

ТРУШКІНА Н.В.

канд. екон. наук

старший науковий співробітник

Інститут економіки промисловості НАН України

вул. Марії Капніст, 2, м. Київ, 03057

trushkina@nas.gov.ua

ORCID 0000-0002-6741-7738

РИНКЕВИЧ Н.С.

асистент кафедри фінансів і маркетингу

Придніпровська державна академія будівництва та архітектури

вул. Чернишевського, 24а, м. Дніпро, 49600

starnarysharm@gmail.com

ORCID 0000-0002-1229-6051

ПРОПОЗИЦІЇ ЩОДО СТВОРЕННЯ НАЛЕЖНИХ ІНСТИТУЦІЙНИХ УМОВ ФОРМУВАННЯ Й РОЗВИТКУ ЛОГІСТИЧНИХ КЛАСТЕРІВ В ЕКОНОМІЧНИХ РАЙОНАХ УКРАЇНИ

Актуальність. Одним з динамічних і стрімких напрямів розвитку сучасних регіональних екосистем є транспортна логістика як ефективне джерело забезпечення конкурентних переваг. Це вимагає застосування нових інструментів підвищення конкурентоспроможності регіонів, серед яких кластерний підхід, суть якого полягає у формуванні й розвитку логістичних кластерів шляхом консолідації зусиль держави, бізнесу, науки, освіти у пріоритетних сферах економічної діяльності. Як показує міжнародна практика, реалізація кластерної моделі організації логістичної діяльності сприятиме скороченню загальних логістичних витрат на 12-35% у результаті зниження транспортних витрат на 7-20% і витрат на навантажувально-розвантажувальні роботи на 20-30%, а також прискоренню швидкості обігу матеріальних ресурсів на 20-40%. Отже, створення логістичних кластерів дозволить створити сприятливі умови задля зростання обсягів та якості наданих транспортно-логістичних послуг і сформуванню якісно нової моделі регіональної економіки.

Мета та завдання. Метою статті є аналіз сучасного стану і проблем формування інституційного середовища функціонування логістичних кластерів в економічних районах України, а також розробка пропозицій щодо створення належних інституційних умов розвитку логістичних кластерів на прикладі Придніпровського й Слобожанського економічних районів.

Результати. Виявлено, що формуванню й ефективному функціонуванню логістичних кластерів в регіонах України перешкоджає безліч ключових бар'єрів, які умовно можна систематизувати за такими групами, як політичні, зовнішньоекономічні; інституційні; інвестиційно-фінансові; інфраструктурні; логістичні. Доведено, що для ефективного розвитку логістичних кластерів в економічних районах України доцільно розробити пропозиції щодо створення належних інституційних умов, які полягають у доопрацюванні Стратегій регіонального розвитку в частині інституційного, інвестиційно-фінансового, організаційно-економічного й інформаційного забезпечення функціонування логістичних кластерів з використанням кластерного підходу, а також Концепції створення логістичних кластерів і Стратегії комплексного розвитку логістичних кластерів як складової регіональної транспортно-логістичної системи; запровадженні механізму фінансового забезпечення, який включає екзогенні й ендогенні чинники, що впливають на розвиток регіональної транспортно-логістичної системи; принципи, на яких має базуватися формування логістичних кластерів; функції управління (прогнозування, планування, організація, облік, контроль, аналіз, регулювання); сукупність інструментів, що регулюють умови організації й здійснення логістичної діяльності, а також надання транспортних послуг; фінансові інструменти (венчурне інвестування, краудінвестинг, факторинг, публічно-приватне партнерство на основі залучення приватних інвестицій, коштів кредитних установ, іноземних інвестиційних ресурсів, грантів міжнародних фінансових організацій); засоби (цифрові й інформаційно-комунікаційні технології, програмне забезпечення, нормативні документи).

Поєднання сучасної кластерної політики, механізму інституційного забезпечення розвитку інтегрованої транспортно-логістичної системи і стратегій розумних спеціалізацій промисловості в умовах децентралізації дозволить створити належні умови для формування логістичного кластеру як дієвої форми партнерства, зміцнити конкурентні переваги Придніпровського й Слобожанського економічних районів і підвищити економічну спроможність територіальних громад.

Висновки. Обґрунтовано, що впровадження пропозицій щодо створення належних інституційних умов формування й розвитку логістичних кластерів сприятиме одержанню синергетичного ефекту, складовими якого є підвищення рівня інвестиційної привабливості економічних районів; збільшення надходжень до бюджету за рахунок економічного зростання територій; створення нових робочих місць і зростання рівня зайнятості; збільшення обсягів вантажоперевезень і вантажообігу; оптимізація переміщення логістичних потоків; зниження витрат на організацію логістичної діяльності через зменшення транспортної складової у вартості послуг, скорочення часу на виконання митних процедур при оформленні вантажів; забезпечення сприятливих умов функціонування ринку логістичних послуг; створення об'єктів необхідної логістичної інфраструктури (транспортної, торгівельної, сервісної тощо); удосконалення технології перевезень з використанням сучасних цифрових інформаційно-комунікаційних технологій.

Ключові слова: логістичний кластер, інституційне середовище, інституційні умови, нормативно-правове регулювання, фінансове забезпечення, економічний район, логістична діяльність, синергетичний ефект.

TRUSHKINA N.V.

Ph.D. in Economics

Senior research fellow

Institute of Industrial Economics of the National Academy of Sciences of Ukraine

2 Marii Kapnist st., Kyiv, 03057

trushkina@nas.gov.ua

ORCID 0000-0002-6741-7738

RYNKEVICH N.S.

Assistant of the Department of Finance and Marketing

Prydniprovsk State Academy of Civil Engineering and Architecture

24a Chernyshevskoho st., Dnipro, 49600

starnarysharm@gmail.com

ORCID 0000-0002-1229-6051

PROPOSALS FOR THE CREATION OF THE APPROPRIATE INSTITUTIONAL CONDITIONS OF THE FORMATION AND DEVELOPMENT OF LOGISTIC CLUSTERS IN THE ECONOMIC REGIONS OF UKRAINE

Topicality. One of the dynamic and rapid lines of development of modern regional ecosystems is transport logistics as an effective source of competitive advantages. This requires the use of new tools to improve the competitive ability of regions, including the cluster approach, the essence of which is the formation and development of logistic clusters by consolidating the efforts of the state, business, science, education in priority fields of economic activity. As international practice shows, the implementation of the cluster model of logistic activities will contribute to the reduction of total logistic costs by 12-35% as a result of reducing transport costs by 7-20% and the cost of handling operations by 20-30%, as well as accelerating the speed of circulation of material resources by 20-40%. Therefore, the creation of logistic clusters will create favorable conditions for the growth of the volume and quality of transport and logistics services and create a qualitatively new model of the regional economy.

Aim and tasks. The aim of the article is to analyze the current state and problems of the formation of the institutional environment of functioning of logistic clusters in the economic regions of Ukraine, as well as to develop proposals for the creation of the appropriate institutional conditions for the development of logistic clusters as illustrated by the Prydniprovsky and Sloboda economic regions.

Research results. It was found that the formation and effective functioning of logistic clusters in the regions of Ukraine is hampered by many key barriers that can be conditionally classified into the following groups, such as political, foreign economic, institutional, investment and financial, infrastructure, logistics. It was proved that for the effective development of logistic clusters in the economic regions of Ukraine it is reasonable to develop proposals for the creation of appropriate institutional conditions, which are to finalize the Strategies of the regional development in terms of institutional, investment and financial, organizational and economic and information support of the functioning of logistic clusters using the cluster approach, as well as the Concepts of creating logistic clusters and Strategies for the integrated development of logistic clusters as a component of the regional transport and logistic system; implementation of the financial support mechanism, which includes exogenous and endogenous factors affecting the development of the regional transport and logistic system; the principles on which the formation of logistic clusters should be based; management functions (forecasting, planning, organization, accounting, control, analysis, regulation); a set of tools governing the organization and implementation of logistic activities, as well as the provision of transport services; financial instruments (venture investment, crowdinvesting, factoring, public-private partnership

on the basis of attracting private investments, funds of credit institutions, foreign investment resources, grants of international financial organizations); means (digital, information and communication technologies, software, regulatory documents).

Combination of modern cluster policy, mechanism of institutional support for the development of an integrated transport and logistic system and strategies of smart industry specializations in the context of decentralization will create the appropriate conditions for the formation of a logistic cluster as an effective form of partnership, strengthen the competitive advantages of the Prydniprovsky and Sloboda economic regions and increase the economic capacity of territorial communities.

Conclusion. It was substantiated that the introduction of proposals for the creation of the appropriate institutional conditions for the formation and development of logistic clusters will contribute to a synergetic effect, the components of which are to increase the level of investment attractiveness of economic regions; increase revenues due to economic growth of territories; creation of new jobs and growth of employment; increase in the volume of cargo transportation and turnover; optimization of movement of logistic flows; cost reduction for the organization of logistic activities for the reduction of transport component in the cost of services, reduction in time to complete customs procedures for clearance of goods; provision of favourable conditions for the functioning of logistic market; creating objects of the appropriate logistic infrastructure (transport, trade, service, etc); improvement of the technology of transportation with the use of modern digital information and communication technologies.

Key words: logistic cluster, institutional environment, institutional conditions, legal and regulatory framework, financial support, economic region, logistic activities, synergetic effect.

Problem statement and its connection with important scientific and practical tasks. Functioning of the transport and logistic system is a priority line of the regional economy due to the rapid development of transport logistics. Currently, the problems of creating logistic clusters in the context of the development of the concept of eurologistics and the formation of a single European and global transport and logistic space are updated. This is especially true in modern conditions of the regional development, taking into account their specific features (geographical, demographic, socio-economic, logistic, etc.).

According to leading scientists, it is advisable to «create favorable institutional and infrastructure conditions for the emergence of clusters in the region ...» for the neoindustrial modernization of old industrial regions of Ukraine [1, p. 195].

The need for theoretical justification, generalization of scientific and methodological approaches and improvement of institutional support for the development of logistic clusters in the context of modernization of the economy of economic regions of Ukraine determine the conduction of further research in this direction.

Analysis of recent publications on the problem. A significant number of scientific works of leading domestic and foreign scientists are devoted to the conceptual foundations, scientific and methodological approaches and practical recommendations for the formation of transport and logistic systems using the cluster approach.

Based on the analysis of scientific publications, the main provisions of scientists and specialists on the chosen topics were summarized:

- ✓ lines of improvement of transport and logistic activities were proposed, which include investment in the renewal of the main means of transport; intersectoral coordination of transport infrastructure development with the aim of the rational use of transport resources of various modes of transport; introduction of new transport technologies related to modern production, storage and customs technologies; IT-based management of the transport process [2; 3];

- ✓ methodological basics for the formation of an integrated transport and logistic system in Ukraine were justified from the standpoint of the cluster approach [4];

- ✓ indicators of innovative development of the transport system of Ukraine, their dynamics and the integrated index of the state of innovation on the final results of socio-economic development for further substantiation of strategies were determined; it is proved that for the scientific substantiation of the strategic guidelines of innovative development of the transport system it is advisable to use adaptive methods of regulation in the theory of management for the development of three cases for the med-term [5];

- ✓ theoretical, scientific and methodical approaches to the formation of transport and logistics clusters have been developed [6-13];

- ✓ application of an integrated approach to supply chain management and logistic processes have been justified [14-17];

✓ it was proved that hybrid approaches are necessary under current conditions, in which the transport infrastructure is considered as one of the factors and the indicators used should be different and include the type of production and mode of transport [18];

✓ conceptual basics and methodological approaches to the promotion of sustainable development of the territorial communities were developed using the best European principles and practices, as well as theoretical and applied proposals that should justify the tools to improve the investment climate of the territories according to new challenges and opportunities of decentralization reform in Ukraine [19; 20].

Allocation of previously unsolved parts of the general problem. At the same time, despite such close attention to the indicated problem by scientists, it is still urgent and necessary to conduct research in the direction of justifying the feasibility of creating logistic clusters as an effective form of partnership in the context of sustainable development of the regions of Ukraine. All this determined largely the choice of the topic of this study and its goal.

Formulation of research (problem statement). Goal of this study is to develop scientific and methodological provisions and practical recommendations on the creation of appropriate institutional conditions for the formation and development of logistic clusters in the modernization of economic regions of Ukraine (for example, Prydniprovsky and Sloboda).

Outline of the main results and their justification. Prydniprovsky (Dnieper, Zaporizhia, Kirovohrad regions) and Sloboda (Poltava, Sumy and Kharkiv regions) economic areas have a favorable geographical location and extensive interregional and international transport and logistics infrastructure and transport communications, which includes the Prydniprovsky and Southern railways, river port, international airports, crossing roads in different directions.

However, as a result of the study [21-22] it was found that many key barriers prevent the formation and effective functioning of logistic clusters in the regions of Ukraine. They can be conventionally organized into the following groups:

political, which relate to the unstable political situation in the country, political pressure on the CIS countries to downturn economic relations with Ukraine in the transport sector;

foreign economic, which are associated with the deterioration of the transit position in the global transport, logistic and investment system as a result of the implementation of the Chinese project «One zone – one road», as well as a high level of risk of economic losses due to blocking access to the sea ports of Ukraine, especially in the Azov sea;

institutional, which include: imperfect legislative and regulatory framework, lack of regional programs and strategies for the development of logistic clusters. As a rule the terms «transport infrastructure», «cluster network» and «strategic infrastructure» (depending on the mode of transport) are used in legislative and policy instruments. Some acts deal only with modes of transport.

The Draft Concept of creating clusters in Ukraine developed by the Cabinet of Ministers of Ukraine in 2008 indicates the transport and logistic clusters, which include a complex of infrastructure and companies specializing in the storage, maintenance and delivery of goods, as well as the organization of maintenance of port infrastructure, transport companies and logistics centers. However, this Concept has never come into force.

The National transport strategy of Ukraine for the period till 2030 sets forth the creation of a network of multimodal transport and logistic clusters and logistic centres and the Draft Action Plan for the years 2019-2021 for the implementation of the strategy sets forth the implementation of the analysis on the basis of the Program of the development of multimodal transport in the logistic cluster and the establishment of a network of multimodal transportation and logistic clusters.

The Strategy for the development of sea ports of Ukraine for the period up to 2038 states the creation of a network of clusters in the sea ports by attracting private investment. However, the necessary mechanism of institutional, organizational, economic, financial and information support for the development of logistic clusters has not been developed.

Based on the analysis of the strategic documents of socio-economic development of the regions as illustrated by Dnipropetrovsk, Zaporizhia, Kirovohrad, Poltava, Sumy and Kharkiv regions, it was found that they have not developed appropriate regional programs and strategies for the development of logistic clusters. Only in 2012 there were attempts to develop a Draft Concept for the creation of a transport and logistic cluster in Kharkiv region and a Strategy for the development of a regional system based on the formation of a transport and logistic cluster in Kharkiv region. However, these documents do not specify the mechanism of investment and financial support for the development of transport and logistic system in the region.

At present there are Development Strategies for the period till 2020 in Poltava, Sumy, Kharkiv, Dnipropetrovsk, Zaporizhia and Kirovohrad regions, which are based on the principles of the Law of Ukraine «On Stimulating the Development of Regions» and the State strategy of the regional development of Ukraine till 2020 and are implemented within the EU Project «Support for Regional Development Policy in Ukraine».

For example, the Strategy for the development of Poltava region for the period till 2020 determines among the operational objectives «The development of transport infrastructure». The strategy of development of Sumy region for the period till 2020 includes «The development of logistic and transport potential based on the study of commodity and transport flows, concept and feasibility study of creating a logistic centre» into the priority tasks of the strategic goal «The development of economic potential of the region». The Strategy for the development of Kharkiv region for the period till 2020 contains the strategic goal «Competitive ability of the economy and growth of the Gross Regional Product (GRP)».

The Strategy for the development of Dnipropetrovsk region for the period till 2020 states the development of the interregional and intraregional transport network. The objectives of the operational goal «Promotion of investment» include increase of the level of logistic and transport capacity through pre-project preparation to create logistic centers, reconstruction of airports and development of infrastructure of river and sea ports in the Strategy for the development of Zaporizhzhya region till 2020.

The strategic lines of development of Kirovohrad region include the increase of transport and transit potential through the creation of transport and logistic hubs in the key cities of the region and transport infrastructure. The introduction of modern models and successful practices of management and infrastructure formation through the creation of a network of development institutions and clustering of the main sectors of the regional economy are accepted among the integrated strategic goals of Kirovohrad region.

Summarizing the above strategic documents it was found that they do not include tasks to attract domestic financial resources and foreign investment for the development of the regional transport and logistic system.

Now therefore, the current legislative and regulatory acts of Ukraine do not contain a notion of the concept of «logistic cluster», do not prescribe the General principles of functioning and development of logistic clusters and do not approve the Concept of creating logistic clusters.

investment and financial, that include: insufficient financing of the transport industry due to inefficient implementation of the mechanism of public-private partnership; limited tools for private investment in logistic infrastructure; insufficient use of various forms of preferences (loans, guarantees, tax incentives, subsidies) for the development of seaports; inaccuracy in financial planning and management in the transport complex;

infrastructure, which are manifested in the form of an insufficient level of the development of logistic infrastructure. In 2017 Ukraine took the 88th place among 137 countries of the world in the ranking of global competitiveness prepared by the world economic forum, in terms of «quality of infrastructure», including in terms of «quality of roads» – the 130th, «quality of port infrastructure» – the 93rd, «quality of air transport infrastructure» – the 92nd, «quality of railway infrastructure» – the 37th place [23, p. 297];

logistic, determined by the lack of an effective organization of logistic activities, reducing the level of service and quality of logistic services, reducing the volume of cargo transportation by various modes of transport.

According to data of the State Statistics Service of Ukraine the volume of freight traffic by the Southern railway has increased by 61.3% in 2000-2017 and its share in the total Ukrainian volume of freight traffic by railways has increased by 4.6 percentage points or from 6.5 to 11.1%. The freight turnover of the Southern railway has increased by 53.4% and share – by 2.9 p.p. or from 7.6 to 10.5% of the national freight turnover of public railway transport.

During this period the volume of cargo dispatch by the Prydniprovsky railway has increased by 4.6% and its share in the total Ukrainian volume – by 3.6 percentage points or from 31.6 to 35.2%. Freight turnover of the Prydniprovsky railway has decreased by 19.6% and the share – by 6.3 p. p. or from 23 to 16.7% of the national freight turnover of public railway transport (Table 1).

Table 1

Volumes of cargo transportation and cargo turnover of the public railway transport

Years	Prydniprovsky railway		Southern railway	
	cargo dispatch, MM tonnes	cargo turnover, bln tonne-kilometre	cargo dispatch, MM tonnes	cargo turnover, bln tonne-kilometre
2000	93.3	39.8	19.1	13.1
2005	112.0	48.1	31.5	22.6
2010	110.4	45.4	28.0	20.3
2012	115.5	46.9	31.6	21.8
2013	118.3	44.6	29.8	18.6
2014	107.9	36.7	29.0	21.8
2015	104.9	30.2	29.1	21.8
2016	99.4	31.2	29.2	20.9
2017	97.6	32.0	30.8	20.1

Source: [24, p. 49; 54].

Statistical analysis showed that the volume of cargo transportation by road in Sloboda economic region has increased in 2017 compared to 2000 by 53%. This is due to the growth of road freight in Poltava region by 81.5% and Kharkiv region – by 16.5%. Share of cargo transportation by road of Sloboda economic region has increased from 15.2 to 19.4%, it is 4.2 percentage points increase in the national volume.

For 2000-2017 the volume of freight road transport in Prydniprovsky economic region has increased by 38.8% due to increase in transportation in Kirovohrad region by 181% and Dnipropetrovsk – 39.7%. Share of volumes of cargo transportation by road in Prydniprovsky economic region has increased in the national volume by 5.0 percentage points or from 31.0 to 36.0% (Table 2).

Table 2

Volumes of cargo transportation by road in Sloboda and Prydniprovsky economic regions, MM tonnes

Economic regions	Years								
	2000	2005	2010	2012	2013	2014	2015	2016	2017
Sloboda	142,5	158,8	181,7	251,4	261,5	255,1	201,3	234,3	218,0
Including: Poltava region	95,3	108,9	142,1	209,8	220,6	213,8	161,4	193,0	173,0
Sumy region	19,4	13,4	10,8	11,7	11,4	12,2	11,6	11,6	12,6
Kharkiv region	27,8	36,5	28,8	29,9	29,5	29,1	28,3	29,7	32,4
Prydniprovsky	291,2	375,3	452,2	427,2	445,4	438,8	372,7	352,0	404,3
Including: Dnipropetrovsk region	234,9	303,9	359,2	345,1	376,1	361,7	300,4	284,2	328,1
Zaporizhia region	40,0	46,3	64,9	51,4	35,1	31,4	28,5	29,0	30,4
Kirovohrad region	16,3	25,1	28,1	30,7	34,2	45,7	43,8	38,8	45,8

Source: [24, p. 49].

During the research period, there was a trend of growth in the turnover of road transport in the district by 4 times. This happened as a result of an increase in the turnover of road transport in Kharkiv region by 7.3 times, Poltava – by 3 times and Sumy – by 1.5 times. Share of freight turnover of road transport in Sloboda economic region has increased by 2.3 percentage points or from 10.2 to 12.5% of the total Ukrainian cargo turnover. Freight turnover of road transport in Prydniprovsky economic region has increased by 1.7 times as a result of an increase in cargo turnover in Kirovohrad region by 5.6 times, in Dnepropetrovsk – by 3.5 times. However, the turnover of road transport in Zaporizhia region has decreased by 1.9 times. Share of road transport turnover in the region has decreased by 10.8 percentage points or from 23.3 to 12.5% in the national freight turnover (Table 3).

Table 3

Cargo turnover of motor vehicle in Sloboda and Prydniprovsky economic regions, MM tonnes

Economic regions	Years								
	2000	2005	2010	2012	2013	2014	2015	2016	2017
Sloboda	1967,4	3992,6	6603,2	7472,1	7503,6	6105,2	6462,9	7967,0	7798,1
Including: Poltava region	866,2	1611,0	2776,7	3249,1	3286,4	2644,3	3158,6	3530,6	2563,0
Sumy region	490,2	603,0	670,0	811,1	803,6	755,8	651,2	666,2	756,8
Kharkiv region	611,0	1778,6	3156,5	3411,9	3413,6	2705,1	2653,1	3770,2	4478,3
Prydniprovsky	4491,8	5654,2	6428,9	6668,8	6578,8	7259,0	6658,8	7000,7	7808,9
Including: Dnipropetrovsk region	1389,7	2180,6	3587,1	3738,0	3730,1	3798,3	3641,6	4421,4	4815,6
Zaporizhia region	2838,9	2912,1	1758,7	1841,7	1633,9	1409,5	1278,4	1384,3	1522,8
Kirovohrad region	263,2	561,5	1083,1	1089,1	1214,8	2051,2	1738,8	1195,0	1470,5

Source: [24, p. 54].

Analytical evaluation of statistical data shows that the level of profitability of operating activities of enterprises in the field of transport and warehousing of Prydniprovsky economic region is much lower compared to the national. Only in 2015-2016 the value of this indicator in the region exceeded the overall level of profitability in Ukraine. According to calculations the average level of profitability of operating activities of enterprises in the field of transport and warehousing of Prydniprovsky economic region has decreased in 2010-2017 by 16.2 percentage points. This is due to a significant reduction in the level of profitability in Kirovohrad region (50.2 V. p.) and in Zaporizhia (0.1 p. p.).

A similar situation was observed in Sloboda economic region. Thus, the level of profitability of operating activities of enterprises in the field of transport and warehousing area is much lower compared to the national. However, the average level of profitability of operating activities of enterprises in the field of transport and warehousing of Sloboda economic region has increased in 2010-2017 by 4 percentage points, which is due to an increase in the level of profitability in Sumy region by 6.5 p. p., in Poltava – by 4.2 p. p., in Kharkiv – by 1.1 p. p. (Table 4).

Table 4

Profitability level of operating activities of enterprises in the field of transport and warehousing in Sloboda and Prydniprovsky economic regions, %

Economic regions	Years						
	2010	2012	2013	2014	2015	2016	2017
Sloboda	-0,2	5,1	4,9	-2,7	-0,4	0,9	3,8
Including: Poltava region	2,1	6,4	8,5	-10,8	-6,6	2,1	6,3
Sumy region	-4,0	6,9	3,6	5,9	6,9	5,0	2,5
Kharkiv region	1,4	1,9	2,6	-3,1	-1,4	-4,3	2,5
Prydniprovsky	1,4	0,1	0,3	-2,7	3,2	5,9	-14,8
Including: Dnipropetrovsk region	3,0	1,1	1,1	-7,9	-1,8	2,9	4,7
Zaporizhia region	3,1	-1,0	0,8	3,9	11,7	10,5	3,0
Kirovohrad region	-1,9	0,3	-0,9	-4,1	-0,4	4,2	-52,1

Source: [24, p. 31, 33].

According to the analysis of statistical data the share of capital investment in transport and warehousing in Sloboda economic region has decreased in 2010-2017 by 11.2 percentage points or from 15.5 to 4.3% of the total volume of capital investment in this industry. This was due to a decrease in the share of capital investments in transport and warehousing in Kharkiv region by 5.4 percentage points (from 6.8 to

1.4%), Poltava – by 4.7 percentage points (from 7.2 to 2.5%) and Sumy region – by 1.2 percentage points (from 1.6 to 0.4%).

For 2010-2017 the share of capital investments of enterprises in the transport and storage sector of Prydniprovsky economic region has decreased in the total Ukrainian volume by 3.6 percentage points or from 9.8 to 6.2%. It should be noted that the largest share of capital investment accounted for Dnipropetrovsk region (within 65.9-66.8 p.p.). Share of capital investments of enterprises in the field of transport and warehousing of Kirovohrad region has increased by 2.8 p. p. or from 15.7 to 18.5 p. p. and in Zaporizhia region has decreased by 3.8.p. or from 18.4 to 14.6 p. p. (Table 5).

Thus, it is advisable to create logistic clusters in Slobosa and Prydniprovsky economic regions as a group of geographically adjacent and interrelated enterprises and related organizations that are characterized by joint activities, complement and enhance the competitive advantages of each other through a synergetic effect. It is a territorial and voluntary association of business structures, scientific institutions and higher educational institutions, institutes of logistics infrastructure and authorities in order to improve the competitiveness of products manufactured, services and promote sustainable development of the district.

Participants of the logistic cluster may be:

regional branches Southern railway and Prydniprovsky railway of Ukrzaliznytsia JSC;

road transport, industrial enterprises and forwarding companies;

international airports Kharkiv and Poltava;

customs authorities;

logistic companies, warehousing and cargo consolidation centers;

repair and service companies;

insurance, investment, financial companies, banking institutions;

information and consulting and legal companies;

public authorities and local self-government bodies;

scientific institutions;

higher educational establishments, training centers for personnel development.

Table 5

**Capital investments in transport and warehousing
in Sloboda and Prydniprovsky economic regions (in actual prices, million UAH)**

Economic regions	Years						
	2010	2012	2013	2014	2015	2016	2017
Sloboda	3026,0	5752,8	1533,4	1295,7	1188,7	1095,7	1605,4
<i>Including:</i>							
Poltava region	1401,8	517,5	537,6	505,3	496,5	637,7	927,1
Sumy region	309,7	90,5	130,5	151,8	82,3	196,5	169,0
Kharkiv region	1314,5	5144,8	865,3	638,6	609,9	261,5	509,3
Prydniprovsky	2254,8	2662,9	2433,0	1311,6	975,1	1202,9	2325,0
<i>Including:</i>							
Dnipropetrovsk region	1485,6	2517,8	1886,1	1126,7	650,7	736,5	1554,0
Zaporizhia region	414,2	47,0	57,3	55,8	133,1	209,8	340,3
Kirovohrad region	355,0	98,1	489,6	129,1	191,3	256,6	430,7

Source: [24, p. 14].

When creating logistic clusters in economic regions, the following aspects should be taken into account:

positioning of regions as a complex of an international level with a full range of logistic services by the movement of transit and regional flows in the structure of the integrated transport and logistic system of Ukraine;

inclusion of newly established and existing facilities of transport and logistic infrastructure located in the vicinity of railway, road and air transport communications.

formation of the logistic cluster should be aimed at the comprehensive development of its infrastructure, that involves:

reconstructing and modernizing of the existing facilities of railway, automobile, marine and aviation infrastructure;

optimizing placement of customs clearance points and customs warehouses;
constructing large distribution centers to create a modern system of storage and distribution of products;
improving transportation system;
applying effective logistic schemes to improve customer service of transport and logistic services.

The key principles of forming a logistics cluster for the sake of integration into European and Asian economic systems are as follows:

organization of the market system of monitoring and management of goods flows at the international and regional levels;

creation of a network of logistic centers, which include transport terminals, distribution and trade complexes;
development and implementation of a unified information system for traffic management in the virtual space;

ensuring the principles of delivery of goods “house-house”, “to the right place” and “just-in-time” on the basis of the development of intermodal and combined transportation operations.

Implementation of the above principles will reduce the cost of logistic activities by providing transport services involving all modes of transport (taking into account the territorial characteristics of the region) and the construction of terminal complexes, regional logistic centers with the creation of a new type of logistic operator structure for the maintenance of the facilities of a transport infrastructure.

Improving the competitive ability of companies participating in the logistic cluster is achieved through the creation of favorable conditions for the growth of the volume and quality of transport and logistic services, which in turn affects the formation of a qualitatively new model of the regional economy.

Conclusions and prospects of further research. It has been proved that for the effective development of logistic clusters in the economic regions of Ukraine it is advisable to create the appropriate institutional conditions, namely:

to finalize the Strategy of regional development in terms of the institutional, investment and financial, organizational and economic and information support for the creation and functioning of logistic clusters using the cluster approach;

regional state administrations together with regional councils should pay attention to the development of the Concept of creating logistic clusters and Strategies for the integrated development of logistic clusters as part of the regional transport and logistic system;

to develop and introduce a mechanism of financial support as a set of principles, tools, functions, methods and means aimed at reducing the level of costs for the organization of logistic activities and transport services in the territory of economic regions; components of the mechanism of financial support for the management of the development of logistic clusters should be:

exogenous and endogenous factors affecting the development of the regional transport and logistics system;

principles on which the formation of logistic clusters should be based;

management functions (forecasting, planning, organization, accounting, control, analysis, regulation);

a set of tools that regulate the conditions for the organization and implementation of logistic activities, as well as the provision of transport services;

application of financial instruments (venture investment, crowdinvesting, factoring, public-private partnership on the basis of attraction of private investments, funds of credit institutions, foreign investment resources, grants of international financial organizations);

means (digital and information and communication technologies, software, regulatory documents).

Combination of modern cluster policy, mechanism of institutional support for the development of an integrated transport and logistic system and strategies of smart industry specializations in the context of decentralization will create the appropriate conditions for the formation of a logistic cluster as an effective form of partnership, strengthen the competitive advantages of Prydniprovsky and Sloboda economic regions and increase the economic ability of the territorial communities.

Implementation of proposals on institutional support for the formation and development of logistic clusters will help to obtain a synergetic effect, the components of which include:

increase in the level of investment attractiveness of economic regions;

increase in budget revenues due to economic growth of territories;

creation of new jobs and employment growth – as the best European experience shows, 33.3% of companies working in clusters have a trend of stable employment growth [25];

increase in cargo transportation and turnover;

optimization of transfer of logistic flows;

reduction in costs for the organization of logistic activities for reducing the transport component in the cost of services, time reduction to perform customs procedures when processing goods; ensuring favorable institutional conditions for the functioning of the logistic market; creation of facilities of necessary logistic infrastructure (transport, trade, service, etc.); improvement of transportation technology using modern digital information and communication technologies.

It is planned in future to develop a cluster model of logistic activities in the economic regions of Ukraine.

ЛІТЕРАТУРА

1. Ляшенко В.І., Котов С.В. Україна XXI: неоіндустріальна держава або «крах проекту»? : монографія / НАН України, Ін-т економіки пром-сті; Полтавський ун-т економіки і торгівлі. Київ, 2015. 196 с.
2. Перебийніс В.І., Перебийніс О.В. Транспортно-логістичні системи підприємств: формування та функціонування: монографія. Полтава: РВЦ ПУСКУ, 2006. 207 с.
3. Перебийніс В.І., Болдирєва Л.М., Перебийніс О.В. Транспортний менеджмент і транспортний маркетинг виробничо-комерційної діяльності: монографія. Полтава: Полтавський ун-т споживчої кооперації України, 2009. 201 с.
4. Полякова О.М. Кластерний підхід до формування інтегрованої транспортно-логістичної системи. *Вісник економіки транспорту і промисловості*. 2014. № 45. С. 239-244.
5. Іванов С.В., Харазішвілі Ю.М. Інноваційні фактори розвитку транспортної системи України. *Вісник економічної науки України*. 2017. № 2. С. 47-55.
6. Кислий В., Жарик Т. Розвиток транспортно-логістичних кластерів в Україні. *Економіка України*. 2010. №12. С. 28-37.
7. Смирнов І., Шматок О. Формування транспортно-логістичних кластерів у ЄС: український контекст. *Вісник Київського національного університету імені Т.Г. Шевченка*. 2012. Вип. 60. С. 14-19.
8. Ніколаєв Ю.О. Структура транспортно-логістичного кластера та процес його формування. *Вісник соціально-економічних досліджень*. 2012. Вип. 1 (44). С. 345-350.
9. Попова Н.В. Кластеры как основа инновационного развития транспортно-логистической системы региона. *Бизнес Информ*. 2013. Вып. № 8. С. 63-67.
10. Альошинський Є.С., Білан К.В. Розробка пропозицій щодо створення транспортно-логістичного кластера Харківської області. *Восточно-Европейский журнал передовых технологий*. 2013. № 3(3). С. 29-33.
11. Кластери в економіці України: монографія / За наук. ред. М.П. Войнаренка. Хмельницький: ХНУ, ФОП Мельник А.А., 2014. 1085 с.
12. Гриценко С.І. Формування парадигми соціально-економічного розвитку в контексті транспортно-логістичних кластерів. *Вісник Хмельницького національного університету. Сер. Економічні науки*. 2018. № 3. Т. 3. С. 178-182.
13. Іванов С.В. Транспортно-логістичні кластери в контексті розвитку транспортної системи України та окремо взятого економічного району. *Економічний вісник Донбасу*. 2018. № 1(51). С. 15-22.
14. Blaik P. Logistyka. Koncepcja zintegrowanego zarzadzania. Warszawa: Polskie Wydawnictwo Ekonomiczne, 2010. 480 s.
15. Kotler P., Keller K.L. Marketing Management. 14th edition. Upper Saddle River, New Jersey: Prentice Hall, 2014. 720 p.
16. Мэрфи Пол Р., Вуд Дональд Ф. Современная логистика. 8-е изд. Москва: ООО «И.Д. Вильямс», 2017. 720 с.
17. Бауэрсокс Дональд Дж., Клосс Дэйвид Дж. Логистика: интегрированная цепь поставок. 2-е изд. Москва: Олимп-Бизнес, 2017. 640 с.
18. Pchenko S.V., Karpenko H.Y. Assessment of the transport infrastructure impact on the regional development. *Економічні інновації*. 2017. Вип. № 65. С. 67-72. DOI: 10.31520/ei.2017.19.3(65).67-72.
19. Goriup P., Laiko O.I., Chechovich Z.V. Sustainable development of economic systems: project-decentralization approach. *Economic innovations*. 2018. Vol. 20. Issue 3(68). P. 46-56. DOI: 10.31520/ei.2018.20.3(68).46-56.

20. Laiko O., Kwilinski A. Tools for the improving of investment climate in territorial communities: challenges and perspectives for Ukrainian economy. *Economics. Ecology. Socium*. 2017. No 1 (1). P. 93-103.

21. Іванов С.В., Трушкіна Н.В. Формування логістичних кластерів у контексті модернізації економіки регіонів України. *Сучасні наукові погляди на економічні механізми стимулювання соціально-економічного розвитку*: матеріали доповідей Міжнар. наук.-практ. конф. (м. Ужгород, 16 лютого 2019 р.) / Ужгородський національний університет. У 2-х частинах. Ужгород: Видавничий дім «Гельветика», 2019. С. 127-130.

22. Трушкіна Н. Логістичний кластер як форма партнерства в контексті сталого розвитку регіонів України. *Стратегії глобальної конкурентоспроможності: глобальне партнерство для сталого розвитку*: матеріали VI Міжнар. наук.-практ. конф. (м. Черкаси, 22 березня 2019 р.). Черкаси: Черкаський державний технологічний університет, 2019. С. 26-28.

23. The Global Competitiveness Report 2017-2018. Geneva: World Economic Forum, 2017. 393 p.

24. Транспорт і зв'язок України за 2017 рік: стат. збірник. Київ: Державна служба статистики України, 2018. 168 с.

25. Міністерство економічного розвитку і торгівлі України розпочало обговорення кластерної програми промислового розвитку. URL: <https://www.me.gov.ua/News/Detail>.

REFERENCES

1. Lyashenko, V.I., Kotov, Y.V. (2015). *Ukraina XXI: neoindustrial'na derzhava abo «krakh proektu»?* [Ukraine XXI: Neoindustrial State or «Project Failure?»]: monograph / National Academy of Sciences of Ukraine, Institute of Industrial Economics; Poltava University of Economy and Trade. Kyiv, 196 p. [in Ukrainian].

2. Perebyinis, V.I., Perebyinis, O.V. (2006). *Transportno-lohistychni systemy pidpriemstv: formuvannia ta funktsionuvannia* [Transport and Logistic Systems of Companies: Formation and Functioning]: monograph. Poltava, Regional publishing center of Poltava University of Economy and Trade, 207 p. [in Ukrainian].

3. Perebyinis, V.I., Boldyrieva, L.M., Perebyinis, O.V. (2009). *Transportnyj menedzhment i transportnyj marketynh vyrobnycho-komertsijnoi diial'nosti* [Transport Management and Transport Marketing of Industrial and Commercial Activities]: monograph. Poltava, Poltava University of Consumer Cooperation of Ukraine, 201 p. [in Ukrainian].

4. Polyakova, O.M. (2014). Klasternyj pidkhid do formuvannia intehrovanoi transportno-lohistychnoi systemy [Cluster approach to the formation of an integrated transport and logistic system]. *Bulletin of Transport and Industry Economy*, No. 45, pp. 239-244. [in Ukrainian].

5. Ivanov, S.V., Kharazishvili, Y.M. (2017). Innovatsijni faktory rozvytku transportnoi systemy Ukrainy [Innovative Factors of Development of Transport System of Ukraine]. *Bulletin of Economic Science of Ukraine*, No. 2, pp. 47-55. [in Ukrainian].

6. Kyslyi, V., Zharyk, T. (2010). Rozvytok transportno-lohistychnykh klasteriv v Ukraini [Development of Transport and Logistic Clusters in Ukraine]. *Economy of Ukraine*, No. 12, pp. 28-37. [in Ukrainian].

7. Smyrnov, I., Shamtok, O. (2012). Formuvannia transportno-lohistychnykh klasteriv u YeS: ukrains'kyj kontekst [Formation of Transport and Logistic Clusters in the EU: Ukrainian Context]. *Bulletin of Taras Shevchenko national University of Kyiv*, issue 60, pp. 14-19. [in Ukrainian].

8. Nikolaiev, Y.O. (2012). Struktura transportno-lohistychnoho klastera ta protses joho formuvannia [Structure of Transport and Logistic Cluster and Process of its Formation]. *Bulletin of Socio-Economic Research*, issue 1 (44), pp. 345-350. [in Ukrainian].

9. Popova, N.V. (2013). Klasteri kak osnova innovacionnogo razvitija transportno-logisticheskoi sistemy regiona [Clusters as Basis of Innovative Development of Transport and Logistic System of the Region]. *Business Inform*, No. 8, pp. 63-67. [in Russian].

10. Alioshynskiy, Y.S., Bilan, K.V. (2013). Rozrobka propozyzij schodo stvorennia transportno-lohistychnoho klastera Kharkiv'skoi oblasti [Development of Proposals for the Creation of Transport and Logistic Cluster in Kharkiv Region]. *East European Magazine of Advanced Technologies*, No. 3(3), pp. 29-33. [in Ukrainian].

11. *Klasteri v ekonomitsi Ukrainy* [Clusters in the Economy of Ukraine]: monograph (2014). Edited by scientist M.P. Voinarenko. Khmelnytskyi, Khmelnytskyi National University, Self-employed individual Melnyk A.A., 1085 p. [in Ukrainian].

12. Hrytsenko, S.I. (2018). Formuvannia paradyhmy sotsial'no-ekonomichnoho rozvytku v konteksti transportno-lohistrychnykh klasteriv [Formation of Paradigm of Socio-Economic Development in the Context of Transport and Logistic Clusters]. *Bulletin of Khmelnytskyi National University. Series Economic Sciences*, vol. 3, No. 3, pp. 178-182. [in Ukrainian].
13. Ivanov, S.V. (2018). Transportno-lohistrychni klastery v konteksti rozvytku transportnoi systemy Ukrainy ta okremo vziatoho ekonomichnoho rajonu [Transport and Logistic Clusters in the Context of the Development of the Transport System of Ukraine and a Single Economic Region]. *Economic Herald of the Donbas*, No. 1(51), pp. 15-22. [in Ukrainian].
14. Blaik, P. (2010). Logistyka. koncepcija zintegrowanego zarzadzania. Warszawa, Polskie Wydawnictwo Ekonomiczne, 480 s.
15. Kotler, P., Keller, K.L. (2014). Marketing Management. 14th edition. Upper Saddle River, New Jersey, Prentice Hall, 720 p.
16. Murphy, Paul R., Wood, Donald F. (2017). *Sovremennaja logistika* [Modern Logistic]. 8th edition. Moscow, I. D. Williams LLC, 720 p. [in Russian].
17. Bowersox, Donald J., Closs, David J. (2017). *Logistika: integrirovannaja cep' postavok* [Logistic: Integrated Supply Chain]. 2nd edition. Moscow, Olymp-Business, 640 p. [in Russian].
18. Ilchenko, S.V., Karpenko, H.Y. (2017). Assessment of the Transport Infrastructure Impact on the Regional Development. *Economic Innovations*, No. 65, pp. 67-72. DOI: 10.31520/ei.2017.19.3(65).67-72.
19. Goriup, P., Laiko, O.I., Chechovich, Z.V. (2018). Sustainable Development of Economic Systems: Project-Decentralization Approach. *Economic Innovations*, vol. 20, issue 3(68), pp. 46-56. DOI: 10.31520/ei.2018.20.3(68).46-56.
20. Laiko, O., Kwilinski, A. (2017). Tools for the Improving of Investment Climate in Territorial Communities: Challenges and Perspectives for Ukrainian Economy. *Economics. Ecology. Socium*, No. 1 (1), pp. 93-103.
21. Ivanov, S.V., Trushkina, N.V. (2019). Formuvannia lohistrychnykh klasteriv u konteksti modernizatsii ekonomiky rehioniv Ukrainy [Formation of Logistic Clusters in the Context of Modernization of the Economy of the Regions of Ukraine]. *Modern Scientific Views on Economic Mechanisms to Stimulate Socio-Economic Development: materials of the reports of the International Scientific and Practical Conference (Uzhhorod, February 16, 2019)*. Uzhhorod, National University. In 2 parts. Uzhhorod, Helvetica Publishing House, pp. 127-130. [in Ukrainian].
22. Trushkina, N.V. (2019). Lohistrychnyj klaster iak forma partnerstva v konteksti staloho rozvytku rehioniv Ukrainy [Logistic Cluster as a Form of Partnership in the Context of Sustainable Development of Regions of Ukraine]. *Strategies for the Global Competitiveness: Global Partnership for Sustainable Development: materials of the VI International Scientific and Practical Conference*. (Cherkasy, March 22, 2019). Cherkasy, Cherkasy State Technological University, pp. 26-28. [in Ukrainian].
23. The Global Competitiveness Report 2017-2018 (2017). Geneva, World Economic Forum, 393 p.
24. *Transport i zv'iazok Ukrainy za 2017 rik: stat. zbirnyk* [Transport and Communication of Ukraine for 2017]: statistical bulletin (2018). Kyiv, State Statistics Service of Ukraine, 168 p. [in Ukrainian].
25. *Ministerstvo ekonomichnoho rozvytku i torhivli Ukrainy rozpochalo obhovorennia klasternoi prohramy promyslovoho rozvytku* [Ministry of Economic Development and Trade of Ukraine started discussion of cluster program of the industrial development]. URL: <https://www.me.gov.ua/News/Detail>. [in Ukrainian].