



## DEVELOPMENT OF PRODUCTIVE FORCES AND REGIONAL ECONOMY

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### INVESTIGATION OF ORGANIZATIONAL AND MANAGEMENT SPECIFICS OF HEALTH TOURISM DEVELOPMENT

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The object of research is the processes of health tourism organization in the regions of Ukraine.

With the aim of establishing the direction and essence of the processes of health tourism organization, the «health tourism» concept is clarified, the components and the environment of its resources are identified.

As part of the study of the features of management aspects of health tourism development, the forms of its spatial organization – tourist destination and tourist cluster are considered. Destination and tourist cluster are considered as two systems to meet the tourist's needs: destination creates conditions for health tourism organization at the level of a particular region, forming a cluster in health tourism is aimed at supporting and developing a destination as a competitive local specific tourist product.

In order to provide recommendations on the health tourism development in the Kherson region (Ukraine), the current status is assessed, the advantages of the potential of the tourist sphere of the Kherson region are determined. The peculiarities of the formation of regional clusters, as such having a latent character, are revealed. The development of their potential will allow to combine all components of health tourism in a complex tourist product and to obtain a synergistic effect in ensuring sustainable social and economic development of the region as a whole.

**Keywords:** health tourism, tourist and recreational resources, tourist product, cluster approach.

#### References

- Liubitseva, O. O. (2009). Do pytannia terminolohii v turyzmu. *Geography and tourism*, 7–10.
- Leiper, N. (2004). *Tourism management*. Sidney: Pearson Education Australia, 326.
- Bieger, T. (2005). *Destinations Management*. München: Oldenbourg, 365.
- Ritchie, B., Crouch, G. (2003). *The competitive destination: a sustainable tourism perspective*. Cambridge: CAB International, 291. doi:10.1079/9780851996646.0000
- Moisander, J., Valtonen, A. (2006). *Qualitative marketing research: a cultural approach*. London: Sage, 240. doi:10.4135/9781849209632
- Zorin, I. V. (2011). Menedzhment destinatsii. Uchebnye programmy mezhdunarodnykh obrazovatel'nykh proektov urovney bakalavriata i magistratury. *Materialy mezhdunarodnoi konferentsii «Turistskie brendy – generator razvitiia territoriy», g. Vologda, g. Velikiy Ustiug, 13–14 dekabria 2011*. Available: [http://russiaturforum.com/upload/presentation/004\\_plenarn\\_zorin\\_vologda.pdf](http://russiaturforum.com/upload/presentation/004_plenarn_zorin_vologda.pdf)
- Beni, M. C. (2003). *Globalizacao do Turismo: Megatendencias do Setore a Realidade Brasileira*. Ed. 2. Sao Paulo: Editora Aleph, 180.
- Enright, M. J. (2000). *Survey on the Characterization of Regional Clusters: Initial Results*. Working Paper Institute of Economic Policy and Business Strategy: Competitiveness Program University of Hong Kong and the Competitiveness Institute. Barcelona, Spain, 21.
- Kuskov, A. S., Golubeva, V. L., Odintsova, T. N. (2005). *Rekreatsionnaia geografiia*. Moscow: Flinta: MPSI, 496.
- Papenov, K. V. (1985). *Rezervy obshchestvennogo proizvodstva. Voprosy teorii i praktiki*. Moscow: MGU, 143.
- In: Puzynia, K. F. (2003). Problemy i opyt sovershenstvovaniia upravleniia i povysheniia effektivnosti funktsionirovaniia uchrezhdenii i predpriatii sotsial'noi sfery. *Materialy II Vserossiiskoi nauchno-prakticheskoi konferentsii, g. Sankt-Peterburg, 19–21 noiabria 2003*. St. Petersburg: St. Petersburg State University of Engineering and Economics, 340.
- Ustav VOZ. *World Health Organization*. Available: <http://www.who.int/governance/eb/constitution/ru/>
- Pirozhnik, I. I. (2006). Transformatsiia turistsko-rekreatsionnogo prostranstva v epohu globalizatsii. *Turizm i regional'noe razvitie*, 4, 136–138.
- Beritelli, P. (2009). Social network analysis in destination management. *eTourism*. University of St. Gallen. Available: <http://etourism.economia.unitn.it/documents/3.pdf>
- Davidson, R., Maitland, R. (1997). *Tourism destinations*. London: Hodder&Stoughton, 287.
- Kotler, P. T., Bowen, J. T., Makens, J. (2013). *Marketing for Hospitality and Tourism*. Ed. 6. Pearson, 704.
- Parlamentski zvity. *Andriy Gordeev. Holova Khersonskoi oblasnoi derzhavnoi administratsii*. Available: <http://gordeev.org.ua/press/report/>

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### RESEARCH OF RISK MANAGEMENT TRENDS IN UKRAINE

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The current state of risk management in Ukraine is considered in the article. The main factors of economic risk for Ukrainian enterprises are identified, such as the unstable political and economic situation in the state, high inflation, unsustainable tax legislation, etc. The needs of the Ukrainian risk management system are identified, as well as specific features of domestic risk management, which include the lack of own infrastructure of risk management and standards of its implementation, significant differences in the Ukrainian and foreign risk profiles for the enterprise, inefficient state risk management, high level of political risk, etc. The need for further research and development of risk management in Ukraine is proved. The procedure for selection of risk management measures in industrial enterprises is suggested, taking into account the world experience in risk management, in particular the FERMA risk management standards, as well as the peculiarities of the existing approach in Ukraine. The proposals for application of risk management measures are made to mitigate the negative impact of environmental factors on the activities of the enterprise and, as a result, improve the results of the economic activities of the enterprise.

**Keywords:** risk management, risk factors, risk management methods.

#### References

- Baldzhy, M. D., Karpov, V. A., Kovalov, A. I. et al.; In: Baldzhy, M. D. (2013). *Obgruntuvannia hospodarskykh rishen ta otsinka ryzykiv*. Odesa: ONEU, 670.

2. Barantseva, S. M., Khlevytska, T. B. (2011). *Ryzykologhiia*. Donetsk: DonNUET, 224.
3. Starostina, A. O., Kravchenko, V. A. (2009). *Ryzyk-menedzhment: teoriia ta praktyka*. Kyiv: IVTs «Vydavnytstvo «Politekhnika»», 200.
4. Donets, L. I. (2006). *Ekonomichni ryzyky ta metody yikh vymyriuvannia*. Kyiv: Tsentr navchalnoi literatury, 312.
5. Kasatkin, B. P. (2016). *Metodologicheskie aspekty upravleniia riskami promyshlennogo predpriiatia*. St. Petersburg: FGBOUVO «SPbGUPTD», 88.
6. Sakhartseva, I. I., Shliaha, O. V. (2007). *Ryzyky ekonomichnoi diahnostyky pidpriiemstva*. Kyiv: Kondor, 285.
7. Krichevskii, M. L. (2012). *Finansovye riski*. Moscow: KNO-RUS, 248.
8. Kudriavtsev, A. A. (2010). *Integrirovanyi risk-menedzhment*. Moscow: Ekonomika, 655.
9. Fomichev, A. N. (2010). *Strategicheskii menedzhment*. Moscow: Dashkov i Ko, 468.
10. Avdiiskii, V. I., Bezdenzhnyh, V. M. (2013). *Riski hoziaistvuiuushchih subiektov. Teoreticheskie osnovy, metodologii analiza, prognozirovaniia i upravleniia*. Moscow: Alfa-M: INFRA-M, 368.
11. *Economic Code of Ukraine*. (2014). Kyiv: European University, 256.
12. Shapkin, A. S. (2010). *Ekonomicheskie i finansovye riski. Otsenka, upravlenie, portfel' investitsii*. Moscow: Izdatel'sko-torgovaia korporatsiia «Dashkov i Ko», 544.
13. Badalova, A. G., Nazarova, A. A. (2016). Upravlenie riskami innovatsionnoi deiatel'nosti promyshlennykh predpriatii. *Innovatsii*, 8, 51–56.
14. Pikus, R. V. (2010). *Upravlinnia finansovymy ryzykamy*. Kyiv: Znannia, 598.
15. Vitlinskiy, V. V., Velykoivanenko, H. I. (2004). *Ryzykologhiia v ekonomitsi ta pidpriemnytsvi*. Kyiv: KNEU, 480.
16. Finansovi rezultaty velykykh ta serednikh pidpriemstv do opodatkuvaniia za vydamy ekonomichnoi diialnosti za sichenveren 2016 roku. *State Statistics Service of Ukraine*. Available: [http://www.ukrstat.gov.ua/operativ/operativ2016/fin/fin\\_rez/fr\\_ed/fr\\_ed\\_u/fr\\_ed\\_0316\\_u.htm](http://www.ukrstat.gov.ua/operativ/operativ2016/fin/fin_rez/fr_ed/fr_ed_u/fr_ed_0316_u.htm)
17. Posokhov, I. M. (2014). *Teoretychni ta praktychni aspekty upravlinnia ryzykamy korporatsii*. Kharkiv: PVPP «SLOVO», 499.
18. Posokhov, I. M. (2012). Analysis of risk category and scientific approaches to determination of risk. *Visnyk natsionalnoho technichnoho universytetu «KhPI»*, 5, 101–108.
19. Posokhov, I. M. (2012). Operatsiini ryzyky: upravlinnia ta osnovni napriamy znyzhennia. *Visnyk ekonomiky transportu i promyslovosti*, 37, 229–233.
20. Posokhov, I. M. (2016). *Suchasni tendentsii mizhnarodnykh ekonomichnykh vidnosyn. Ekonomichna intehtratsiia Ukrainy u svitove gospodarstvo*. Kharkiv: NTU «KhPI», 450.
21. Saraieva, I. M. (2008). *Systemne modeliuvaniia protsesu identyfikatsii pidpriemnytskykh ryzykiv*. Odesa: Feniks, 147.
22. A Risk Management Standard. *FERMA. Federation of European Risk Management Associations*. Available: <http://www.ferma.eu/app/uploads/2011/11/a-risk-management-standard-russian-version.pdf>

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**RESEARCH OF THE ROLE OF THE WATER MANAGEMENT COMPLEX IN THE FORMATION OF FINANCIAL FLOWS**

page 13–20

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In this study, the role and characteristics of water-economic rent in the generation of ecological financial flows is shown. The potential of such payments is determined on the basis of comparison of the actual indicators with the imputed ones. The calculations of actual and imputed rent (for closing costs) for the branches of the economy and regions are carried out. The combination of these approaches makes it possible to see the current level of rental income and determine the prospects for their adjustment. In the regional context, the level of economic development influences the formation of rent. Those regions that have the highest rates of actual payments are the leaders and for the closing costs. To characterize the water management complex as a market participant, the indicators of fiscal return and investment return of water use are calculated. In contrast to expectations, in the regions, the most consumed water (due to population growth, industrial facilities), fiscal return is less. A greater fiscal impact of rental payments for water use is found in regions with lower levels of economic development. The reasons for this situation include the current tax rates (according to the Tax Code of Ukraine) and the insignificant volume of consumed water. Therefore, in order to increase the efficiency of the water management complex in financial markets, it is necessary to take into account the level of economic development of a particular region by adjusting existing rates for special water use or introducing additional coefficients. The overall value of the investment return of water use for Ukraine is 0.155. Like indicators of fiscal returns, regions with a lower level of economic development will be more effective in investing. In general, the main strengths of rental income can be attributed to the stable formation of local and state budgets, their situational growth, the strengthening of the role of local revenues. Among the negative factors are low indicators of actual water rent, significant differences between actual receipts and potential like. Opportunities and threats are associated primarily with the significant potential and the influence of unfavorable factors.

**Keywords:** water management complex, water rent, fiscal return, investment return.

**References**

1. Holian, V. A. (2008). Otsinka fiskalnoho rehuliuvaniia vodokorystuvannia. *Statystyka Ukrainy*, 3 (42), 49–54.
2. Baidala, N. M. et al.; In: Kniaz, S. V. (2014). *Ekonomika pryrodokorystuvannia ta upravlinnia pryrodokhoronnoiu diialnistiu*. Lviv: Lvivska politekhnika, 370.
3. Burkynskiy, B. V. et al.; In: Burkynskiy, B. V. (2002). *Investirovaniie prirodoohranmoi deiatel'nosti*. Odessa: Institute for Market Problems and Economic-and-Ecological Research of the National Academy of Sciences of Ukraine, 222.
4. Burkynskiy, B. V. et al.; In: Kharichkov, S. K. (2010). *Instytutionalni zasady ta instrumentarii zbalansovanoho pryrodokorystuvannia*. Odessa: Institute for Market Problems and Economic-and-Ecological Research of the National Academy of Sciences of Ukraine, 482.
5. Burkynskiy, B. V. et al.; In: Burkynskiy, B. V. (2009). *Problemy planuvannia v resursno-ekolohichnii sferi*. Odessa: Institute for Market Problems and Economic-and-Ecological Research of the National Academy of Sciences of Ukraine, 46.
6. Khvesyuk, M. A. et al. (2004). *Ekonomiko-pracove rehuliuvaniia pryrodokorystuvannia*. Kyiv: Kondor, 523.
7. Halvorsen, R., Layton, D. (2015). *Handbook on the Economics of Natural Resources*. Edward Elgar Pub, 560. doi:10.4337/9780857937568

8. Bergstrom, J. C., Randall, A. (2010). *Resource Economics: An Economic Approach to Natural Resource and Environmental Policy*. Ed. 3. Edward Elgar Publishing, 448.
9. Perry, C. J., Rock, M., Seckler, D. (1997). *Water as an Economic Good: A Solution, or a Problem?* Research Report 14. Colombo, Sri Lanka: International Irrigation Management Institute, 24.
10. Mandzyk, V. (2014). Methodological approach to comprehensive economic evaluation of water resources. *Ekonomika pryrodokorystuvannya i okhorony dookillia*, 2014, 76–79.
11. Kovshun, N. (2015). Analysis of the system of rental payments in water-economic complex of Ukraine. *Ekonomist*, 11, 36–39.
12. Olmstead, S. M., Stavins, R. N. (2009). Comparing price and nonprice approaches to urban water conservation. *Water Resources Research*, 45 (4). doi:10.1029/2008wr007227
13. Young, R. A., Loomis, J. B. (2014). *Determining the Economic Value of Water*. Ed. 2. Taylor & Francis, 358. doi:10.4324/9780203784112
14. Drahan, I. V. (2011). Formuvannya ekoloho-ekonomichnoho mekhanizmu rehuliuвання sfery pryrodokorystuvannya v Ukraini. *Visnyk Akademii mytnoi sluzhby Ukrainy. Ser.: Derzhavne upravlinnia*, 1, 31–37. Available: [http://nbuv.gov.ua/UJRN/vam-cudu\\_2011\\_1\\_5](http://nbuv.gov.ua/UJRN/vam-cudu_2011_1_5)
6. Kruglov, V. N. (2016). *Osobennosti innovatsionogo rosta ekonomiki territorii. Obrazovanie i nauka: sovremennyye trendy*. Chelobskary: TsNS «Interaktiv plus», 207–219.
7. Fedulova, L. I. (2012). Kontseptualna model innovatsiinoi stratehii Ukrainy. // *Ekonomika i prohnozuvannya*, 1, 87–100.
8. Tanklevska, N. S., Karnauschenko, A. S. (2013). Suchasnyi stan finansuvannya innovatsiinoi diialnosti silskohospodarskykh pidpriemstv Ukrainy. *Ahrosvit*, 23, 11–15.
9. On State Budget of Ukraine for 2017. *Law of Ukraine from 21.12.2016 № 1801-VII*. Available: <http://zakon2.rada.gov.ua/laws/show/1801-19>
10. *Official Web-Site of the Ministry of Agrarian Policy and Food of Ukraine*. Available: <http://minagro.gov.ua/apk>

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**INVESTIGATION OF THE INSTITUTIONAL EQUILIBRIUM OF THE MARKET OF SOCIAL AND ENVIRONMENTAL SERVICES OF FOREST: CONDITIONS AND DEVELOPMENT STRATEGIES**

page 26–31

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**FINDING OF ALTERNATIVE SOURCES OF INNOVATIONS FUNDING IN AGRICULTURE**

page 20–25

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The article highlights and explores aspects of alternative financing for the development of agriculture in Ukraine. The main trends that have developed in modern conditions on the use of alternative financing instruments are considered, the features and possibilities of using such forms of attracting financial resources are described. The mechanism of financing through alternative sources will facilitate improved access of business entities of the agricultural sector to financial resources, especially at a time when enterprises carry out production and economic operations that require investments and during their seasonal inactivity. As an alternative to financing the innovations of the agricultural sector, tools are considered that, at a cost, can be cheaper than bank lending and have a less complicated clearance procedure. Alternative forms of financing the development and introduction of innovations in agriculture are considered.

**Keywords:** development of innovations, agricultural risk, alternative sources, alternative forms of financing, state support of agricultural innovations.

**References**

1. Agriculture Finance. (2015, November 23). *The World Bank*. Available: <http://www.worldbank.org/en/topic/financialsector/brief/agriculture-finance>
2. Carroll, T., Stern, A., Zook, D., Funes, R., Rastegar, A., Lien, Y. (2012). *Catalyzing Smallholder Agricultural Finance*. Dalberg Global Development Advisors. Available: [http://www.dalberg.com/documents/Catalyzing\\_Smallholder\\_Ag\\_Finance.pdf](http://www.dalberg.com/documents/Catalyzing_Smallholder_Ag_Finance.pdf)
3. Zander, R., Miller, C., Mhlango, N. (2012). *Credit Guarantee Systems For Agriculture And Rural Enterprise Development*. Food and Agriculture Organization of the United Nations, 109.
4. Tymots, M. V. (2013). Problemy finansuvannya innovatsiinoi diialnosti v aharnomu sektori Karpatskoho makrorehionu. *Innovatsiina ekonomika*, 6, 119–122.
5. Sobkevich, A. V., Rusan, V. M., Yurchenko, A. D. (2012). State support of agriculture in Ukraine. *Innovative economy*, 3, 34.

Taking into account the peculiarities of the market of social and environmental services of forests as a new ecological and economic system of the forest sector of the Ukrainian economy, its institutional equilibrium should be understood as a state of the institutional environment in which there is no significant contradiction between informal and formal institutions.

The degree of correspondence between formal and informal institutions determines the amount of expenditure to eliminate possible contradictions, that is, the possible dynamics of transaction costs, and, accordingly, determines both the effectiveness of institutional provision and the effectiveness of the economic system as a whole.

The most typical situation of institutional disequilibrium in the market of social and ecological forest services is that when the introduction of new formal institutions, that is, the development of the state of the institutional environment in the position of institutional equilibrium is met with strong resistance from the informal. The economic conditions for development of such situation to the state of institutional equilibrium are such when the economic benefits of introducing new formal norms exceed institutional transactions. The strategy to achieve institutional equilibrium is the gradual evolutionary adaptation of informal institutions in existing informal constraints.

Another situation of institutional disequilibrium can be generated by the fact that formal institutions do not change when informal institutions change. Economic conditions for development of such situation to the state of institutional equilibrium are those when the price of the risk of penalties for certain informal shadow rules for the exploitation of social and ecological resources of the forest exceeds the benefits. The strategy to achieve institutional balance is in introducing of effective coordination institutions in the institutional environment.

A state of institutional disequilibrium is possible, when the acquisition of institutional equilibrium occurs through the adequate development of formal and informal institutions. The economic conditions for the implementation of such process are the conformity of the economic benefits that such transformation gives and the costs of providing informal formal status rules. The strategy for implementing such process should be to choose economically viable alternatives.

More theoretically, a state is possible when a certain institutional equilibrium is established between formal and informal institutions, that is, for some time, formal and informal institutions do not change. The economic condition for such provision is that institutional transactions will require more expenses than those benefits that can receive economic agents from institutional development. This situation requires a stabilization strategy, which consists in mutual compromises in resolving issues when concluding and implementing contracts.

**Keywords:** institutional environment, institutional equilibrium, institutional transactions, market of social and environmental services, development strategies.

### References

1. Nort, D. (1997). *Instituty, institutsional'nye izmeneniia i funktsionirovanie ekonomiki*. Moscow: Nachala, 412.
2. Nort, D. (1997). Institutional'nye izmeneniia, ramki analiza. *Voprosy ekonomiki*, 3, 6–17.
3. Axelrod, R. (1986). An Evolutionary Approach to Norms. *American Political Science Review*, 80 (04), 1095–1111. doi:10.1017/s0003055400185016
4. Bromley, D. W. (1989). *Economic Interests and Institutions: The Conceptual Foundations of Public Policy*. New York: Basil Blackwell, 274.
5. Williamson, O. E. (2000). The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, 38 (3), 595–613. doi:10.1257/jel.38.3.595
6. Heiner, R. (1983). The Origin of Predictable Behavior. *American Economic Review*, 73 (4), 560–595.
7. Arthur, W. B. (1989). Competing Technologies, Increasing Returns, and Lock – In by Historical Events. *The Economic Journal*, 99 (394), 116–131. doi:10.2307/2234208
8. Tambovtsev, V. (2000). Institutional'noe ravnovesie kak mehanizm institutsional'nyh izmeneni. *Obshchestvennye nauki i sovremenost'*, 5, 25–38.
9. Valevich, Yu. (2014). *Rynok institutov i usloviia ego ravnovesiia*. Minsk: BGU, 312.
10. Macaulay, S. (1963). Non-Contractual Relations in Business: A Preliminary Study. *American Sociological Review*, 28 (1), 55–67. doi:10.2307/2090458

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### SELECTION OF A SET OF INDICATORS OF ESTIMATION OF SOCIAL AND ECONOMIC SYSTEMS OF REGIONAL TYPE

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This article discusses problem of evaluation of regional objects as complex socio-economic systems, formation of requirements to sets of parameters-indicators that characterize the object of study. The complex of these tasks includes calculations of integrated parameters, typologization and ranking. Most useful from a computational point of view are indexes, which built on the basis of linear or quadratic averaging procedures. The main purpose aim of research is development of methods and systems of decision-making support of the management complex socio-economic system, which has type of region. System of decision-making support solves the problem of multifactorial distributed evaluation and management, which requires the accounting of

many factors, relating to different areas: economic, natural resource, environmental, scientific-technical, labor potential. At the moment both domestic and foreign researchers do not take into account natural climatic factors, while the need to study and monitor natural climatic factors is relevant. Therefore, we the number of accounted factors is increased by adding parameters, which has character of natural climatic. About 70 indicators are used for the evaluation of investment attractiveness of the region, which allows to get more reliable results.

Research results can be applied in monitoring systems and in systems of decision-making support for complex socio-economic systems of the regional type.

**Keywords:** development stability level of complex socio-economic systems (SES), level of investment attractiveness, averaging procedures, rationing of indicators.

### References

1. Gubarenko, E. V., Ovezgeldyev, A. O., Petrov, E. G.; In: Petrov, E. G. (2013). *Modeli i metody upravleniia ustoichivym razvitiem sotsial'no-ekonomicheskikh sistem*. Kherson: Grin' D. S., 252.
2. Hodakov, V. E., Sokolova, N. A. (2016). *Prirodno-klimaticheskie faktory i razvitie sotsial'no-ekonomicheskikh sistem*. Searbruken (Deutschland): Lambert Academic Publishing, 604.
3. Moiseev, N. N. (2000). *S mysliami o budushchem Rossii*. Available: <http://www.yabloko.ru/Union/MMYA/future/moiseev.html>
4. Milov, L. V. (1998). *Prirodno-klimaticheskii faktor i tip rossiiskogo istoricheskogo protsesssa*. Moscow: ROSSEP, 574.
5. Parshev, A. P. (1999). *Pochemu Rossiia ne Amerika*. Moscow: Krymskii most-9D, Forum, 245.
6. Kaplan, R. (2015). *Mest' geografii. Chto mogut rasskazat' geograficheskie karty o griadushchih konfliktah i bitve protiv neizbezhnogo*. Moscow: Kolibri, Azbuka – Attinus, 316.
7. Paips, R. (1993). *Rossiia pri starom rezhime*. Moscow: Nezavisimaia gazeta, 159.
8. *Indicators of Sustainable Development: Guidelines and Methodologies*. (2013). NY: Department of Economics and Social Affairs, 99. doi:10.18356/6ab82bca-en
9. Zgurovsky, M. Z. (2006). *Stalyi rozvytok u hlobalnomu i rehionalnomu vymirakh*. Kyiv: NTU «KPI», 83.
10. Zgurovsky, M. Z., Statiukha, H. A. (2007). Rol' inzhenernoi nauki i praktiki v ustoichivom razvitiu obshchestva. *Systemni doslidzhennia ta informatsiini tekhnolohii*, 1, 19–38.
11. *Environmental Sustainability Index*. (2005). Yale Center for Environmental Law and Policy, 63.
12. Hodakov, V. E., Sokolova, N. A., Khapov, D. V. (2012). Modeli otsenivaniia sostoianiiia territorial'no-proizvodstvennykh sotsial'no-ekonomicheskikh sistem. *Problemy informatsiinykh tekhnolohii*, 1 (11), 6–11.
13. Zaitseva, L. M., Serohin, S. M., Fediushchev, V. O. (2003). *Metodolohiia kompleksnoi otsinky rivnia sotsialno-ekonomichnoho rozvytku oblasti ta yii administratyvno-terytorialnykh odynuts*. Dnipropetrovsk: DRIDU NADU, 132.
14. Bandur, S. H., Zaiets, T. A., Teron, L. S. (2002). *Suchasna rehionalna sotsialno-ekonomichna polityka derzhavy: teoriia, metodolohiia, praktyka*. Kyiv: RVPS Ukr. NANUkr., 250.
15. Mironova, T. L. (2008). *Sotsial'no-ekonomicheskoe razvitie regiona: diagnostika i territorial'noe planirovanie*. Simferopol: KRP »Krymchpedgiz», 240.
16. Poburko, Ya. O. (2006). *Monitorynhovi otsiniuvannia skladnykh sotsialno-ekonomichnykh yavysch rozvytku rehionu*. Lviv: Instytut rehionalnykh doslidzhen, 306.
17. Volynskii, G. V., Gorbacheva, Yu. I. (2007). O faktorah, opredeliaushchih investitsionnyi klimat (investitsionnuuivprivlekatel'nost'). *Biznes-Inform*, 7, 45–46.
18. Zgurovsky, M. (2007). *The Sustainable Development Global Simulations in Respect of Quality and Safety of Human Life*. Kyiv: Polytekhnik, 218.
19. Kriuchkovskii, V. V., Petrov, E. G., Sokolova, N. A., Hodakov, V. E. (2011). *Introspektivnyi analiz. Metody i sredstva ekspertnogo otsenivaniia*. Kherson: Grin' D. S., 168.

# PROBLEMS OF MACROECONOMICS AND SOCIO-ECONOMIC DEVELOPMENT

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## DEVELOPMENT OF INNOVATION EVOLUTION AND OPEN INNOVATION PROCESS MODEL OF SCIENTIFIC ORGANIZATIONS AND ENTERPRISES OF UKRAINE

page 38–43

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Based on development of the concept of the Triple Helix Model and models of the innovation process, an integration model for development of the innovation system of Ukraine and a model of the open innovation process are proposed. The development of the innovation system of Ukraine essentially depends on the implementation of open innovation processes of scientific organizations and enterprises of Ukraine are provided. The proposed «Six Helix Model» combines the innovative institutional members of the European Union and Ukraine (scientific organizations, universities, enterprises, state and public organizations). The model of open innovation process involves the use of subprocesses: outward inside, inside outward and connecting. Also, the indicators of evaluation and management of open innovation processes are proposed. The indicators for assessment and management of open innovation processes are proposed that allow participants to find innovative process: the new knowledge and ideas which are outside scientific organizations and enterprises; how to develop new competencies scientific organizations and businesses to use them in an open innovation process; new tools for access to finance and to reduce the entry of open innovation (products and technologies).

**Keywords:** Triple Helix Concept, model of open innovation process, open innovation process, innovation system.

### References

- Chesbrough, H. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Harvard Business School Press, 336.
- Chesbrough, H. W. (2003). The era of open innovation. *MIT Sloan Management Review*, 44 (3), 35–41.
- Chesbrough, H., Appleyard, M. (2007). Open Innovation and Strategy. *California Management Review*, 50 (1), 57–76.
- Durmusoglu, S. S. (2004). Open Innovation: The New Imperative for Creating and Profiting from Technology 2004. Henry W. Chesbrough. Open Innovation: The New Imperative for Creating and Profiting from Technology. Boston, MA: Harvard Business School Press 2003. 222 + xxxi pp. \$35.00. *European Journal of Innovation Management*, 7 (4), 325–326. doi:10.1108/14601060410565074
- Chesbrough, H. (2006). *Open Business Models: How to Thrive in the New Innovation Landscape*. Harvard Business School Press, 272.
- Smorodinskaya, N. V. (2011). Triple Helix as a New Matrix of Economic Systems. *Innovations*, 4 (150), 66–78.
- Ades, C., Figlioli, A., Sbragia, R., Porto, G., Plonski, G. A., Celadon, K. (2013). Implementing Open Innovation: The Case of Natura, IBM and Siemens. *Journal of Technology Management & Innovation*, 8, 113–114. doi:10.4067/s0718-27242013000300057
- Ranga, M., Etkowitz, H. (2013). Triple Helix systems: an analytical framework for innovation policy and practice in the Knowledge Society. *Industry and Higher Education*, 27 (4), 237–262. doi:10.5367/ihe.2013.0165
- Chervanyov, D., Nazvanova, L. (2012). Priority Areas of Open Innovation Concept Implementation in Ukraine. *Bulletin of Taras Shevchenko National University of Kyiv. Economics*, 136, 4–8.
- Koshevy, M. (2013). Forming of the organization and economic conditions of high production development in Ukrainian industry. *The Economist*, 8, 58–60.
- Nikitin, Y. O., Rukas-Pasichnyuk, V. G. (2015). Models of innovative development and transfer of the technological innovation of scientific organizations. *Visnik Nacional'noi' Akademii' Nauk Ukraini*, 3, 84–90. doi:10.15407/vsn2015.03.084
- Zolotykh, I. (2015). National innovation system as a component knowledge economy: problems and prospects. *Technology Audit and Production Reserves*, 2(6(22)), 94–99. doi:10.15587/2312-8372.2015.41639
- Stavenko, Yu. A., Gromov, A. I. (2012). Evolution of innovation process models. *Business Informatics*, 4 (22), 3–9.
- Carneiro, A. (2000). How does knowledge management influence innovation and competitiveness? *Journal of Knowledge Management*, 4 (2), 87–98. doi:10.1108/13673270010372242
- Assorina, G. (2009). Upravlenie innovatsionnymi protsessami v ekonomicheskikh sistemah: bazovye printsipy. *Problemy teorii i praktiki upravleniia*, 5, 74–81.
- Hamel, G. (2006). The Why, What, and How of Management Innovation. *Harvard Business Review*, 84 (2), 1–18.
- Berre, A. J., de Man, H., Lew, Y., Elvsaeter, B., Ursin-Holm, B. M. (2014). Open Business Model, Process and Service Innovation with VDML and ServiceML. *Enterprise Interoperability*. John Wiley & Sons, Ltd, 127–141. doi:10.1002/9781118846995.ch14
- Berre, A.-J., de Man, H., Lindgren, P. (2013). Business Model Innovation with the NEFFICS platform and VDML. *NGEBIS'2013 Workshop at CAISE'2013*. Valencia, CEUR Workshop Proceedings, 24–30.
- Hargadon, A., Sutton, R. I. (2000). Building an Innovation Factory. *Harvard Business Review*, 78 (3), 157–166.
- Surin, A. V., Molchanova, O. P. (2008). *Innovatsionnyi menedzhment*. Moscow: INFRA-M, 368.
- Golovatiuk, V. M., Soloviev, V. P. (2006). Problemno-orientovanna otsenka investitsionnogo klimata v usloviiah innovatsionnogo rozvitiia ekonomiki. *Desiataia mezhdunarodnaia nauchno-prakticheskaia konferentsiia «Problemy i perspektivy innovatsionnogo rozvitiia ekonomiki»*, 12–16 sentiabria 2006. Alushta, 10–16.
- Polinkevych, O. N. (2014). Model of structure activation mechanism of innovation processes in manufacturing control. *Visnyk of Kherson National Technical University*, 5, 40–43.

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## GLOBAL LOGISTICS: DEFINITION OF MAIN CONCEPTS AND ESSENCES

page 43–48

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The semantic dimension of the conceptual apparatus used in the studies of global logistics is analyzed.

Inaccuracies in the interpretation of a number of basic concepts, the use of differentiated categories as synonyms, the

formulation of definitions of global logistics and its essence, which do not reflect the fundamental content of the phenomena, are established.

Essential signs of global logistics are revealed as an imperative consequence of the globalized world-economy. The content and functional differences of the concepts «logistics globalization factors» and «driving forces of logistics globalization» are disclosed. Definitions of the concepts «global logistics» and «the essence of global logistics» are formulated.

The aim of the scientific work carried out by the author is the development of a methodological approach to the scientific understanding of the content of transformation process of traditional logistics into a globalized industry and practical activities in the new conditions. The proposed methodological approach includes the essential semantic and functional notion of global logistics as a consequence of globalization of the world-economy, factors and driving forces of logistics globalization.

The importance of adopting the right methodological approach lies in the fact that it underlies the formation of a methodology that forms the initial basis of any kind of activity and determines a priori the degree of its effectiveness, including the scientific validity and practical importance of research into the process of transformation of traditional logistics into a globalized industry.

**Keywords:** logistics globalization, world-economy globalization, factors of logistics development, driving forces and essence of global logistics.

#### References

- Handfield, R., Straube, F., Pfohl, H.-C., Wieland, A. (2013). *Trends and Strategies in Logistics and Supply Chain Management. Embracing Global Logistics Complexity to Drive Market Advantage*. Bremen: DVV Media Group GmbH, 84.
- Bowersox, D. J., Closs, D. J. (1996). *Logistical Management: The Integrated Supply Chain Process*. McGraw-Hill Companies, 730.
- Robincon, W. I. (2004). *A Theory of Global Capitalism: Production, Class and State in a Transnational World*. Baltimore and London: The John Hopkins University Press, 15.
- Globalizatsiia logistiki i eio osnovnye faktory. Available: <http://www.bestreferat.ru/referat-225579.html>
- Globalnaia logistika – Poniatie i osnovnye printsipy globalnoi logistiki. Available: [http://studbooks.net//820998/marketing/globalnaya\\_logistika](http://studbooks.net//820998/marketing/globalnaya_logistika). Last accessed: 12.05.2017.
- Negoda, A. V. *Rynok logistiki v Ukraine: tendentsii i perspektivy razvitiia*. Available: [http://elib.bs.u.by/bitstream/123456789/102534/1/Негода%20А.В.%20\(сборник-логистика\)%20\(Киев,Украина\).doc](http://elib.bs.u.by/bitstream/123456789/102534/1/Негода%20А.В.%20(сборник-логистика)%20(Киев,Украина).doc)
- Veslova, V. V., Nemesh, E. A. (2015). Analiz globalizatsii v logistike. *NOVAINFO.RU*, 1 (38), 174–178.
- Globalnaia logistika i urovni globalnykh logisticheskikh sistem. Available: <http://osvita-plaza.in.ua/publ/177-1-0-10583>
- Fedotenkov, D. G. (2014). Razvitie transportno-logisticheskikh sistem v usloviiah globalizatsii mirovoi ekonomiki. *Materialy Mezhdunarodnoi nauchnoi konferentsii «Innovatsionnaia ekonomika», Kazan, oktiabr' 2014*. Kazan: Buk, 222–226.
- Aspekty globalnoi logistiki. Available: [http://studbooks.net/68047/logistika/aspekty\\_globalnoy\\_logistiki](http://studbooks.net/68047/logistika/aspekty_globalnoy_logistiki). Last accessed: 19.05.2017.
- Kuznetsov, M. M. (2012). Znachenie logistiki v usloviiah globalizatsii mezhdunarodnogo tovarodvizheniia. *Uchebnye zapiski Tavricheskogo natsional'nogo universiteta im. V. I. Vernadskogo. Seriya «Ekonomika i upravlenie», 3(25(64))*, 135–142.
- Globalizatsiia logistiki. Sushchnost' globalizatsii logistiki. Available: <http://www.studfiles.ru/preview/5006065/page:56/>
- Tema 14 – Globalizatsiia protsessov logistiki. Available: <http://samzan.ru/67452>
- Lektsiia 7. Transportnaia logistika v usloviiah globalizatsii mirovoi ekonomiki. Available: [http://studme.org/1061120722469/logistika/transportnaya\\_logistika\\_usloviyah\\_globalizatsii\\_mirovoy\\_ekonomiki](http://studme.org/1061120722469/logistika/transportnaya_logistika_usloviyah_globalizatsii_mirovoy_ekonomiki). Last accessed: 19.05.2017.
- Lukashovich, V. M. (2012). *Hlobalistyka. Ed. 2*. Lviv: Novyi Svit-2000, 440.
- Rodnikov, A. N. (2009). *Logistika: Terminologicheskii slovar'*. Moscow: Ekonomika, 397.
- Eldenshtein, Yu. M. *Logistika*. Available: [http://www.kgau.ru/distance/fub\\_03/eldeshtein/logistika/00b\\_soderz.html](http://www.kgau.ru/distance/fub_03/eldeshtein/logistika/00b_soderz.html)
- Govorkova, K. S. (2016). Development of Russian Transport and Logistic System in the Conditions of Globalization of the World Economy. *Zhurnal U. Ekonomika. Upravlenie. Finansy*, 5, 39–50.
- Obiem i struktura rossiiskogo rynka transportno-logisticheskikh uslug. *RosBiznesKonsalting*. Available: [http://marketing.rbc.ru/reviews/transport2013/chapter\\_1.shtml](http://marketing.rbc.ru/reviews/transport2013/chapter_1.shtml)
- Karasev, V. A. (2008). *Globalizatsiia rynka transportnykh uslug i transportno-logisticheskikh sistem v mirovoi ekonomike*. Moscow. Available: <http://mognovse.ru/rdg-globalizatsiya-rinka-transportnykh-uslug-i-transportno-logis.html>
- Sushchnost', printsipy i funktsii transportnoi logistiki. Available: <http://lektcii.org/3-92811.html>
- Artushenia, D. (2008). Rol' logistiki v povyshenii konkurentosposobnosti predpriatii. *Avtoperevozchik: mezhdunarodnyi zhurnal professionalov*, 5. Available: <http://perevozchik.com/ru/filling/y-2008.n-5.oid-502.html>. Last accessed: 05.11.2011.

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#### COMPARISON OF ECONOMIC INDICATORS OF USING THE UKRAINIAN LOGISTICS POTENTIAL

page 49–57

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The article summarizes the essence and concept of the logistical potential of the national economy, defines key indicators of its effective use, and analyzes the impact of economic indicators on the competitiveness and efficiency of the national economy from the point of view of its geo-economic dimension.

The audit of the scientific problem made it possible to reveal that the leading countries of the world view logistics as a separate branch of the economy having a powerful export potential. At the same time, Ukraine does not carry out systematic studies of the state of the logistics services market, the structure and possibilities for development of the national logistics system, and the level of utilization of the existing powerful logistical potential.

To assess the level of use of the logistic potential, it is suggested to use the system of indicators reflecting the competitiveness and efficiency of the national economy from the point of view of its geo-economic dimension, in particular, logistics service quality, the volume of the logistics services market in the country, the cost of logistics operations in the structure of the national GDP. An author's assessment of the value of logistics costs to Ukraine is made, taking into account the structure and dynamics of the product produced by types of economic activity and the direct impact of logistics operations on the creation of added value. It is shown that the cost of logistics in the national GDP is 6–8% higher than in European countries. At the same time, the low specific gravity of transport, warehouse, postal and courier services in the sectoral aspect of the gross domestic product testifies to the significant growth potential of logistic outsourcing, and thus creates prerequisites for development of the logistics services market and its operators (transport, freight forwarding and logistics companies).

Research results make it possible to identify bottlenecks and trends in the development of logistics potential in terms of increasing the productivity of the national logistics system and involving domestic enterprises in global supply chains.

**Keywords:** national logistics system, logistics potential of the national economy, market of logistics services.

References

1. *Global Logistics Market 2017–2021*. Available: <https://www.technavio.com/report/global-logistics-market-2017-2021>
2. Global 3PL Market Size Estimates. *Armstrong & Associates*. Available: <http://www.3plogistics.com/3pl-market-info-resources/3pl-market-information/global-3pl-market-size-estimates/>
3. Havenga, J. H., Simpson, Z. P., King, D., de Bod, A., Braun, M. (2016). *Logistics Barometer South Africa 2016*. Stellenbosch University. Available: <http://www.sun.ac.za/english/faculty/economy/logistics/Documents/Logistics%20Barometer/Logistics%20Barometer%202016%20Report.pdf>
4. *State of Logistics Indonesia 2013*. (2013). Center of Logistics and Supply Chain Studies. Available: <http://logistics-center.itb.ac.id/wp-content/uploads/StateofLogisticsIndonesia2013.pdf>
5. Cebeci, C., Yankova, M. (2013). Analysis of the Logistics Systems in Bulgaria under the Requirements of the European Union. *Research Journal of Applied Sciences, Engineering and Technology*, 6 (14), 2526–2534.
6. Rantasila, K. (2013). Measuring logistics costs. Designing a generic model for assessing macro logistics costs in a global context with empirical evidence from the manufacturing and trading industries. *Turun kaupparkeakoulun julkaisu (väitöskirja), A-8:2013*. Available: <https://www.doria.fi/handle/10024/93317>
7. Arvis, J.-F., Saslavsky, D., Ojala, L., Shepherd, B., Busch, C., Raj, A., Naula, T. (2016). *Connecting to Compete: Trade Logistics in the Global Economy*. The International Bank for Reconstruction and Development/The World Bank, 82. Available: [https://wb-lpi-media.s3.amazonaws.com/LPI\\_Report\\_2016.pdf](https://wb-lpi-media.s3.amazonaws.com/LPI_Report_2016.pdf)
8. Zimina, A. I. (2016). Priorities for the Development of Logistics Activity of National Economy in the Contemporary Business Environmen. *Business Inform*, 2, 88–95.
9. Rodrigues, A. M., Bowersox, D. J., Calantone, R. J. (2005). Estimation of global and national logistics expenditures: 2002 data update. *Journal of Business Logistics*, 26 (2), 1–16. doi:10.1002/j.2158-1592.2005.tb00202.x
10. Stock, J. R., Lambert, M. D. (2001). *Strategic Logistics Management*. McGraw-Hill/Irwin, 872.
11. Protsenko, O. D., Protsenko, I. O. (2012). The Development of National Competitiveness and the Modern Management. *Rossiiskoe predprinimatel'stvo*, 2 (200), 36–42.
12. Poleshchuk, I. I., Zorina, T. Sh., Lavrentiev, P. A., Shershunovich, E. S. (2013). Otsenka logisticheskogo potentsiala gosudarstva v usloviiah globaliziruiushcheisia ekonomiki. Logisticheskie sistemy i protsessy v sovremennyh ekonomicheskikh usloviiah. *Materialy Mezhdunarodnoi zaochnoi nauchno-prakticheskoi konferentsii, 1–15 noiabria 2013 g.* Minsk: National Library of Belarus, 135–146.
13. Huliagina, O. S. (2015). Economic content of logistic potential of the supply chain. *Journal of Science and Education of North-West Russia*, 2 (1), 245–253.
14. Shostak, L. V. (2015). Formation of logistic potential of enterprise. *Visnyk Odeskoho natsionalnoho universytetu. Seriya: Ekonomika*, 20 (4), 151–154.
15. Hurzhii, N. M., Overchenko, A. I. (2016). The logistic potential of the enterprise estimation as a basis of its logistic strategy choice. *Global and National Problems of Economy*, 13, 244–248.
16. Zhavoronkova, H. V., Sadlovska, I. P., Shkoda, T. N., Zhavoronkov, V. O.; In: Zhavoronkova, H. V. (2012). *Stratehichne upravlinnia aviatransportnyy pidpriemstvamy*. Kyiv: Kondor-Vydavnytstvo, 676.
17. Koblianska, I. I., Rubalko, N. A., Mishchenko, O. V. (2015). Logistic potential of a region: essence and methodical approach to its evaluation. *Visnyk Sumskoho derzhavnogo universytetu. Seriya Ekonomika*, 2, 23–30.
18. Smerichevska, S. V. (2014). Osvitno-innovatsiinyi potentsial lohistyzatsii ekonomiky i yoho kilkisna otsinka. *Menedzher. Visnyk Donetskoho derzhavnogo universytetu upravlinnia*, 1 (67), 246–251.
19. Gritsenko, S. I. (2009). *Transportno-logisticheskie klasteriy v Ukrainie: puti stanovleniia i razvitiia*. St. Petersburg: SPbGUEF, 218.
20. Perebyinis, V. I.; In: Hryhorak, M. Yu., Savchenko, L. V. (2015). *Innovatsiina lohistyka: kontseptsii, modeli, mekhanizmy*. Kyiv: Lohos, 548.
21. *Logistics Report 2016*. (2016). Freight Transport Association. Available: [http://www.fta.co.uk/export/sites/fta/\\_galleries/downloads/logistics\\_report/lr16-web-030616.pdf](http://www.fta.co.uk/export/sites/fta/_galleries/downloads/logistics_report/lr16-web-030616.pdf)
22. The Global Competitiveness Report 2016–2017. *World Economic Forum*. Available: <https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1>
23. Sergeev, V. I., Zinina, D. I. (2013). Analiz sushchestvuiushchih mezhdunarodnyh podhodov dlia otsenki effektivnosti logistiki. *Logistika i upravlenie tsepiami postavok*, 2, 4–19.
24. Rantasila, K., Ojala, L. (2015). National-level logistics costs: an overview of extant research. *International Journal of Logistics Research and Applications*, 18 (4), 313–324. doi:10.1080/13675567.2015.1016413
25. Slusarczyk, B., Kot, S. (2013). Logistics costs identification in SME in Poland. *Advanced Logistic Systems*, 1 (7), 91–96.
26. Hovi, I. B., Hansen, W. (2010). *Logistics costs in Norway. Key figures and international comparisons*. Oslo: Institute of Transport Economics, 112.
27. Yu, C. (2015). The Analysis of the China National Logistics Costs Structure. *Management and Engineering*, 21, 77–84.
28. Weng, X., Du, X. (2015). Restudy on Macro Logistics Cost of China. *Modern Economy*, 06 (11), 1173–1179. doi:10.4236/me.2015.611111