## ANNOTATIONS OF THE ARTICLES

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### THE MODEL IS COST-EFFECTIVE MECHANISM FOR SUSTAINABLE INDUSTRIAL ENTERPRISES

In the article the model of cost-effective mechanism for sustainable development of the enterprise taking into account the maximum possible earnings impact in various areas of reducing costs, determines cost-effective mechanism for sustainable enterprise, the characteristic function of a multitude of cost-effective mechanisms URP, the conditions and requirements of reducing costs. It is concluded that one of the ways to ensure the mechanism reducing costs URP is the regulation of the resulting effects from the condition of the company and the functions  $\Phi \to f(\phi_i, z_i)$ , which is achieved by introducing a dependence of the entropy of the company from spending and domestic growth.

**Key words:** state of the enterprise, entropy, necessary and sufficient conditions for reducing costs, expectations, factors, criteria, efficiency, sustainable development.

### References

- 1. Anoshkina E.L. (2006) *Regionosozdanie: institucionalno-jekonomicheskie osnovy*, Moscow, Akademicheskij proekt, Gaudeamus
- 2. Basovskij L.E. (2005) Teorija jekonomicheskogo analiza, Moscow, INFRA-M, 222 p.
- 3. Bulgakov V. (2015) Mnogokriterialny vybor v dopustimye resheniya ustoychivo razvivauschihsya hromychlennyth predpriyaty, *Biznes. Obrazovanie. Pravo. Vestnik Volgogradskogo instituta biznesa*
- 4. Zolotuhina A.V. (2010) Problemy innovacionnogo i ustojchivogo razvitija regionov, Moscow, Krasand, 240 p.
- 5. Loginov V., Kurnysheva I. (2006) Restrukturizacija promyshlennosti v uslovijah jekonomicheskogo krizisa, *Voprosy ekonomiki*, N 11.
- 6. Naumov S. (2010) O modernizacii promyshlennosti Rossii, http://www.minpromtorg.gov.ru/industry/metal/105
- 7. Cheblokov A.T. (2009) Stabilnoe proizvodstvo osnova finansovoj ustojchivosti predprijatij, Finansy, N 8.

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## STATE-PRIVATE PARTNERSHIP WITNIN THE SYSTEM OF SRATEGIC PLANNING IN RUSSIA

The transition to the system of strategic planning requires significant innovations in the institutions of government and business interaction, including the practice of public-private partnership. Actually, forms and tools of such partnerships themselves become the object of strategic planning. With appropriate economic and legal prerequisites it makes possible to engage into the sphere of such partnerships more and more large-scale projects. In this situation the growing use of the methods of strategic planning calls for substantial modifications in the draft of the Federal law on public-private partnership.

**Key words:** public-private partnership, strategic planning, institutions of development, government support, fiscal instruments of the partnership.

- 1. Gosudarstvennoe strategicheskoe upravlenie, Saint-Petersburg, Piter, 2014; Buhvald E.M. (2015) Subekty Federacii v sisteme strategicheskogo planirovanija, N 2, 7-10 pp.; Buhvald E.M. (2014) «Vytjanet» li strategicheskoe planirovanie rossijskuju jekonomiku? Ekonomika: vchera, segodnja, zavtra, N 8-9, 9-26 pp.; Buhvald E.M. (2014) Strategicheskoe planirovanie velenie vremeni, «ETAP: Ekonomicheskaja teorija, Analiz, Praktika», N 6, 66-84 pp.
- 2. Federalnyj zakon ot 28 ijunja 2014 g. №172-FZ «O strategicheskom planirovanii v Rossijskoj Federacii». GARANT. Informacionno-pravovoj portal. Rezhim dostupa: http://base.garant.ru/70684666/.
- 3. Federalnyj zakon «O gosudarstvenno-chastnom partnerstve, municipalno-chastnom partnerstve v Rossijskoj Federacii i vnesenii izmenenij v otdel'nye zakonodatel'nye akty Rossijskoj Federacii» Prinjat Gosudarstvennoj Dumoj 1 ijulja 2015 goda (ne vstupil v silu). Pervonachal'no dannyj zakonoproekt byl vnesen v Gosudarstvennuju

dumu 13 marta 2013 g.

- 4. Leningradskoj oblasti zakon o strategicheskom planirovanii byl prinjat eshhe v 2006 g. Naprotiv, Zakon Moskovskoj oblasti № 20/2015-OZ «O strategicheskom planirovanii social'no-jekonomicheskogo razvitija Moskovskoj oblasti» byl prinjat v fevrale 2015 g., t.e. nakanune analogichnogo zakonodatel'nogo prodvizhenija na federal'nom urovne.
- 5. Otdel'nymi federal'nymi zakonami uregulirovany tol'ko nekotorye chastnye sluchai (formy) GChP, takie kak koncessii i soglashenija o razdele produkcii. Kosvennoj formoj regulirovanija chastnyh sluchaev GChP mozhno schitat' federal'nye zakony, kasajushhiesja dejatel'nosti tak nazyvaemyh «federal'nyh institutov razvitija», a imenno federal'nyh osobyh jekonomicheskih zon, zon territorial'nogo razvitija i territorij operezhajushhego social'nojekonomicheskogo razvitija.
- 6. Zeldner A.G. (2014) Gosudarstvenno-chastnoe partnerstvo mejnstrim sovremennogo jetapa rossijskoj jekonomiki, *Mir peremen*, N 1, 140 143 pp.
- 7. Federalnyj zakon ot 31 dekabrja 2014 goda №488-FZ «O promyshlennoj politike v Rossijskoj Federacii».
- 8. Belickaja A. V. (2015) Gosudarstvenno-chastnoe partnerstvo v ramkah territorij so specialnym rezhimom osushhestvlenija predprinimatel'skoj dejatel'nosti: novoe v zakonodatel'stve, *Zakon*, N 3, 60 66 pp.; Rezhim dostupa: http://pppcenter.ru/assets/files/presentations/Opros.pdf
- 9. Spravochnye materialy po proektam, realizuemym s privlecheniem sredstv Investicionnogo fonda Rossijskoj Federacii. Moskva. Ministerstvo jekonomicheskogo razvitija RF, 2015, 2 5 pp.
- 10. Krotov L.A. (2014) Gosudarstvenno-chastnoe partnerstvo kak forma vzaimodejstvija gosudarstva i biznesa dlja intensivnogo razvitija territorii i povyshenija ee konkurentosposobnosti, *Voprosy jekonomiki i prava*, N 1, 68 72 pp.; Arsenova E.V., Dunaeva A.I., Udachin N.O. (2014) Perspektivy vnedrenija mehanizmov GChP v Rossijskoj Federacii, *Ekonomika i upravlenie: problemy, reshenija*, N 9, 3 7 pp.
- 11. Kiseleva I.A., Tramova A.M. (2014) *Innovacionnaja strategija razvitija otraslevyh kompleksov kak uslovie ustojchivogo ekonomicheskogo rosta*, N 1, 2 10 pp.; Mindeli L.Je., Vasin V.A. (2014) Gosudarstvenno-chastnoe partnerstvo kak vazhnejshij faktor razvitija nacional'noj innovacionnoj sistemy, *Innovacii*, N 1, 44 50 pp.
- 12. Energeticheskaja politika Kitaja i Japonii (2014), Jekonomika i upravlenie v zarubezhnyh stranah. Informacionnyj bjulleten' VINITI, N 5, 35 44 pp.
- 13. Kornev M.V. (2014) Sushhnostnye harakteristiki gosudarstvenno-chastnogo partnerstva v aspekte proekta Federalnogo zakona «Ob osnovah gosudarstvenno-chastnogo partnerstva v Rossijskoj Federacii», *Jurist*, N 10, 35 39 pp.
- 14. Buhvald E.M. (2009) Razvitie chastno-municipal'nogo partnerstva kak faktor social'no-jekonomicheskogo razvitija territorij. V kn.: «Formy i mehanizmy vzaimodejstvija sub'ektov smeshannoj jekonomiki», Moscow, 66 76 pp.; Buhvald E.M. (2015) *Gosudarstvenno-chastnoe partnerstvo v jekonomicheskoj politike regionov i municipalitetov Rossijskoj Federacii*. V kn.: Osnovy gosudarstvenno-chastnogo partnerstva (teorija, metodologija, praktika), Pod. Red. V.G. Varnavskogo, A.G. Zel'dnera, Moscow, 148 169 pp.

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# THE INSTRUMENTS OF SUPPORT OF INNOVATIVE ACTIVITY IN THE TERRITORIALLY LOCALIZED FORMATIONS

Transformation of a vector of development of the Russian economy causes need of revision of tools, forms and methods of the organization of innovative activity of economic agents. Polarizations of national economic space causes determine the importance of formation and improvement of regional instruments of support of innovative activity. The purpose of this research is studying of world experience of regulation of the innovative relations and justification of instruments of support of innovative activity in the territorial localized formations of the Russian economy. In article the comparative analysis of instruments of the state support of innovative activity in the territorial localized formations of the leading countries of economic development, such as the USA, Germany, France, and China is carried out. Levels of innovative activity, structure of sources of financing of innovative activity of the certain countries are analyzed. Possibility of use the model of intersector interaction «universities - business» for the Mari El Republic is considered. Technologies of support of innovative activity in the territorial

localized formations of the Russian economy are offered.

**Key words:** innovations, instruments of support of innovative activity, innovative centers, institutions of development.

## References

- 1. Zubarevich N. (2010) Regions of Russia: inequality, crisis, modernization [Regiony Rossii: neravenstvo, krizis, modernizacija], *Independent Institute for social policy*, Moscow, pp. 160.
- 2. Bortnik I. (2012) "System for evaluation and monitoring of innovative development of regions of Russia" [Sistema ocenki i monitoringa innovacionnogo razvitija regionov Rossii], *Innovative economy*, No 9 (167), pp. 48-61.
- 3. Sablin V. (2014) "Comparative characteristics of R&D expenditure in the regions of Siberia and the administrative-territorial units of foreign countries" [Sravnitel'naja harakteristika rashodov na NIOKR v regionah Sibiri i territorial'no-administrativnyh edinicah zarubezhnyh stran], *Problems of economic regulation*, Vol. 5, No 3, pp. 74-87.
- 4. The ranking of countries according to the index of innovation [Rejting stran mira po indeksu innovacij], available at: http://www.euroosvita.net/index.php/?category=1&id=3407
- 5. Official site of Federal state statistics service [Oficial'nyj sajt Federal'noj sluzhby gosudarstvennoj statistiki], available at: http://www.gks.ru.
- 6. OECD Science, Technology and Industry Outlook 2014, available at: 10.1787/sti\_outlook-2014-en
- 7. Risin E., Treshchevsky Yu. (2005) "Regional aspect of state support of innovative activity in the US" [Regional'nyj aspekt gosudarstvennoj podderzhki innovacionnoj dejatel'nosti v SShA], *Journal of Innovative Region*, No 1, pp.45–46.
- 8. Baier E. (2012) Regional Innovation Report (Bavaria). Fraunhofer ISI, available at: http://www.merit.unu.edu 9. Kuznetsov N. (2011) "State support of innovative entrepreneurship on the example of Germany" [Gosudarstvennaja podderzhka innovacionnogo predprinimatel'stva na primere Germanii], Omsk scientific Bulletin, No 6, pp.64–67 10. Divayeva E., Mukhamedyarov A. (2011) "Foreign experience of creation of innovative systems in regions" [Zarubezhnyj opyt sozdanija innovacionnyh sistem v regionah], *Economy and management*, No 3, pp. 92 99.
- 11. Signature d'un MOU entre la Fondation Sophia Antipolis et Innopolis Daedeo, available at: http://www.sophia-antipolis.org/index.php/news/archives-2014
- 12. Woo, Jaejoon. Technological Upgrading in China and India: What Do We Know? available at: 10.1787/5k9gs212r4tf-en
- 13. A rating of innovative activity of regions for 2013 [Rejting innovacionnoj aktivnosti regionov za 2013 g.], available at: http://innovanews.ru/info/news/economics/14652

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# EVALUATION OF STRATEGIC AND EFFICIENCY DETERMINING THE PROSPECTS FOR THE RUSSIAN AVIATION INDUSTRY BASED ANALYSIS OF THEIR ACTIVITY

The necessity and urgency of modernization of the industrial management of the country aimed at increasing the effectiveness of strategic management at the scale of individual sectors of the national economy has long recognized in the system of state management of individual industries and industry complexes of Russia and by the industry. In order to evaluate the effectiveness of policy decisions aimed at the development of the enterprise, it is necessary to operate the indicators that reflect the dynamics of the company's ability to obtain maximum results with minimum utilization of resources. In the article the author used a methodical approach for evaluating the effectiveness of strategic enterprises on the example of three Russian aviation industry. The choice of this sector is due, first of all, that the aviation industry has set a long-term planning horizon, long-term operating and financial cycles, allowing to focus on the current technical and economic indicators. It is also obvious need to harmonize the strategic development of these enterprises with state-level strategies. Analyzes the financial and economic activities of enterprises in dynamics in recent years, based on the diagnosis that held their strategic effectiveness. Also in the main factors affecting the cost parameters deemed most appropriate to ensure the effective and strategic management of these factors formed the tree. The results of the diagnosis and identification of indicators cost needed to develop the core activities that will form the basis of strategic plans for aviation industry.

**Key words:** strategy, strategic efficiency, management, industrial enterprise, the aviation industry, diagnostics, factors, elasticity.

## References

- 1. Vinnikov, A. (2012), "Improving the interaction model of basic guiding strategies for industrial enterprises" [Sovershenstvovanie modeli vzai-modejstvij osnovnyh napravlyayushchih strategij promyshlennogo predpriyatiya], *Issues of Economics and Law*, No 45, pp.103-106.
- 2. Gorokhov, A. (2011), "Multi-segment strategy in industrial companies" [Mnogosegmentnaya strategiya v promyshlennyh kompaniyah], *Problems of Economics and Law*, No 31, pp.127-133.
- 3. Ermolina, L. (2012), "Management of the value of the company and strategic efficiency" [Upravlenie stoimost'yu kompanii i strategicheskaya ehffektivnost'], *Fundamentals of Economics, Management and Law*, No 4(4), pp.45-49
- 4. Ermolina, L. (2012), "Forming methodical approach to strategic efficiency diagnostics" [Formirovanie metodicheskogo podhoda k diagnostike strategicheskoj ehffektivnosti], *Vestnik of Samara State University of Economics*, No 1(111), pp.29-34.
- 5. The Russian Ministry of Industry. Available at: http://old.minpromtorg.gov.ru/ministry/programm/8
- 6. The Russian Ministry of Industry. Available at: http://minpromtorg.gov.ru/common/upload/files/docs/Vizualizatsiya GP RAP 140507.pdf
- 7. Helfert A. Erich, D.B.A. Financial analysis: tools and techniques. N.Y.: McGraw-Hill, 2001.

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# THE ROLE OF INVESTMENT AND PUBLIC-PRIVATE PARTNERSHIPS IN THE NEO-INDUSTRIAL ECONOMY

The ratio of large-scale issues such as the functioning of the post-reform economy of de-industrialization and its accumulated investment needs with the volume and structure of real capital investments reflects a continuation of destabilizing trends in the national economy due to the uncompetitive economic model, reduced to raw material export, unsystematic investment strategy. In recent years, he added the problem of economic growth. Investments such as neo-industrial, as well as interaction of the state and the private sector - are represented, as one of the conditions for the introduction of the formula «neoindustrialization plus vertical integration. «The article deals with structural-factorial approach to investment and public-private partnership, it shows the role of the individual firm, the state in neo-industrial economy. In economics, neo-industrial areas special weight becomes a modern vision «shumpeterstva» where the dynamism of the economic system, give the entrepreneur and innovation. We analyze the share of investment in innovation and technical upgrading of all investments on the basis of statistical data shows the structure of investments in fixed capital by forms of ownership, which has led to the conclusion about the necessity of cooperation of private and public investments.

Key words: investment, economic growth, individual, company, state, neo-industrial economy.

- 1. Pluzhnik, MV (2011), Industrial progress as a condition for the transformation of rent-Resource Economics, *Bulletin of Science Siberia*, No 1.
- 2. Michael Spence, (2012) [Following convergence. Future economic growth in the world, living at different speeds], Publisher Gaidar Institute, 2012, p.336.
- 3. Sukharev, O. (2014) Economic growth, institutions, and technology, Moscow, Finance and Statistics, p.464.
- 4. Gubanov, S. (2012) Sovereign breakthrough. Neoindustrialization Russia and vertical integration. (Series «superpower»), Moscow, Book World, p. 224.
- 5. Daskovsky, V. Kiselev, V. (2014), Fundamentals of new strategies, models and policies of neo-industrial renovation, The Economist, No 1.
- 6. http://www.gks.ru., Treatment date: 07/06/2015.
- 7. Federal Law of the Russian Federation of July 13, 2015 N 224-FZ «On public-private partnership, municipal-private partnership in the Russian Federation and the Amendments to Certain Legislative Acts of the Russian Federation».
- 8. Yeganyan, A. (2015) *Investment in infrastructure: Money, projects and interests. PPP, concessions, project financing,* Moscow, Alpina Publisher, p. 715.
- 9. Alpatov, AA, (2010) *Public-Private Partnership: Implementation Arrangements*, Moscow, Wiley Publishers, p. 196.
- 10. Kuchukov, R., (2013) Neo-industrial modernization and the role of the public sector, *The Economist*, No 6.

- 11. Vechkanov, G. (2013), Investments: volume, dynamics, structure, *The Economist*, No 3.
- 12. Greenberg RS, Rubinstein, A. J., (2013) *Individual & State: economic dilemma*, Moscow, All the World, p. 480.
- 13. Lenchuk, EB, (2015) External dimension of the new industrialization of Russia, St. Petersburg .: Aletheia, p. 286.

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# THE OPTIMIZATION OF THE MANAGEMENT SYSTEM OF DOMESTIC ENTERPRISES ON THE BASIS OF MANAGEMENT INNOVATIONS

The innovative development of the domestic enterprises is the priority direction for the saving and development of business activities. However, despite the active support of the Government, the indicators of innovation activity of Russian enterprises are low.

The low efficiency of existing management system is the reason of the "unavailability" of the domestic enterprises to innovate. The dominance in the Russian management systems of the principles and approaches that have survived since the administrative economy is the determining factor for this situation.

The use of the management innovations as the changes in the enterprise management system for improving its effectiveness is suggested in the article.

The implementation of the management will be brought the management system into compliance with the requirements of the business environment and to ensure conditions for development.

The concept of the management system on the basis of management innovations is proposed as the tool of the implement changes. It will create the basis for the «formalization» of management processes on the basis of the management innovations, the introduction of the development and implementation procedures on the regular basis to ensure conditions of the development.

**Key words:** innovative activity, development, domestic enterprises, management innovations, the concept of the management system.

- 1. Jakovenko, V. S. (2011), To the question about of the relevance of the study processes of innovative development of the enterprises [K voprosu ob aktual'nosti issledovanija processov innovacionnogo razvitija predprijatij], *Young scientist [Molodoj uchenyj]*, No. 5, pp. 237-239.
- 2. Jakovec, Ju. V., Kuzyk, B. N., Kushlin, V. I. (2005), The forecast of Russia innovative development for the period up to 2050 taking into account global trends [Prognoz innovacionnogo razvitija Rossii na period do 2050 goda s uchetom mirovyh tendencij], *Innovations [Innovacii]*, No 2, pp. 19-28.
- 3. Strategy of innovative development of the Russian Federation for the period till 2020, available at: http://www.garant.ru/products/ipo/prime/doc/70006124/#ix zz3fmdBy5nO
- 4. On the implementation of the innovative development of Russia for the period till 2020, available at: http://government.ru/news/16196/
- 5. Volosatov, V. D., Babanova, Ju. V. (2010), The essence and structure of the innovative potential of the industrial enterprises [Sushhnost' i struktura innovacionnogo potenciala promyshlennogo predprijatija], *Bulletin of the Chelyabinsk state University [Vestnik Cheljabinskogo gosudarstvennogo universiteta]*, No. 3, pp. 134-138.
- 6. Cyrenova, A. A. (2006), Menedzhment [Management], Ulan-Udje, VSGTU, 114 p.
- 7. Ignat'eva, A. V., Maksimcov, M. M. (2000), *Issledovanie sistem upravlenija [The study of the management systems]*, Moscow, JuNITI-DANA, 157 p.
- 8. Smirnov, Je. A. (1998), Osnovy teorii organizacii [Fundamentals of the theory of organization], Moscow: Audit, JuNITI, 375 p.
- 9. Gusev, A. E., Duplina, T. T. (2012), The problems of improvement of management systems in agricultural enterprises of Kursk region [Problemy sovershenstvovanija sistem upravlenija na sel'skohozjajstvennyh predprijatijah Kurskoj oblasti], Journal of the Kursk state agricultural Academy [Vestnik Kurskoj gosudarstvennoj sel'skohozjajstvennoj akademii], No. 9, pp. 39-41.
- 10. Gary Hamel, Management innovation, available at: http://www.management-issues.com/interviews/3251/

gary-hamel-management-innovation

- 11. Birkinshaw Julian, Mol Michael. How Management Innovation Happens, available at: http://sloanreview.mit.edu/article/how-management-innovation-happens
- 12. Kiseleva, O. N. (2015), The enterprise management system as the basis of the innovative potential [Sistema upravlenija predprijatiem kak osnova ego innovacionnogo potenciala], *RISK: Resources, Information, Supply, Competition [RISK: Resursy, Informacija, Snabzhenie, Konkurencija]*, No 1, pp. 85-88.
- 13. Ozhegov, S. I. (2011), *Tolkovyj slovar' russkogo jazyka [Explanatory dictionary of the Russian language]*, Moscow, W&E, 736 p.
- 14. Efremova, T. F. (2000), Novyj tolkovo-slovoobrazovatel'nyj slovar' russkogo jazyka [New explanatory word-formational dictionary of Russian language], Moscow: Drofa, 1233 p.
- 15. Ozhegov, S. I., Shvedova, N. Ju. (2006), *Tolkovyj slovar' russkogo jazyka: 80 000 slov i frazeologicheskih vyrazhenij [Explanatory dictionary of Russian language: 80,000 words and phraseological expressions]*, Moscow: LLC «A Temp», 944 p.

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## TO THE ISSUE ABOUT EFFICIENCY ASSESSMENT OF EXPENSES ON INFORMATION SECURITY

The article presents the assessment of practical using of the announced standard ISO/IEC TR 27016:2014 (now it is a project of a standard) that is intended to the issues of organizational economics and efficiency assessment of expenses on information security. Author made the comparison analysis of several methods: recommendations of ISO/IEC TR 27016:2014, investments assessment methods, TEI method (by Forrester Consulting company), and efficiency assessment method of information security investments based on fuzzy sets using which has suggested recently by Guido Shryen and his co-authors on the international conference «Workshop on the Economics of Information Security». By means of every named method there was assessed efficiency of expenses on the identity and access management system implementation for one Russian retailer. Analyzed theoretical and practical (cases) aspects allowed the author to make a conclusion about possibilities of ISO/IEC TR 27016:2014 applying for information security management of an organization.

Key words: information security economics, ISO 27016, information risk, costs, value, efficiency.

# References

- 1. ISO/IEC TR 27016:2014 Information security Security techniques Information security management Organizational economics
- 2. Schryen, G. "A Fuzzy Model for IT Security Investments", available at: http://epub.uni-regensburg.de/21248/1/Schryen\_-\_Security\_Fuzzy\_-\_SICHERHEIT\_2010.pdf
- 3. Lukatskiy, A. "The Project 27016" [Proekt 27016], available at: http://lukatsky.blogspot.ru/2011/12/iso-27016. html
- 4. North, J. "Total Economic Impact of Microsoft SharePoint Server 2010 Implementation" [Sovokupnyy ekonomicheskiy effekt pri vnedrenii Microsoft SharePoint Server 2010], available at: http://www.navicongroup.ru/moss/library/7.pdf
- 5. Rayzberg, B., Lozovskiy, L., Starodubtseva, E. (2007), "Modern Dictionary of Economics" [Sovremennyy ekonomicheskiy slovar'], INFRA-M, Moscow, pp. 495

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### THE CORES PRINCIPLES ELECTRIC POWER INDUSTRY REFORMING

Realisation of the liberal concept of development of electric power industry has generated the difficult multilevel organizational-economic mechanism of functioning of the economic subsystems which result were control system changes at regional level. Absence of the effective mechanism and criteria of efficiency of the organisation of the electropower market have generated new problems of management of power consumption in regions. This from the reasons is insufficiency of research of occurring system changes and their theoretical substantiation. The author suggests to consider principles of management of electric power industry on a basis application of a method

of stratification. The received results of research have allowed to structure intersystem problems and to define directions on perfection of methodology of management by power consumption at regional level.

Key words: a principle, power efficiency, a power resource, useful energy, power consumption system.

# References

- 1. The analysis of the results of power sector reform, and suggestions for greater efficiency: analytical report / Institute of problems of natural monopolies.
- [Analiz rezultatov reformi elektroenergetiki i predlojenii po rostu ee effektivnosti \_ analiticheskii doklad /Institut problem estestvennih monopolii], available at: http://ipem.ru/research/power/power\_works/79.html
- 2. Belyaev L. (2006) Disadvantages realizable concept of reforming of electric power industry of Russia and the necessity of its correction [Nedostatki realizuemoi koncepcii reformirovaniya elektroenergetiki Rossii i neobhodimost ee korrektirovaniya], Institute for energy systems. L. A. Melentyev SB RAS, Irkutsk, pp. 48
- 3. Valitov,S., Myznikova M. (2013), System analysis indicators long-term target program of energy saving and increase of energy efficiency in the Republic of Tatarstan [Sistemnii analiz indikatorov dolgosrochnoi celevoi programmi energosberejeniya i povisheniya energeticheskoi effektivnosti v Respublike Tatarstan], *Intelligence*. *Innovation*. *Investments*, No. 4
- 4. Volkova E. (2012) System and problems of management of development of power industry of Russia [Sistema i problemi upravleniya razvitiem elektroenergetiki Rossii], *Problems of forecasting*, No. 4
- 5. Gitelman L. (2006), Energy business [Energeticheskii biznes], Publishing house «DELO», Moscow, p. 600
- 6. Dorofeev V. (2000), Market of electric energy and power in Russia: what it should be [Rinok elektricheskoi energii i moschnosti v Rossii\_ kakim emu bit], Energoatomizdat, Moscow-pp. 364
- 7. Katrenko, V. (2002) Century With. Macroeconomic regulation of market transformation in electric power industry Russia [Makroekonomicheskoe regulirovanie rinochnoi transformacii v elektroenergetike Rossii], Publishing house Volgograd state universiteta, Volgograd, pp.192
- 8. Kovalev G. On the directions of innovative development of power industry of Russia (SB RAS) [O napravleniyah innovacionnogo razvitiya elektroenergetiki Rossii (SO RAN)], available at: http://svom.info/entry/166-innovacionnoe-razvitie
- 9. Koksharov V. (2010) Disparities of formation of the fuel and energy balance of the facility energy management in the region [Disproporcii formirovaniya toplivno\_energeticheskogo balansa kak obekta upravleniya energopotrebleniem v regione], *Bulletin of the Chelvabinsk state University*, s. *Economy*, Vol. 28, №26(207).
- 10. Koptsev A. (2012) The Main factors influencing the efficiency of electricity production in the Russian Federation [Osnovnie faktori\_ formiruyuschie effektivnost proizvodstva elektroenergii v rossiiskoi Federacii], *Bulletion of the OSU*, No 8(144)
- 11. Melent'ev L. (1995) *Systems research Methodology in the energy sector [Metodologiya sistemnih issledovanii v energetike]*, Publishing house Nauka, Moscow, p. 296
- 12. Mishin V. (2010) *The Study of control systems [Issledovanie sistem upravleniya]*, Publishing house «HSE», Moscow, p. 527
- 13. Nowak A. the Results of the fuel and energy complex of Russia in 2013. Objectives for the medium term [The Results of the fuel and energy complex of Russia in 2013. Objectives for the medium term]. available at: http://iv-g.livejournal.com/998978.html
- 14. Rappoport A. (2005) Restructuring the Russian electricity sector: methodology, practice, investing [Restrukturizaciya rossiiskoi elektroenergetiki\_ metodologiya, praktika, investirovanie], Publishing house «Economy», Moscow, pp. 212
- 15. Sheindlin, A. (2006) Problems of new power engineering" [Problemi novoi energetiki] , Publishing house Nauka, Moscow, p. 406

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### TRENDS OF MORTGAGE LENDING IN RUSSIA

The article deals with the modern socio-economic situation in the area of mortgage lending (ML). The relevance problem addressed, due to the complex current situation in the financial and credit and socio-economic spheres of the Russian economy while preserving the needs of the population in obtaining mortgage loans.

It is presented the results of a study whose aim is the quantitative and qualitative analysis of the development of mortgage lending in the Russian Federation. The author examines the aspect of associated with mortgage lending in Russia. The article shows the main ways to solve it, and also highlights the prospects for the development of

mortgage lending in Russia.

The article stresses the improving trend in mortgage lending in Russia

Key words: mortgage lending, interest rate, problems and trends.

# References

- 1. Mortgage Agency [electronic resource]: «Reports of the Agency for Housing Mortgage Lending: the mortgage market» [Otchety Agentstva ipotechnogo zhilishhnogo kreditovanija: rynok ipoteki], The official website of the Agency for Housing Mortgage Lending Access: http://www.ahml.ru
- 2. Alekseev V.A. (2013) «Real estate: the state registration and the problems of legal regulation» [Nedvizhimoe imushhestvo: gosudarstvennaja registracija i problemy pravovogo regulirovanija], [Electronic resource], Ed. on CD-ROM, Moscow, Garant
- 3. Analytical center of mortgage lending and securitization «Rusipoteka» [Electronic resource], «Mortgage lending and securitization in Russia» [Ipotechnoe kreditovanie i sek'juritizacija v Rossii], Official site of the Analytical Center of mortgage lending and securitization «Rusipoteka», 2014, Access: https://www.rusipoteka.ru.
- 4. Grudtsyna L.Y, Kozlov M.N. (2012) «Mortgage lending questions and answers» [Ipotechnoe kreditovanie v voprosah i otvetah], Moscow, Eksmo, 288 p.
- 5. Eat V.V. (2009) «Legal problems of the organization of the mortgage market in Russia» [Pravovye problemy organizacii rynka ipotechnogo kreditovanija v Rossii], Moscow, Statute, 2009, 256p.
- 6. Kazakov A.V. (2011) «Problems of development of mortgage lending system at the present stage» [Problemy razvitija sistemy ipotechnogo kreditovanija na sovremennom jetape], No 10.
- 7. Loginov M.P., Loginova M.P. (2014) «Russian mortgage complex development strategy» [Rossijskij ipotechnyj kompleks strategija razvitija], Money and the credit, No 3, pp. 44-48.

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## METHODOLOGICAL BASIS FOR HIGHER SCHOOL ADAPTIVE DEVELOPMENT

Methodological background specifies theoretical and methodological substantiation for the higher school adaptive system with regard to the organization controlling subsystem. The higher school is considered to be a complex adaptive system, which is an integral social and economic system in itself and a subsystem of a higher order system.

The prerequisites (e.g. the system of management should be regarded in the complex of structural and process approaches) for the development of the methodological background are identified. The higher school adaptive development system is a project that can be carried out on the basis of the project-oriented approach and principles of the project management. Circularity is the intrinsic property of the higher school that enables to identify the regularities and cycles in the development of higher school educational institutions. With the help of adaptive development system the structure-forming elements, their relationships, transformation processes as well as the system interaction with the external environment can be described. The higher school is also an information system. The subsystem of control is connected with the information movement and can be considered as the response to the information flows.

The article suggests the characteristics of adaptive development. The target function of the system is determined. The target of the system is the self-protection and the long-term development of the organization that provides its dynamic stability irrespective of the environment.

The article identifies the principles that form the methodological background for the higher school adaptive development: consistency, dynamic stability, development, target orientation, adaptation, economic substantiation, project management.

The methodological background insight enables to make the conclusion system designing as a complex system. The article describes the logistic scheme and model for higher school adaptive development.

The article is based on the research findings within the government task (project №2899) supported by the Ministry of Education and Science of the Russian Federation.

**Key words:** adaptive development, higher school, complex adaptive system, social and economic system, methodological background, adaptive development system model.

# References

1. Afanasev B.G. (1980) Systemacy and society, Moscow, Science, 368 p.

- 2. Gaponenko N.V. (2013) Forsayth. Theory. Methodology. Experience, Moscow, 18 -21 pp.
- 3. Morgan G. (2006) Images of organization: eight model of development, Moscow, 2006, 342 p.
- 4. Revkova E.G. (2014) Adaptive development of organization is open and dynamic system, Intellect. Innovation. Investment, No 4, 65-71 pp.
- 5. Revkova E.G. (2015) Project-oriented approach of higher school is base of socioeconomic conditions adaptation, Collected articles «December scientific reading», Orenburg, 72-77 pp.
- 6. Revkova E.G. (2014) Methodologicals bases of adaptive development of higher school, Orenburg, 229 p.
- 7. Revkova E. (2014) Adaptive organization development as a complex dynamic system: notion, forms, factors, principles, Materials of the VI international research and practice conference Science, technology and higher education, Westwood, Canada, 144-147 pp.
- 8. Revkova E.G., Sokolova Yu.A. (2015) Adaptive Development of Higher Education Based on the Project-Oriented Approach// Mediterranean Journal of Social Sciences in the Vol 6, No 4, 230-237 pp.

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# EVALUATION OF REGIONAL PROBLEMS OF THE TARIFF SYSTEM IN THERMAL POWER INDUSTRY OF TATARSTAN

The thermal power industry of the Republic of Tatarstan is one of the key economic complexes of the region. At the same time, thermal power industry has a certain social influence, is an important element of infrastructural support for residents of Tatarstan and is under control of the government regulatory organizations main of which is the State Committee of the Republic of Tatarstan on Tariffs. However, despite the high economic and social importance of this sector, the statistics of its development, as well as financial and economic state of key enterprises of thermal power industry indicates the presence of certain problems relates with its functioning.

Were analyzed the dynamic of thermal power industry of Tatarstan in period 2000-2014. Were realized the comparative analysis of the dynamic of thermal power industry in Russian Federation and in Tatarstan in period 2000-2014. Were analyzed the key problems of the tariff system and the structure of tariffs in thermal power industry in Tatarstan.

As a possible solution to existing industry problems, were proposed the implementation (in regional level), the mechanism of formation of tariffs for thermal energy based on RAB-regulation.

**Key words:** thermal power industry, electric power industry, tariff system in thermal power industry, RAB-regulation.

- 1. Federal Law of 27 July 2010 N 190-FZ «On Heat Supply», Reference legal system «Garant».
- 2. Long-term target program «Energy conservation and energy efficiency in the Republic of Tatarstan for 2011 2015 and up to 2020» [Electronic resource], Resolution of the Cabinet of Ministers of the Republic of Tatarstan 29.07.2010, N 604 // Legal reference system «Garant».
- 3. Vlasov M.P., Shimko P.D. (2013) Modeling of economic systems and processes, Moscow, INFRA-M.
- 4. Valitov Sh.M. (2013) Cross-subsidies in the energy sector of the Republic of Tatarstan, *Intellect. Innovation*. *Investment*, No 1, p. 18-21.
- 5. Valitov Sh.M., Sotov D.I. (2013) Evaluation of the financial and economic consequences of reform of thermal power industry in the Republic of Tatarstan, *Intellect. Innovation. Investment*, No 1, pp. 52-59.
- 6. Valitov Sh.M., Sotov D.I. (2012) Reforming the structure of the thermal power industry in the Republic of Tatarstan in the abolition of cross-subsidization, *Kazan Economic Bulletin*, No 2, pp. 10-15.
- 7. The State Committee of Tariffs of the Republic of Tatarstan [Electronic resource] Mode of access: http://kt.tatarstan.ru.
- 8. Federal State Statistics Service [Electronic resource] Mode of access: http://www.gks.ru/
- 9. Internet Portal Community Energy [Electronic resource] Mode of access: http://energyland.info/
- 10. Information system for heat supply [Electronic resource] Mode of access: http://www.rosteplo.ru/.
- 11. Official site of JSC «Generation company» [Electronic resource] Mode of access: http://www.tatgencom.ru/.
- 12. Official site of JSC «Kazan Thermal Grid Company» [Electronic resource] Mode of access: http://www.ktk.tatenergo.ru/
- 13. Official site of JSC «Naberezhnye Chelny Thermal Grid Company» [Electronic resource] Mode of access: http://www.nchtk.tatenergo.ru/

- 14. Official site of JSC «TGC-16» [Electronic resource] Mode of access: http://www.tgc16.ru
- 15. Official site of JSC «Nizhnekamsk CHP» [Electronic resource] Mode of access: http://nktec.tatneft.ru/

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# PRIORITIES OF THE STATE SUPPORT OF HORTICULTURE INDUSTRY IN THE IMPORT SUBSTITUTION

The purpose of scientific work is studying the current condition of the state support of horticulture industry and proposals development for the creation of a logistics centers under the state program. Tasks of scientific research: to analyze the dynamics of the significant indicators of development of horticulture industry in the Russian Federation, to study the basic provisions of the current state of the program, and to summarize the results of the state program is already implemented in support of the horticulture industry, propose the creation of logistical infrastructure to achieve the planned target indicators of the state program. The author used such methods of research as: statistical-economic, monographic, abstract-logic, calculated-constructive. At the present stage of development a significant impact on the growth of agro-industrial complex of the country has a current level of state support, which is especially important for the sectors of agriculture, whose products in large volumes are importing from foreign countries. The current condition of development of the horticulture industry in the Russian regions was analyzed. Target indicators and volume funding of state support for the horticultural industry was outlined. Creation of logistics infrastructure to solve the problem of the safety of products and their optimal distribution was proposeal.

Key words: import substitution, state support, horticulture, formation, logistics centers.

- 1. Asaul A., Voinarenko M., Erofeev P. (2004) "The organisation of entrepreneurial activity" [Organizatsiia predprinimatelskoi deiatelnosti], Gumanistika, St. Petersburg, pp. 448
- 2. Goncharov P.P., Edakov A.E. (2012) "Development logistics at the enterprises of agroindustrial complex" [Razvitie logistiki na predpriyatiyah APK], Proceedings of the Orenburg State Agrarian University, No1, pp.195-198
- 3. Goncharov P.P., Kryigina A.P., Nietova, I.R. (2012) "Logistical approach in solving the problems of sales of agricultural products" [Logisticheskiy podhod v reshenii problem sbyita selhozproduktsii], *Proceedings of the Orenburg State Agrarian University*, No 1, pp.163-166
- 4. Kaygorodtsev A.A., Rahmangulov A.N. (2012) "System methods siting logistic distribution center" [Sistema metodov vyibora mesta razmescheniya logisticheskogo raspredelitelnogo tsentra], *Modern problems of the transport complex of Russia*, No 2, pp. 23-37
- 5. Kulikov I.M. (2011) "Domestic gardening: resource potential, government support, development forecasts" [Otechestvennoe sadovodstvo: resursnyiy potentsial, gospodderzhka, prognozyi razvitiya], *Agrarian and industrial complex: Economy, management*, No 5, pp. 10-23
- 6. Porter M. (2005) "The Competition" [Konkurentsiia], the Publishing house «Williams», Moscow, pp. 608
- 7. Rahmangulov A.N., Kopyilova O.A. (2014) "Assessment of the socio-economic potential of the region for the facilities and logistics infrastructure" [Otsenka sotsialno-ekonomicheskogo potentsiala regiona dlya razmescheniya ob'ektov logisticheskoy infrastrukturyi], *The region's economy*, No 2, pp. 254-263
- 8. Saati T. (1993) "Decision making. Method of analysis of hierarchies" [Prinyatie resheniy. Metod analiza ierarhiy], Radio and Communications, Moscow, pp. 278
- 9. Say V.M., Sizyiy S.V., Fomin V.K. (2010) "Integral assessment of enterprises" [Integralnaya otsenka predpriyatiy], *Economy railways*, No 1, pp. 16-27
- 10. Sizyiy S.V., Fomin V.K. (2009) "Methods of calculating indicators of economic attractiveness of the company using the linear forms" [Metodika vyichisleniya pokazateley ekonomicheskoy privlekatelnosti predpriyatiya s ispolzovaniem lineynyih form], *Bulletin USURT*, No 4, pp. 33-41
- 11. Suchkova N.R. (2015) "The impact of integration processes on improving the economic efficiency of the horticulture industry" [Vliyanie integratsionnyih protsessov na povyishenie ekonomicheskoy effektivnosti funktsionirovaniya otrasli sadovodstva], *Agricultural Science in the XXI Century: Problems and Prospects*, Saratov, pp 406-409
- 12. Suchkova N.R. (2014) "Fruit and berry production Saratov Region: state and development trends" [Plodovo-yagodnoe proizvodstvo Saratovskoy oblasti: sostoyanie i tendentsii razvitiya], Socio-economic priorities of

ensuring food security in the context of Russia's membership in the World Trade Organization, Saratov, pp. 100–103 13. Tutarisheva F.S., Ushho A.U. (2009) "Methods of improving the management of the development of the logistics system and regional agriculture" [Metodyi sovershenstvovaniya upravleniya razvitiem logisticheskoy sistemyi regionalnogo APK], Bulletin of the Maikop State Technological University, No 2, pp. 61-64

- 14. Chernyaev A.A., Belokopyitova L.E. (2014) "Increased yield of agricultural organizations a necessary condition of their functioning in conditions of the World Trade Organization" [Povyishenie dohodnosti selskohozyaystvennyih organizatsiy neobhodimoe uslovie ih funktsionirovaniya v usloviyah Vsemirnoy Torgovoy Organizatsii], *Scientific Review: Theory and Practice*, No 1, pp. 6-15
- 15. Chernyaev, A.A., Serdobintsev, D.V. (2015) "Development of the mechanism of integration processes in the agricultural sector Volga region" [Razvitie mehanizma integratsionnyih protsessov v agropromyishlennom komplekse regionov Povolzhya], *Economics of agricultural and processing enterprises*, No 5, pp. 45-49

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# ON THE ISSUE OF COMPREHENSION OF THE NATURE OF BUSINESS-CYCLE

Topicality of a given paper is conditioned by fact that the interest in the nature of business cycle always was and probably will be and in the future the object of disputes between theorists of economic schools and modern scientists.

The paper dwells on the topical issues associated with studying the nature of the business cycles. Views of different schools concerning the business cycles and crises are shown in a new way. During the research, mainly there have been used the grouping, analysis and comparison methods. In the analysis, authors used both fundamental, and the latest literature and electronic resources. In the first part of this paper, authors discuss the essence and value of the business cycles, explain the reasons for which there may exist various theories for an explanation of fluctuations of business activity. The basic part of this paper dwells on the views of classics, Keynesians, neo-Keynesians and monetarists. Often, on deepening of crises the «positive» impact is made by a political business-cycle, which is based on personal interests and is beyond economic regularities.

As a result, authors show us that crisis is the special state, which requires urgent intervention. Such intervention has to lean on centuries-old experience, national interests, and specifics of a particular country, historical realities and the correct economic calculations. All this has to become a precondition of the country's social and economic development.

Key words: economic cycle, crisis, fluctuations, instability, regulation.

- 1. Zikunova I.V. (2009) Genesis and development of the business-cycle theories in the economics [Electronic resource], *Messenger of the A.S. Pushkin Leningrad State University*, Vol.6, No 3 URL: http://elibrary.ru/download/90892007.pdf
- 2. Lukin S. (2009) The Old Testament and New Testament views of the crisis phenomena in the economy[Electronic resource], *Problems of modern ecomnomics*, No 4, URL: http://www.m-economy.ru/art.php?nArtId=2932
- 3. McConnel C., Brue S. (2000) "Economics", First part, -M, «Infra-M», -2000. -262 p.
- 4. Chikhladze N. (2013) Economic parallels of Orthodoxy, Kutaisi, 2013, 67 p.
- 5. Cochran John P. The End of QE IsNot the End of Bad Policy 6.11.2014[Электронный ресурс] URL: https://mises.org/library/end-qe-not-end-bad-policy
- 6. Caruana Jaime General Manager at the Bank for International Settlements (BIS) 19 / 2011 URL: http://www.ibtimes.com/bis-warns-signs-trouble-global-economy-urges-government-action-1614776
- 7. Gordon, pp. 164, for the quantity theory of money. 2002 year. URL: http://www.nber.org/papers/w9084
- 8. Llewellyn H. RockwellJr. How Government Inaction Endend The depression of 1921 –at URL: https://mises.org/library/how-government-inaction-ended-depression-1921
- 9. Madhani P. M. (2010) «Rebalancing Fixed and Variable Pay in a Sales Organization: A Business Cycle Perspective». Compensation & Benefits Review, p. 179–189.
- 10. Newman Jonathan Inflation, Central Bankand Business Cycles. April 18,2015 URL: https://mises.org/library/inflation-central-banks-and-business-cycles

- 11. Stockman David Economic Stagnation and Global Bubble 1.07.2015 at URL: https://mises.org/library/economic-stagnation-and-global-bubble-0
- 12. Shostack Frank How Easy Money Drives the stock market / april 9, 2015. URL: https://mises.org/library/how-easy-money-drives-stock-market
- 13. Von Mises Ludwig URL: http://wiki.mises.org/wiki/Austrian Business Cycle Theory
- 14. WORLDBANK URL: http://data.worldbank.org/indicator/GC.DOD.TOTL.GD.ZS

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### THE ROLE OF EDUCATION AND SCIENCE IN THE MODERN WORLD

In the modern world increases the value of education and science in the creation of a competitive economy and the formation of moral, intellectual development of the individual. Scientific and educational potential is a national treasure, which creates the future.

The article deals with the theoretical approaches of prominent economists who determine the value of knowledge. Special attention is paid to the properties of knowledge, characteristics of the innovative economy.

In inference the author comes to the conclusion that education and science are the backbone factors of the development strategy of the state, the basis of national security, which determine the competitiveness of the national economy. The ability to generate and transform knowledge becomes the main determinant of economic growth, because in the progressive development of the country's dominant role is given to scientific and technical progress and intellectualization of the main factors of production.

**Key words:** education, science, intelligence, knowledge economy, innovation, social and economic modernization.

## References

- 1. Gaponenko A., Orlova T. (2008) *Knowledge Management. How to turn knowledge into capital*, Moscow, Eksmo. [Electronic resource], Access mode: http://thelib.ru/books/a\_l\_gaponenko/upravlenie\_znaniyami\_ kak\_prevratit\_znaniya\_v\_kapital-read-3.html.
- 2. Galbraith D. (1979) Economic theory and the goals of society, Moscow, Progress, 406 p.
- 3. Sakaya T. (1999) The value created by knowledge, or the History of the future, *New industrial wave in the West: an anthology*, Moscow, Academia, 640 p.
- 4. The decree of the President of the Russian Federation of 13 June 1996 No. 884 (as amended on 23 February 2006) «The doctrine of development of Russian science», Collected legislation of the Russian Federation. 1996, No 25, PT. 3005.
- 5. Economics and social administration: a Textbook for bachelors (2015), edited by doctor of economics, professor E. N. Zhiltsov, doctor of economics, professor E. V. Egorov, Moscow, Publishing and trading Corporation «Dashkov and Co», 496 p.

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# USING OF SOFTWARE DEFINED NETWORKS FOR BROADBAND MULTIMEDIA TRAFFIC MULTICASTING AT IPTV SYSTEMS

This paper describes the problem of broadband multimedia traffic management and routing, the problem of broadcast quality reducing. Paper proposes the scheme of IPTV network infrastructure based on software defined networks (SDN). Optimization Steiner problem for oriented graph of network structure formalizes the creation of optimal broadcast trees. Broadcast trees are mapped on the network infrastructure by setting OpenFlow rules to the flow tables of switches and routers. In this case, IGMP and PIM protocols are replaced with our own solution, which intercepts IGMP-requests only from user equipment. For broadcast quality control, we propose to selectively mark entering packets with unique tags, using OpenFlow technology, to monitor the quality of corresponding video stream and to make correction to it, if necessary. In the future, we plan to study our developed solutions using the simulator of SDN infrastructure for broadband multicast multimedia traffic and using the real experimental testbeds.

**Key words:** software defined networks, OpenFlow, IPTV, multicast routing of broadband video streams, quality analysis of video streams.

## References

- 1. Medard M., Finn S.G., Barry R.A. (1999) Redundant trees for preplanned recovery in arbitrary vertex-redundant or edgeredundant graphs, IEEE/ACM Trans, Netw, vol. 7, pp. 641–652.
- 2. Xue G., Chen K. (2003) Quality-of-service and quality-of-protection issues in preplanned recovery schemes using redundant trees, *Selected Areas in Communications, IEEE Journal on*, 2003, vol. 21, No. 8, pp. 1332 1345.
- 3. Yasukawa S. (2006) Signaling Requirements for Point-to-Multipoint Traffic-Engineered MPLS Label Switched Paths (LSPs), RFC 4461 (Informational), Internet Engineering Task Force.
- 4. Li G., Wang D., Doverspike R. (2006) Efficient distributed mpls p2mp fast reroute, *25th IEEE International Conference on Computer Communications*, pp. 1–11.
- 5. Mochizuki K., Shimizu M., Yasukawa S. (2006) Cam05-3: Multicast tree algorithm minimizing the number of fast reroute protection links for p2mp-te networks, *Global Telecommunications Conference*, pp. 1 –5.
- 6. Kotani D., Suzuki K., Shimonishi H. A design and implementation of OpenFlow Controller handling IP multicast with Fast Tree Switching, Proceedings of 2012 IEEE/IPSJ 12th International Symposium on Applications and the Internet, pp. 60-67, DOI 10.1109/SAINT.2012.17, index Scopus, available at: http://ieeexplore.ieee.org/xpls/abs all.jsp?arnumber=6305261.
- 7. Kim E., Liu J., Rhee B., Cho S., Kim H., Han S. (2009) Design and Implementation for Reducing Zapping Time Of IPTV Over Overlay Network, *International Conference On Mobile Technology, Application and Systems*, New York, pp. 1-7.
- 8. Keshav S., Paul S. (1999) Centralized multicast, *Proceedings of the Seventh Annual International Conference on Network Protocols*, Washington, DC, USA: IEEE Computer Society, p. 59.
- 9. Ratnasamy S., Ermolinskiy A., Shenker S. (2006) Revisiting ip multicast, *SIGCOMM Comput. Commun. Rev*, vol. 36, pp. 15–26.
- 10. Martinez-Yelmo I., Larrabeiti D., Soto I., Pacyna P. (2007) Multicast traffic aggregation in mpls-based vpn networks, *Communications Magazine*, IEEE, vol. 45, No. 10, pp. 78 –85
- 11. Konnov A.L., Legashev L.V., Polezhaev P.N., Shukhman A.E. (2014) Concept of Cloud Educational Resource Datacenters for Remote Access to Software, Proceedings of 11th International Conference on Remote Engineering and Virtual Instrumentation (REV), *Polytechnic of Porto (ISEP) in Porto, Portugal from 26-28 February 2014*, pp-246-247.
- 12. Polezhaev P., Shukhman A., Ushakov Yu. *Network Resource Control System for HPC based on SDN*, Proceedings of 14th International Conference, NEW2AN 2014 and 7th Conference ruSMART 2014, St. Petersburg, Russia. Lecture Notes in Computer Science, vol. 8638, pp. 219-230.
- 13. Polezhaev P., Shukhman A., Konnov A. (2014) Development of educational resource datacenters based on software defined networks, *Proceedings of 2014 International Science and Technology Conference "Modern Networking Technologies (MoNeTec)"*, Moscow, Russia, pp. 133-139.
- 14. Polezhaev P.N., Ushakov Yu.A., Polyak R.I., Mironov A.P. (2014) Ant colony optimization and its application to the development of the efficient algorithms for routing and providing QOS in enterprise software defined networks, *Intellekt. Innovacii. Investicii*, No. 4, pp. 106-113.

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## ANALYTICAL APPROACH TO RATIONING OF CONSUMPTION OF AUTOMOBILE FUELS

Currently there are a few methods for determining fuel consumption of vehicles, including experimental, statistical, and analytical. Experimental and statistical methods involve lengthy, costly experiments, collection and analysis of statistical data. In the available empirical coefficients, or approximating dependencies in the regulation and correction of fuel consumption. Analytical methods allow the determination of fuel consumption in conditions of limited time, funding experiments, baseline data on the route and so on, so they are preferable in terms of modern Transport Organizations. The paper presents a probabilistic analytical method for determination of automotive fuel consumption. Case studies confirm the viability of this technique, therefore, these materials may be useful for professionals engaged in the operation of road transport, teachers and students of the corresponding profile.

**Key words:** technical operation of cars, commercial operation of cars, the fuel consumption of cars, rationing of fuel.

- 1. Borisov G.V. (2012) Scientific bases of processes of change in the technical condition of vehicles: monograth [Nauchnye osnovy processov izmenenija technicheskogo sostojanija avtomobilej: monographija], N.Novgorod, 270 p.
- 2. Kuzmin N.A. (2011) Technical operation of cars: patterns of change in health: a training manual [Technicheskaja ekspluatacia avtomobile]: zakonomernosti izmenenija rabotosposobnosti: uchebnoe posobie], 208 p.
- 3. Kuzmin N.A. (2011) *Technical operation of cars: regulation and management: a training manual [Technicheskaja ekspluatacia avtomobilej: normorivanie I upravlenie: uchebnoe posobie]*, Moscow, Forum, 224 p.
- 4. Kuzmin N.A., Peskov V.I. (2013) *The theory of operational properties of the vehicle: a training manual [Teorija ekspluatacionnykh svojstv avtomobilja: uchebnoe posobie*], Moscow, Forum, 256 p.
- 5. Novikov O.A., Uvarov V.N. (1969) Probabilistic methods for solving problems of road transport [Verojatnostnye metody reshenija zadach avtomobil'nogo transporta], Moscow, Transport, 136 p.
- 6. Borisov G.V., Kozurman N.A. (2009) Improving the system of adjusting regulations TOC, *Future of technical sciences*. *N.Novgorod, NNSTU n.a. R.E. Alekseev*, pp. 162-164.
- 7. Borisov G.V., Kozurman N.A. (2010) Clarification of the fuel balance of the car [Utochnenie toplivnogo balansa avtomobilja], *Materials of 78 scientific and practical conference*. *N.Novgorod, NNSTU n.a. R.E. Alekseev*, pp. 138-140.
- 8. Borisov G.V., Kuzmin N.A. (2010) Analysis of existing methodological approach in Russia by rationing fuel cars [Analiz sushestvujushego metodicheskogo podhoda v Rossii po normirovaniju rashoda topliva avtomobiljami], *Materials of 78 scientific and practical conference. N.Novgorod, NNSTU n.a. R.E. Alekseev*, pp. 140-142.
- 9. Borisov G.V., Leliovskiy K.J. (2015) On the issue of rationing consumption of liquid fuels, *Autotransport company*, No.2, pp. 51-55.
- 10. Borisov G.V., Leliovskiy K.J., Pachurin G.V. (2015) On the issue of rationing consumption of liquid fuels, Fundamental research, No.3, pp. 28-35, available at: http://www.rae.ru /
- 11. Peskov V.I., Serdjuk V.I., Serdjuk A.E. (2009) Improving the performance of the car: monograph [Sovershenstvovanie ekspluatacionnykh kachestv avtomobilja: monographija], NNSTU n.a. R.E. Alekseev, N.Novgorod, 135 p.
- 12. Zimelev G.V. (1959) The theory of car [Teorija avtomobilja], Moscow, Machgiz, 312 p.
- 13. Kravets V.N. (2007) The theory of car: tutorial [Teorija avtomobilja: uchebnoe posobie], NNSTU n.a. R.E. Alekseev, N.Novgorod, 368 p.
- 14. Ivleva I. (1995) Arctic test autotrains [Arkticheskie ispytanija avtopoezdov], Automobile transport, No.10, pp. 41-43
- 15. Zakurdaev K. (1996) The voyager of kilometers under the star of fortune [Pokoritel kilometrov pod zvezdoj udachi], Automobile transport, No.1, pp. 28-30.

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# THE DETERMINATION OF ACCEPTABLE INTENSITY LEVEL OF MOVEMENT OF CITY BUSES IN ACCORDANCE WITH CARRYING CAPACITY OF A BUS STOP

The article presents the results of determination of intensity level of the city buses flow in accordance with carrying capacity of a bus stop. As a criterion for determination of intensity level of movement of city buses for the bus stops without the influence of controlled intersections the using of average waiting time is proposed. For bus stops that are in range of the traffic light control it is proposed to use the probability of entering of a given number of buses during the traffic lights cycle. There are some peculiarities of the definition of the intensity of urban passenger transport in the absence of maneuvers between buses at bus stops as well as in condition of maneuvers. The results show that the intensity of the motion should be reduced in comparison with the capacity of a bus stop in average by 30-40%.

Key words: bus stop, capacity, passenger city transport, queuing theory, simulation modeling.

- 1. Rassokha V.I. (2010) Increasing operational efficiency of road transport on the basis of developed scientific, technical, technological and managerial decisions [Povyshenie jeffektivnosti jekspluatacii avtomobil'nogo transporta na osnove razrabotannyh nauchno-tehnicheskih, tehnologicheskih i upravlencheskih reshenij]
- 2. Zedgenizov A.V. (2008) Improving the efficiency of traffic on the bus stops of urban passenger transport [Povyshenie jeffektivnosti dorozhnogo dvizhenija na ostanovochnyh punktah gorodskogo passazhirskogo transporta]: Dis .... Cand. tehn. Science, Irkutsk.
- 3. Dimova I.P. (2009) Improved performance of stops of urban passenger transport and vehicle traffic in the area of their influence [Povyshenie jeffektivnosti funkcionirovanija ostanovochnyh punktov gorodskogo passazhirskogo transporta i dvizhenija transportnyh sredstv v zone ih vlijanija]: Dis .... Cand. tehn. Science.
- 4. Highway Capacity Manual. TRB, Washington, DC (2000).
- 5. Maslova O.A., Lipenkov A.V. (2012) Approaches of simulation of buses' dwell times at the stops of the city transport [O podhodah k modelirovaniju vremeni prostoja avtobusov na ostanovochnyh punktah gorodskogo passazhirskogo transporta], *World transport and technological machinery*, No3, pp.84-93
- 6. Lipenkov A.V. (2014) Studying route transport downtime due to waiting for additional passengers at bus stops [Issledovanie prostoev marshrutnyh transportnyh sredstv v ozhidanii dopolnitel'nyh passazhirov na ostanovochnyh punktah], *Vestnik of Irkutsk State Technical University*, No 2 (85), pp. 160-166
- 7. Kuzmin N.A., Lipenkov A.V., Erofeeva L.N. (2015) The mathematical model of bus stopping point capacity in case of absence of buses overtaking maneuvers [Matematicheskaja model' propusknoj sposobnosti ostanovochnogo punkta v sluchae otsutstvija manevrov po obgonu avtobusami drug druga], *Bulletin of Orenburg university*, No 4 (179), pp. 87-94
- 8. Berezhnaya E.V., Berezhnoy V.I. (2006) Mathematical methods of modeling economic systems [Matematicheskie metody modelirovanija jekonomicheskih sistem], Moscow, Finance and Statistics, 432 p.
- 9. Lipenkov A.V. (2012) The results of complex research of bus stops of urban transport in Nizhny Novgorod [O rezul'tatah kompleksnogo issledovanija ostanovochnyh punktov gorodskogo passazhirskogo transporta v Nizhnem Novgorode], *World transport and technological machinery*, No4, pp. 93-102
- 10. Eliseev M.E. (2014) The determination of the capacity of urban passenger transport stopping point in irregular number of service places [Opredelenie propusknoj sposobnosti ostanovochnogo punkta gorodskogo passazhirskogo transporta pri nepostojannom chisle mest obsluzhivanija], *Proceedings of the Volgograd State Technical University*, No 3(130), pp. 79-81
- 11. Thomas L. (2010) Saaty Elements of queuing theory and its under-Proposition [Jelementy teorii massovogo obsluzhivanija i ejo prilozhenija], Moscow, 520 p.
- 12. Kleinrock L. (1979) Queuing theory [Teorija massovogo obsluzhivanija], Moscow.
- 13. Lipenkov A.V. (2013) Simulation model of a bus stop of city public transport [Imitacionnaja model' ostanovochnogo punkta gorodskogo passazhirskogo transporta], *Transactions of Nizhni Novgorod state technical university n. a. R.Y. Alexeev*, No 4, pp. 50-55
- 14. Zedgenizov A.V., Lagerev R.Yu. (2011) Effect of traffic light signalling regularity on the traffic capacity

of stops [Vlijanie rezhima raboty svetofornoj signalizacii na propusknuju sposobnost' ostanovochnyh punktov], *Proceedings of the universities. Investments. Building. real estate*, No 1(1), pp. 38-44

15. Gorev A.E. (2004) Freight transport by road [Gruzovye avtomobil'nye perevozki], Moscow, publishing center «Academy», 288 p.

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## THE MAIN LAW OF GEOPOLITICS IN THE PHILOSOPHICAL HERITAGE N.F. FEDOROVA

This article is devoted to the study of creativity N.F. Fedorov. This scientist, the founder of Russian cosmism, made a significant contribution to the study of the fundamental law of duality. The law is the basis of a fundamental dualism methodology of classical geopolitics. The author gives a comparative analysis of the works of N.F. Fedorov and American researcher A.T. Mahan. The author has shown the similarities and differences in the approaches of the two scientists to the continental and oceanic civilizations typology. The author is also the interpretation of the characteristics of tellurocracy and thalassocracy. The author has considered the idea of Fedorov about overcoming the contradictions between the continental and oceanic sociums through joint space exploration. The article concluded that this problem of fundamental geopolitical dualism has become an object of study in the United States and Russia at the same time.

Key words: fundamental dualism, geopolitics, Tellurocracy, Thalassocracy, the main law of geopolitics.

## References

- 1. Andrianova T.V. (2014) Глобальное мировоззрение, Moscow, Direct-media, 281 р.
- 2. Макиндер Х. Дж. (2003) Географическая ось истории, Классика геополитики, XX век, Moscow, 731 р.
- 3. Мэхэн А.Т. (2003) Влияние морской силы на историю / Классика геополитики, XIX век, Moscow, 718 р.
- 4. Fedorov N.F. (1982) Сочинения, Moscow, 711 p.

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## THE CONCEPT OF 'NOTHING' IN HEGEL'S DIALECTICAL LOGIC

The article is devoted to the role of the concept of «nothing» in the philosophy of Hegel. In the analysis of said concept the author draws attention to the fact that "nothing", along with the notion of «being», is placed at the starting point of Hegel's dialectical logic, and must be associated with other concepts such as «otherness», «formation», «difference», «denial» and «border». The article discusses what difficulties Hegel had to face so that the concept of «nothing» came into his philosophical system not as an opposition to «being» but as a necessary component of integrity and development. The author argues that the system set up by Hegel allows overcoming the problems that have arisen in philosophy after Kant. The author also points out that Hegel's philosophy leaves no inaccessible places for a reason; and that the concept of "nothing" is the key component to the construction of dialectical logic.

Key words: Hegel, «being», «nothing», «dialectical logic», «difference», «denial», «border», «thing in itself».

- 1. Bykova, M.N. (2000) "Hegel a philosopher of modernity?" [Gegel' filosof moderna?] Destinies of Hegelianism: Philosophy, Religion and Politics Bid Farewell to Modernity, Moscow, Respublika, pp. 84-102.
- 2. Hegel G.W.F. (1975) Encyclopedia of Philosophy. Vol.1 Science of Logic. [Jenciklopedija filosofskih nauk. T.1. Nauka logiki.], Moscow, «Mysl», p. 452.
- 3. Gretsky M.N. (2000) Is Marxism the Heir of the Hegelianism? [Javljaetsja li marksizm zakonnym naslednikom gegel'janstva?] Destinies of Hegelianism: Philosophy, Religion and Politics Bid Farewell to Modernity, Moscow, Respublika, pp. 220-237.
- 4. Ilyenkov, E.V. (2014) Science of Logic [Nauka logiki], Hegel's Philosophy: New Translations, Studies, Comments, Moscow, Publishing House of the SGU, pp. 447-502.
- 5. Kant I. (1999) The Critique of Pure Reason. [Kritika chistogo razuma.], Moscow, Nauka, p. 653.
- 6. Kozhev A. (2003) Introduction to the Reading of Hegel: Lectures on the Phenomenology of Spirit Read in 1933

through 1939 in the Graduate School. [Vvedenie v chtenie Gegelja: Lekcii po Fenomenologii duha, chitavshiesja s 1933po 1939g. v Vysshej shkole.], SPb, Mysl, 792 p.

- 7. Lasurdo D. (2000) Logic, Politics and Social Issues: «Right» and «Left» Wings of the Hegelian School. [Logika, politika i social'nyj vopros: «pravoe» i «levoe» krylo gegelevskoj shkoly], *Destinies of Hegelianism: Philosophy, Religion and Politics Bid Farewell to Modernity*, Moscow, Respublika, pp. 252-271.
- 8. Lobastov G.V. (2014) Concept of Logic and the Logic of Concept in the Philosophy of Hegel [Ponjatie logiki i logika ponjatija v filosofii Gegelja], *Hegel's Philosophy: New Translations, Studies, Comments*, Moscow, Publishing House of the SGU, pp. 103-157.
- 9. Maidansky A.D. (2014) Two Methods, Two Versions of Dialectics: «Phenomenology of Spirit» vs. «Science of Logic» [Dva metoda, dve versii dialektiki: «Fenomenologija duha» protiv «Nauki logiki»], *Hegel's Philosophy, New Translations, Studies, Comments*, Moscow, Publishing House of the SGU, pp. 224-240.
- 10. Murzin N.N. (2010) History and Nothingness. [Istorija i Nichto.], Moscow, IFRAN, p. 259.
- 11. Naumenko L.K. (2014) Hegel's Dialectics and Systemic Approach [Dialektika Gegelja i sistemnyj podhod] *Hegel's Philosophy, New Translations, Studies, Comments*, Moscow, Publishing House of the SGU, p.157-172.
- 12. Pëggeler G. (2000) Hegel and German Romanticism Today. [Gegel' i nemeckij romantizm segodnja], *Destinies of Hegelianism: Philosophy, Religion and Politics Bid Farewell to Modernity*, Moscow, Respublika, p. 322-334.
- 13. Sapronov P.A. (2011) Of the Being of Nothing. [O bytii nichto], SPb, Publishing House of the Russian Christian Humanitarian Academy, p. 368.
- 14. Safranski R. (2014) Schopenhauer and the Turbulent Years of Philosophy [Shopengaujer i burnye gody filosofii], Moscow, Rosebud Interact, p. 592.
- 15. Fulda, H.W. (2000) Could Hegel's Logic Lay Up a Claim to Be a Universal Scientific Method? [Pretenduet li gegelevskaja logika na to, chtoby byt' universal'nym nauchnym metodom?], *Destinies of Hegelianism: Philosophy, Religion and Politics Bid Farewell to Modernity*, Moscow, Respublika, p.14-30.
- 16. Cherezov A.E. (2014) Dialectics of «Concept» of Hegel in Light of the Iidea of Self-organization [Dialektika «ponjatija» Gegelja v svete idei samoorganizacii], *Hegel's Philosophy: New Translations, Studies, Comments*, Moscow, Publishing House of the SGU, pp. 429-446.
- 17. Yunkvan C. (2000) On the Question of the Dialectics of Denial. Modernization and Dialectics. [K voprosu o dialektike otricanija. Modernizacija i dialektika], *Destinies of Hegelianism: Philosophy, Religion and Politics Bid Farewell to Modernity*, Moscow, Respublika, p. 103-112.

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# UNDERSTANDING IN THE CONTEXT OF NON-CLASSICAL AND POST-NON-CLASSICAL TYPES OF SCIENTIFIC RATIONALITY

The article is devoted to the study of the phenomenon of understanding in the context of non-classical and post-non-classical types of scientific rationality. In his reflections on «the phenomenon of understanding the author relies on the concept of «scientific racionalnosti» developed by V.S. Stepin. Leaving aside the classical type of scientific racionalnosti, due to the fact that he had already applied to study the latest earlier, E.V. Degtyarev explores the phenomenon of understanding to the context of non-classical and post-non-classical types of scientific rationality. While the article substantiates the idea that, firstly, each of these two types of scientific rationality relies on the appropriate philosophical base and has a feedback effect on its formation, and secondly that the relevant philosophical «installing» a scientist builds his understanding of what and how to do science, how is a scientific theory, what is science and what is not.

**Key words:** understanding, rationality, non-classical rationality, post-non-classical rationality.

- 1. Waitin N.(2014) The phenomenon of understanding in the context of the subject of psychology: philosophical analysis [Fenomen ponimaniya v kontekste predmeta psihologii: filosofskiy analiz], Magnitogorsk
- 2. Degtyarev E. (2009) Unity of the technosphere: the ontological and epistemological aspects [Edinstvo tehnosferyi: ontologicheskiy i gnoseologicheskiy aspektyi], Magnitogorsk
- 3. Degtyarev E. (2014) Ontology expansion[ Ontologiya ekspansii], Magnitogorsk
- 4. Degtyarev E. (2013) *Philosophical aspects of social expansion [ Filosofskie aspektyi sotsialnoy ekspansii]*, Magnitogorsk

5. Karpova E. (2009) To the question of the perception of space [K voprosu o vospriyatii prostranstva], *Bulletin of the Chelyabinsk state University*, No 29.

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## RATIONALITY AND IRRATIONALITY IN THE SCIENTIFIC CULTURE

The historical dynamics of the formation of the European society of modernity XVIII-XIX centuries includes not only the rationalism of the Enlightenment, but manifestations of the irrational «counter-Enlightenment», which became a specific response to the new totalitarianism, secularized ideas and beliefs. Cultural boundary between the rational and the irrational lined up by the scientists themselves to strengthen their own social position, due to cultural and psychological factors.

Irrationality was just natural for modernity and rationality as historically traced back to the ideas of the Enlightenment. Their mutual balance determines the entire structure of modernity, and the preponderance of one of them causes the structure to a state of instability. The interaction of rational and irrational in the organization of a new system of knowledge is one of the most important factors in the formation of science. The concept of «irrational» is postulated on the basis of different attitude to knowledge inside and outside the culturally and historically specific scientific community. Therefore, the charge of «failure» logic and irrationality of social engagement are lawful only within a certain conventional context.

Key words: culture, science, rationality, irrationality, modern, Enlightenment.

### References

- 1. Avtonomova N.S. (1988) Rassudok Razum Racionalnost, Moscow, 287 p.
- 2. Vercman I. (1961) Zhan-Zhak Russo Myslitel I Khudozhnik, Russo Zh.-Zh. Izbr. Soch., V 3 T. M. T. 1.
- 3. Gajdenko P.P. (2006) Khristianstvo I Genezis Novoevropejskogo Estestvoznaniya, *Nauka I Religiya*. *Mezhdisciplinarnyj I Kross-Kulturnyj Podkhod*, Sb. Nauch. Tr. In-Ta Filosofii Ran, Moscow, 79-119 pp.
- 4. Dekart R. (2011) Rassuzhdenie O Metode, Chtoby Verno Napravlyat Svoj Razum I Otyskivat Istinu V Naukax, Moscow, 335 p.
- 5. Karpov A.O. (2010) Obshhestvo Znanij: Slaboe Zveno, Vestnik RAS, Moscow, T.80, No 7, 616-622 pp.
- 6. Lejbnic G. (1983) Perepiska S Klarkom. Soch. V 4-X T., Moscow, T.1., 430-528 pp.
- 7. Lektorskij V. (2010) Ob Istoricheskix Tipax Racionalnosti, Filosofiya V Dialoge Kultur, Moscow, 267–272 pp.
- 8. Nicshe F. (1994) Otnoshenie Shopengauerovskoj Filosofii K Vozmozhnoj Nemeckoj Kulture. Filosofiya V Tragicheskuyu Epokhu, Moscow.
- 9. Paskal B. (1997) O Geometricheskom Ume, Traktaty. Polemicheskie Sochineniya. Pisma, Kiev, 576 p.
- 10. Porus V. N. (2002) Racionalnost, Nauka, Kultura. Moscow, 352 p.
- 11. Stepin V.S. (2000) Teoreticheskoe Znanie: Struktura, Istoricheskaya Evolyuciya, Moscow, 774 p.
- 12. Khrapovickaya G.N., Korovin A.V. (2007) Istoriya Zarubezhnoj Literatury: Zapadnoevropejskij I Amerikanskij Romantizm, Moscow, 432 p.
- 13. Chernykh S.I., Parshikov V.I., Panarin V.I. (2014) Konkurentosposobnost Rossijskogo Obrazovaniya Na Mirovom Rynke Obrazovatelnyx Uslug, Professionalnoe Obrazovanie V Sovremennom Mire, No 3 (14), 22 31 pp.
- 14. Shopengauer A. (1993) Mir Kak Volya I Predstavlenie, Moscow.
- 15. Feber J., Petrucijová J. (2015), Upbringing In-Between Reason And Belief (Insight Of Philosophical Anthropology), *Zhurnal Sibirskogo Federalnogo Universiteta. Seriya «Gumanitarnye Nauki»*, T. 8, No 3, 377 386 pp.

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## HUMAN CAPITAL - A STRATEGIC OBJECT OF MANAGEMENT IN THE KNOWLEDGE AGE

The structural changes brought about by globalization and technological progress in recent years in terms of further actualized revenue increase the problem of human capital. The article, based on tracking the sequence of ideas about human capital in historical perspective and understanding of the author's concept of «human capital»,

proved the possibility and necessity of the development of human capital as a strategic facility management. The experience of developed countries shows that the possibility of a transition to sustainable economic growth in a post-industrial economy depends on the accumulation and use of human resources.

Key words: human capital, globalization, education, economic growth, investment.

## References

- 1. Bekker G. (2003) Human behavior: an economic approach. Selected papers on economic theory: [Chelovecheskoe povedenie: jekonomicheskij podhod. Izbrannye trudy po jekonomicheskoj teorii:], Moscow, 2003, 672 p.
- 2. Grinujej D. (2002) Haunes M. Evaluation Society benefits from the higher education system [Ocenka vygod obshhestva ot sistemy vysshego obrazovanija], *Ekonomika obrazovanija*, No 3, 64–68 pp.
- 3. Lukas R.Je. (2013) Lectures on economic growth. [Lekcii po jekonomicheskomu rostu], Moscow, 288 p.
- 4. Marshall A. (1993) *Principles of economics [Principy jekonomicheskoj nauki]*, Moscow, Izdatelstvo «Progress», 594 p.
- 5. Mill' Dzh. S. (1980) Principles of Political Economy [Osnovy politicheskoj jekonomii], T.1, Moscow, 139 p.
- 6. Petti V. (1940) Economic and statistical work [Jekonomicheskie i statisticheskie raboty], Moscow, 324 p.
- 7. Pilipenko E.V. (2013) What is the cost to educate Maxwell? [Skol'ko stoit vospitat' Maksvella?], *Nauchnyj zhurnal KubGAU*, No 88 (04).
- 8. Smit A. (1980) The Wealth of Nations [Issledovanie o prirode i prichinah bogatstva narodov], Moscow, 527p.
- 9. Soboleva I. (2009) Paradoxes of measuring human capital [Paradoksy izmerenija chelovecheskogo kapitala], *Voprosy ekonomiki*, No 9, 51-70 pp.
- 10. Blossfeld H.-P., Mills, M., Bernardi, F. (Eds.) (2006) *Globalization, uncertainty and men's careers. An international comparison*, Cheltenham/Northampton, MA: Edward Elgar.
- 11. Blossfeld H.-P. (2006) Globalisierung, wachsende Unsicherheit und die Veränderung der Chancen der jungen Generation in modernen Gesellschaften. Ausgewählte Ergebnisse des GLOBALIFE-Projekts. In: Arbeit Zeitschrift für Arbeitsforschung, Arbeitsgestaltung und Arbeitspolitik, H. 15, 151 166 pp.
- 12. Blossfeld H.-P., Hofmeister H. (Eds.) (2006) *Globalization, uncertainty and women's careers in international comparison*, Cheltenham/Northampton, MA: Edward Elgar.
- 13. Deutsche Bank Research. Aktuelle Themen. Globale Wachstumszentren, 14. Juni 2005, Nr. 324.
- 14. Romer P. (1989) Human Capital and Growth: Theory and Evidence, NBER Working Paper, No 3173.

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## NATIONAL SERVICE: IN SEARCH OF NEW VALUES OF MORDERN RUSSIA

The article focuses on the basic characteristics of the modern world development, having emerged as a result of the human activity, and their influence on the formation of the personality's system of values. The contemporary world depends not only on the level of the economic development, when the scientific know-hows and inventions play the most powerful role, but on the level of a personality's development, namely its system of values. The whole world is based on the world of inevitable and due that is VALUES. Consequently, the values start getting acquired one of the key features of the modern life. The Armed Forces of any country form a peculiar cast of the processes going on in the country, accordingly the moral values system of a soldier of the modern army of the Russian Federation is singled out. The special focus is given to the unveiling of the values essence; discovery of the peculiarities of the values formation and their development under the modernization conditions of the Russian society. The necessity of the formation and development of a military personality's values potential is rationalized.

Key words: spiritual world, system of values, moral, morality, moral values of a Russian soldier.

- 1. Bodriiyar Zh. (2006) Simvolicheskiy obmen i smert', Moscow, 399 p.
- 2. Prilukova E. G. (2011) Vlast' obrazov: znakovo-simvolicheskoe bytie vlasti, Chelyabinsk, 204 p.
- 3. Filosofiya: Entsiklopedicheskiy slovar', Moscow, 2004, 1072 p.
- 4. Aristotel' (1997), Nikomakhova ėtika, Moscow, 310 p.
- 5. Gadamer Kh.-G. (1988) Istina i metod. Osnovy filosofskoĭ germenevtiki, Moscow, 704 p.
- 6. Gegel' G. (1975) Entsiklopediya filosofskikh nauk, T. 1, Moscow, 452 p.
- 7. Leybnits G.V. (1982) Sochineniya, V 4 t. T.1, Moscow, 636 p.

- 8. Prilukova E. G. (2011) Prinuzhdenie, transliruemye obrazy i normy kak sotsial'no-psikhologicheskie fenomeny vlasti v sovremennykh sredstvakh massovoy informatsii, Vestnik IUUrGU. Seriya «Psikhologiya», No 42 (259), 91-94 pp.
- 9. Rubinshteyn S. L. (1989) Osnovy obshchey psikhologii, T. 2., Moscow, 486 p.
- 10. Panarin A.S. (2006) Narod bez ėlity, Moscow, 416 p.
- 11. Il'in I.A. (1915) Dukhovnyĭ smysl voĭny, Moscow, 68 p.

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## THE IDEA OF IMMORTALITY IN THE ETHICAL DIMENSION

The authors, basing on the gerontological content and philosophical concepts, consider the essence of the idea of immortality (of athanasia,) as an ethical problem. The relevance of this approach is due to the need of rethinking of the ethical values dictated by the active transferring of the idea discussed to the context of modern research in gerontology and juventology related to experiments on people' rejuvenation and prolongation of life. Methodological basis of research is isonomic method of Democritus on the study of the athanasia phenomenon from a philosophical point of view. The views on the nature of the athanasia ideas characteristic of I. V. Vishev, F. Nietzsche, J. D. Pantskhava, N. F. Fedorov and I. T. Frolov are analysed. The basic ethical content of the attitude of these authors concerning athanasia is identified. Basing on the ideas of I. Kant's classical rigorism, the authors consider inadmissible intraspecific aggression of the human community, irresponsibility and athanasia in the future.

**Key words**: astrocytic hypothesis, athanasia, immortality, immortalism, the principle of isonomy, transhumanism, phenoptosis, juvenation.

## References

- 1. Boiko A. G. (2010) Sketch of the phylogenetic history of Metazoa aging phenomenon (To the question of creating a general aging theory of Metazoa), *Successes of gerontology*, vol. 23, 21-29 pp.
- 2. Vishev I. V. On the way to practical immortality, Moscow; the same author: Vishev I. V. (2005) the Problem of life, of death and of human immortality in the history of Russian philosophical thought, Moscow.
- 3. Kelder P. (2002) the Eye of the Renaissance ancient secret of the Tibetan lamas, Kiev, 112 p.
- 4. Krestyankin I.(2001) «Reflections on the immortality of the soul», Moscow, 160 p.
- 5. Likhachev D. S. (1991) I remember, Moscow, 254 p.
- 6. Makovelskiy A. O. (1946) Ancient Greek atomists, the Publishing house of Azerbaijan SSR, Baku, 399 p.
- 7. Melnichenko A. Is it Possible to cross a human with a monkey?, News. [Electronic resource]. Access mode: http://mirnov.ru/arhiv/mn984/mn/28-1.php
- 8. Moudy R. (1992) *Life after death: a study of the phenomenon of survival after physical death*, 92 p.; Moudy R. A. (1996) *Further reflections on life after life*, Kiev, 224 p.
- 9. Nietzsche F. (2004) Thus spoke Zarathustra. A book for all and for no one [Original text with parallel translation], Moscow, 391 p.
- 10. Sato M. A. A. (2001) Bogdanov and the creation of the new man: through the eyes of the Bolsheviks, *A new world of the history of Russia. The forum of Japanese and Russian researchers*, Moscow, 592 p.
- 11. Fedorov N. F. (1995) Collection of works: In 4 vols., *Immortality as the privilege of superpersons*, Moscow, Volume II, 136-139 pp.
- 12. Frolov I. T. (1997) the Beginning of the way (Brief notes about neoeugenics), Man, No. 1, 133-139 pp.
- 13. Vishev I. V. (1982) Homo Sapiens to Become Homo Immortalis, *Rejuvenation: Official Journal of the International Association on the Artificial Prolongation of the Human Specific Lifespan. Belgium*, April. Vol. 10., No. 2, 25–29 pp.

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The article is devoted to the understanding of modernity, when it is totally dominated by images of mass communication and information. In these conditions, the current reality is replaced by the virtual. Images or simulacra are the basis of the world's picture and the human environment. They construct reality as colorful spectacle. However, there is always the «human dimension» of reality - a person is guided by also values and not only by their knowledge. All changes in society are reflected on a television screen. The multi-million TV audience is shown as cross-sectional samples and standards of thinking and behavior, while it is still providing the illusion of freedom of choice. The simulacra contains of public relations. The images of the television shut off the mind and make the audience obedient, influencing its emotional world. The evolution of images of Russian TV series shows through the prism of broadcasting their values. Today the necessary system of media education allows us to understand and overcome the simulation.

Key words: reality, activity, mass media, image, simulacrum, values, responsibility.

## References

- 1. Berger P. (1995) Sotsialnoe konstruirovanie realnosti. Traktat po sotsiologii znaniya, Medium, Moscow. p. 322.
- 2. Bodriyyar Zh. (2006) Simvolicheskiy obmen i smert, Dobrosvet, Izd-vo KDU, Moscow, p. 399.
- 3. Gadamer H.-G.(1988) Istina i metod. Osnovyi filosofskoy germenevtiki, Progress, Moscow, p. 704.
- 4. Kant I. (1064) Osnovnoy zakon chistogo prakticheskogo razuma [Sochineniya: v 6 t. T. 4. Ch. 1], Myisl, Moscow, pp. 347-348.
- 5. Maklyueen M. (2003) Ponimanie media: vneshnie rasshireniya cheloveka, Zhukovskiy, Moscow, p. 346.
- 6. Prilukova E.G. (2011) Vlast obrazov: znakovo-simvolicheskoe byitie vlasti, Chelyabinsk, p. 20.

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## ERICH FROMM AND UNIVERSAL HUMAN RIGHTS

The article has a research in the history of the formation of universal human rights and contribution to the development of Erich Fromm's «radical humanism.» The question of the reality of inalienable human rights and their implementation is asked. It is noted that practical implementation these ideas found in the «Universal Declaration of Human Rights», the first international instrument on human rights of universal character, for the first time in human history was set the scope of basic civil, political, social and cultural rights and freedom.

Without a doubt Erich Fromm was a brilliant representative of the universality of human rights. He spoke of a «radical humanism» and dreamed of a single, cohesive world as «messianic time.» Sprouts of universal humanism Fromm saw in religion. It is in a religion for the first time had been prescribed certain universal norms. Universal rules apply to everyone, everywhere, and should therefore be performed everywhere and by everyone, just as the legal requirements. It is stated that Erich Fromm sought to increase the internal openness to the world and laid the necessary foundation for this.

Key words: natural law, universal ethics, humanism, tolerance, racism, nationalism.

- 1. Hardeck J.(2015) Erich Fromms Vorstellungen von universalen Menschen und die ethische Dimension der Asylfrage", *Fromm Forum :Humanitat in Kriesenzeiten*, No 19, 33 p.
- 2. Schneider W. (2010) Der Mensch: Eine Karriere, Reinbek bei Hamburg, Rowohlt Verlag, 412 p.
- 3. The Bible.
- 4. Schnabel U. (2008) Die Vermessung des Glaubens, 3 Auflage, Munchen: Blessing Verlag, 270 p.
- 5. Friedman L.J. (2013) Erich Fromm die Biografie: Was man gibt, verliert man nicht, Bern: Huber, 118 p.
- 6. Interview mit Erich Fromm. Locarno, (1979), Erich Fromm Archiv.
- 7. Fromm E. (1993) Psychoanalysis and Ethics, Moscow, 45 p.
- 8. Fromm E. (1966) *Ihr werdet sein wie Gott. Eine radikale Interpretation des Alten Testaments und seiner Tradition*, Erich Fromm Gesamtausgabe, Band VI, 91 p.
- 9. Fromm E. (2013) You will be like God, Ast, 413 p.
- 10. Sloterdijk P. (2007) *Gottes Eifer: Vom Kampf der drei Monotheismen*, Frankfurt am M. und Leipzig: Verlag der Wetreligionen, 179 p.
- 11. Precht R.D. (2010) Die Kunst kein Egoist zu sein, Munchen: Goldmann, 238-241 pp.
- 12. Rifkin J. (2010) Die empatische Zivilisation: Wege zu einem globalen Bewusstsein, Frankfurt am Mein: Campus Verlag.

13. Fromm E. (1998) Psychoanalysis and religion; The Art of Loving, To have or to be?, Kiev, 384 p.

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## INVARIANCE OF THE PAST REALITY

The article is devoted to ontological justification of an invariance of the past reality. Opinions on variability of the past are critically analyzed. The logical mistakes leading to an identification of the past reality with historical knowledge are opened. The explication of the ontological assumptions which are the bases of opinions on variability of the past and its dependence on modern culture and modern requirements of society is carried out. The theoretical problems arising in the course of understanding of stability of the past reality are formulated. It is revealed that problems of awareness of stability of the past are generated by a contradiction between invariance and such properties of the past, as its constant increase, its procedural character, its continuity with dynamic reality of the personality. It is shown that past social reality constantly grows, gets new meanings and interpretation, but the facts, which already became the past, stay invariable because everything was as it was. Such ontological characteristics of the past social reality as invariance, stability, objectivity, one-alternativeness, are revealed. The conclusion is drawn on an internal invariance of the past.

**Key words:** past reality, time, being, ontology, philosophy of history.

- 1. Avgustin A. (2011) Confession, 400 p.
- 2. Ancersmit F.R. (2007) Exalted historical experience, Moscow, 608 p.
- 3. Ancersmit F.R. (2009) History and tropology: rise and downfall of metaphor, Moscow, 400 p.
- 4. Berdyaev N.A. (1990) Sense of history, Moscow, 174 p.
- 5. Voropaev D.N. (2014) «Man» problem and question about «nothing» from the ontological aspect, *Bulletin of Orenburg State University*, Orenburg, No 7, 4 8 pp.
- 6. Gartman N. (2003) About fundament of ontology, Saint-Petersburg, 640 p.
- 7. Herákleitos Ephesios: all heritage, translation into Russian (2012), Moscow, 416 p.
- 8. Ivin A.A. (2006) Axiology, Moscow, 390 p.
- 9. Klyuchevskiy V.O. (2007) Aphorisms and ideas about history, Moscow, 480 p.
- 10. Klyuchevskiy V.O. (2007) Riussian history. Complete course of lectures, Minsk, 592 p.
- 11. Callingwood R.J. (1980) Idea of history, Autobiography, Moscow.
- 12. Croche B. (2008) Anthology of philosophical writing, Saint-Petersburg, 477 p.
- 13. Lountal D. (2004) The past is strange lands, Saint-Petersburg, 623 p.
- 14. Magill A. (2007) Historical epistemology, Moscow, 480 p.
- 15. Popov N.A. (2013) Essence of time and relativity, Moscow, 320 p.
- 16. Sartr J.-P. (2012) Being and nothing. Experience of phenomenological ontology, Moscow, 925 p.
- 17. Tabachkov A.S. (2009) Metatheoretical representation historical past, Minsk, 242 p.
- 18. Tabachkov A.S. (2013) Object and discourse in historical cognition: ontological and gnosiological aspects, *Bulletin of North (Arctic) Federal University.* Series: humanists and socials sciences, No 3, 61 65 pp.
- 19. Hiubner K. (1994) Criticism of scientific intellect, Moscow, 326 p.
- 20. Tscherbakov D.A. (2015) Objective character of past reality, World of science, culture, education, Gorno-Altaysk, No 1 (50), 374 377 pp.
- 21. Tscherbakov E.K. (2015) Synthesis of folkloric and literary in the book of archimandrite Pavel Gruzdev «My people», *Bulletin of Orenburg seminary*, No 2 (4), 152 158 pp.