

State University of Jan Kochanowski
Department of Entrepreneurship and Innovation

**NATIONAL ECONOMIC
DEVELOPMENT
AND MODERNIZATION:
EXPERIENCE OF POLAND
AND PROSPECTS FOR UKRAINE**



COLLECTIVE MONOGRAPH

Kielce, Poland 2017

STATE UNIVERSITY OF JAN KOCHANOWSKI
DEPARTMENT OF ENTREPRENEURSHIP AND INNOVATION

NATIONAL ECONOMIC DEVELOPMENT
AND MODERNIZATION: EXPERIENCE OF POLAND
AND PROSPECTS FOR UKRAINE

Volume 2

Collective monograph
edited by A. Pawlik, K. Shaposhnykov

Kielce, Poland
2017

UDC 338.242(438+477)
LBC 65.050.9(4Pol)+65.050.9(4Ukr)
N 27

Recommended for publication
by the Academic Council State University of Jan Kochanowski

Reviewers:
Olga Galtsova – Professor, Dr. of Economics, Head of the Department of Economics, National and International Economy, Classical Private University, Ukraine.
Nata Gogolauri – Professor, Dr. of Economics, Head of Faculty of Business, Sulkhani-Saba Orbeliani Teaching University (SABAUUNI), Georgia.

Scientific Board:
Andrzej Pawlik – Professor, dr hab., Head of the Department for Entrepreneurship and Innovation, State University of Jan Kochanowski, Poland.
Pawel Dziekanski – Dr. of Economics, Associate Professor of Department for Entrepreneurship and Innovation, State University of Jan Kochanowski, Poland.
Jan Zukovskis – Associate Professor, Dr. of Economics, Head of Business and Rural Development Management Institute, Aleksandras Stulginskis University, Kaunas, Lithuania.

Kostyantyn Shaposhnykov – Professor, Dr. of Economics, Head of Black Sea Research Institute of Economy and Innovation, Ukraine.
Lina Pileliene – Associate professor, Dr. of Economics, Vytautas Magnus University, Kaunas, Lithuania.
Martina Diesener – Professor, Dr. of Economics, Faculty of Economics and Management Science, Leipzig University, Germany.
Helder Ferreira Vasconcelos – Professor, Dr. of Economics, NOVA School of Business and Economics, Lisbon, Portugal.

Xavier Martinez-Giralt – Professor, Ph.D, Dr of Economy, Dean at Department d'Economia i d'Història Econòmica at the Universitat Autònoma de Barcelona, Spain.
Yuri Safonov – Doctor of Economics, Professor, Professor of Macroeconomics and Governance Department, Kyiv National Economic University named after Vadym Hetman, Ukraine.

The authors of articles usually express their own opinion, which is not always comply with the editorial Board's opinion. The content of the articles is the responsibility of their authors.

National Economic Development and Modernization: experience of Poland and prospects for Ukraine – Collective monograph. – Vol. 2. Poland: "Izdevnieciba "Baltija Publishing", 2017. – 348 p.

ISBN 978-9934-8643-4-6

© 2017 State University of Jan Kochanowski

Smerichevska S. V.
Doctor of Economic Sciences, Professor,
Professor at Logistics Department,
National Aviation University

Pozniak O. V.
Candidate of Economic Sciences, Associate Professor,
Senior Lecturer at Logistics Department,
National Aviation University

Remyha Yu. S.
Candidate of Economic Sciences,
Senior Lecturer at Logistics Department,
National Aviation University

CONCEPTUAL AND METHODOLOGICAL ASPECTS OF ASSESSING THE EFFICIENCY OF TRANSPORT-LOGISTICS CLUSTERS INNOVATIVE TYPE

Summary

Transportation and logistics clusters, as rightly consider a number of scholars, are of the innovation cluster type. For modern Ukraine, forming innovative transportation and logistics clusters – is an opportunity for effective economic restructuring reaching a new level of international relations in the field of management. Therefore, the effective functioning of clusters is an important step in substantiating the usefulness of economic subjects for building national and international cluster systems. As each subject cluster evaluating the appropriateness of entry, trying to take into account their own economic and social interests, this necessitates the formation of the system performance through integrated together using agreed criteria and interdependent interests of all actors cluster. As a result of the definition of performance criteria for cluster systems, there is formed a system of indicators with defined parameters and revealed the qualitative and quantitative performance indicators at all levels of operation of the cluster.

Introduction

The cluster system is the embodiment of a unique combination of scientific, industrial and commercial structures, based on the benefits of cooperative interaction, promote the formation and effective use of real competitive advantages of individual companies, industries and national economies in the increasingly competitive global confrontation. At this stage of development of Ukraine, clusters can make an effective tool for the intensification of domestic business and strengthening market positions of individual economic actors.

One effective solution for the integrated management of material flows and related organization is transportation and logistics clusters. Today cluster approach is used as a key element of the strategy of economic development of many countries.

Improving the competitiveness of the national economy (better access to the workforce, suppliers, specialized information; increase in foreign trade activities, improving the quality of goods and services by integrating knowledge, experience and capacity to the cluster); growth rate of innovation and identify new areas and lines of business (through better vision and understanding market opportunities and

rapid changes sufficient flexibility, lower price experiments, reducing the pressure on members of the cluster); stimulating the creation of new businesses, new businesses, new jobs, new market niches expression; improve people's lives – this is not a complete list of objectives, implementation of which ensures the formation of transport-logistics clusters (TLC) in Ukraine.

At the same time, weak innovation activity of transport and logistics business, poor logistics, and lack of efficiency in Ukraine sufficient experience and appropriate legislative process to ensure the formation of cluster structures requires finding solutions to strategic priority process and mechanism of formation of TLC in Ukraine.

Part 1. Problems and advantages of clustering the economy of Ukraine

An analysis of different definitions of the term «cluster» that occur in foreign and domestic economic science suggests that at present there is no single interpretation of the definition of economic and organizational essence of the term that is explained, firstly, by the availability of different types of clusters, secondly, the complexity of organizational formations, thirdly, connection with the evolutionary development of cluster theory. It seems that at this stage of economic development, the cluster should be considered as the latest organizational form of integrated supply chain management. Therefore, the strategic role at the present stage of evolution theory given cluster formation of clusters such an infrastructure, which includes primarily transport-logistic clusters.

Logistics clusters – is a specially structured and organized economic clusters that combine features of logistics systems and economic clusters, subject to the general principles of functioning and development of complex organizational systems [1].

Cluster – is an optimal transport logistics system innovation type, the specifics of which is the integration of state and local government transport and logistics business, scientific and educational institutions, aimed at innovative development and obtaining synergies, resulting in increasing the competitiveness of the system as compared with separate business entities through the cooperation and effective use of partners for a long period and combined cooperative and competition principles [2].

An important distinguishing feature of a cluster of any type is a factor of innovative orientation. Clusters are usually formed where there is either expected «breakthrough» in engineering and manufacturing technology and further expand into new market niches [3]. In this regard, many countries – both economically advanced and beginners only, forming a market economy – are increasingly using the cluster approach to supporting the most promising areas and forms of business activity in the formation and regulation of their innovation systems.

Transport-logistics cluster consists of companies that perform different functions but united by one process – the transport and delivery of goods from manufacturers to their customers, resulting in a complex product – reliable and quality service transport service created by all members of the cluster since those engaged in scientific research and development and training, and ending with transport companies and logistics intermediaries.

Interest to TLC is explained by the following features of this category of clusters [2; 4]:

1) TLC – is a cluster of services that differ significantly from clusters of commodity production. Attitude to cluster service changes with the development of services;

2) TLC – is a cluster infrastructure, the level of which affects all sectors and areas of life;

3) TLC – is an industry cluster, which occupies a special position in the economy, creating cargo and passengers countries and regions;

4) TLC – is a cluster of modern business area – logistics, which only formed as a separate branch and has the features: on the one hand, it has an integration (cross-functional) nature, on the other hand, one could argue that logistics formed an independent powerful sector economy, although, unfortunately, this is not yet reflected in particular in the national program and records;

5) feature of the logistics cluster form is the transformation of relations between the parties to the organizational and planning, rather than on spontaneous market basis. Transport clusters are formed at the intersection of major cargo flows and combine many specialized facilities.

6) TLC – is a cluster that displays the triple helix model – a cooperation between government, business, and science, ensuring their synergy, competitiveness and levelling risks, and requires effective public-private partnership;

7) TLC is a cluster of innovative type, which stimulates the innovative activity of all of its structural subsystems and requires the creation of a powerful IT platform;

8) TLC – is a modern organizational form of supply chain management integration.

The main competitive advantage of transportation and logistics cluster as the cluster model is the creation of so-called «value-added» or the formation of new value through synergies and that the accumulation of improving resource that exists, creating competitive advantages of all subjects of this association, directly influencing the supply chain [5].

The impact of clusters on the competitiveness of the supply chain is shown in Figure 1.

This allows more quickly and efficiently distributes new knowledge, scientific discoveries, and inventions; focus on business processes that provide the most added values, transferring the rest to outsourcing; effectively attract and utilize investments; reaching multiplier effect on the dissemination of information within innovation clusters [1].

Because of the logistics cluster is organized in a special way, logistics system – the concentration of logistics activities that identify a group of companies and organizations aimed at organizational, structural, organizational, and analytical improvement (optimization) of flow processes and production functions of any content in reproduction (logistics) cycle [6].

Despite the outstanding advantages of cluster model of development of Ukraine, there are some problems that prevent the effective implementation of innovative development tools.

Problems and prospects of transport-logistics clusters in Ukraine are presented as SWOT-analysis of TLC in Table 1.

Given the analysis of the main problems of formation and development of TLC in Ukraine, their causes, and measures to address these problems are presented in Figure 2.

The mentioned measures are aimed at restoring and accelerating economic growth through increasing the potential clustering of the economy, creation, and development of TLC in Ukraine on the innovative basis. This will help determine the «area of responsibility» and every subject of interest and determine TLC contribution to the economic operation of the cluster, providing a synergistic effect.

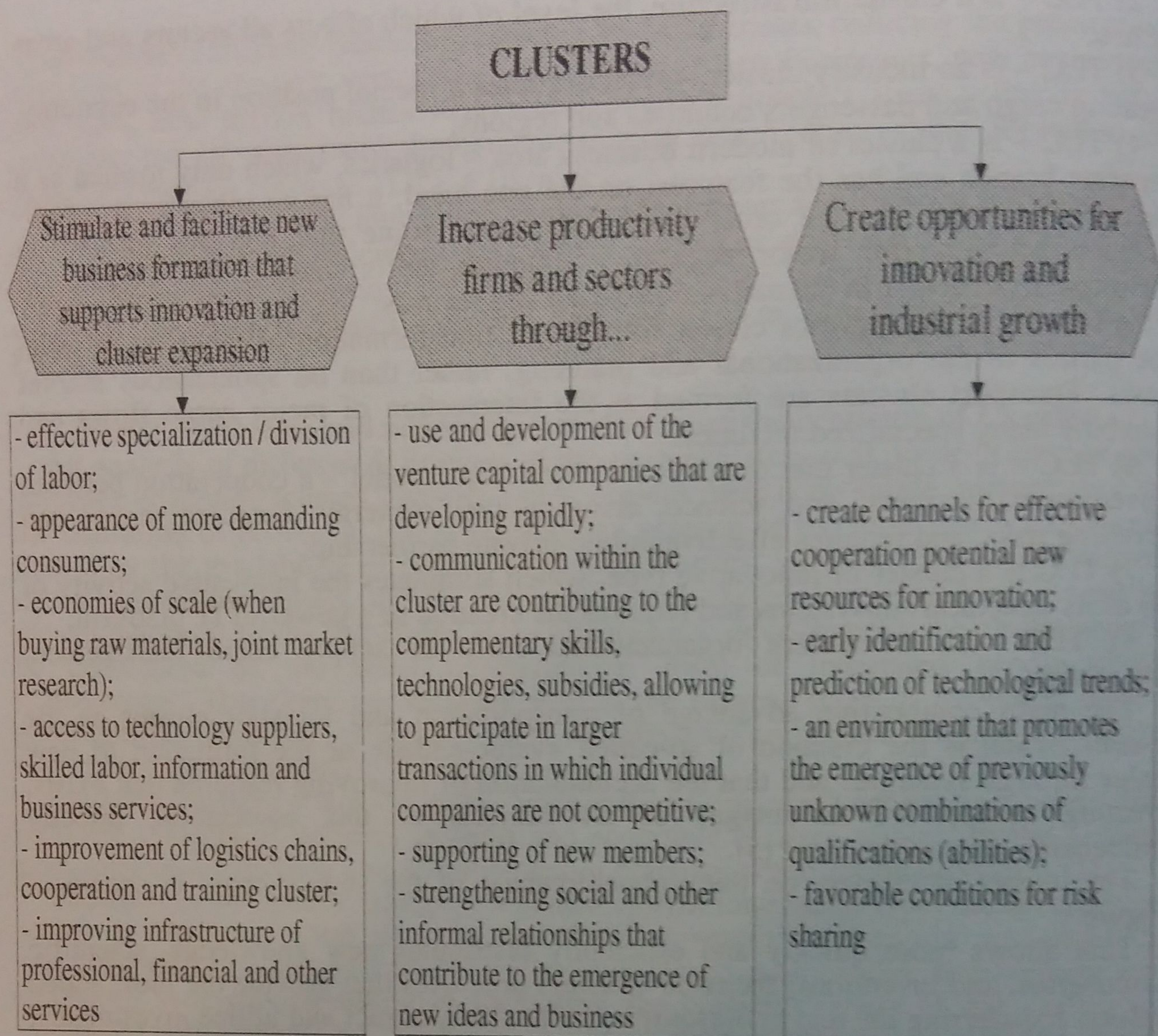


Fig. 1. The impact of clusters on the competitiveness of the supply chain
Source: own research

Table 1

SWOT-analysis of preconditions of TLC development in Ukraine

№	Strengths	Weaknesses
1	good geographical location of the country in general and certain of its regions, geopolitical component, the presence of transport and logistics infrastructure;	lack of perfect legislation on clustering the national economy; imperfect mechanisms for implementing legal norms and rules regarding regional initiatives;
2	considerable scientific and human resources, an extensive system of research and educational institutions;	imperfect clustering development programs and public support; not created the basis of scientific and technical, information and consultative, educational support of TLC;

3	the presence of significant production potential companies that have facilities that are not used;	lack of skills and experience of the effective partnership; lack of interest of small and medium business association in the system;
4	the ability of economic agents to allocate their limited resources to some extent;	weak interest in the implementation of real innovation in the economy, no skills partnerships with colleagues from abroad;
5	experience in difficult conditions, speed decision making.	lack of investors due to low investment attractiveness of the region.
6	Opportunities	Threats
7	improving the efficiency of supply chain management through the creation of new organizational forms – TLC;	market crisis, economic stagnation of the region (becoming a full competitive TLC – a complex and long-term task for the state);
8	improving the competitiveness of cluster members through the introduction of new technologies;	political and legal risks;
9	providing significant synergies in the economy;	limitations customs and tax legislation;
10	increased susceptibility to the capabilities of high specialization and innovation;	imperfect legal framework to regulate relations between members of clusters;
11	reduce costs and improve product quality through the synergy and unification of approaches to the quality, logistics, engineering, information technologies;	insufficient benefits for all the insight cluster members, as evidenced by the lack of cluster initiatives both from the state and from the business.
12	increased productivity, greater flexibility, and large scale effect;	
13	more efficient and rational use of available resources, as well as attracted investments;	
14	mutual enrichment of knowledge, ideas, contributing intellectual capacity augmentation;	
15	financial support between members of the cluster, forming single financial resources;	
16	complementarity and harmony cluster components through the implementation of joint organizational and economic measures and effective marketing.	

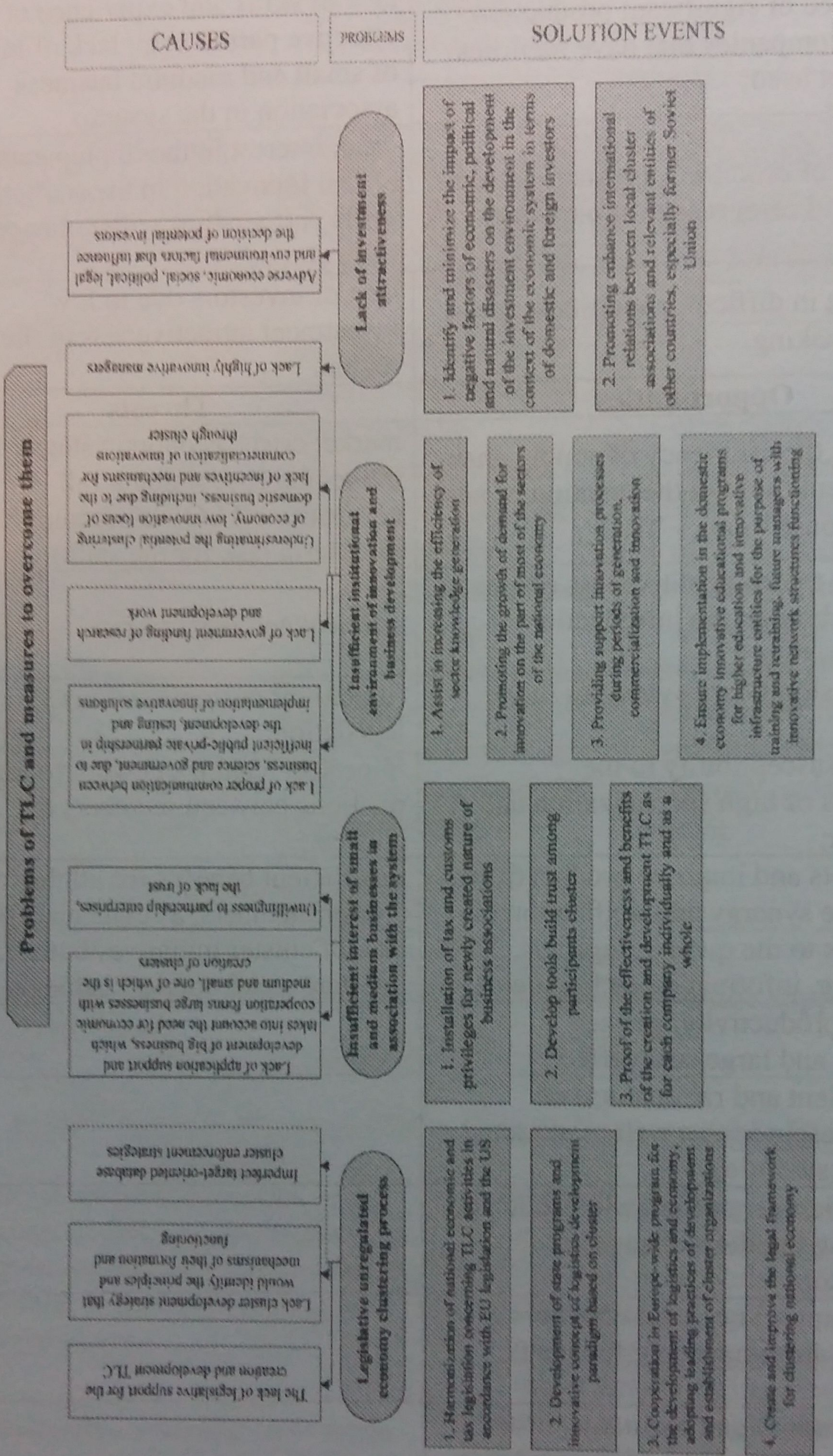


Fig. 2. «Tree problems» of the formation and development of TLC in Ukraine and measures to solve them

Source: own research

Part 2. Methods of assessing the efficiency of transport and logistics clusters innovative type

Effective functioning of clusters is an important step in the justification of usefulness of economic subjects for building national and international cluster systems. Providing an objective assessment of efficiency can be provided using complex interconnected together and agreed criteria.

The economic essence of efficiency cluster is that an integrated approach for each unit cost was a significant increase in profit than the operation of each company separately [7]. That is, the efficiency of cluster interaction is available through synergies.

The main subjects of cluster formation synergies include:

- market actors shaping, transforming, and absorbing material flows, namely producers, consumers, intermediaries;
- transport company engaged the surface, water, and air transport modes;
- shipping companies, including freight forwarders, couriers, freight forwarders, agents (brokers), operators of mixed cargo, linear cartels;
- warehouses, distribution centres, and terminals;
- institutional bodies (Ministry of Infrastructure, Customs Control Committee, Ministry of Finance, Services of sanitary-epidemiological and veterinary control, etc.);
- subsidiary companies (financial institutions and organizations, research organizations, insurance companies, consulting and analytical organizations, training centres for training and retraining of the personnel, marketing structures);
- organizations that provide related services (maintenance and repair of transport, road construction companies, service organizations).

The analysis of the international and domestic experience of the transport-logistics clusters reveals a synergistic effect of the interaction of all participants (Figure 3).

The positive systemic socio-economic impact of cluster activities for participating enterprises and regional is due to the synergy that association resources and their effective use to achieve a common goal [9]. In particular, synergy within the cluster provides the following major effects: the effect of joint innovation, the effect of the use of outsourcing, the effect of risk sharing between members of the cluster effect of sharing infrastructure, the effect of reducing transaction costs, the effect of forming a single product and distribution base.

Consider them in detail.

1. The effect of joint innovation: creating efficiency of the cluster can be achieved only if the knowledge-based innovation and its development [10]. Innovation synergy is the result of sharing production facilities, R&D expenses of transfer from one product to sharing high-tech equipment and more. Sharing technology significantly increases the overall competitiveness cluster, as well as new ideas, business processes, and technologies, are in the cluster available to all enterprises, which, in turn, seek to establish and improve their knowledge, thus creating new competitive advantages and consequently improving competitiveness cluster, region, and state as a whole.

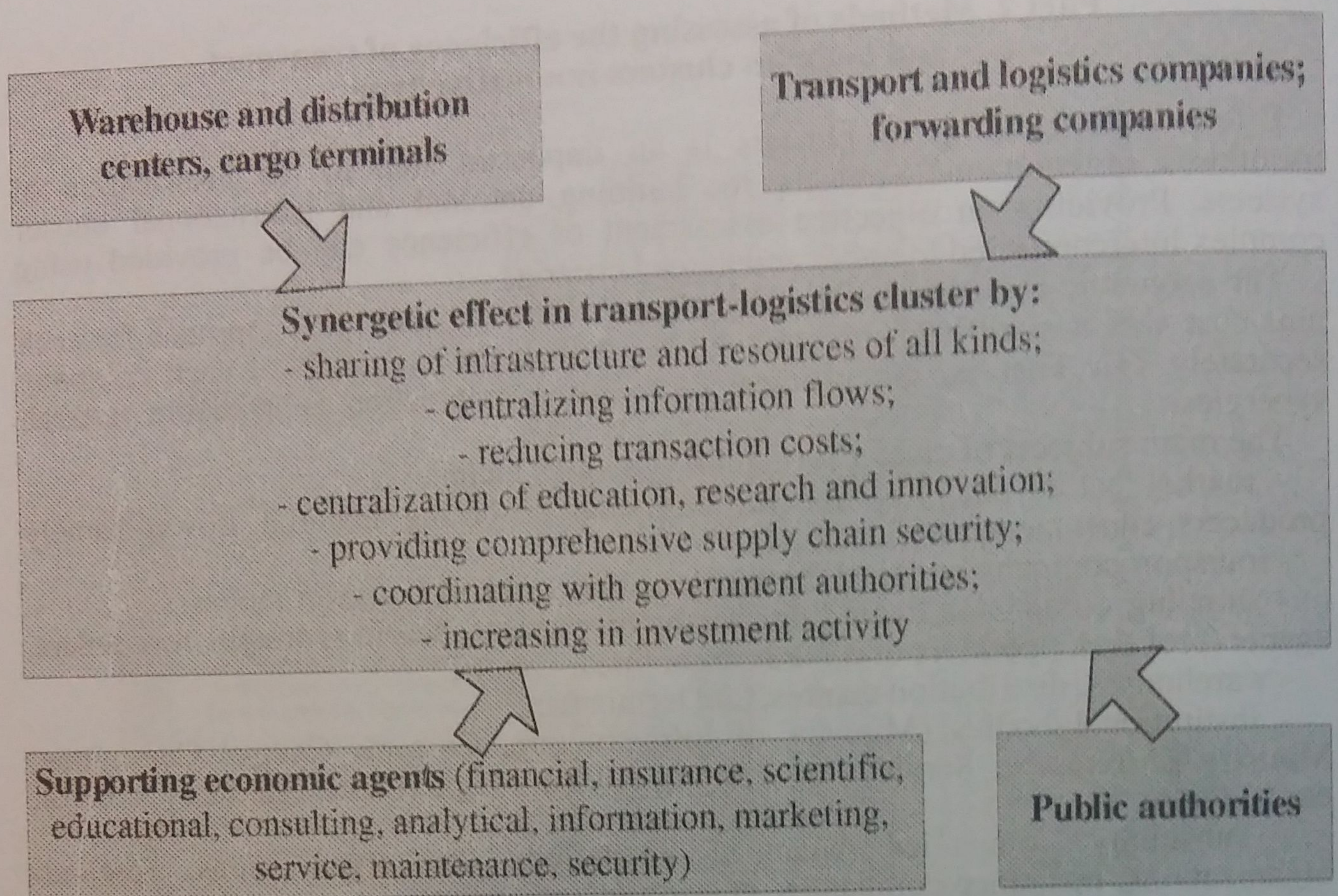


Fig. 3. Synergetic effect of transport-logistics cluster

Source: based on [8]

2. The effect of outsourcing: the transfer is now based on the agreement of certain business processes or production functions in service to another company that specializes in the relevant field. The main source of cost savings with the help of outsourcing is to improve the enterprise as a whole and the emergence of opportunities to release the appropriate organizational, financial, and human resources to develop new areas or to focus on existing needing attention. It should be noted that the main difference is the outsourcing of subcontracts that is a part of the outsourcing and covers only industrial, scientific, and manufacturing sector [11].

3. The effect of risk sharing between members of the cluster: businesses cluster in joint measures of risk management to reduce the size of the possible loss. Union spending on measures to minimize the risks of each company within the cluster increases the feasibility of risk management measures. This effect in terms of increased instability and risk of the environment is of particular relevance.

4. The effect of sharing infrastructure: between companies, participating in the cluster, cooperation takes place through the deepening of industrial and technological specialization and cooperation, the creation of the cluster service and utility industries, infrastructure.

5. The effect of reducing transaction costs under the cluster formed a common base of knowledge and information as a result of overflow between enterprises cluster, which reduces the specificity of a resource and, therefore, the transaction costs [12]. In addition, as part of the cluster reduces the cost of information search, prospecting, negotiation, etc.

6. The effect of the formation of a single commodity distribution base for each type of traffic, functioning within the cluster provides companies reduce the cost of

immobilization of working capital at the time of a finding in the process of delivery. The size of these costs is defined as the value of the commodity mass, and the effect – as a result of reduction accelerating delivery of goods [13].

To calculate the above-described effects of proposed methodological approach (Table 2), which is based on the method of determination socioeconomic effect formation of the transport-logistics cluster, which is offered by Derhachev V.A., Domaskina O.P., Motsarenko V.I., Tarakanov M.L. [14]. In calculating the individual economic effects was based on methodological approaches by Khariv P.S. (innovations) [15] and Kuhayevskiy A.A. (use of a single commodity distribution base) [13].

Table 2

The methodical approach to evaluating the economic efficiency of cluster systems [based on [3, 13, 14, 15]

No	Index	Formalization
1	The effect of joint innovation	$E_i = \left(C_0 \frac{P_i}{P_0} - C_1 \right) * P_i,$ <p>where E_i – effect of innovation within the cluster, monetary units; C_0 – cost of production per unit to the introduction of innovations, monetary units; C_1 – cost of production per unit after the introduction of innovations, monetary units; P_0 – annual output of the introduction of innovations, t; P_i – annual performance after the introduction of innovations, t</p>
2	The effect of outsourcing	$E_a = C_s - C_a,$ <p>where E_a – effect of the use of outsourcing, monetary units; C_s – independent production costs of this type of work or services, monetary units; C_a – cost of acquisition of works, services in outsourcer, monetary units</p>
3	The effect of the allocation of risk between cluster members	$E_r = C_{rm_0} - C_{rm_1},$ <p>where E_r – effect of risk sharing between members of the cluster, monetary units; C_{rm_0} – annual cost of risk management measures to reduce the size of possible damage to the formation of the cluster, monetary units; C_{rm_1} – annual cost of risk management measures to reduce the size of possible damage after the formation of the cluster, monetary units</p>
4	The effect of sharing infrastructure	$E_{CI} = I_0 - I_1,$ <p>where E_{CI} – effect of sharing infrastructure, monetary units; I_0 – annual operating costs of infrastructure to form a cluster, monetary units; I_1 – annual operating costs of infrastructure after the formation of the cluster, monetary units</p>
5	The effect of reducing transaction costs	$E_t = C_{t_0} - C_{t_1},$ <p>where E_t – effect of reducing transaction costs within the cluster, monetary units; C_{t_0} – annual transaction costs to the formation of the cluster, monetary units; C_{t_1} – annual transaction costs after forming a cluster, monetary units</p>

6	The effect of the creation of a single product and distribution base for each traffic	$E_{rb} = T_0 - T_1,$ <p>where E_{rb} – effect of creating a single commodity distribution base, monetary units; T_0 – cost commodity mass to create a single inventory distribution base for this type of cargo, monetary units; T_1 – cost commodity weight after the creation of a single commodity distribution base for this type of cargo, monetary units</p> $T = \frac{t \cdot Q \cdot P}{365},$ <p>where t – a number of days required for delivery of cargo; Q – annual traffic volume, t; P – price of a ton of cargo, monetary units; 365 – duration in days.</p>
7	The integral indicator of cluster economic efficiency	$E_{TLC} = E_i \times ki + E_a \times ki + E_r \times ki + E_{CI} \times ki + E_t \times ki + E_{rb} \times ki$ <p>where ki – weight of each type of effect, which is determined by an expert</p>

The methodical approach allows evaluating the efficiency of transport-logistics cluster based effects generated within the cluster.

As stated earlier, TLC is one of the most effective forms of economic organization and interaction of all participants in the transport and distribution process. Moreover, this interaction provides maximum integral economic effects $Ef_{TLC}^{integr.}$ with minimal logistics costs S_{ijk} :

$$Ef_{TLC}^{integr.} = \sum_{i=1}^I \times \sum_{j=1}^J D_{ij} - \sum_{i=1}^I \times \sum_{j=1}^J \times \sum_{k=1}^K S_{ijk} \rightarrow max, \quad (1)$$

where i – of subjects transport-logistics activities ($i=1; I$); j – logistics function to maintain traffic at TLC ($j=1; J$); k – resources used ($k=1; K$); D_{ij} – income of i -th subjects to perform the j -th logistics functions in TLC when serving traffic; S_{ijk} – costs of i -th subjects of fulfilment of the j -th logistics functions in TLC when serving traffic using the k -th resource.

According to the approved Guidelines on implementation of the cluster policy, clusters have five important indicators [16]:

1. The presence of viable enterprises.
2. The presence in the territory of the competitive advantages for the development of the cluster.
3. Geographical concentration and proximity.
4. A wide range of participants and their presence «critical mass».
5. Availability of communication and interaction between members of clusters.

A very important step in the formation and development of the transport-logistics cluster is to evaluate the efficiency of the cluster from the perspective of national interests and the interest of the participants TLC position (Figure 4).

Evaluating the effectiveness of cluster members during its formation is advisable to determine based on the changes of economic development. For each individual participant, cluster effectiveness of such cooperation is defined differently. In

particular, with regard to companies that are in a cluster, the manifestations of economic efficiency are a variety of economic effects and improve the quality of goods and service, cost reduction, material consumption, capital intensity, the complexity of production, increase productivity, increase profits, etc. [17].

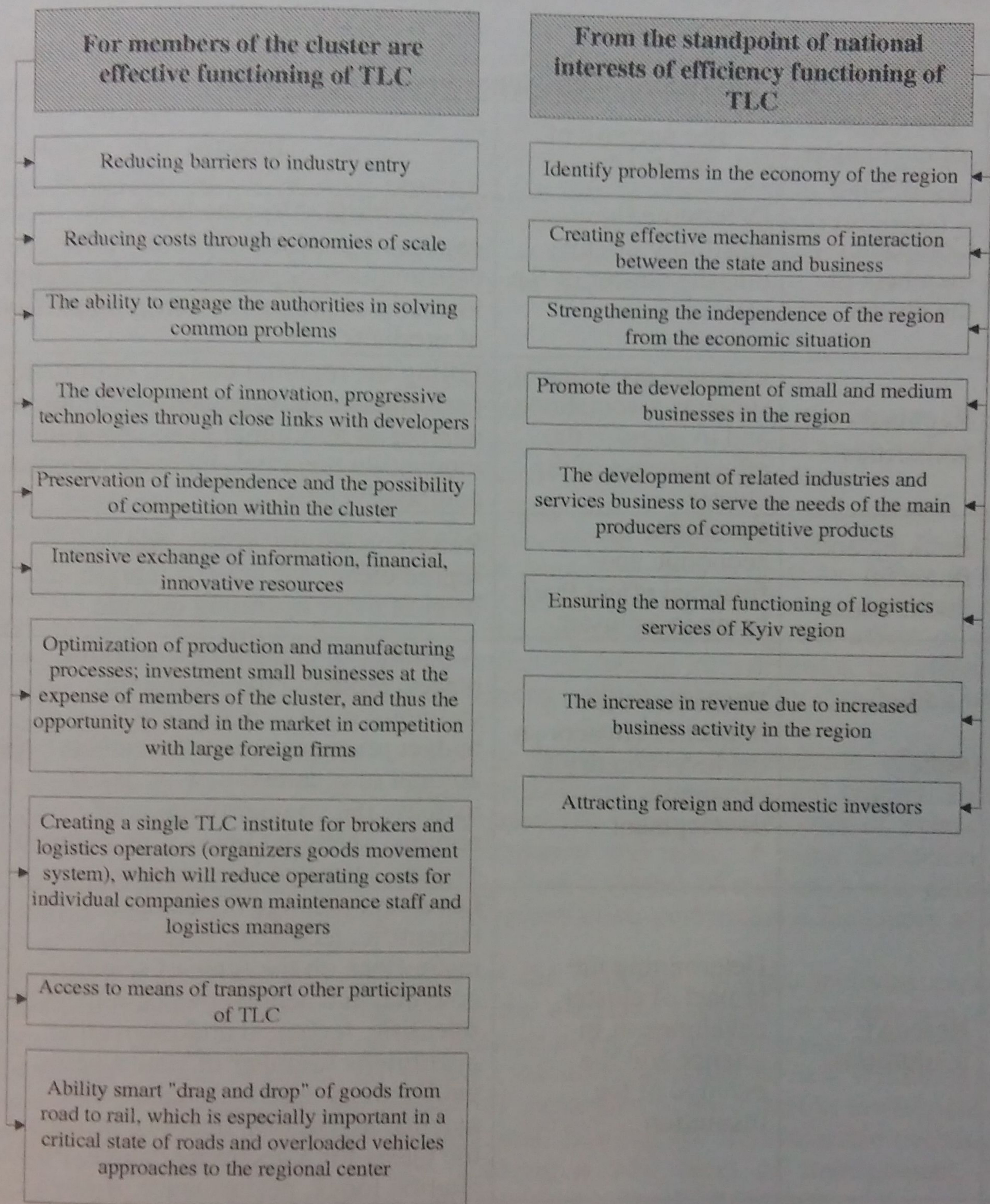


Fig. 4. Effectiveness of the cluster from the perspective of national interests and positions of interest of participants TLC

Source: own research

Consider it appropriate to emphasize the practical value of this approach, which users could become stakeholders such as investors, financial institutions. This

technique can be applied in the development of competitive regional policy and public programs for the region.

Key indicators that can be used in determining the efficiency of the transport-logistics cluster are in Table 3.

Table 3

Key indicators of efficiency of cluster members

No	The subjects of evaluation levels	The purpose of evaluation	Indexes
1	Companies – members of the cluster	Determine the feasibility of entry into the cluster or the effectiveness amenities	Profitability, sales; the level of expenses; productivity; materials consumption of production; the capital intensity of production; the complexity of products.
2	Regional authorities	Evaluate activities of subjects associations and to monitor the effectiveness of the cluster	Filling the regional budget; optimizing performance management solutions; a number of additional jobs; changing innovation potential; increase regional competitiveness.
3	Banking and financial institutions	Determine the economic and financial effect from being in a cluster	Return on equity, assets, and costs; sepred clean; net interest margin; the level of other operating income.
4	State	Determine the impact of clusters on the level country's economic development	A number of created new working places; reducing the level with unemployment benefits; the level of budget revenues (cluster members); the amount of obtained new projects; increase the competitiveness of regions; changing innovation potential, exports, attracted investments.
5	Research institutions	Determining the impact of cluster development in science and the prestige of the institution	Level and prestige of science (scientific, technical, research) institutions on the scale of scientific potential and achievements; impact of scientific, technical and innovation institutions (number of state awards, publications, international awards, patents, inventions, licenses, protected the thesis for a doctorate degree, PhD); citation index, performance of research
6	Educational institutions	Determine the competitiveness of science and communication with business practitioners	Share of additional educational programs (including author's) in the curriculum; the proportion of subjects profiled nature graduation rates (grades) in the curriculum; proportion of pupils (students) winners of competitions at various levels in the total number of students.

Evaluating the effectiveness of the cluster is based on a system of indicators used at the macro level (the number of new jobs, reduction level of unemployment payouts, budget revenues (members of the cluster), the volume of attracted foreign investments, the amount of received new projects, changes in the innovative capacity of the region (state), and export volume and so on.), at the regional level (indicators, reflecting the decrease in social tensions, environmental safety issues or improve infrastructure and others), at concretion company – by cluster (profitability, sales, spending, productivity, materials, capital intensity, complexity of products, etc.), at research institutions (rating institution, the impact of scientific, technical and innovation, citation index, volume of research, etc.) and educational institutions (share of additional educational programs (including copyright) in the curricula of schools, the proportion of subjects profiled nature graduation classes (courses) in the curriculum, the proportion of students (students, job seekers) – winners of competitions at various levels in their total population, the number of PhD and master's theses and others.

Conclusions

At the present stage of development of the theory of clustering, the cluster should be considered not only as a form of business combination, as well as an innovative organizational form of effective management of integrated supply chain.

The proposed methodology for evaluating the effectiveness of creation and development of transport and logistics cluster is based on the fact that the effectiveness of cluster interactions should contribute to a synergistic effect in the economy. Among the effects that provide synergies within the cluster identified: the effect of joint innovation, the effect of the use of outsourcing, the effect of risk sharing between members of the cluster effect of sharing infrastructure, the effect of reducing transaction costs, the effect of forming a single commodity distribution base for each type of traffic.

The effectiveness of cluster activity is formed by a combination of integral indicators prevailing classification based on different approaches and criteria: social and economic values, qualitative and quantitative parameters, factors of extensive and intensive development, special requirements and more. A clear definition of performance criteria for cluster systems can form a system of indicators with defined parameters and reveal the qualitative and quantitative performance indicators at all levels of operation of the cluster.

The system estimates the efficiency of the generated cluster, includes certain evaluation criteria, including determining the available capacity of enterprises, the impact of the enterprise cluster on the industry in the region, company image cluster in the degree of innovation of the industry, commercialization of new technologies, the scope of works (services), the number of employees in the industry, investment in fixed assets, the level of cooperation and trust, creating the infrastructure necessary for the development of the cluster, entering a new level of management, its geographically close cluster members, government support for clusters.

The basic indicators of efficiency of the cluster members that can be used, assessing the feasibility of entry each participant in the cluster, are considered. The proposed conceptual and methodological approaches contribute actively to the formation of transport-logistics cluster development and modernization of transport infrastructure, the creation of modern logistics terminals, the geographical expansion of transport, stimulating innovation and introduction of new technologies in the logistics industry, improving efficiency and achieving a fundamentally new quality of

interaction between business and state and education, provide a synergistic effect of their activities, which in turn led to the innovative activity of strategic partners TLC growth and promote economic competitiveness at both national and regional level.

References:

1. Rol klasternykh formirovaniy v budushchem ekonomiky Ukrainy [The role of cluster formations in the future of the Ukrainian economy] // [Electronic resource]. – Access mode: http://www.rusnauka.com/33_NIEK_2008/Economics/37328.doc.htm (In Russian).
2. Stratehiya formuvannya ta rozvytku transportno-lohistychnykh klasteriv v Ukraini: innovatsiyno-intelektual'nyy pidkhid [Strategy formulation and development of transport and logistics clusters in Ukraine: innovation and intellectual approach] // Monograph / S.V.Smerichevska, E.E.Fedorov, T.V.Ibrahimhalolova. – Donetsk: «BIK», 2013. – 360 p (In Ukrainian).
3. Smerichevska S.V., Ibrahimhalilova T.V. Metod kohnityvnoho modelyuvannya parametriv i faktoriv struktury upravlinnya transportno-lohistychnoyu systemoyu [The method of cognitive modeling parameters and factors management structure of transport-logistics system] // Teoretychni i praktychni aspekty ekonomiky ta intelektual'noyi vlasnosti. – Mariupol: DVNZ «PDTU», 2012. – № 1, T.2. – Pp. 290-293 (In Ukrainian).
4. Formuvannya transportno-lohistychnykh klasteriv u YeS: ukrayins'kyy kontekst [Formation of transport and logistics clusters in the EU: Ukrainian context] // [Electronic resource]. – Access mode: <http://visnyk-geo.univ.kiev.ua/wp-content/uploads/2016/04/5-60.pdf> (In Ukrainian).
5. Transportno-lohistychna klasteryzatsiya yak faktor zabezpechennya innovatsiynoho rozvytku rehioniv Ukrainy [Transport-logistics clustering as a factor of innovative development of regions in Ukraine] // [Electronic resource]. – Access mode: [file:///C:/Users/%D0%A2%D0%B0%D0%BD%D1%8F/Downloads/Nv_2014_9_7%20\(2\).pdf](file:///C:/Users/%D0%A2%D0%B0%D0%BD%D1%8F/Downloads/Nv_2014_9_7%20(2).pdf) (In Ukrainian).
6. Transportno-lohistychni klasteri – vektor rehional'noho rozvytku [Transport-logistics cluster – vector of regional development] // [Electronic resource]. – Access mode: [http://eir.pstu.edu/bitstream/handle/123456789/9190/Virtus_2016%20\(236-239\)_p236-239.pdf?sequence=1](http://eir.pstu.edu/bitstream/handle/123456789/9190/Virtus_2016%20(236-239)_p236-239.pdf?sequence=1) (In Ukrainian).
7. Metod otsenky efektyvnosti orhanyzatsyy vzaymodeystviya uchastnykov transportno-lohistycheskoy ynfrastruktury rehiona [Method for assessing the effectiveness of the organization of interaction between participants in the transport and logistics infrastructure of the region] // [Electronic resource]. – Access mode: <http://cyberleninka.ru/article/n/metod-otsenki-effektivnosti-organizatsii-vzaimodeystviya-uchastnikov-transportno-logisticheskoy-infrastruktury-regiona> (In Russian).
8. Formuvannya klasteru yak napryamku innovatsiynoho rozvytku ekonomiky [Forming a cluster toward innovative economic development] // [Electronic resource]. – Access mode: <http://economics.opu.ua/files/archive/2014/No2/132-138.pdf> (In Ukrainian).
9. Synerhetycheskyy efekt klasternykh obrazovanyy y parametry cho otsenky [Synergetic effect of cluster formations and parameters of its evaluation] // [Electronic resource]. – Access mode: <http://eee-region.ru/article/2904/> (In Russian).
10. Otsenka efektyvnosti sozdannya otraslevoho klastera [Assessment of the effectiveness of the creation of an industry cluster] // [Electronic resource]. – Access mode: <https://www.fundamental-research.ru/ru/article/view?id=31301> (In Russian).
11. Zakharchenko V.Y., Osipov V.N. Klaster'naya forma terrytoriyal'no-proydzvodstvennoy orhanyzatsyy [Cluster form of the territorial-production organization]. – Odessa: «Favorit» – «Pechatniy dom», 2010. – 122 p. (In Russian).
12. Otsinka efektyvnosti diyal'nosti innovatsiynoho klasteru [Evaluation of the effectiveness of the innovation cluster] // [Electronic resource]. – Access mode: <http://www.economy.nayka.com.ua/?op=1&z=245> (In Ukrainian).
13. Kuhaevskyy A.A. Effektyvnost' rehional'noho transportnoho kompleksa (metodolohycheskye voprosy) [Efficiency of the regional transport complex (methodological issues)]. – Novosybyrsk: Nauka.Syb.otd-nye, 1989. – 128 p. (In Russian).
14. Burkynskyy B.V., Stepanov V.N., Derhachev V.A. Morekhozaystvennyy kompleks [Sea-economic complex] / AN USSR Odes. otd-nye Yn-ta ekonomiky. – K.: Nauk. Dumka, 1991. – T. 1. – 352 p. (In Russian).

15. Analiz rozvytku lohistychnykh posluh na suchasnomu svitovomu rynku [Analysis of logistics services on the world market] // [Electronic resource]. – Access mode: http://www.ej.kherson.ua/journal/economic_06/41.pdf (In Ukrainian).
16. Podkhody k formyrovanyuu y otsenke efektyvnosti ekonomycheskykh klasterov [Approaches to the formation and evaluation of the effectiveness of economic clusters] // [Electronic resource]. – Access mode: <http://www.ini21.ru/arhiv/2-10/908.php> (In Russian).
17. Otsinka ochikuvanoyi efektyvnosti klastera yak osnova dlya pryunyattya rishen' shchodo klasteroutvorennya [Assessment of the expected performance of the cluster as a basis for decisions on cluster formation] // [Electronic resource]. – Access mode: http://www.visnyk-econom.uzhnu.uz.ua/archive/6_1_2016ua/34.pdf (In Ukrainian).
18. Kontseptsyya formyrovannya ynnovatsyonnoy ekonomyky Ukrainy na osnove klasternoho podkhoda [The concept of formation of innovative economy of Ukraine on the basis of the cluster approach] // [Electronic resource]. – Access mode: file:///C:/Users/%D0%A2%D0%B0%D0%BD%D1%8F/Downloads/Траєив_2013_1_1_52.pdf (In Russian).

Романюк М. Д.

*доктор економічних наук, професор,
заслужений діяч науки і техніки України,
професор кафедри менеджменту і маркетингу
Прикарпатського національного університету
імені Василя Стефаника*

Смутчак З. В.

*кандидат економічних наук, доцент,
доцент кафедри менеджменту, економіки та права
Кіровоградської льотної академії
Національного авіаційного університету*

ТРАНСКОРДОННА МІГРАЦІЯ РЕГІОНІВ УКРАЇНИ: ПРОБЛЕМИ ВРЕГУЛЮВАННЯ

Анотація

Розкрито передумови виникнення міграційних процесів, їх причини і наслідки. Проаналізовано динаміку чисельності міжнародних емігрантів у світі за останні роки. Виявлено основні тенденції сучасної транскордонної еміграції. Окреслено можливі наслідки інтенсифікації міграційних процесів та транскордонної міграції, зокрема в Україні. Запропоновано заходи міграційної політики щодо упорядкування міграційного простору країни.

Вступ

Нині проблема еміграції її громадян до інших країн є однією з найактуальніших проблем для сучасної України. Зрозуміло, що емігрувати за межі рідної країни змушені люди, що з різних причин не можуть повноцінно жити на її теренах. Перехід України на ринковий шлях розвитку супроводжується не лише великою кількістю політичних і соціально-економічних змін, а й глибокою демографічною кризою, однією з першопричин якої є еміграція населення.