Podilia First" combines sewing, construction and tourism clusters in Khmelnytsky region [http://www.ppngo.org/index.php] Kamenetz-Podolsk tourist cluster Rural Tourism Cluster "Charm" (Hrytsiv)
Cherkasy	Automotive Cluster, a cluster of green tourism
Chernivtsi	RGO "First agrarian cluster" Tourist cluster "Seven Wonders of Ukraine"

An example of effective use of natural resources, in particular granite, the development of the construction industry and building construction and building materials cluster can serve as the efforts made in the Zhytomyr region. Among the participants of these cluster two banks intensively cooperating with construction companies and institutions providing training and implementing an internship program for staff.

Yet this is only the beginning of the upcoming large-scale modernization of industrial policy in the Ukraine.

CONCLUSION

Today, the Ukraine is in a difficult position. But it has great potential for change in terms of resources, institutional, human, scientific and other types of building. It is necessary now is to

use the successful experience of EU countries to overcome crisis in the economy. There is effective cooperation with the EU.

The key to effective development of Ukrainian business is to promote the investment and innovation processes.

It is important now is to identify priority areas of development in the regions of the Ukraine, in order to improve the overall economic situation. Proper use of potential regional opportunities is the key to effective development.

The use of cooperation mechanisms allows the potential to intensify the processes in the region, to attract investors and promote innovative development.

Cluster is one of these mechanisms which have been proposed for implementation in the Ukraine.

Improving the competitiveness of the regional

economy is possible through extensive technological upgrading of production capacity of enterprises in the region, which is possible if a comprehensive strategy for modernizing innovative regional economy is implemented. These measures are the key to economic growth and economic security of the economy. This modernization by implementing innovation is a complex process that requires a high interaction between participants of the area and its environment. Such interaction is possible within the framework of regional clusters that promote public-private partnership and cooperation of certain areas of interrelated activities in the region.

The above comprehensive approach to the analysis of innovative activity that is applied in Europe, allows for qualitative research level innovation, to identify growth opportunities and drawbacks of the sphere to be overcome by the introduction of effective mechanisms for regulation and promotion of innovative activities in a country or a particular region.

REFERENCES

- Elsner, W. (1998). An industrial policy agenda 2000 and beyond: Experience, Theory and Policy. In A. Biesecker Editor, W. Eisner Editor, & K. Grenzdorffer Editor (Eds), Bremen Contributions to Institutional and Social-Economics.
- HORIZON 2020 (2013). *The EU Framework Programme for Research and Innovation*. Retrieved from: <http://ec.europa.eu/programmes/horizon2020/>.
- Innovation policy: updating the Union's approach in the context of the Lisbon strategy / Communication from the commission to the council, the European parliament, the European economic and social committee and the committee of the regions (Brussels, 2003)*. Retrieved from: http://ec.europa.eu/invest-in-research/pdf/download_en/innovation_policy_updating_union.pdf/.
- Marshall, A. (1920). Principles of Economics. London: Macmillan and Co., Ltd., 1920.
- Porter M. (August/October, 2003). The Economic Performance of Regions Vol.37.6&7, pp.549-578. Retrieved From: www.camaramed.org.co:81/mcc/sites/default/files/anexos/2010/Sep/Economic_Performance_%20Regions_PORTER.pdf/
- Porter, M. (1985). Competitive advantage. London: Collier Macmillan.
- Rosenfeld, S. (1997). *Bringing business clusters into the mainstream of economic development*. European Planning Studies, 5,1, pp. 3-23.
- Schumpeter, J. (1935). The theory of economic development. Transaction Publishers.
- State of the Innovation Union / European Commission (Brussels, 2013). Retrieved from: http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2013/state_of_the_innovation_union_report_2013.pdf/
- State Statistics Service of Ukraine / Statistical information (2013). Retrieved from: <http://www.ukrstat.gov.ua/>
- Swann, G. and Prevezer, M. (1996). *A comparison of the dynamics of industrial clustering in computing and biotechnology*. Research Policy 25: pp. 1139-1157.
- Ukrainian clusters (2013). Retrieved from: <http://ucluster.org/en/>.
- Van den Berg, L., Braun, E. and van Winden, W. (2001). *Growth clusters in European cities: An integral approach*. Urban Studies, 38, 1, pp. 186-206.

ABOUT THE AUTHORS

Yanina Kovalchuk, e-mail:
yana_kovalchuk@ukr.net

Dr. Yanina Kovalchuk possesses a Ph.D. in Economics. She is an Associate Professor in the Department of Economics and Management at the Cherkasy State Technological University. Dr. Kachal also serves as a Member of the University International Department and actively participated and presented at numerous regional and international scientific and business conferences.

Dr. Tamara Kachala - Doctor of Economics, professor, Academician of the National Academy of Economic Sciences, Honored Economist of Ukraine. From 2014 Rector of Cherkasy State Technological University. Scientific School founded by T. Kachala, deals with regional characteristics of Economic Development of Ukraine. Dr. Kachala is the author of more than 300 scientific articles.