



# DEVELOPMENT OF PRODUCTIVE FORCES AND REGIONAL ECONOMY

## THE DEVELOPMENT OF THE METHODICAL APPROACH TO THE AUDITING OF AGRICULTURAL LAND LEASING

page 4–10

The article proves the necessity of auditing of land leasing of agricultural enterprises: synthesizes.

The aim, the tasks and the objects of audit of agricultural land leasing are summarized and developed.

The implementation of the recommended methodological approach to auditing allows to get all the necessary and sufficient audit evidence to form auditor's opinion on the legality of leases of land and reliability of the recording and reporting of agricultural enterprises. Based on the peculiarities of agricultural leasing the methods for auditing operations of land leasing are designed. Comparing to the existed approaches it is oriented to making the legal auditing of leased land.

To confirm and ensure the validity of the audit report the pack of auditor's working papers is formed, which allows to analyze and summarize the results of the auditing of land leasing transactions. The using of the proposed auditor's working documents provides the necessary level of the audit report validity and the control of all planned procedures on leasing transactions.

**Keywords:** auditing, audit methodology, lease land, land, auditor's working papers.

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## ANALYSIS OF INSTITUTIONAL FEATURES OF LOCAL ECONOMIES FOR MODERN UKRAINIAN RURAL AREAS

page 10–14

Analysis of institutional factors in explaining differences in socio-economic indicators of some rural communities is done. This area of scientific research is less confirmed in the application context; the importance of research is also due to the presence of established dysfunction as a consequence of market reforms in the agricultural sector. The basis of the research is the institutional theory and methodology to explain the current state of the community based on non-economic factors of historical content. Differences that can be explained by the nature and impact of institutional factors are defined for rural areas of Vinnytsia region. From this perspective, an attempt to economically assess these factors is made. Occurrence of these differences and their economic formalization is defined for investigated objects. The data is promising with further amendments of agrarian reform, which should be involved: an analysis of the institutional characteristics of individual entities, identifying the potential factors of their competitiveness, implementation of these factors in the process of upgrading economic relations.

**Keywords:** institutions, local economy, rural communities, institutional factors, history of the rural areas.

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## ECONOMIC CYBERNETICS

### MULTIFRACTAL ANALYSIS OF THE DYNAMICS OF NIKKEI AND HKSE ASIAN STOCK INDICES

page 15–18

The paper studies the dynamics of NIKKEI and HKSE stock indices in Asia from 2014 to 2015. The work uses multifractal analysis and R/S analysis to study the dynamics of the stock indices. The research reviews scientific works that has multifractal analysis as the subject of research. The study highlights the calculation of Hurst coefficient using Gretl and reveals the presence of memory in the time series. The research shows that time series has multifractal properties detected by SpectrAnalyzer. The paper graphically draws the characteristics of time series such as the multifractal singularity spectrum and dynamics of the fluctuation functions. The authors describe further plans in their study of financial indicators.

**Keywords:** financial indicators, multifractal analysis, the coefficient of Hurst.

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### DEVELOPMENT OF HYBRID MODEL OF COORDINATING DECISION-MAKING FORMATION FOR REALIZATION OF MANUFACTURING PROCESS AT INSTRUMENT-MAKING ENTERPRISES

page 18–24

This paper discusses the decision support system, as a concept, structure and features of the use of information technologies, decision-making methods and the possible use of a decision support system according to experience and application of the methodology of SME «KIATON».

The aim of this research is forming a hybrid model of coordinating decision-making in the implementation of the production process at the instrument-making enterprises by providing a computer-aided algorithm of the hybrid agent.

The method of formation of the coordinating decision-making formation was synthesized with the help of the extended model to reconcile the results of the decisions of local manufacturing subsystems that manufactures assembly units.

Hybrid approach to the synthesis of model of coordinating decision-making formation for the rational organization of the production process of tools at the instrument-making enterprises is considered. This model makes it possible to identify and resolve conflicts that arise in the production process. It is shown that the hybrid model can be used as a part of the intellectual core of decision support systems in production management.

**Keywords:** hybrid approach, continuous-discrete systems, hybrid machines, linear.

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## PROBLEMS OF MACROECONOMICS AND SOCIO-ECONOMIC DEVELOPMENT

### THE ROLE OF THE CASH FLOW IN EVALUATION OF THE REAL INVESTMENT PROJECT

page 25–27

This article discusses the importance of cash flow to evaluate the efficiency of real investment projects. The main aim of this study is to synthesize and develop the methodological foundations of the definition and evaluation of cash flow from the sale of real investment projects. Based on the analysis and synthesis of existing approaches to the definition of the «cash flow» it has been proposed to consider it as an economic category, which reflects the economic benefit from the sale of real investment projects. A prerequisite for this is the need to take account of cash flow for all types of business enterprises (operating, financial, investment). The most fully meets these requirements residual cash flow, which is proposed to use to evaluate the effectiveness of real investment projects in the calculation of individual indicators in order to obtain more reliable results.

This study can be continued in the direction of clarifying the approach to discounting cash flows when determining their present value.

**Keywords:** cash flow, real investment, investment efficiency.

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### REVIEW OF THE NEW ELECTRONIC TECHNOLOGIES AND ANALYSIS OF THE DEVELOPMENT OF MODERN BANK

page 28–31

The aim of the article is reviewing the prospects for physical functioning of the banks and their capacity to provide banking services in light of the strong financial development of new electronic technologies and increased competition from non-bank institutions.

Analyzing, summarizing and systematizing research work of many scientists it is discovered the relationship between the rapid development of computer and telecommunications technology and efficiency of both the banking and channels of sales, market expansion and geography of services using by the client.

Studying conditions and possibility of introducing modern computer technology in the practice of banks Ukraine it is represented the author's position on further technological development of Internet banking in Ukraine in two main ways: first, by expanding the functionality of existing proposals, implementation of advanced services; and secondly, through the development of new interface platforms.

It is proved that the banks those are a powerful interface platform and have open API and offer the best product solutions and mobile applications is the most competitive and have prospects for existing in the coming years. It is proposed using Big Data technology, which allows to remotely managing the relationship of the banks with customers through mass personalization.

**Keywords:** Internet banking, mobile banking, electronic banking services, API-platform, Big Data technology.

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## IMPROVEMENT OF RELATIONSHIP MECHANISM IN THE SYSTEM «CLIENT-BANK»

page 32–36

Provisions for improvement of relationship mechanism in the «Client-Bank» system through the use of a balanced scorecard are proved in the article. Analysis of the literature revealed the advantages and disadvantages of using the «Client-Bank» system for both customers and banks. Therefore, in order to improve the «Client-Bank» system author used a modern strategic management tool as balanced scorecard. Applying balanced scorecard provides for building a strategy map that reflects the objectives of the bank and the factors of achievement within each balanced option (finance, relationships with customers, internal business processes, and staff training and development) and reveals the causal relationships. Formed strategic map is the basis for the formation of a balanced scorecard assessing the quality of the «Client-Bank» system, which combines strategic objectives and strategic performance within each balanced option (finance, relationships with customers, internal business processes and staff training and development). The use of this system in practice allows realizing the strategy and objectives of the bank and will increase the efficiency of the «Client-Bank» system.

**Keywords:** banks, «Client-Bank» system, strategy map, balanced scorecard.

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## DECOMPOSITION OF FINANCIAL-ECONOMIC INDICATORS DURING PROBABILITY EVALUATION OF BANKRUPTCY RISK (FOR SEA TRADE PORTS OF UKRAINE)

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The assessment of integrated sea trade ports bankruptcy risk was done with the software «Analysis of financial risks and overall risk of bankruptcy». The program calculates financial ratios and visualizes the results using range-score method in the consolidated analysis of financial condition and consolidated analysis of indicators of bankruptcy, namely: financial stability, solvency, business activity, performance evaluation of the balance sheet structure, profitability and bankruptcy probability results for the years 2012–2014.

The trends of sea trade ports of Ukraine development in 2012–2014 were analyzed, particularly the calculations for indicators: assets, liabilities, sales revenue, profit from operating and financing activities, the net profit were presented. The calculations showed that for the period analyzed, there was deterioration and development of ports in 2013 while to get the positive development it became possible in 2014.

The worst results in terms of probability of bankruptcy were received according to the Conan and Holder models. Only three of the ten ports showed low bankruptcy for bankruptcy probability in 2014. The differentiation in the probability evaluation results was found. In terms of Lis and Springate models significant evaluation part is the increase of capitalization, whereas according to the model of Conan Holder the importance of creating added value in the company is vital.

**Keywords:** risk, bankruptcy, decomposition of indicators, sea trade ports.

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#### RESEARCH OF RESISTANT PLASTICITY IN NATIONAL SECURITY MECHANISM

page 42–47

Role and resistant properties importance of socio-economic system in the mechanism of national security was justified in the article. Systemic, synergetic, complex, evolutionary and scientific approaches were used to reach the goal and solve the problem. The phenomenon of resistance was revealed by the author as «genetic» property of the system, as a continuous function of it, as a mechanism to secure development. Dialectical relationship between self-sufficiency-resistant securities of socioeconomic system was highlighted in the paper. In addition, the author emphasizes importance of the resistant plasticity determining. Definition of the term is proposed, potential of plasticity of resistant individual components of the socio-economic system is characterized in the article. High level of resistant plasticity of transportation and communication systems is noted in particular. Instrumental quality of transport and communication system in self-preservation from the damaging effects of instability and ensuring national security development is substantiated. Conducted systematic and comprehensive research will lead to the complete understanding of national strategy future development.

**Keywords:** national security, socio-economic system, transport and communication system, self-sufficiency, self-contained development, resistance, resistant flexibility.

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## SYSTEM DEVELOPMENT OF ENSURING HUMAN RESOURCE COMPETITIVENESS

page 47–51

In the article the essence of competitiveness support system are defined and its development experience are generalized. It is established that the system of ensuring human resource competitiveness is a methodology for its achieving. It includes theoretical (methodological) and practical level. It is found that features of human resource competitiveness, which significantly affect the structural and functional features of its ensuring, are subject-object interaction and determination factor and part of ensuring competitiveness.

Two-level system of ensuring human resource competitiveness is offered. It is based on the human resource activity, appropriate environment creation and incentives. Also it includes regulatory and analytical, organizational and socio-economic methods and efforts aimed at increase of human resource competitiveness, state economy and human development.

**Keywords:** system, competitiveness, human resources, competitiveness ensuring, principles, directions.

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## INNOVATIONS RESEARCH AS BENEFITS OF GLOBAL CONSUMER SYSTEM

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The priority of innovations as a factor of economic development of any modern country is not the only their correct characteristics. Innovations beyond its economic nature are benefits, which determine the evolution of civilization, and their quality components have significant impact on the dynamics of this evolution. The article presents complex study on the positioning of innovative science and technology in the global consumption system, as well as their

establishment in this system and the inability to transformation. The author has proved the following: innovations as benefits of the global economic system make adjustments to the structure of the Maslow pyramid of modern man and their further development will make their own corrections.

In the global consumption system we should single out innovations as benefits of final consumption and innovation as good of industrial purpose. The work established that innovation consumption regardless of their nature is in accordance with consumer utility, cost and public perception. Providing directions and criteria of formation of innovative economic development of Ukraine in terms of European integration are defined.

Based on comparative and analytical methods individual approaches to understanding innovation in the system of global consumption are defined. The assumption of certain factors (parity of public perception and value) in the sphere of formation of economic relations in the global consumption of innovative products is made. The article has proved, that in global system of consumption innovations are treated as benefits, and their distribution is more dependent on the capabilities of their purchase rather than generated from social progress. When establishing parity in public perception and acquisition opportunities development of innovation undergoes synergistic effect and promotes the transformation of social needs.

The results of the research can be used by state and regional power, scientific-research establishments, management of domestic companies as well as by specialized organizations which function for stimulation of the processes of innovation activity development in Ukraine, as describing the strategic goals of further development of the respective areas.

**Keywords:** innovations, industrial innovations, consumption innovations, perception of innovation, innovation needs, the global consumption system.

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## DEVELOPMENT OF CONCEPTUAL BASES OF STATE REGULATION FOR BALANCED AND SUSTAINABLE DEVELOPMENT OF THE AGRI-FOOD SECTOR

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The basic problems of low efficiency of state regulation for development of the agri-food sector in Ukraine are considered in the article. The studies established the main disadvantages of state

regulation for development of the agri-food sector in Ukraine: lack of consistency in the application of state regulation; lack of complexity in the direction of supporting the development of the agri-food sector (agricultural producers, processors and consumers); lack of coordination of the state action to promote and regulate the development of the agri-food sector with periods of economic development; corruption and bribery in the bodies of provision and distribution of state funds allocated for the support of agricultural producers, and so on.

New conceptual bases of state policy for regulation and support the development of the agri-food sector are developed, including the expediency of state regulation of agricultural markets on the value chain; obligation of refusal of non-subsidized approach in support of the agricultural sector with the transition to regulation of development, taking into account the cyclical development of the mechanism of the economic system, and others. All proposed measures are aimed at improving the efficiency of the state agrarian policy.

**Keywords:** state regulation, agri-food sector, value chain, development cyclicity.

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