

## ECONOMICAL SCIENCES

**M. N. Titova**

### *THE POSSIBILITIES OF BLOCKCHAIN TECHNOLOGIES IN THE DEVELOPMENT OF INVESTMENT, OWNERSHIP AND PROVENANCE MODELS IN THE MARKET OF ART OBJECTS*

*Taking into account the peculiarities of the art objects and art objects market, the boundaries of lending and profit management are revealed, the possibilities of raising funds based on tokenization, the potential for joint ownership of art objects are shown, the possibilities of increasing the reliability of information, conditions for increasing the efficiency and reliability of transactions are revealed.*

**Keywords:** *tokenization, equity ownership, level of openness, leverage in art, art investment, tokenized asset, risks of art investment*

**L. A. Kopteva, L. V. Shabalina, A. S. Budagov**

### *TRENDS OF THE CARGO VEHICLES WORLD MARKET INNOVATIVE DEVELOPMENT*

*In the implementation of the conditions for maintaining the maximum level of economic development, transport is assigned considerable role, important in securing state readiness for any changes in the needs of the economy and the population, which is connected with the necessity to ensure the readiness of the transport complex to operate in force majeure situations and give efficient response to the negative impact of various types of threats. An innovative approach to the formation and development of the cargo vehicles market and introduction of innovative technologies in the automotive industry is essential both for increasing the productivity and improving the quality of cargo vehicles. In the article the main trends in the cargo vehicles market are considered, different approaches to the directions of freight transport market development are reviewed, the current tendencies of cargo vehicles market innovative development are determined. Conclusion is made the highly positive effect can be achieved with aggregation and synergy of new technologies adoption, as the development of the freight transport market will eventually be carried out based on scientific achievements and new disruptive technologies. Thus, the issues of transport innovations in the development of the global cargo vehicles market are increasingly gaining their relevance.*

**Keywords:** *innovative development, world market, breakthrough technologies, transport industry process, economic development*

**A. V. Kharlamov**

### *SANCTIONS AS A FACTOR OF INCREASING INSTABILITY OF THE MODERN WORLD ECONOMY*

*The modern world economy is going through a development crisis, which is caused mainly by non-economic factors and political decisions that do not have a proper economic justification. All this negatively affects the current functioning of many countries, including Russia, which requires theoretical understanding and development of directions for further strategic development. The most important problem on the way to this is the economic sanctions that are haphazardly imposed by some countries and their groups against others, primarily against Russia, which today is the leader in terms of the number of sanctions imposed, covering not only the economic, but also the social, informational, and even humanitarian sphere. In this regard, there is a need to study the problem of sanctions and find answers to the questions: what are economic sanctions today, how are they classified and what functions are they supposed to perform. An analysis of the theory of sanctions, more precisely, of sanctions wars, is necessary to form a holistic view of how they should be used and how they can be effectively countered. The main conclusion drawn in the work is that, due to the current structure of the modern world economy, everyone suffers from the imposed sanctions: both those who impose them and those against whom they are*

*introduced. Sanctions have a particularly strong negative impact on the lives and well-being of ordinary citizens of all countries, which can be considered a violation of human rights (in their broadest sense). The author proves that economic sanctions today have practically exhausted their potential, and their effectiveness, even for the countries that introduce them, has a rather short effect, extending only to the economies of the poorest states. As for the majority of developing, especially economically developed, countries, the sanctions imposed against them not only do not give the desired effect, but also lead to increased global economic instability. In the future, this destroys the existing structure of the world economy, which is beyond the interests of the absolute majority of the world's population.*

**Keywords:** *world economy, economic sanctions, economic instability, contradictions, efficiency.*

**A. P. Drozdova, A. V. Samoilov**

#### *SMALL AND MEDIUM-SIZED BUSINESSES IN RUSSIA IN THE CONTEXT OF THE COUNTRY'S ECONOMIC SECURITY*

*The article analyzes the role of small and medium-sized businesses in ensuring the economic security of the country, describes the system of state support for small and medium-sized businesses, highlights the key problems of the development of small and medium-sized enterprises, and suggests ways to solve them.*

**Keywords:** *small and medium-sized businesses, economic security of the country, problems of development of small and medium-sized enterprises.*

**E. I. Petrova**

#### *SUSTAINABLE DESIGN IS AN ACTUAL TREND OF MASS SEGMENTS OF THE FASHION INDUSTRY*

*The author discusses the current trend that is characteristic of mass production of clothing, namely, sustainable design. The author identifies the structure and main directions of development of this trend. Examples of the application of sustainable design are also presented: environmentally friendly ways of creating products, the introduction of new technologies and closed production cycles, the functionality of the product, as well as its availability.*

**Keywords:** *sustainable design, fashion industry, «fast fashion», fast-fashion, conscious consumption, clothing made of recycled and recycled materials.*

**I. A. Zhulega**

#### *RETROSPECTIVE AND OPPORTUNITIES FOR THE FORMATION OF NEW WORLD CURRENCIES*

*The article analyzes the current global economic situation from the point of view of foreign exchange markets. The possibilities of formation of currencies competing with the US dollar are considered. The historical experience of creating world currencies and a single system of international settlements is described. An assessment of the positive and negative aspects of other currencies, representing economies actively developing in the modern world, as well as cribbounties and other instruments of the monetary system, is given.*

**Keywords:** *monetary and financial system, world reserve currencies, regional currencies, dollarization.*

**T. I. Fradina, T. P. Karpova, V. V. Karpova**

#### *NEW INFORMATION TECHNOLOGIES IN AUDIT*

*New information technologies are based on infological and computer means of obtaining, storing, updating information, knowledge, including in the external and internal audit of an economic entity. The article discusses new information technologies in auditing, which are understood as those modern methods by which the collection, transfer, systematization, processing, preservation and coding of fundamental information is carried out to develop an objective conclusion based on the results of checking the reliability of financial statements.*

**Keywords:** *Information in the audit, new information, external and internal audit technologies, FMEA method, risk, multiple risk factors, owner and risk assessment, information technology in the audit.*

**N. A. Ivanova, V. A. Varfolomeeva**

*FEATURES OF TAXATION AND TAX PLANNING OF CLUSTERS IN RUSSIA*

*The authors discuss the issues of taxation of spatially organized structures on the example of clusters in Russia. The main tasks of such structures are the distribution and coordination of all activities to solve the problems of increased sustainability, and one of the main goals is to achieve efficiency and the ability to compete in the market. The legal framework in the field of spatially organized structures requires updating and clarifying many factors, such as taxation, clarification of legislative acts and regulatory documents, therefore, the purpose of the article is to highlight the issues of taxation of clusters in the Russian Federation and areas of tax planning. The research method is to conduct a comparative analysis of such indicators as the tax intensity of the gross regional product, the level of taxation of legal entities, the VAT efficiency indicator, tax overpayment. The tax optimization method is a change in the direction and type of business, that is, the transition to less taxable types. There is a method that is referred to as the substitution of tax sovereignty, spatially organized structures are also entitled to use this method, it consists in registering a business in an area in which there is preferential taxation. The authors believe that this method is very relevant at present due to the fact that in most regions of the Russian Federation the regional authorities have the opportunity to adopt local laws, including in the field of taxation.*

**Keywords:** *tax intensity, clusters, spatial and organizational structures, tax planning.*

**N. G. Lashkova**

*HISTORICAL ASPECTS OF THE DEVELOPMENT OF ACCOUNTING ACTIVITIES IN THE CONTEXT OF GLOBALIZATION PROCESSES*

*The relevance of the article is due to the fact that the general signs of the development of accounting practice are functionality, formalization, professional independence and responsibility of accountants, historical continuity of accounting methodology. Each of the signs has its own components. The imposition of modern methodology on them makes it possible to combine the development of accounting into a single process. The international integration of the economy, the intensive development of the international financial and investment market necessitate the creation of IFRS, the study of the historical processes of the development of accounting activities and its interpretation in paradigms*

**Keywords:** *evolution of accounting procedures, accounting functionality, method of discrete description of the results of business transactions, modernization of accounting processes and financial reporting, coordination of accounting standards.*

**V. V. Lizovskaya, I. V. Ilyinskiy, A. A. Moldovan**

*PROFITABILITY OF FREIGHT RAIL TRANSPORTATION AS A KEY BENCHMARK FOR TARIFF SETTING AND REFORM OF THE RAILWAY INDUSTRY*

*The freight transportation market plays an important role in the formation of prices for most of goods. At the same time, the participants in this market are not in equal conditions, and feel different impacts from the state regulation. In many countries, the freight rail transportation market is monopolized, that determines the serious state intervention in the pricing processes in this market, which is directly related to the issues of ensuring the profitability of companies. Such a structure of the freight rail transportation market is explained by historical aspects, as well as state non-commercial goals that rail transport allows to achieve. At the same time, in recent decades, reforms have been made in many countries aimed at reducing monopolization and state influence, as well as increasing the competitiveness of rail transport compared to other modes. The article is devoted to the analysis of the freight rail transport market and its features, as well as directions of its reform in different countries and increase in profitability.*

**Keywords:** *freight transportation, rail transport, tariffs, profitability, natural monopoly.*

**A. V. Novikov**

*FORMATION OF NEW RESERVE CURRENCIES AND PROSPECTS OF THE RUSSIAN ECONOMY*

*The author analyses the processes of formation of world reserve currencies and opportunities opened up to the Russian national currency. Various instruments used in*

*international settlements and claiming to be regional currencies are also considered. Various features of the monetary system and general characteristics of national currencies in terms of their purchasing power are described. The prospects of the Russian economic policy aimed at giving the national currency regional status are evaluated.*

**Keywords:** *economic policy, system of international settlements, exchange rates, purchasing power.*

**L. V. Vinogradov, T. I. Leonova, V. S. Burylov**

#### **OPTIMIZATION OF THE QUALITY OF THE ORGANIZATION'S ACTIVITIES BASED ON DIGITAL TECHNOLOGIES**

*The authors discuss the quality of the organization's activities in the form of a vector representation of the input and output parameters of the activity, for optimization of the quality of activity, it is proposed to use neural allowing for optimal selection of characteristics set of controlled parameters. Calculation of parameters optimization is given water treatment activities and highlights the factors influencing the parameters water quality and which are necessary to obtain the optimal level water quality characteristics. The proposed approach can be applied to various areas of activity of organizations.*

**Keywords:** *quality, optimization, organization activity, neural networks.*

**V. V. Lizovskaya, Ya. Yu. Salikhova**

#### **MODERN TRENDS AND PERSPECTIVES OF MARKETING SPECIALTY**

*The article deals with issues related to the development of the specialty marketing and areas that are the most relevant at the present time. A review of publications in the field of developing marketing competencies and an analysis of the professional standard made it possible to identify limitations and justify the relevance of the chosen topic. The research part is based on the analysis of open data from Internet resources in the field of the labor market in four cities of Russia. The analysis of vacancies was carried out using descriptive statistics and cluster analysis on the analytical platform KNIME. The findings of the study reflect differences in the demand for marketing specialists in different cities of Russia, as well as the most relevant skills and competencies of a marketer.*

**Keywords:** *marketing, marketing competencies, labor market.*

**N. A. Yatskevich**

#### **ON THE ISSUE OF MARKETING DEVELOPMENT TRENDS IN THE DIGITAL ECONOMY**

*The author discusses the development trends of marketing in the digital economy. Openness, human focus, establishing friendly, trusting relationships between brands and customer communities, the use of digital marketing and the principles of the agile approach are current trends that companies must adhere to in order to maintain and increase the company's market share.*

**Keywords:** *marketing, digital economy, digital marketing, market, omnichannel, human-centered marketing*

**I. S. Pinkovetskaia**

#### **ESTIMATION OF AGRICULTURAL PRODUCTION VOLUMES IN THE REGIONS OF RUSSIA**

*The study was based on the development of regression models characterizing the activities of agricultural enterprises in the regions of Russia. Official statistical information for 65 regions of Russia for 2017 and 2018 was used. The study made it possible to identify factors (fixed assets and wages of employees) that affect the volume of production in the agricultural sector in the regions of Russia, and suggest using three-factor regression models of high quality to describe this influence. It is proved that the economy of the country's regions has not yet reached saturation with agricultural products and there are significant reserves for further development of this sector. The developed regression models are effective management tools that allow assessing the level of use of financial and labor resources. The acquired new knowledge and tools for assessing the activities of agriculture in the Russian regions are of scientific and practical importance. They can be used in research of the agricultural sector of the economy, monitoring of production volumes, in*

*determining the needs for resources necessary for the development of agriculture, substantiating plans and programs for its development.*

**Keywords:** *regression models; agriculture; fixed assets; wages; regions of Russia.*

## **PEDAGOGICAL SCIENCES**

**M. E. Belomestnova, K. I. Sharafadina**

### **MODERN DIGITAL EDUCATIONAL ENVIRONMENT OF THE UNIVERSITY: STRATEGIC OBJECTIVES AND PROBLEM ZONES**

*The article is devoted to the review of digital educational technologies that are used in the digital educational environment of a modern university. The changes in the field of digital educational technologies and the educational process at the university, which will become dominant in the development of the education sector in the next decade, are considered. The pedagogical technologies necessary for building a digital educational process of vocational education and training are highlighted. The formats used in the context of e-learning are defined, their advantages and disadvantages are noted. It is concluded that digital technologies do not replace or transform certain scenarios of teaching and learning at the university, but, of course, they can enrich and supplement them. Innovative educational technologies used in classroom teaching, new interesting class formats can increase the involvement and interest of students. However, until recently, there were practically no specific teaching scenarios in university education, for the implementation of which digital technologies create pedagogical and didactic added value. Under the new conditions, the role of a university teacher is also changing, who now acts not so much in the traditional sense (as a lecturer), but as a trainer and consultant. Thus, the need for advanced development of education in relation to the processes of digitalization is beyond doubt. The study of the contribution of digital educational technologies to the educational process of the university, as well as barriers and problems when working in the digital educational environment of the university is extremely relevant and has great potential for research, however, this is only one of the areas of digitalization of higher education. The study can be continued in the direction of studying the process of transformation of higher education under the influence of digitalization and assessing it from the standpoint of social challenges facing the system of higher education and society.*

**Keywords:** *digitalization of higher education, digital technologies, university, digital competencies, digital media, innovative educational technologies.*

**E. A. Izmaylova, L. I. Konovalova**

### **MOTIVATION OF TEACHERS FOR PROFESSIONAL AND PEDAGOGICAL ACTIVITY**

*The article deals with the problem of motivation in professional and pedagogical activity. The authors conduct a theoretical analysis of approaches to the motivation of pedagogical activity, and also present the results of a study among teachers and managers of various educational institutions to identify the specifics of the motivational-target sphere.*

**Keywords:** *motive, motivation, professional activity, teacher, models and mechanisms of professional motivation*

**D. A. Marochkin, Sh. Kistaubaev, S. A. Chernyshev**

### **ANALYSIS OF REQUIREMENTS FOR THE STUDENT PROJECT MANAGEMENT CRM-SYSTEM**

*Because of the COVID-19 pandemic demand for learning management systems (LMS) grew rapidly in a short time since most of the universities transitioned to online learning. It caused the development and popularization of systems that are focused on solving a very general list of problems which can cover most educational cases, but at the same time it is only partly suitable or even not suitable at all for courses with specialized or more complex learning methods. As a result, regarding IT courses in particular, lack of digital infrastructure causes the omission of several key elements of a development process: teamwork aspect, use of technologies associated with the development and a project management culture. The role of such a digital infrastructure can be taken by a CRM-system. Requirements for that kind of systems are formed in this article by analyzing functionality of existing LMS and team cooperation systems. Based on found advantages and*

*disadvantages of modern LMS and functions of team cooperation systems the following requirements were derived. Firstly, it is necessary to include team cooperation aspects that are present in real projects: integration with version control systems and task management. Secondly, education process functionality is essential: a grading system for tasks, a rating system based on it and a schedule management system that allows planning lessons and meetings. Thirdly, it is important to integrate a way of effective communication both between students using general chat and with teachers in task discussions.*

**Keywords:** *education, team cooperation systems, learning management systems*

**T. V. Malkova, A. Iu. Baranov**

#### *ANALYSIS OF THE BENEFITS OF PROJECT — BASED LEARNING IN MODERN HIGHER EDUCATION*

*The ability to solve problems, think critically, work in team, build effective interaction and communication, manage oneself and one's activities are today the skills needed not only in professional sphere, but also to successfully solve many real — life problems. Project — based learning is designed to actively involve students in the process of creating knowledge by jointly addressing the challenges they may face in the real world. The article is aimed to analyze and generalize the benefits of using the project — based method of learning in the system of modern higher education.*

**Keywords:** *project method, efficiency, valuable skills, key competencies of the XXIst century, lifelong learning, cooperation, communication, creativity, critical thinking, responsibility*

**P. M. Tkachenko, E. S. Prozorova**

#### *ESSENTIAL INSIGHTS OF TEACHING BIM TECHNOLOGIES IN BUILT ENVIRONMENT DESIGN EDUCATION*

*Education in architectural programs, development of the basic skills necessary to work on joint projects, a deep understanding of the concept, processes and standards of building information modeling allows students to gain professional skills and preparation for work in the field of architecture. This article reveals and clarifies the concept of BIM technology. It is proposed to consider BIM modelling technology, features and tasks of BIM design, regulatory processes in BIM technologies. Best practices in design of various architectural objects are considered. On the basis of the study, the expediency of using BIM technologies at all stages of the formation of the designer profession and the integration of these technologies from the first year of study in the direction of design is substantiated. The article analyzes the software that supports the process of information management and the development of a BIM model. Due to the increasing complexity of modern architectural projects, an urgent problem for the architecture and construction industry is the use of outdated methods and software systems, therefore, it is important to learn and apply BIM technologies in building design. The article analyzes successful architectural projects in Russia and abroad that were developed using BIM and go beyond traditional design and construction. It is shown that through the development of BIM-technologies it is possible to solve problematic tasks and stimulate the development of this industry.*

**Keywords:** *BIM — modelling, information model, computer-aided design, information exchange, collaboration, innovation, interaction.*

**L. V. Rezinkina**

#### *FORMATION OF THE PROFESSIONAL ORIENTATION OF STUDENTS OF VOCATIONAL EDUCATION AND TRAINING IN GENERAL EDUCATION DISCIPLINES*

*To train a modern specialist, it is necessary to pay great attention to the formation of his professional orientation from the very first days of training. The contradiction between the increasing requirements for the quality of professional training of the future specialist and the personal characteristics of the contingent of first-year students enrolled on the basis of basic general education is shown. Their low motivation to study and to get a profession was revealed. As well as a weak or distorted idea of the profession they came to study for. To this end, it is important to actualize the potential of general education disciplines to increase their motivation through filling their content with tasks and situations of professional orientation. This is due to the peculiarities of adolescence, in which professional self-*

determination plays an important component. And also with the understanding that children who have not successfully studied at school in a particular subject often go to a professional organization. A number of difficulties and risks that negatively affect the process of filling general education disciplines with professional content are highlighted. An important negative factor is the lack of understanding by teachers of the essence of the process of forming general competencies by means of the taught discipline. A way to overcome these problems based on the use of the principle of professional orientation in the educational process is proposed. Its characteristics and specific examples of its use in real practice are given. It is concluded that the implementation of the principle of professional orientation in classes in general education disciplines ensures the integration of educational fields and professional activities, contributes to the formation of a future specialist capable of solving professional problems. Teachers are faced with an important task of updating the potential, saturating the content of general education subjects with situations of a professional nature. The choice of activity technologies, interactive forms of interaction with students is described. Various examples of professional situations in various general education subjects are considered.

**Keywords:** SPE, professional orientation, general education disciplines, motivation, first-year students in the educational programs of secondary vocational education on the basis of basic general education.

**D. V. Shabarov, O. G. Povzhik**

*THE USE OF MODERN COMPUTER TECHNOLOGIES IN THE SYSTEM OF  
ADVANCED TRAINING OF PROSECUTORS*

*The authors discuss the use of information platforms and other software-based teaching methods for advanced training of prosecutors in Russia in cooperation with the university.*

**Keywords:** advanced training, digitalization, distance learning, education.

**K. A. Sechina, V. V. Kirillova**

*METHODS OF FORMATION OF ECOLOGICAL CULTURE OF TECHNICAL  
UNIVERSITY STUDENTS IN THE PROCESS OF TEACHING A FOREIGN LANGUAGE*

*The professional and communicative orientation of foreign language training is currently recognized as a priority in the modernization of education and is of great importance for the formation of a competent and professional specialist. The article considers the methods of environmental education of the younger generation on the example of the practice of teaching foreign language to students specializing in Energy- and resource-saving processes in chemical technology, petrochemistry and biotechnology on the profile of Environmental protection and rational use of natural resources in bachelor's, master's and postgraduate studies at a technical university.*

**Keywords:** ecological culture, foreign language for scientific purposes, professionally oriented education, professional competence, ecology, environmental protection.

**P. B. Dzhailov, O. A. Loginov, S. A. Dzhailov**

*PREPARATION OF ATHLETES-STUDENTS OF MARTIAL ARTS FOR THE PEAK OF  
SPORTS FORM OF THE MAIN COMPETITIONS OF THE YEAR*

*The article presents the results of a pedagogical study of the shortcomings of the traditional system of periodization of sports training and the general principle of adaptation of an athlete-combatant and the possibility of modeling the load by manipulating the components of the training process.*

**Keywords:** sports form peak, pedagogical control, training load correction, training, martial arts, preparation, adaptation, training cycle.

**Liang Xuefei**

*THE WAY OF TRADITIONAL CHINESE FAMILY IN FOLKLORE AND LITERARY  
DISCOURSE (EXPERIENCE IN SYSTEMATIZATION)*

*The article is intended for Russian teachers teaching Chinese students. It is necessary to take into account the mental and cultural environment in which Chinese perceptions of the norms of behavior related to the institution of family and marriage were formed. The article offers an overview of oral and written evidence of Chinese national traditions. Through the*

*proverbs that have come to us, a description of the rites and the way of the Chinese family and the role of a woman in it is offered. The novelty of the article lies in their systematic and analytical presentation, the content of which can be used at lectures on folklore, literature, cultural studies. The thematic range of proverbs discussed in the article recreates a picture of the morality and value system of Chinese society, which can play a contact-establishing role with the Chinese audience. The proposed review is of methodological value in the study of Chinese culture and folk pedagogy by philologists.*

**Keywords:** *norms of behavior, contact-establishing role with the audience, Confucianism as a set of pedagogical information, folk pedagogy, education in the Chinese family, status of women.*

### **A. O. Ignatiev**

#### **DEVELOPMENT OF INDEPENDENT WORK OF CADETS IN THE PROCESS OF STUDYING AT A MILITARY UNIVERSITY**

*The author discusses the ways of independent work of cadets of the military institute. This activity has its own specific differences in the understanding of students of civilian universities, due to the high responsibility of future officers, their awareness of the need to protect the Motherland and the world. Studying at a military university involves a lot of psychological, emotional and physical stress. At the same time, the development of independence of modern cadets is due to the specifics of the tasks facing them, the mastery of modern military technologies. In turn, independence, as an ability, undergoes certain changes. This is due to the complication of the tactics of combat, the improvement of the military-technical complex. In addition to performing qualities, in modern realities, the requirements for creating conditions for the development of the initiative of future officers within the walls of military universities, as well as their readiness for the upcoming professional activity, are increasing. To do this, during the hours of independent work, cadets improve their physical, scientific, technical and creative training. Studying at a military institute, cadets should be able to allocate their time. Since self-preparation should take at least three hours daily, it is necessary to use it rationally. Independent work is also carried out under the guidance of teachers during the hours determined by the schedule of classes. As a result of the transition to the activity paradigm of education, it becomes the leading form of organization of the educational process. When monitoring the independent work of cadets, commanders and teachers use incentive methods that contribute to the formation of new skills and abilities. Each cadet has only his inherent capabilities and cognitive abilities. For this purpose, certain technologies are used, such as reflexive, research, information and communication, which are aimed at developing the independence of cadets, taking into account their individual capabilities and cognitive abilities. In the process of educational activities, cadets and teachers, as equal subjects, work together and discuss the progress and results of this activity. The introduction of computer technologies into the educational process, and especially the Internet, allows the educational process to develop more actively. It is necessary to create conditions for the use of scientific libraries and the electronic educational environment of the military institute, as well as teach them to use electronic catalogs. Electronic publications are a means of self-education and obtaining new knowledge.*

**Keywords:** *independence, cadets, military institute, information technology, educational process, formation of subject and general academic skills, professional training, motivation, electronic publications, individualization of training, creativity.*