ECONOMICS AND MANAGEMENT OF ENTERPRISE

DOI: 10.15587/2312-8372.2019.165707

THE FORMING OF SCENARIOS OF ENTERPRISE DEVELOPMENT ON THE BASIS OF FOUR-LEVEL INDICATOR OF SUSTAINABLE DEVELOPMENT

page 4–10

Katkova Natalia, *PhD, Associate Professor, Department of Accounting and Economic Analysis, Admiral Makarov National University of Shipbuilding, Mykolaiv, Ukraine, e-mail: nataliavkatkova@gmail.com, ORCID: http://orcid.org/0000-0002-6199-4841*

Murashko Irina, *Lecturer, Department of Economics and Management, Danube Branch of Interregional Human Resource Management Academy, Izmail, Odessa region, Ukraine, e-mail: murashkoirene@gmail.com, ORCID: http://orcid.org/0000-0002-4635-6921*

The object of research is a methodical approach to the scenarios of sustainable development of an enterprise based on the choice of a four-level indicator of sustainable development. One of the most problematic issues is the application of such a methodical approach to determining the level of sustainable development, which would allow the formation of relevant scenarios in interaction with the external environment.

For the development of a complex indicator that would take into account the mutual influence of the enterprise and its ecosystem, the study applied a bionomic approach, that is, an approach inherent in the study of biological systems. As a basis for assessing the level of sustainable development of the enterprise, an indicator of ecological capacity is used. It characterizes the limiting loading of a biological species to a habitat or the maximum size of a population of a species that the environment can certainly sustain, provide food, shelter, water, and other necessary benefits.

The methodical approach to the formation of scenarios for the enterprise development is improved by developing a four-level indicator of sustainable development, which provides opportunities to determine the ability of certain subsystems of the enterprise to develop, taking into account the availability of internal and external resources. The developed indicator consists of indicators of economic, environmental, social and energy capacity, the characteristics of which are given in the work. Based on the value of the indicator, the proposed scenarios for the sustainable development of an enterprise are a combination of subsystems for which resources are exhausted and which have a supply of resources.

To ensure a balanced development of an enterprise, it is possible to redistribute resources between subsystems, for which appropriate measures are determined using the above sustainable development scenarios. In addition, thanks to the developed methodology, it is possible to determine the directions of harmonious coexistence of an enterprise with the external environment, which is the main principle of sustainable development. In comparison with the known approaches, the proposed four-level indicator of sustainable development, as well as scenarios based on it, takes into account the peculiarities of the existence of the enterprise in its ecosystem.

Keywords: enterprise sustainable development level, enterprise sustainable development scenarios.

References

1. Searcy, C. (2014). Measuring Enterprise Sustainability. *Business Strategy and the Environment, 25 (2), 120*–133. doi: http://doi.org/10.1002/bse.1861
2. Zenya, A., Nystad, O. (2018). Assessing Corporate Sustainability with the Enterprise Sustainability Evaluation Tool (E-SET). *Sustainability, 10 (12),* 4661. doi: http://doi.org/10.3390/su10124661
3. Hellmeister, A., Richins, H. (2019). Green to Gold: Beneficial Impacts of Sustainability Certification and Practice on Tour Enterprise Performance. *Sustainability, 11 (3),* 709. doi: http://doi.org/10.3390/su11030709
4. Shchetkin, B. N. (2015). Analysis of Enterprise Sustainability and Control of Efficiency of Cattle-Breeding Enterprise Functioning. *Mediterranean Journal of Social Sciences*. doi: http://doi.org/10.5901/mjss.2015.v6n3s6p101
5. Kucharčíková, A., Mičiak, M., Hitka, M. (2018). Evaluating the Effectiveness of Investment in Human Capital in E-Business Enterprise in the Context of Sustainability. *Sustainability, 10 (9),* 3211. doi: http://doi.org/10.3390/su10093211
6. Hussain, T., Edgeman, R., Eskildsen, J., Shoukry, A., Gani, S. (2018). Sustainable Enterprise Excellence: Attribute-Based Assessment Protocol. *Sustainability, 10 (11),* 4097. doi: http://doi.org/10.3390/su10114097
7. Trica, C., Banacu, C., Busu, M. (2019). Environmental Factors and Sustainability of the Circular Economy Model at the European Union Level. *Sustainability, 11 (4),* 1114. doi: http://doi.org/10.3390/su11041114
8. Illés, M. (2016). Enterprise Models in Terms of Sustainability. *Theory, Methodology, Practice, 12 (2)*. doi: http://doi.org/10.18096/tmp.2016.02.05
9. Zhilinska, L. O. (2016). *Management of the development of machine-building enterprises for a strategic perspective*. Mariupol, 436.
10. Lyaskovets, O. V. (2018). *Mechanism of economic security development of mechanical engineering enterprises*. Zaporizhia, 791.
11. Murashko, I. S. (2017). Bionomic Approach to Sustainable Enterprise Development. *Bulletin of the Zaporizhzhya National University. Economic Sciences, 4,* 43–49.
12. Goncharenko, G. E., Sovgir, S. V. (2010). *A dictionary-directory of modern environmental and environmental terms*. Kyiv: Science World, 67.

DOI: 10.15587/2312-8372.2019.168376

SYSTEMIZATION OF ACCOUNTING AND TAXATION APPROACHES OF COMMISSION OPERATIONS

page 11–15

Ostapiuk Nataliia, *Doctor of Economic Sciences, Professor, Department of Accounting and Taxation, Kyiv National Economic University named after Vadym Hetman, Ukraine, e-mail: ostapiuk@ukr.net, ORCID: http://orcid.org/0000-0003-2347-3815*

Stashenko Julia, *PhD, Associate Professor, Department of Accounting and Taxation, Kyiv National Economic University named after Vadym Hetman, Ukraine, e-mail: yulik050@ukr.net, ORCID: http://orcid.org/0000-0001-6909-4074*

The object of this research is the mechanism of commission operations and their management as a tool to optimize the use of financial resources of an enterprise. The problem is a number of issues related to the identification of a commission transaction, its documentation, the status of its participants (commission agent and committent), the methodology for calculating commission fees and determining pricing policies. As well as the order of reflection in accounting and reporting of the status and results of the implementation of these business transactions. In addition, they require solving the problem of taxation of commission operations under various tax systems and selected taxes.

Theoretical and empirical research methods are used, including abstraction and specification, which provided the definition of the boundaries of commission operations and procedures for their documentation. To build a system of components of a commission operation, the methods of grouping, analogy and theoretical generalization are used to organize the accounting processes of their reflection. The use of an inductive approach and modeling contributed to the development of algorithms for optimizing the taxation of commission operations. In addition, the methods of comparison, analysis and synthesis, combined with a systematic approach, made it possible to determine the method of accounting for commission operations.

As a research result, the order of accounting for commission operations of both parties to the contract specified in the work is systematized One of the ways to improve the pricing mechanism is also the abolition of the obligatory carrying out of markdown operations,

as a result of which the time spent on documenting the registration and accounting process of this operation will be reduced and the interest of the committees in the intermediary services will increase. It is proposed to improve the VAT calculation in the process of carrying out commission operations. This ensures a uniform procedure for the formation of tax liabilities and tax credit of commission agents and committents, and the VAT will be paid to the budget only from commission, it allows to optimize the use of enterprise resources. Compared with the existing order, this makes it possible to optimize the contractual policy of the enterprise and the strategic planning of the enterprise's activities.

Keywords: business accounting, process of documentation of commission operations, commission, commission trading, commission agreement.

References

1. Blakyta, H. V., Hladii, I. O., Dziuba, O. M., Brovko, O. T. (2014). *Bukhhalterskyi oblik v torhivli ta restorannomu hospodarstvi*. Kyiv: Tsentr uchbovoi literatury, 288.
2. Tkachenko, N. M. (2011). *Bukhhalterskyi finansovyi oblik, opodatkuvannia i zvitnist*. Kyiv: Alerta, 976.
3. Bezverkhyi, K. V. (2013). Oblikovi dokumenty yak pervynna skladova oblikovo-zvitnoi informatsii pidpryiemstva. *Yevropeiskyi vektor ekonomichnoho rozvytku, 1 (14),* 11–18.
4. Tarasova, T. O., Yanchev, A. V., Voloshyn, I. H. (2015). *Pervynnyi oblik tovarnykh operatsii pidpryiemstv rozdribnoi torhivli*. Kharkiv: KhDUKhT, 204.
5. Drozdova, O. H. (2014). Komisiina torhivlia – spetsyfichna forma torhovelnoi diialnosti. *Visnyk sotsialno-ekonomichnykh doslidzhen, 2,* 56–60.
6. Kuzma, Kh. V. (2016). Komisiina torhivlia: istoriia vynyknennia ta osoblyvosti. *Pidpryiemnytstvo i torhivlia, 20,* 117–121.
7. Dziuba, O. M. (2016). Tovarni operatsii pidpryiemstva: osoblyvosti obliku z urakhuvanniam vitchyznianoho ta mizhnarodnoho dosvidu. *Naukovyi visnyk Khersonskoho derzhavnoho universytetu. Seriia: Ekonomichni nauky, 17 (1),* 134–137.
8. Iargutova, V. Iu., Kudakova, K. S. (2019). Osobennosti buhgalterskogo ucheta operaciy po dogovoru porucheniia. *Sibirskiy ekonomicheskiy zhurnal, 2*.
9. Li, B., Zhao, C., Ji, Y., Bai, J. (2011). Study of moral hazard management in accounting intermediary organizations. *2011 International Conference on E-Business and E-Government (ICEE)*. doi: http://doi.org/10.1109/icebeg.2011.5882677
10. Brunner, L. (2016). The Liability of an Online Intermediary for Third Party Content: The Watchdog Becomes the Monitor: Intermediary Liability after Delfi v Estonia. *Human Rights Law Review, 16 (1),* 163–174. doi: http://doi.org/10.1093/hrlr/ngv048
11. Julià-Barceló, R., Koelman, K. J. (2000). Intermediary liability: intermediary liability in the e-commerce directive: so far so good, but it's not enough. *Computer Law & Security Review, 16 (4),* 231–239. doi: http://doi.org/10.1016/s0267-3649(00)89129-3
12. Koriahin, M. V., Kutsyk, P. O. (2015). *Kontseptualnyi rozvytok metodolohii bukhhalterskoho obliku*. Lviv: LKA, 239.
13. Podatkovyi kodeks Ukrainy vid 02.12.2010 r. No. 2755-VI (potochna redaktsiia 01.01.2019 r., pidstava 2628-VIII) (2011). *Vidomosti Verkhovnoi Rady Ukrainy, 13-14, 15-16, 17*, 112.

DOI: 10.15587/2312-8372.2019.168249

EXPLORATORY RESEARCH INTO ENERGY EFFICIENCY INVESTMENT AND STRATEGY

page 16–27

Fresner Johannes, *Doctor of Technical Sciences, STENUM Unternehmensberatung und Forschungsgesellschaft für Umweltfragen mbH, Graz, Austria, e-mail: johannes.fresner@stenum.at, ORCID: http://orcid.org/0000-0001-7560-0463*

Krenn Christina, *STENUM Unternehmensberatung und Forschungsgesellschaft für Umweltfragen mbH, Graz, Austria, e-mail: c.krenn@stenum.at, ORCID: http://orcid.org/0000-0003-4706-555X*

Kleshchov Anton, *PhD, Resource Efficient and Cleaner Production Centre, Kyiv, Ukraine, e-mail: anton.kleshchov@gmail.com, ORCID: http://orcid.org/0000-0002-9412-4156*

Tomasi Fabio, *Doctor of Political Sciences, AREA Science Park, Trieste, Italia, e-mail: fabio.tomasi@areasciencepark.it, ORCID: http://orcid.org/0000-0002-4036-7857*

The object of research is the process of implementing energy-efficient measures at industrial enterprises. One of the problem is the trend of reduction of investment in the sphere of energy efficiency. It has been established that after several years of growth, global investments in energy efficiency and renewable energy sources began to decline in 2017. According to the International Energy Agency, there is a risk that the trend of investment shrinkage will continue. In the framework of the PINE project in Austria, 20 energy audits were carried out, which resulted in the introduction of measures aimed at energy efficiency. According to the results of the project, the link between investment and implementation of measures on energy efficiency and life cycle and type of enterprises implemented in companies of different industries was analyzed and argued. It is established that about 50 % of the identified energy savings from the implementation of measures is the result of the use of frequency drive drives, elimination of leakage of compressed air or modernization of lighting systems. This allows to develop rational business and policy strategies for enterprises at different stages of the life cycle. In the course of the study, an approach focused on single operations selected in this program has been analyzed, which facilitates the identification of links between energy consumption by production units and technological and organizational factors influencing its consumption. The scientific novelty of the research is expressed in the substantiation of critical strategic barriers in the field of investment in energy-efficient solutions, which allowed proposing rational business strategies and appropriate political support measures to overcome them. Due to the fact that enterprises with the same input and output resources can have a different process cycle, payback periods for the same implemented measures may be different. An analysis of the real experience of energy conservation with the developed business strategies and policies of political support allows it to be effectively disseminated in European countries.

Keywords: investment barriers, energy audits, energy saving, energy efficiency measures, targeted interventions, non-monetary benefits.

References

1. *World Energy Investment 2017* (2017). International Energy Agency. Paris, 191. doi: http://doi.org/10.1787/9789264277854-en
2. Investment in energy fell again in 2017, raising fresh concerns about security and climate change. *CNBC LLC*. Available at: https://www.cnbc.com/2018/07/16/investment-in-energy-fell-again-in-2017-international-energy-agency.html
3. Panayiotou, G. P., Bianchi, G., Georgiou, G., Aresti, L., Argyrou, M., Agathokleous, R. et. al. (2017). Preliminary assessment of waste heat potential in major European industries. *Energy Procedia, 123*, 335–345. doi: http://doi.org/10.1016/j.egypro.2017.07.263
4. *Capturing the multiple effects of energy efficiency* (2014). International Energy Agency. Paris, 232. doi: http://doi.org/10.1787/9789264220720-en
5. *Renewable Energy for Industry – From green energy to green materials and fuels* (2017). International Energy Agency. Paris, 72.
6. *Energy Efficiency as a Low-Cost Resource for Achieving Carbon Emissions Reductions* (2009). ICF International. Washington, 86. doi: http://doi.org/10.2172/1219670
7. *Barriers to Industrial Energy Efficiency Report to Congress June 2015* (2015). Department of Energy. Washington, 28.
8. Wohlfarth, K., Eichhammer, W., Schlomann, B., Worrell, E. (2018). Tailoring cross-sectional energy-efficiency measures to target groups in industry. *Energy Efficiency, 11 (5),* 1265–1279. doi: http://doi.org/10.1007/s12053-018-9619-7
9. Walsh, C., Thornley, P. (2012). Barriers to improving energy efficiency within the process industries with a focus on low grade heat utilisation. *Journal of Cleaner Production, 23 (1),* 138–146. doi: http://doi.org/10.1016/j.jclepro.2011.10.038
10. Lefley, F. (1996). The payback method of investment appraisal: A review and synthesis. *International Journal of Production Economics, 44 (3),* 207–224. doi: http://doi.org/10.1016/0925-5273(96)00022-9
11. Mayes, Tr. *FIN 3300: Chapter 9*. URL: https://slideplayer.com/slide/3824145/

12. Solnørdal, M., Foss, L. (2018). Closing the Energy Efficiency Gap — A Systematic Review of Empirical Articles on Drivers to Energy Efficiency in Manufacturing Firms. *Energies, 11 (3),* 518. doi: http://doi.org/10.3390/en11030518
13. Anderson, S. T., Newell, R. G. (2004). Information programs for technology adoption: the case of energy-efficiency audits. *Resource and Energy Economics, 26 (1),* 27–50. doi: http://doi.org/10.1016/j.reseneeco.2003.07.001
14. *Examples of Appropriate Payback periods. Lean* Manufacture. Available at: http://www.leanmanufacture.net/kpi/paybackperiod.aspx
15. Gallo, A. (2016). A refresher on payback method. *Harvard Business Review.* Available at: https://hbr.org/2016/04/a-refresher-on-payback-method
16. *Marktentwicklungen von Energieeffizienzmaßnahmen, Energieaudits und anderen Energiedienstleistungen gemäß § 24 Abs. 2 Z 8 EEffG* (2017). Berichtsjahr 2017.Monitoringstelle Energieeffizienz. Wien, 82.
17. Prices for gas, steel, copper. *Eurostat*. Available at: http://ec.europa.eu/eurostat/web/energy/data/main-tables
18. Leoni, T. (2017). *Entwicklung und Struktur der Arbeitskosten und der Lohnstückkosten 2000 bis 2015. Ein kommentierter Datenüberblick/Österreichisches Institut für Wirtschaftsforschung*. Wien, 66.
19. Van Soest, D., Bulte, E. (2001). Does the energy-efficiency paradox exist? Technological progress and uncertainty. *Environmental and Resource Economics, 18 (1),* 101–112. doi: http://doi.org/10.1023/a:1011112406964
20. Soepardi, A., Thollander, P. (2018). Analysis of Relationships among Organizational Barriers to Energy Efficiency Improvement: A Case Study in Indonesia's Steel Industry. *Sustainability, 10 (1),* 216. doi: http://doi.org/10.3390/su10010216
21. Value added barometer (Wertschöpfungsbarometer). *Austrian chamber of labor (Arbeiterkammer)*. Available at: https://ooe.arbeiterkammer.at/service/presse/PKU_2019_Wertschoepfungsbrometer2018_21.01.2019.pdf
22. Trianni, A., Cagno, E., Thollander, P., Backlund, S. (2013). Barriers to industrial energy efficiency in foundries: a European comparison. *Journal of Cleaner Production, 40,* 161–176. doi: http://doi.org/10.1016/j.jclepro.2012.08.040
23. Trianni, A., Cagno, E., Worrell, E., Pugliese, G. (2013). Empirical investigation of energy efficiency barriers in Italian manufacturing SMEs. *Energy, 49,* 444–458. doi: http://doi.org/10.1016/j.energy.2012.10.012
24. Cagno, E., Worrell, E., Trianni, A., Pugliese, G. (2013). A novel approach for barriers to industrial energy efficiency. *Renewable and Sustainable Energy Reviews, 19,* 290–308. doi: http://doi.org/10.1016/j.rser.2012.11.007
25. Rohdin, P., Thollander, P., Solding, P. (2007). Barriers to and drivers for energy efficiency in the Swedish foundry industry. *Energy Policy, 35 (1),* 672–677. doi: http://doi.org/10.1016/j.enpol.2006.01.010
26. Trianni, A., Cagno, E. (2012). Dealing with barriers to energy efficiency and SMEs: Some empirical evidences. *Energy, 37 (1),* 494–504. doi: http://doi.org/10.1016/j.energy.2011.11.005
27. Rasmussen, J. (2017). The additional benefits of energy efficiency investments – a systematic literature review and a framework for categorisation. *Energy Efficiency, 10 (6),* 1401–1418. doi: http://doi.org/10.1007/s12053-017-9528-1
28. Rasmussen, J. (2011). Business models to improve industrial efficiency. *ECEEE Industrial summer study proceedings Energy efficiency first: The foundation of a low-carbon society*. Stockholm, 12.
29. *Wettbewerbsvorteil Ressourceneffizienz* (2018). Berlin: VDI Zentrum Ressourceneffizienz, 41.
30. Energiekosten in verschiedenen Branchen. *Energieberaternetzwerk*. Available at: http://www.energieeffizienz-im-betrieb.net/energiekosten-unternehmen.html
31. DeCanio, S. J., Watkins, W. E. (1998). Investment in Energy Efficiency: Do the Characteristics of Firms Matter? *Review of Economics and Statistics, 80 (1),* 95–107. doi: http://doi.org/10.1162/003465398557366
32. Cooremans, C. (2012). Investment in energy efficiency: do the characteristics of investments matter? *Energy Efficiency, 5 (4),* 497–518. doi: http://doi.org/10.1007/s12053-012-9154-x
33. Foster, R. N. (1986). Working The S-Curve: Assessing Technological Threats. *Research Management, 29 (4),* 17–20. doi: http://doi.org/10.1080/00345334.1986.11756976
34. Abernathy, W. J., Wayne, K. (1974). Limits of the Learning Curve. *Harvard Buiness Review.* Available at: https://hbr.org/1974/09/limits-of-the-learning-curve
35. Röglinger, M., Pöppelbuß, J., Becker, J. (2012). Maturity models in business process management. *Business Process Management Journal, 18 (2),* 328–346. doi: http://doi.org/10.1108/14637151211225225
36. Miller, D., Friesen, P. H. (1984). A Longitudinal Study of the Corporate Life Cycle. *Management Science, 30 (10),* 1161–1183. doi: http://doi.org/10.1287/mnsc.30.10.1161
37. Smith, K. G., Mitchell, T. R., Summer, C. E. (1985). Top Level Management Priorities In Different Stages Of The Organizational Life Cycle. *Academy of Management Journal, 28 (4*), 799–820. doi: http://doi.org/10.2307/256238
38. Quinn, R. E., Cameron, K. (1983). Organizational Life Cycles and Shifting Criteria of Effectiveness: Some Preliminary Evidence. *Management Science, 29 (1),* 33–51. doi: http://doi.org/10.1287/mnsc.29.1.33
39. Wendler, R. (2012). The maturity of maturity model research: A systematic mapping study. *Information and Software Technology, 54 (12),* 1317–1339. doi: http://doi.org/10.1016/j.infsof.2012.07.007
40. Howard, D., Hine, D. (1997). The Population of Organisations Life Cycle (POLC): Implications for Small Business Assistance Programs. *International Small Business Journal: Researching Entrepreneurship, 15 (3),* 30–41. doi: http://doi.org/10.1177/0266242697153002
41. Daft, R. L. (1998). *Organization Theory and Design*. St. Paul: South Western College Publishing, 602.
42. Burgelman, R., Christensen, C., Wheelwright, S. (2008). *Strategic management of technology and innovation*. Boston: McGraw Hill.
43. Promoting industrial energy efficiency. *Consorzio per l'AREA di Ricerca Scientifica e Tecnologica di Trieste*. Available at: http://www.pineaudit.eu/eng/resources.aspx
44. Fresner, J., Morea, F., Krenn, C., Aranda Uson, J., Tomasi, F. (2017). Energy efficiency in small and medium enterprises: Lessons learned from 280 energy audits across Europe. *Journal of Cleaner Production, 142,* 1650–1660. doi: http://doi.org/10.1016/j.jclepro.2016.11.126
45. Krenn, C., Weichbold, T., Korp, G., Meixner, E., Stockner, H., Berger, D. et. al. (2015). Qualitative and quantitative modelling to build a conceptual framework to identify energy saving options: case study of a wire producing company. *Journal of Cleaner Production, 95,* 212–222. doi: http://doi.org/10.1016/j.jclepro.2015.02.052
46. World Energy Investment. *International Energy Agency*. Available at: https://www.iea.org/newsroom/news/2018/july/global-energy-investment-in-2017-.html

DOI: 10.15587/2312-8372.2019.168431

IDENTIFICATION OF THREATS TO THE FINANCIAL SECURITY OF BANKS

page 28–33

Lelyuk Natalia, *PhD, Associate Professor, Department of Financial and Economic Security, Accounting and Audit, O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine, ORCID: http://orcid.org/0000-0001-8144-7442, e-mail: natalia.lelyuk@gmail.com*

Rodchenko Svitlana, *Senior Lecturer, Department of Financial and Economic Security, Accounting and Audit, O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine, ORCID: http://orcid.org/0000-0002-8611-2796, e-mail: svrodchenko@gmail.com*

The object of research is the internal and external threats to the financial security of Ukrainian banks. One of the biggest problems of banking institutions is the presence of threats and their identification and ranking in order of importance, significance and impact on financial security.

In the course of research, the following methods are used: abstract-logical, comparative analysis, statistical, monographic, expert assessments, graphical, tabular, dialectical. For risk analysis, a system of indicators is proposed, which are formed taking into account the methods of decomposition, analysis and synthesis. In identifying threats to field research, an analysis of the literature of specialists in the field of financial security of banks is applied.

The studies are based on the following hypothesis: for commercial banks, which differ in the form of ownership, the structure of their own capital, and the group into which the bank belongs, various threats and dangers will dominate. This requires mandatory consideration when assessing the level of financial security and developing appropriate management decisions and justifying measures to improve it.

The obtained result is in identification of the most significant threats to the financial security of a commercial bank from the point of view of banking practitioners. This is due to the fact that the prioritization of threats to the financial security of banks, the determination of the degree of importance and the strength of the impact will help to form the basis for the selection of early warning and countermeasures. As well as developing strategic and tactical alternatives to ensure an adequate level of financial security.

The proposed classification of threats, which takes into account the assessment of the level of importance and the importance of threats by bank employees of different qualifications and management level. The proposed classification of threats is universal for all banking institutions in different regions.

Keywords: financial security of a bank, threats to financial security, internal threats, external threats.

References

1. Hrebeniuk, N. O. (2016). Finansova bezpeka bankiv: systema rozpiznavannia zahroz ta usunennia ryzykiv. *Visnyk Kharkivskoho natsionalnoho universytetu imeni V. N. Karazina. Ekonomika, 91,* 53–64. Available at: https://periodicals.karazin.ua/economy/article/view/8050
2. Kvasnytska, R. S. (2010). Neitralizatsiia finansovykh ryzykiv yak bezposerednoi zahrozy finansovii bezpetsi banku. *Visnyk Khmelnytskoho natsionalnoho universytetu. Ekonomichni nauky, 5 (4),* 203–207. Available at: http://elar.khnu.km.ua/jspui/handle/123456789/3769
3. Furman, V. M., Zachosova, N. V. (2015). Suchasni zahrozy ekonomichnii bezpetsi vitchyznianykh finansovykh ustanov (na prykladi bankivskykh ustanov i strakhovykh kompanii). *Investytsii: praktyka ta dosvid, 16,* 7–11.
4. Rudnichenko, Ye. M. (2015). Zahroza, ryzyk, nebezpeka: sutnist i vzaiemozviazok iz systemoiu ekonomichnoi bezpeky pidpryiemstva. *Ekonomika. Menedzhment. Pidpryiemnytstvo, 25 (1),* 188–195.
5. Kostiuk, Zh. S. (2013). Poniattia ryzyku, nebezpeky ta zahrozy yak bazovykh katehorii rozkryttia sutnosti ekonomichnoi bezpeky pidpryiemstva. *Visnyk ekonomiky transportu i promyslovosti, 43,* 142–149.
6. Brishtelev, A. (2009). Teoretiko-metodologicheskie osnovy ekonomicheskoy bezopasnosti bankovskoy sistemy. *Bankovskiy vestnik, 4,* 23–30.
7. Moskvin, V. A. (2004). *Upravlenie riskami pri realizacii investicionnyh proektov*. Moscow, 352.
8. Osius, M. E., Putnam, B. H., Faruqi, S. (1992). *Banking and financial risk management*. Washington: World Bank, 266.
9. Rose, P. S., Hudgins, S. C. (2009). *Bank Management & Financial Services.* McGrawHill Higher Education, 761.
10. van Greuning, H., Bratanovic, S. B. (2007). *Analyz bankovskykh ryskov. Systema otsenky korporatyvnoho upravlenyia y upravlenyia fynansovym ryskom*. Moscow: Ves myr, 304.
11. *Shchodo orhanizatsii ta funktsionuvannia system ryzyk-menedzhmentu v bankakh Ukrainy* (2004). Metodychni rekomendatsii, skhvaleni Postanovoiu Pravlinnia NBU No. 361. 02.08.2004. Available at: https://zakon.rada.gov.ua/laws/show/v0361500-04
12. Kozmenko, S. M., Shpyh, F. I., Voloshko, I. V. (2003). *Stratehichnyi menedzhment banku*. Sumy, 734.
13. Kyrychenko, O. A., Hilenko, I. V., Rohol, S., Syrotian, S. V., Niemoi, O. (2002). *Bankivskyi menedzhment*. Kyiv: Znannia-Pres, 438.
14. Varnaliia, Z. S. (2009). *Ekonomichna bezpeka*. Kyiv: Znannia, 2647.
15. Kovalenko, V. V. (2013). Kontseptualni osnovy formuvannia systemy bezpeky bankivskoi diialnosti. *Ekonomichnyi chasopys-XXI, 1-2 (1),* 56–59. Available at: http://nbuv.gov.ua/UJRN/ecchado_2013_1-2_%281%29__18
16. Kovalenko, V. V. (2013). Strukturni elementy y otsiniuvannia rivnia finansovoi bezpeky bankivskoi systemy. *Aktualni problemy rozvytku ekonomiky rehionu, 9 (1),* 191–199. Available at: http://nbuv.gov.ua/UJRN/aprer_2013_9_%281%29__34
17. Fadieiev D. A. *Finansova bezpeka bankivskoi diialnosti v Ukraini*. Available at: http://www.rusnauka.com/5_NITSB_2009/Economics/40908.doc.htm
18. Yakubiak, I. M. (2014). Suchasni zahrozy finansovoi bezpeky komertsiinykh bankiv Ukrainy ta metody yikh upravlinnia. *Naukovyi ohliad, 7 (6)*. Available at: http://naukajournal.org/index.php/naukajournal/article/view/257/420
19. Varenyk, V. A. (2014). Problemy formuvannia finansovoi bezpeky v bankakh Ukrainy. *Visnyk Mykolaivskoho universytetu imeni V. O. Sukhomlynskoho, 2,* 1030–1033.
20. Kozachenko, H. V., Ponomarov, V. P., Liashenko, O. M. (2003). *Ekonomichni bezpeka pidpryiemstva: sutnist ta mekhanizm zabezpechennia*. Kyiv, 280.

DEVELOPMENT OF PRODUCTIVE FORCES AND REGIONAL ECONOMY

DOI: 10.15587/2312-8372.2019.167234

INVESTIGATION OF STATE, TRENDS AND STRUCTURE OF THE WORLD MARKET OF NANOPOWDERS

page 34–42

Malyshev Victor, *Doctor of Technical Sciences, Professor, Honored Worker of Science and Technology of Ukraine, Director of the Engineering Technological Institute, Head of Department of Automobile Transport and Social Security, Open International University of Human Development «Ukraine», Kyiv, Ukraine, ORCID: http://orcid.org/0000-0003-2756-3236, e-mail: viktor.malyshev.igic@gmail.com*

Kushchevska Nina, *Doctor of Technical Sciences, Professor, Head of Department of Modern Engineering and Nanotechnology, Open International University of Human Development «Ukraine», Kyiv, Ukraine, ORCID: http://orcid.org/0000-0003-1130-3923*

Korotieieva Antonina, *PhD, Associate Professor, Professor, Department of Tourism, Documentary and Intercultural Communication, Open International University of Human Development «Ukraine», Kyiv, Ukraine, ORCID: http://orcid.org/0000-0003-1212-066X, e-mail: antoninakrtv@gmail.com*

Bruskova Diana-Maria, *PhD, Associate Professor, Department of Modern Engineering and Nanotechnology, Open International University of Human Development «Ukraine», Kyiv, Ukraine, ORCID: http://orcid.org/0000-0002-7719-0629*

Lukashenko Tetiana, *PhD, Associate Professor, Department of Modern Engineering and Nanotechnology, Open International University of Human Development «Ukraine», Kyiv, Ukraine, ORCID: http://orcid.org/0000-0002-8018-5054, e-mail: taniainst@gmail.com*

Zalubovskiy Mark, *PhD, Department of Road Transport, Open International University of Human Development «Ukraine», Kyiv, Ukraine, ORCID: http://orcid.org/0000-0002-9183-2771, e-mail: markzalubovskiy@gmail.com*

The object of research is the state, trends and structure of the global market of nanopowders. One of the most problematic places is the ambiguity of literary data on this subject. The systematization of available literary data will solve this problem.

For the marketing analysis, method of searching for literature data concerning the research subject and method of analysis were used. The analysis of literary sources made it possible to identify nanomaterials as the most commercial sector of the modern nanotechnology market. Information is provided about the most common throughout the world nanopowders of metals and oxides, as well as about their application fields. It is shown that complex nanopowders consisting of mixtures of oxides have a limited usage scope. The composition, size, and shape of the nanopowders particles depend on the obtaining method and the process conditions.

The forecast of the share of different countries in the market of nanopowders and of the potential demand for nanoproducts in the future is carried out. The structure of investments by industries and

predicted volume of nanotechnology market were shown. The structure of the nanopowders market according to the directions of use and types of nanopowders is given.

In the course of the research the method of systematization and classification were used. The data on the world-wide volume of nanopowders production by the nature of metals and the structure of their production by particle size are systematized. A common problem in the nanotechnology market is the high cost of production and low volume of production. The high cost of nanoparticles is determined by the high cost of raw materials and by a small volume of production. The nanopowders consumption volume is influenced by the nature of their industrial use. The structure of consumption of nanopowders by industries at the world level is shown, about 70 % of consumption is accounted for electronics, optics and defense industry.

The systematization of literature data allowed to present the problems of nanopowders in the form of tables and diagrams giving certain advantage to the comprehension and use of the material.

Keywords: marketing research, market structure, world market of nanopowders, pricing factors, production of nanopowders.

References

1. Baloian, B. M., Kolmakov, A. G., Alymov, M. I., Krotov, A. M. (2007). *Nanomaterialy. Klassifikatsiia, osobennosti svoistv, primenenie i tekhnologii poluchениia*. Moscow, 124.
2. Starostin, V. V. (2008). *Materialy i metody nanotekhnologii*. Moscow: Binomnaia laboratoriia znanii, 431.
3. Marketingovoe issledovanie rynka nanoporoshkov (versiia 4. Khronologiia issledovaniia: 2005–2009 gody s prognozami do 2018 goda). (2010). Analiticheskii otchet, 130.
4. Korotieieva, A. V., Kushchevska, N. F., Malyshev, V. V. (2015). Doslidzhennia rynku nanoporoshkiv. *Marketynh v Ukraini, 5 (92)*, 29–33.
5. Golovin, Iu. I. (2003). *Vvedenie v nanotekhnologiiu*. Moscow: Mashinostroenie, 112.
6. Tretiakov, Iu. D., Gudilin, E. A. (2009). Osnovnye napravleniia fundamentalnykh i orientirovannykh issledovanii v oblasti nanomaterialov. *Uspekhi khimii, 78 (9)*, 867–869.
7. Feinman, R. (2002). Vnizu polnym polno mesta: priglashenie v novyi mir fiziki. *Khimiia i zhizn, 12*, 20–26.
8. Talanchuk, P., Malyshev, V., Lypova, L. (2009). Osvita XXI stolittia. Samovyznachennia osobystosti v konteksti intehratsii Ukrainy do yevropeiskoho intelektualnoho prostoru. *Osvita rehionu. Politolohiia, psykholohiia, komunikatsii, 3*, 206–213.
9. Salata, O. V. (2004). Applications of nanoparticles in biology and medicine. *Journal of Nanobiotechnology, 2 (3)*, 1–6. doi: http://doi.org/10.1186/1477-3155-2-3
10. Bhushan, B. (2007). *Springer handbook of nanotechnology*. Springer, 1221. doi: http://doi.org/10.1007/978-3-540-29857-1
11. Bhushan, B. (2017). *Springer handbook of nanotechnology*. Springer-Varlag GmbH, 1221. doi: http://doi.org/10.1007/978-3-662-54357-3
12. Volkov, S. V., Kovalchuk, Ye. P., Ohenko, V. M. (2008). *Nanokhimiia. Nanosystemy. Nanomaterialy*. Kyiv: Naukova dumka, 423.
13. Izutsu, K. (2009). *Electrochemistry in Nonaqueous Solutions*. Wiley-VCH, 432. doi: http://doi.org/10.1002/9783527629152
14. Nitta, K., Masatoshi, M., Inazawa, S. (2010). Electrodeposition of molybdenum from molten salts. *Electronics, 7*, 75–78.
15. Dieter, G. E., Kuhn, H. A., Semiatin, S. L. (2003). *Handbook of Workability and Process Design*. ASM International, 389.
16. Xie, L., Funatani, K., Totten, G. (Eds.) (2004). *Handbook of Metallurgical Process Design*. NYBasel. MarcelDekkerInc, 973. doi: http://doi.org/10.1201/9780203970928
17. Palmer, M., Truong, Y. (2019). Introduction to the special issue on the nature of industrial marketing work. *Industrial Marketing Managmant, 2*, 350–368. doi: http://doi.org/10.1016/j.indmarman.2019.02.004
18. Naudé, P., Sutton-Brady, C. (2019). Relationships and networks as examined. *Industrial Marketing Managmant, 1*, 256–269. doi: http://doi.org/10.1016/j.indmarman.2019.03.006
19. Johnsen, T. E. (2018). Purchasing and supply management in an industrial marketing perspective. *Industrial Marketing Management, 69*, 91–97. doi: http://doi.org/10.1016/j.indmarman.2018.01.017
20. Keränen, J. (2018). Inspiring future generations of industrial marketing scholars. *Industrial Marketing Management, 69*, 127–128. doi: http://doi.org/10.1016/j.indmarman.2018.01.011
21. Dzidziguri, E. L. (2009). Dimensional characteristics of nanopowders. *Nanotechnologies in Russia, 4 (11-12)*, 857–870. doi: http://doi.org/10.1134/s1995078009110147
22. Lerner, M. I., Svarovskaya, N. V., Psakhie, S. G., Bakina, O. V. (2009). Production technology, characteristics, and some applications of electric-explosion nanopowders of metals. *Nanotechnologies in Russia, 4 (11-12)*, 741–757. doi: http://doi.org/10.1134/s1995078009110019
23. Hung, S.-C., Chu, Y.-Y. (2006). Stimulating new industries from emerging technologies: challenges for the public sector. *Technovation, 26 (1)*, 104–110. doi: http://doi.org/10.1016/j.technovation.2004.07.018
24. Lim Chin, W. W., Parmentier, J., Widzinski, M., Tan, E. H., Gokhale, R. (2014). A Brief Literature and Patent Review of Nanosuspensions to a Final Drug Product. *Journal of Pharmaceutical Sciences, 103 (10)*, 2980–2999. doi: http://doi.org/10.1002/jps.24098
25. Sinaiskii, M. A., Samokhin, A. V., Alekseev, N. V., Tsvetkov, Y. V. (2016). Extended characteristics of dispersed composition for nanopowders of plasmachemical synthesis. *Nanotechnologies in Russia, 11 (11-12)*, 805–814. doi: http://doi.org/10.1134/s1995078016060185
26. Popok, V. N., Bychin, N. V. (2014). Impact of metallic and nonmetallic nanopowders on the combustion characteristics of energetic materials based on ammonium nitrate. *Nanotechnologies in Russia, 9 (9-10)*, 541–548. doi: http://doi.org/10.1134/s1995078014050127
27. Sakovich, G. V., Arkhipov, V. A., Vorozhtsov, A. B., Bondarchuk, S. S., Pevchenko, B. V. (2010). Investigation of combustion of HEM with aluminum nanopowders. *Nanotechnologies in Russia, 5 (1-2)*, 91–107. doi: http://doi.org/10.1134/s1995078010010106
28. Zharkova, G. M., Zobov, K. V., Romanov, N. A., Syzrantsev, V. V., Bardakhanov, S. P. (2015). Polymer-liquid crystal composites doped by inorganic oxide nanopowders. *Nanotechnologies in Russia, 10 (5-6)*, 380–387. doi: http://doi.org/10.1134/s1995078015030210
29. Moure, A., Rull-Bravo, M., Abad, B., Del Campo, A., Rojo, M. M., Aguirre, M. H. et. al. (2017). Thermoelectric Skutterudite/oxide nanocomposites: Effective decoupling of electrical and thermal conductivity by functional interfaces. *Nano Energy, 31*, 393–402. doi: http://doi.org/10.1016/j.nanoen.2016.11.041
30. Joshi, R. K., Weber, J. E., Hu, Q., Johnson, B., Zimmer, J. W., Kumar, A. (2010). Carbon monoxide sensing at room temperature via electron donation in boron doped diamond films. *Sensors and Actuators B: Chemical, 145 (1)*, 527–532. doi: http://doi.org/10.1016/j.snb.2009.12.070
31. Petrunin, V. F. (2015). Development of Nanomaterials for Nuclear Energetics. *Physics Procedia, 72*, 536–539. doi: http://doi.org/10.1016/j.phpro.2015.09.046
32. He, X., Hwang, H.-M. (2016). Nanotechnology in food science: Functionality, applicability, and safety assessment. *Journal of Food and Drug Analysis, 24 (4)*, 671–681. doi: http://doi.org/10.1016/j.jfda.2016.06.001
33. Lacaze, P. C., Favennec, P.-N. (Eds.) (2012). Concepts, Discoveries and the Rapid Development of Nanotechnologies. *Nanotechnologies*. John Wiley & Sons, 1–2. doi: http://doi.org/10.1002/9781118580165.part1
34. Morris, J. E. (2018). Nanopackaging: Nanotechnologies and Electronics Packaging. *Nanopackaging*. Cham: Springer, 1–44. doi: http://doi.org/10.1007/978-3-319-90362-0_1
35. Ghazinoory, S., Ameri, F., Farnoodi, S. (2013). An application of the text mining approach to select technology centers of excellence. *Technological Forecasting and Social Change, 80 (5)*, 918–931. doi: http://doi.org/10.1016/j.techfore.2012.09.001
36. Frima, H. J., Gabellieri, C., Nilsson, M.-I. (2012). Drug delivery research in the European Union's Seventh Framework Programme for Research. *Journal of Controlled Release, 161 (2)*, 409–415. doi: http://doi.org/10.1016/j.jconrel.2012.01.044
37. Musee, N. (2011). Nanowastes and the environment: Potential new waste management paradigm. *Environment International, 37 (1)*, 112–128. doi: http://doi.org/10.1016/j.envint.2010.08.005
38. Vashist, S. K., Zheng, D., Al-Rubeaan, K., Luong, J. H. T., Sheu, F.-S. (2011). Advances in carbon nanotube based electrochemical sensors for bioanalytical applications. *Biotechnology Advances, 29 (2)*, 169–188. doi: http://doi.org/10.1016/j.biotechadv.2010.10.002
39. Di Benedetto, C. A., Lindgreen, A. (2018). The Emergence of Industrial Marketing Management as the Leading Academic Journal in Business-to-Business Marketing. *Industrial Marketing Management, 69*, 5–12. doi: http://doi.org/10.1016/j.indmarman.2018.01.023
40. Nilsson, T. (2018). How marketers argue for business – Exploring the rhetorical nature of industrial marketing work. *Industrial Marketing Management, 20*, 5–17. doi: http://doi.org/10.1016/j.indmarman.2018.10.004
41. Foster, Ia. Iu. (2008). *Mir materialov i tekhnologii. Nanotekhnologii. Nauka, innovatsii i vozmozhnosti*. Moscow: Tekhnosfera, 352.

42. Romanenko, L., Malyshev, V., Romanenko, O., Sushchenko, A. (2011). Biznes u nanotekhnolohiiakh. Osvita rehionu. *Politolohiia, psykholohiia, komunikatsii, 1,* 242–252.
43. Malyshev, V. V., Kushchevska, N. F., Zablotska, O. I., Hladka, T. M. (2013). Standartyzatsiia v haluzi nanotekhnolohii ta nanomaterialiv: napriamky rozvytku, kharakterystyka standartiv, terminolohiia. *Stroitelnye materyaly i yzdeliia, 3,* 6–10.
44. Pavlygo, T. M., Serdiuk, G. G., Shevchenko, V. I. (2010). Standartizatsiia v oblasti nanotekhnologii i nanomaterialov. *Nanostrukturnoe materialovedenie, 3,* 70–80.
45. Buchachenko, A. L. (2003). Nanokhimiia – priamoi put k vysokim tekhnologiiam novogo veka. *Uspekhi khimii, 72 (5),* 419–437.
46. BCC Research. *Smart Decisions Start Here*. Available at: https://www.bccresearch.com
47. Androshchuk, H. O., Yamchuk, A. V., Berezniak, N. V. (2011). *Nanotekhnolohii u XXI stolitti: stratehichni priorytety ta rynkovi pidkhody do vprovadzhennia*. Kyiv: UkrINTEI, 275.
48. Terekhov, A. I., Terekhov, A. A. (2005). Perspektivy razvitiia prioritetnykh napravlenii fundamentalnykh issledovanii (na primere nanotekhnologii). *Nauka i nanotekhnologiia, 2,* 131–148.

REPORTS ON RESEARCH PROJECTS

DOI: 10.15587/2312-8372.2019.165774

COMPARISON OF LATERAL VS. VERTICAL MARKETING CONCEPTS IN BRAND CREATION PROCESS

page 43–45

Malynka Oksana, *PhD, Associate Professor, Department of Entrepreneurship and Marketing, Ivano-Frankinsk National Technical University of Oil and Gas, Ukraine, e-mail: ok.framboise@gmail.com, ORCID: http://orcid.org/0000-0002-6259-7020*

Perevozova Iryna, *Doctor of Economic Sciences, Professor, Department of Entrepreneurship and Marketing, Ivano-Frankinsk National Technical University of Oil and Gas, Ukraine, e-mail: perevozova@ukr.net, ORCID: http://orcid.org/0000-0002-3878-802X*

The object of research is lateral marketing. This is a new marketing concept that allows to extend marketing toolkit beyond the sequential and logical process on which it is based, and help companies generate new ideas that neither consumers nor market research can offer. Traditional methods of deduction and induction, scientific classification and grouping, as well as empirical methods are used to compare the concepts of lateral and vertical marketing and discuss their role in the process of creating brands. It is revealed that lateral marketing is not above vertical – they complement each other. Moreover, lateral marketing can't exist without vertical, because, sooner or later, competitors also appear in the new market category, with whom it is necessary again fight in order not to lose the leading positions. However, these are two different approaches that have many features and differences. When applying the concept of vertical marketing, all innovations will be created within a fixed market space. This is due to the fact that such innovations have a positive effect on the level of sales, because new potential buyers appear. However, these innovative strategies do not create new categories and markets. And as a result, the level of sales in conditions of too large segmentation grows by ten percent. Therefore, this approach to the creation of products very often can't give the expected results. Under such conditions, the authors recommend using lateral marketing, as this is the most effective way to compete in «mature» markets, where microsegmentation and brand glut do not leave space for new opportunities. The principles of decision making in lateral marketing are very different. Creative and intuitive thinking works here. It is necessary to develop creativity in the company's employees, to attract extraordinary personalities to the marketing departments.

Keywords: brand management, vertical marketing, lateral marketing, new markets, new products, product policy.

References

1. Kotler, P. (1994). *Marketing Management-Analysis, Planning, Implementation, and Control.* Upper Saddle River: Prentice Hall, 704.
2. Abrams, B., Garino, D. (1981). Package Design Gains Stature as Visual Competition Grows. *Wall Street Journal,* 25.
3. McCarthy, E., Perreault, W. (1994). *Essentials of Marketing.* E. McCarthy and Associates Inc., 258.
4. Borkazovska, L. V. (2014). Application of lateral marketing in the innovation activity of enterprises-manufacturers of commercial equipment. *Economic sciences. Series: Economics and Management, 11,* 44–52.
5. Keller, K. L. (2002). *Branding and Brand Equity.* Cambridge: Marketing Science Institute, 86.
6. Pride, W., Ferrell, W. (1991). *Marketing: Concepts and Strategies.* Boston: Houghton Mifflin Company, 198.
7. Kotler, P., Trías De Bes, F. (2003). *Lateral Marketing: New Techniques for Finding Breakthrough Ideas.* Hoboken: John Wiley & Sons, Inc., 206.
8. Mariotti John, L. (2001). *Smart Things to Know About Brands & Branding.* Capstone Pub, 180.
9. Gordon, R. (1984). Phantom Products. *Forbes,* 202–204.
10. Pomirko, N. M. (2011). Lateral marketing as an effective means of leading a company in a highly competitive market. *Bulletin of the Khmelnitsky National University, 3 (5),* 106–109.
11. Srull, T. K. (1984). Methodological Techniques for the Study of Person Memory and Social Cognition. *Handbook of Social Cognition. Vol. 2.* Hillsdale: Lawrence Erlbaum, 1–72.

DOI: 10.15587/2312-8372.2019.168165

DIAGNOSIS OF THE PERSPECTIVE CONDITION OF THE INVESTMENT ACTIVITY OF THE CARGO AUTO-OPERATING ENTERPRISES

page 46–48

Malakhova Yuliia, *Department of Management, National Transport University, Kyiv, Ukraine, e-mail: upiter-m@ukr.net, ORCID: http://orcid.org/0000-0002-8769-7597*

The object of research is the investment activity of cargo auto-operating enterprises. Investment activity is a generalizing characteristic of the state of investment activity, which is determined by its size and efficiency within the existing financial potential of an economic entity. Indicators of the state and efficiency of investment activity characterize the current state of investment activity, and financial potential – its prospective state. Therefore, a system of private indicators was used to diagnose the prospective state of the investment activity of cargo auto-operating enterprises, covering an assessment of the financial possibilities for raising its level. This system covers the assessment of own and attracted sources of financing investment expenses. In particular, to assess the direction of using own sources of financing investment activities, an algorithm for estimating the targeted use of hoarding profits and depreciation deductions are used. The results of the evaluation of the possibilities of increasing the investment activity of the enterprise show their considerable limitations. An assessment of the use of own sources of financing shows that, on average, only 30 % of profitable cargo auto-exploitation enterprises of the hoarding profit and depreciation charges are used for their intended purpose. At the same time, 24 % of the enterprises studied internal sources of financing investment expenditures are fully used for no purpose – to meet the additional requirements of operating activities. A low level of attraction of borrowed sources of financing is noted – only 20 % of the entire set of enterprises used loan funds. This is due to low values of current liquidity ratio and operating profitability of assets. The value of the first indicator, although it indicates the provision of loans with current assets, however, remains below the standard. The level of operational profitability does not exceed the interest on bank loans,

which makes it impossible to pay them. Consequently, the assessment of the future state of investment activity of cargo auto-operating enterprises indicates the limitations of their own and attracted sources of financing investment expenditures, hinders the economic development of these economic entities. This requires a review of their investment strategy.

Keywords: investment activity of the enterprise, possibility of financing investment expenses, assessment of the use of own financing sources.

References

1. Vyborova, E. N., Saliakhova, E. A. (2013). Metodologicheskie aspekty finansovogo analiza: osobennosti otsenki investitsionnoi aktivnosti organizatsii. *Auditor, 11,* 23–26.
2. Zahorodna, O. M., Spilna, I. V. (2013). Analiz investytsiinoi diialnosti pidpryiemstva za danymy finansovoi zvitnosti. *Ekonomichnyi analiz, 14 (2),* 78–87. Available at: http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/ecan_2013_14(2)__14.pdf
3. Levchenko, T. P., Epaneshnikova, O. V. (2012). Otsenka investitsionnoi aktivnosti industrii gostepriimstva. *Vestnik SGUTiKD, 1 (19),* 54–60.
4. Zamiatina, N. V. (2014). Otsinka investytsiinoi aktyvnosti silskohospodarskykh pidpryiemstv. *Innovatsiina ekonomika, 5 (54),* 91–96.
5. Pluzhnikov, V. G., Smagin, B. H., Shikina, C. A. (2015). Analiz sushchestvuiushchikh metodov otsenki investitsionnoi aktivnosti predpriiatiia IUzhno-Uralskii gosudarstvennyi universitet (natsionalnyi issledovatelskii universitet). *Ekonomicheskii analiz: teoriia i praktika, 14 (2 (401)),* 2–10.
6. Charaeva, M. V. (2010). Razrabotka i aprobatsiia metodiki otsenki investitsionnoi aktivnosti predpriiatii. *Finansovye issledovaniia: finansovyi menedzhment, 4,* 110–117.
7. Korytko, T. Yu. (2016). Otsinka investytsiinoi aktyvnosti promyslovykh pidpryiemstv Ukrainy. *Ekonomichnyi visnyk Donbasu, 3 (45),* 141–146.
8. Kravchenko, O. V. (2014). Otsinka investytsiinoi aktyvnosti promyslovykh pidpryiemstv v Ukraini. *Efektyvna ekonomika, 8.* Available at: http://www.economy.nayka.com.ua/?op=1&z=3269
9. Samodurova, D. A. (2016). Teoretychni aspekty investytsiinoi aktyvnosti pidpryiemstv. *Stratehiia i mekhanizmy rehuliuvannia promyslovoho rozvytku,* 174–182.
10. Chesnakova, L. S., Malakhova, Yu. A. (2018). Diahnostyka investytsiinoi aktyvnosti pidpryiemstva. *Biznes Navihator, 47 (4),* 120–126.
11. Shcherbakova, N. O. (2013). *Otsiniuvannia vyrobnychoho potentsialu vantazhnoho avtotransportnoho pidpryiemstva.* Kyiv, 187.

DOI: 10.15587/2312-8372.2019.162670

IMPROVEMENT OF THE SYSTEM OF INDICATORS FOR THE EFFICIENCY EVALUATION OF THE PRODUCTION CAPACITY OF INDUSTRIAL ENTERPRISES

page 49–51

Skrynkovskyy Ruslan, *PhD, Associate Professor, Department of Business Economy and Information Technology, Lviv University of Business and Law, Ukraine, e-mail: uan_lviv@ukr.net, ORCID: http://orcid.org/0000-0002-2180-8055*

Sopilnyk Rostyslav, *Doctor of Juridical Science, Associate Professor, Department of Administrative Law and Process, Financial and Information Law, Lviv University of Business and Law, Ukraine, e-mail: sopilnyk011@gmail.com, ORCID: http://orcid.org/0000-0001-9942-6682*

Seliverstova Liudmyla, *Doctor of Economic Sciences, Professor, Department of Finance, Kyiv National University of Trade and Economics, Ukraine, e-mail: seliverstova.liudmyla@gmail.com, ORCID: http://orcid.org/0000-0002-2231-0558*

Koropetskyi Oleh, *Postgraduate Student, Department of Business Economy and Information Technology, Lviv University of Business and Law, Ukraine, e-mail: koropetskyi.oleh@ukr.net, ORCID: http://orcid.org/0000-0002-9964-8493*

Protsiuk Tetiana, *PhD, Associate Professor, Head of the Center, Center for Advanced Studies of Government Officials and International Cooperation, Academy of Financial Monitoring, Kyiv, Ukraine, e-mail: agat-lviv@ukr.net, ORCID: http://orcid.org/0000-0003-2010-2146*

The object of research is the features of the formation, use and improvement of the system of indicators to assess the efficiency of the production potential of industrial enterprises. One of the main characteristics of the development of an industrial enterprise and the formation of its prospects, regardless of the goals set, is to ensure optimal competitiveness, stability, sustainable development, etc. – its potential, in particular production. It was found that the production potential is the existing and potential possibilities for the production of real output (in accordance with the needs of the market), the availability of production factors, the availability of basic types of resources. Here, analysis, systematization, synthesis and explanation of factors affecting the efficiency of the production potential of an industrial enterprise in the system to ensure its competitiveness are important. In the context of this, the graphical model of the interconnection of strategic plans and programs of industrial enterprises is improved. And also features, a role and a place of industrial enterprise production capacities in the hierarchy of factors (competitive forces) determining its competitiveness are taken into account. In the process of research, the methods of system analysis, systematization, generalization and methods of economic and mathematical modeling are used. According to the research results, it is established that for the effective use of the production potential of industrial enterprises it is necessary to ensure management on the basis of complete and objective information about the state of the components of the production potential by a system of relative indicators (coefficients). This system should correspond to the modern understanding of the essence of the concept of «efficiency», its types (financial and economic, industrial, commercial), strategic plans and programs, and strategies. The system of indicators is improved to assess the efficiency of the industrial potential of industrial enterprises, which takes into account the hierarchy of factors (competitive forces) determining its competitiveness, taking into account the main forces operating in the microenvironment of the enterprise. The presented studies should be taken into account when improving the fundamental (in-depth) system for diagnosing the production activities of industrial enterprises (as a partial diagnostic goal in the system of economic diagnostics goals).

Keywords: efficiency of the production potential of the enterprise, production program of the enterprise, production capacity of the enterprise, operational management.

References

1. Haievska, L., Chernova, O. (2011). Production potential is a basis of enterprise's development. *The Journal of Zhytomyr State Technological University. Series: Economics, Management and Administration, 1 (55),* 184–185. Available at: http://ven.ztu.edu.ua/article/view/64934
2. Melnyk, O. H. (2010). *Systemy diahnostyky diialnosti mashynobudivnykh pidpryiemstv: polikryterialna kontseptsiia ta instrumentarii.* Lviv: Vydavnytstvo Lvivskoi politekhniky, 344.
3. Poberezhna, N. M. (2012). Efektyvnist vykorystannia vyrobnychoho potentsialu: teoretychnyi ta praktychnyi aspekty. *Marketynh i menedzhment innovatsii, 3,* 212–220. Available at: http://nbuv.gov.ua/UJRN/Mimi_2012_3_23
4. Zahorodnii, A. H., Vozniuk, H. L. (2005). *Finansovo-ekonomichnyi slovnyk.* Lviv: Vydavnytstvo Natsionalnoho universytetu «Lvivska politekhnika», 714.
5. Haiduchok, V. M., Zatkhei, B. I., Linnyk, M. K. (2006). *Teoriia i tekhnolohiia naukovykh doslidzhen.* Lviv: Afisha, 232.
6. Hetman, O. O., Shapoval, V. M. (2007). *Ekonomichna diahnostyka.* Kyiv: Tsentr navchalnoi literatury, 307.
7. Kotler, P. (1984). *Marketing essentials.* Englewood Cliffs: Prentice-Hall, 556.
8. Boulton, R. E. S., Libert, B. D., Samek, S. M. (2000). *Cracking the Value Code: How Successful Businesses are Creating Wealth in the New Economy*. New York: Harper Business, 288.
9. Skrynkovskyi, R. (2008). Investment attractiveness evaluation technique for machine-building enterprises. *Actual Problems of Economics, 7 (85),* 228–240.

10. Lepa, R. M., Solokha, D. V., Koverha, S. V. et. al. (2012). *Marketynh ta menedzhment: metody, modeli ta instrumenty.* Donetsk: TOV «Skhidnyi vydavnychyi dim», 250.
11. Oleksiuk, O. I. (2009). Rezultatyvnist diialnosti pidpryiemstv yak osnova formuvannia yikh investytsiinoi pryvablyvosti. *Investytsii: praktyka ta dosvid, 3,* 21–26. Available at: http://nbuv.gov.ua/UJRN/ipd_2009_3_7
12. Skrynkovskyi, R. M. (2011). Methodical approaches to economic estimation of investment attractiveness of machine-building enterprises for portfolio investors. *Actual Problems of Economics, 118 (4),* 177–186.
13. Kono, T. (1984). *Strategy and Structure of Japanese Enterprises.* Palgrave Macmillan UK. doi: http://doi.org/10.1007/978-1-349-17627-4
14. Skrynkovskyy, R., Pavlenchyk, N., Horbonos, F., Protsiuk, T. (2018). Improvement of the express diagnostics of the production activity of the enterprise taking into account the method of determining the optimal production programs in the operational management system. *Technology Audit and Production Reserves, 6 (4 (44)),* 4–10. doi: http://doi.org/10.15587/2312-8372.2018.147968

DOI: 10.15587/2312-8372.2019.165627

RESEARCH OF THE INTERACTION OF PUBLIC-PRIVATE PARTNERSHIP AS A TOOL OF DEVELOPMENT OF ALTERNATIVE ENERGY

page 52–54

Riazanova Nataliia, *PhD, Associated Professor, Head of Department, Department of Finance, Accounting and Banking, SE «Luhansk Taras Shevchenko National University», Starobilsk, Luhansk Region, Ukraine, e-mail: natalirozez1975@gmail.com, ORCID: http://orcid.org/0000-0001-5890-7738*

The object of research is a public-private partnership (PPP) as a tool for strategic management of alternative energy development. One of the most problematic places is the identification of functions, areas and ways of PPP interaction. The program-targeted research method, along with other used methods, allows determining priority directions for the effectiveness of PPP interaction as a tool for strategic management of alternative energy development. And also to make a choice of organizational ways of PPP development and to formulate the PPP concept. The study used the methods of system-structural, spatial analysis, logical generalization, synthesis, comparison, induction and deduction are used for preliminary analysis of the problem statement formation and the definition of goals. The essence of the «public-private partnership», «partnership» concepts is defined, autonomous state functions are investigated. Characteristics are defined regarding the advantages of partners from participating in joint projects using the method of analogies and comparative comparison. The definition of directions of regulation of partnerships from the public sector is obtained. This is due to the fact that the proposed method has a number of features that emerge in developing a strategy and principles for building interaction relations, facilitating the formation of an effective institutional environment and the development by the state of forms, methods and specific mechanisms for PPP interaction. The organizational paths for the PPP development as a tool for the strategic management of alternative energy development are determined, which note that public sector participation extends to the level of obtaining a blocking minority. Thus, the state has a sufficient degree of influence. This ensures the possibility of timely, proper and skillful use of certain functions, areas and ways of PPP interaction as a tool for the strategic management of the development of alternative energy. This ensures the activation of innovation and investment activities and in the shortest possible time to achieve favorable economic indicators in the energy sector, both at the level of individual regions and the state as a whole, which contributes to the sustainable development of the country's economy.

Keywords: public-private partnership, development of the country's economy, tool of strategic management, sovereign functions of the state.

References

1. Varnavskii, V. G. (2011). Gosudarstvenno-chastnoe partnerstvo: nekotorye voprosy teorii i praktiki. *Mirovaia ekonomika i mezhdunarodnye otnosheniia, 9,* 41–50.
2. Gassii, V. V., Potravnyi, I. M. (2011). Ekologicheskaia otvetstvennost' biznesa kak element gosudarstvenno-chastnogo partnerstva. *Marketing i menedzhment innovatsii, 1 (3),* 179–187.
3. Kabashkin, V. A., Nersesian, L. G. (2010). *Finansovyi krizis i perspektivy gosudarstvenno chastnogo partnerstva v Soedinennyh Shtatah Ameriki i Kanade. Seriia: «Mirovaia ekonomika. Sovremennoe vzaimodeistvie vlasti i biznesa».* Moscow: OOO «MITS», 130.
4. Liba, N. S. (2017). Realizatsiia derzhavno-pryvatnoho partnerstva u systemi rehionalnoi promyslovoi polityky. *Naukovyi visnyk Mukachivskoho derzhavnoho universytetu,* 126–132.
5. Kryshtal, T. M. (2013). Derzhavno-pryvatne partnerstvo yak osnovnyi mekhanizm rozvytku infrastruktury rehionu. *Stalyi rozvytok ekonomiky, 3 (20),* 138–141.
6. Klievtsievych, N. A. (2017). Derzhavno-pryvatne partnerstvo yak instrument rehionalnoho rozvytku. *Ekonomika i suspilstvo, 9,* 237–241.
7. Allen, G. (2001). *The Private Finance Initiative (PFI). Research Paper. 01/117.* London: House of Commons Library.
8. Schneider, K., Gerstlberger, W. (2008). Public Private Partnership in deutschen Kommunen. *WSI-Mitteilungen, 61 (10),* 556–562. doi: http://doi.org/10.5771/0342-300x-2008-10-556
9. Marty, F., Voisin, A., Trosa, S. (2006). *Les partenariats public-privé. Paris: Éditions La Découverte.* Available at: http://www.oecd.org/dataoecd/32/9/41768196.pdf
10. Linder, S. H. (2000). Coming to Terms With the Public-Private Partnership: A Grammar of Multiple Meanings. *Public-private policy partnerships,* 19–35.
11. Vasyliev, O. V., Bohdan, N. M., Fisun, K. A. (Eds.) (2013). *Menedzhment miskoho rozvytku.* Kharkiv: KhNAMH, 397.
12. *Terytorialnyi rozvytok v Ukraini: rozvytok ahlomeratsii ta subrehioniv* (2012). Ahentstvo SShA z mizhnarodnoho rozvytku USAID v ramkakh Proektu «Lokalni investytsii ta natsionalna ekonomika ta konkurentospromozhnist». Kyiv, 183.