



ECONOMIC CYBERNETICS

MATHEMATICAL MODELING OF THE MANUFACTURING SECTOR OF ENERGY-DEPENDENT ECONOMY

page 4–7

The economy, the production of which is aggregated in two sectors, is considered in the article. The first sector is produced a uniform final product, part of which is used as a consumer product to the public, and some – like fund-creating product to create capacity in both sectors. The second sector is produced a uniform product – the energy, part of which is spent in the first sector of the production process, and some – for final human consumption. The technology that used in the first and second sectors and production capacity of manufacturers are described. Using a systematic approach it is built the mathematical models for recording the capacity of first and second sector. The research results can be used to forecasting the development of energy-dependent economy by changing the price of imported energy and efforts to control the parameters of the economy.

Keywords: system analysis, energy-dependent economy, two-sector economy, production function.

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RESEARCH OF INFLUENCE OF NATURAL AND CLIMATIC CONDITIONS, SOCIAL AND ECONOMICAL ACTIVITIES ON THE FUNCTIONING OF THE TERRITORIES

page 7–11

The fact, that natural and climatic factors (NCF) play significant role in the life of a society and a State, they are one of the most important environmental factors, ignoring that can be especially dangerous for village, water, recreational econo-

my, transport and energetic systems, construction, communal economy and industry is realizing at the heart of the article.

Actuality of these researches lies in the fact the stable development and effective functioning of economy dictates necessity of calculation of NCF and dynamics of their influence, as well as for the tasks of national and regional scale. It is advisable to apply this information also in the process of development, planning, projecting, operations of agricultural, industrial, transport, construction organizations and enterprises for working out of adaptation as well as on the country and regional levels.

The analysis of different rating assessments was worked out minimum necessary set of criteria-indices of system of assessment of influence of natural and climatic conditions, social and economical activities on manufacturing and economical activity of social and economical system (territory, region, state).

The informational system was worked out permitting to assess compensation of influence of negative natural and climatic factors optimal of social and economical activities with presented description of database of statistical information, algorithm of calculation, resulting screen forms.

Keywords: social and economical factors, natural and climatic conditions, stable development of a territory, integral indicators.

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ECONOMICS AND MANAGEMENT OF ENTERPRISE

RESEARCH OF KEY FACTORS AFFECTING THE PROFIT OF MINI-HOTEL IN PROJECT TO IMPROVE ITS PERFORMANCE

page 12–27

The article deals with the concept of quality of services and the needs of consumers, as the main factor affecting the profits of mini-hotels. A survey of customers of mini-hotels is organized to identify the factors influencing their choice of hotels and their satisfaction. (Quantitative and questionnaire methods were used to collect the data in this investigation). Number of outputs was collected in a survey of 30,000 guests of mini-hotels of Ukraine. Research of consumer demand in the hospitality market, through statistical studies has established exactly what customers want. The golden rules of customer service in mini-hotels are formulated.

Practical recommendations are shown and advices for hoteliers are given. The conclusions of the discussion of the research results can be used by managers of mini-hotels to improve quality control of hotel service in hotels. The results of research will help hoteliers identify the list of services that is really demand and improve the quality of services to meet customers and increase profits.

Keywords: quality of hotel services, needs of consumers, coefficient of guest satisfaction, project management.

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FUNDAMENTAL NATURE, FORMATION AND PROSPECTS OF ELECTRONIC COMMERCE'S DEVELOPMENT OF UKRAINE IN GLOBAL SPACE

page 28–32

Nowadays electronic commerce is one of essential elements of modern information economy functioning, that gives an opportunity to carry out commercial operations more effectively, to respond flexibly to transformations, which take place in the market of goods and services, to strengthen competitive positions of all agents of economic activity and to extend the sphere of their influence in the global space. That is why the research of substance, specific characters and tendencies of the development of this branch of economic relations is particularly important.

In the article it is found that the continual increase of the amounts of electronic commerce and availability of modifications in its actualization are the central vector of further development of e-commerce in the global scale. In the course of researches it is determined that in recent time volumes of electronic commerce in Ukraine have decreased a little due to the extremely difficult economic and politic situation in the country. In the paper the trend analysis of future evolution of Ukrainian e-commerce is elaborated, that points to the positive changes in this sphere of business activity under condition of active support on the part of the government.

Keywords: electronic commerce, electronic business, information networks, e-market, information and communication technologies

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INTEGRAL ASSESSMENT OF CUSTOMER CAPITAL OF ENGINEERING ENTERPRISE

page 32–38

This paper proposes the methodological support of integral assessment of customer capital of engineering enterprise, based on the definition of indicators to measure the components of integrated tools and conditions of formation and development of relationships with customers and determination of generalized integral index of evaluation of the formation and development of these relations. Determination of integrated indicators provides the method of an expert evaluation for additive convolution of the for such qualitatively assessed components as preserve technologies of existing and new customers, involvement of employees in the process of forming and maintaining relationships with customers of constituents of consumer capital; taxonomy method for quantitatively evaluated components – efficiency of enterprises and brand image. Generalized integral indicator of evaluation of formation and development of company relations with customers based on the arithmetic mean of the integral method of taxonomic indicator on the availability and the increasing number of regular customers, repeat contracts, development of customer base, customer loyalty, which were assessed quantitatively, and performance evaluation of integrated intensity relations with customers company and its business reputation, calculated on the basis of additive convolution quality indicators.

The importance and usefulness of integrated assessment of consumer capital is that it allows measuring the value of industrial enterprise relationship with consumers, which are seen as a result of the formation and development of these relations; evaluate opportunities for the establishment of such

enterprise values and monitor effectiveness of their implementation.

Keywords: integrated assessment, consumer capital, engineering enterprise, taxonomy, additive convolution.

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SYSTEM BASICS OF HOUSING AND COMMUNAL SERVICES ENTERPRISE RESTRUCTURING

page 38–41

The article describes the original, developed by authors, system basics of housing and communal services enterprises restructuring for optimizing their internal and external relations that ultimately will lead to better performance of their main task: supporting the population with all range of relevant municipal services. The article covers both: theoretical reasoning and recommendations from scientific and economic point of view to ensure the proper operation of the industry enterprises.

The object of research is functioning of housing and communal services enterprises, the subject is their restructuring. The purpose of the publication is to define the procedure of restructuring of the housing and communal services enterprises, and the scientific problem is the development of theoretical basics for optimizing the operation of these enterprises due to their restructuring.

In article it is proved that any system “housing and communal services enterprise” can be restructured with the maximum optimization considering its features by given typical algorithm and as a result, will improve an economic component of functioning.

Keywords: housing and communal services, restructuring, structural links, optimizing operation, process algorithmization

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RESEARCH OF STATE OF MODERN PROTECTION TECHNOLOGIES OF ELECTRONIC TRANSACTIONS

page 42-44

The article deals with modern technology to protect the electronic transactions in payment systems, in particular, solutions on the base of SET and 3-D Secure technologies.

Development of forms of electronic payments leads to an increase in fraudulent transactions. The fraudulent practices are improving all the time that requires the use of modern security protocols of electronic transactions in payment systems. Protection technology is also developing rapidly that leads to the need for further study of this issue in order to improve security protocols during internet acquiring.

The paper discusses the advantages and disadvantages of SET and 3-D Secure technologies and draw conclusions about the state of modern security protocols of electronic transaction.

Elimination of identified deficiencies increases the security of transactions during the Internet acquiring.

Keywords: protection of electronic transactions in payment systems, SET technology, 3-D Secure technology.

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METHODS OF ETIOLOGICAL DIAGNOSTIC OF EXPORT AND IMPORT ACTIVITIES OF ENTERPRISES

page 45–49

Research and mechanisms to implement procedures of etiological diagnosis of export and import activities of enterprises is an important element of development of modern economics over the possibility of such diagnostics to identify the problems and prospects of business operation in future periods. In the absence of economic works on implementation of mechanisms of etiological diagnosis of entrepreneurial activity, it requires a comprehensive research and development of basic concepts.

The basic methods of etiological diagnosis of export and import activity are systematized in the paper. It is analyzed the literature on the semantic content of the term “economic method of diagnosis” and views of several authors on classification of economic diagnosis methods of entrepreneurial activity. Also, the definition of the term “method of the etiological diagnosis of entrepreneurial activity” is defined and the main factors influencing the choice of appropriate and reasonable-situationally methods of etiological diagnosis are defined and described.

Keywords: etiological diagnosis method, export and import activities of enterprises, factors of influence.

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THE FORMATION OF ADDED VALUE IN THE MARKETING CHAIN OF THE MEAT PROCESSING INDUSTRY PRODUCT PROMOTION

page 49–54

The existing problems of formation of added value are analyzed in the article. Three main stages of promotion of meat products from agricultural producer to the final consumer are proposed: production, processing and trading.

The production stage of formation of added value implies that the main subject of its creation is an agricultural manufacturer. This stage is based on the most responsible process – production of feed, feeding and livestock as well as its slaughter (if any slaughterhouse). In some cases (mostly farmers and small farms) sell cattle through intermediaries (purveyors). However, the cost of manufacturing stage of formation of added value is largest and most significant in comparison with other stages that forming added value.

Processing stage of formation of added value involves its creation in processing for meat or raw meat realization (processed or packaged). This stage of formation added value is the main because it provides the most cost that must calculate that the company was profitable.

The cost of trading stage of formation of added value provided only on sales and expenses that do not concern the product itself, but concern its sales. The wholesale companies, that are represented as independent wholesale companies and trading houses meat processing plants, includes in the chain for sales of processed meat. The wholesale companies sell sausages and chilled and frozen convenience food.

It is proposed a functional-block diagram of formation of added value and method of calculating the added value at each of the suggested steps.

Keywords: added value, meat processing companies, production, processing, trading.

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DIRECTIONS OF EFFECTIVE DEVELOPMENT OF CABLE INDUSTRY COMPANIES

page 54–57

Economic crisis in Ukraine, increased competition and the challenge of integrating into the world economy are need make every effort from Ukrainian producers to overcome all obstacles. Internal and external economic and social threats can be overcome only company focused on the development and ongoing compliance with the requirements. For companies of cable industry of electrical field are certainly inherent qualities necessary for successful development even in difficult economic conditions.

International experience shows the growth in demand for products the cable industry, which is now used in almost all sectors of the economy and human activity. However, there are many problems and market risks for cable production market related to the lack of proper government regulation of business areas, increased competition in the global market of cable products, aggravation of the crisis in Ukraine, the lack of domestic raw materials, limitation of investment for innovation funding.

The features of the cable industry as one of the promising high technology industries are investigated. General trends in the market of cable products in the modern business environment are revealed. Main problems and risks of the operation of cable industry companies in Ukraine are determined. The main directions of effective development of cable industry companies are developed.

The results of the research can be implemented in practice of cable companies to determine promising activities and strategies for future development.

Keywords: cable industry, problems of functioning, cable market, innovation activities, risk, effective development.

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ANALYSIS OF FUNCTIONAL RELATIONSHIPS OF INTEGRATED MANAGEMENT SYSTEM OF MATERIAL RESOURCES

page 58–62

This article deals with the problem of improving the management of material resources of the enterprise in the current economic conditions. The article analyzes the functional structure of the integrated management of material resources with the help of the functional review and method SIPOC. The methodical approach to the optimization was based on method reengineering.

The need of research is due to a number of problems identified in the systems of material management of domestic enterprises: the methodological limitations of the planning process, the lack of a strategic approach, the lack of scenario modeling, lack of flexibility, lack of “management by objectives”. The rapid development of market relations is accompanied by an increase in the number and variety of factors affecting the activity of enterprises. New dynamic conditions require scientific approaches to management, in particular, to the management of resources.

The result of the study is the method of analysis of the functional structure of the management system of material resources, identifying inappropriate functions and conversion of the system using reengineering.

The practical value of building a system of integrated management of material resources on the basis of reengineering is that this is one of the most effective ways to reduce undue cost and increasing the relevance of the information to ensure consistency between all elements of the production process, to optimize the path and the volume of material resources. This integration will cover all processes in the company and will require both methodological and organizational changes.

Keywords: material resources, integrated system, functions, functional overview, metrics, reengineering.

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OPTIMIZATION OF DURATION OF THE CHARTERING PERIOD ON THE BASIS OF TIME CHARTER

page 63–67

The practice of chartering was not based on theoretical grounds to establish the chartering term due to the lack of thereof. Accordingly, the proposed solution of problems related to improving the efficiency of management of time charter vessels by optimizing the chartering term to reflect changes in market conditions of freight market and attract a variety of purposes of chartering tonnage.

The first statement of the problem involves the use of a time-charter ships to perform a specific transport operation. In such case the tenants – carriers base on the fact that during the period of chartering would be able to fully ensure the entire volume of the planned transportation of cargo using freight market conjuncture with minimum risk.

The second statement of the problem involves maximizing profits of tenant, projected on the basis of the trend of the freight market conditions.

Presented methodological approaches allow reasonably determine the duration of the chartering period for the time charter, thereby reducing the impact of commercial risks time charter transaction participants; and also allows to link the duration of the terms of the time charter with a capacity of transport work that they will be performed.

Keywords: time charter, term and chartering period, freight market conditions, time charter equivalent.

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DESIGNING OF A NEW CEREAL PRODUCT IN ACCORDANCE WITH CONSUMER PREFERENCES

page 67–72

The results of market research of consumer motivations and preferences when choosing cereal products on example of muesli are given. Based on market research it is found that muesli is the product of mass consumption and demand in different sections of the population. Most customers eat muesli 2–3 times a week, while customers do not mind entering the market new products with high nutritional and biological value.

To convert customer desires in specifications are used methodology of quality function deployment by building “House of Quality”. Based on the results it is determined that during development of new types of muesli it is necessary providing a preventive orientation of new product introduction due to addition of natural supplements in its composition, use of a wider range of muesli, high concentration of biologically active substances and, of course, we must pay special attention to the shelf life of the product.

The use of methodology of quality function deployment is possible to identify the customer preferences that must be taken into consideration during developing the new cereal products in order to ensure the relevance of the products of potential customers.

Keywords: marketing research, cereals, muesli, methodology of quality function deployment.

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CLASSIFICATION OF CAPITAL ASSETS AS A INFORMATION TOOL OF ACCOUNTING

page 72–76

It is investigated the economic classification of the main assets that can be considered one and the same object of the asset (the underlying asset) from the perspective of different criteria and factors that affect it, which is important for determining the “behavior” of the object during its operation. Criteria and classification features for understanding the content of the category “core assets” are formulated.

Currently, a large number of authors and scientists have not provided a single, common, complete classification of fixed capital. Therefore, for the accounting and planning of capital is appropriate to develop its classification.

Formation, development and formation of market relations requires further improvement of theoretical and methodological foundations for the classification of fixed assets, which is a prerequisite for their proper use and reproduction.

The proposed classification of fixed capital combines its structural elements by species (subspecies), groups (subgroups) in conjunction with the accounting records, tax code and performance balance.

Keywords: classification, major assets, capital, management, accounting information, balance, Tax Code.

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QUALITY COST ACCOUNTING OF PRODUCTS IN THE CONTEXT OF GROWING OF THE BIOLOGICAL ASSETS OF GARDENING

page 77–83

Negative influence of humanity on an environment, a high competition and openness of world markets for realization of fruits and berries require to carry out the production of high-quality goods that answers international standards and at the same time takes into account the consumer's requirements. As a result, the creation of the quality management system at the gardening enterprises is importance and necessity. At the same time, quality cost accounting is the informative base for this system. The main aim of the article is the study of problem moments of the quality cost accounting of gardening products. The classification of quality cost accounting taking into account «total quality management conception», which worked out by Edwards Deming, and features of biological assets growing. The two groups of quality costs of gardening products are suggested and a list over for each group is brought beginning from the stage of production planning to garden product storage. The objects and methods of quality cost accounting are certain. For example, the costs that are caused to

the improvement of gardening product quality and control of their indexes, subject to condition their considerable absolute sizes, to take on costs of other operate activity by parts. That other quality are expedient to represent in composition the future period costs, with their next writing covered on costs of other operating activity at the end of every report period with the aim of avoidance market competitiveness and profitable activity. The system of sub-accounts of analytical accounting is worked out. The division «Quality costs of gardening products» that is expedient for application in practical activity of the investigated enterprises is suggested to add in the order about registration politics. By the results of research, the detailed and reasonable conclusions are done. At the further research stages of quality cost problems in gardening it is necessary to point at development of the new administrative accounting reports and perfection of the financial reporting with the aim of acceptance of reasonable and effective administrative decisions. Also, we must pay attention and develop the methodical recommendations in relation to internal control of quality costs.

Keywords: biological assets of gardening, quality cost accounting of products, quality management.

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OPTIMIZATION OF THE INVESTMENT PORTFOLIO STRUCTURE OF PRIVATE PENSION FUNDS IN CRISIS

page 83–86

Investing pension assets is one of the most important activities of private pension funds. The amount of funds to

individual account of future retiree and pension that he will receive in the future are depended from profitability of assets. After analyzing the existing theory of portfolio investment was concluded impossible to use it without adjustments in the practice of investing pension funds. Thus, there is a need to find approaches to optimize the structure of the investment portfolio of private pension funds, which not only take into account all legislative restrictions on areas for investment and diversification, but also will ensure profitability at an acceptable level.

Allowed areas of investing pension funds were investigated in the article and made their retrospective analysis. Using linear programming optimization model that allowed to take into account all the constraints and characteristics of investment assets, it is improved the structure of the investment portfolio of private pension funds. Transferring the results for 2014, it was shown that the use of this model in the non-state pension funds will increase the return on investment that shows the effectiveness of this model.

Keywords: private pension fund, investment portfolio, investment, model, risk, profitability, investment restrictions.

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PROBLEMS OF MACROECONOMICS AND SOCIO-ECONOMIC DEVELOPMENT

EXTERNAL EFFECTS OF INTERNATIONAL LABOUR MIGRATION

page 87–93

In the article deals with analysis approaches of native and foreign researchers to the impact of international foreign worker on economies of donors and recipients labour resources, and significantly that such an impact on the level of the world economy is positive, it contributes to the GDP. The article substantiates that at the level of national economies, this effect is ambiguous and alternate. The economy of the recipient workforce singled out such important positive effects: an increase in workforce in the economy, output growth, of the internal market; additional receipts of intellectual capital and knowledge in the economy, and others. However simultaneously previously mentioned international foreign worker leads a number of negative effects in the economy of recipient: increasing budget burden by “strong” and “local” traps unemployment; growth of shadow sector of economy; additional costs at neutralization increasing social tension and criminalization. The economy of the donor can highlight the following important positive effects of international labor migration, reducing stress on the local labor market; investment in education of potential migrants; reducing unemployment; reduce the budget burden due to unemployment benefits and other low cost. The largest negative effects in this case are “brain drain” technological lagging reducing GDP, inflation may in the case of large external benefits transfers.

Developed graphical model the impact of international Labour Migration on the economies of donor and recipient workforce. A formula for determining the impact of international migration on the performance of the economy donor countries, from which you can see the change in GDP in the country – exporting workforce due to international migration.

Keywords: international migration, donor countries, recipient countries, workforce, external effects, positive and negative effects.

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NATIONAL INNOVATION SYSTEM AS A COMPONENT KNOWLEDGE ECONOMY: PROBLEMS AND PROSPECTS

page 94–99

As a result of conducted research the following work has been done:

- the theoretical and methodological base of the national innovation system has been grounded, mainly the meaning of the modern concepts of “national innovation system”, “information infrastructure” and “information and communication technologies” has been determined;
- the interaction of the national innovation system and information and communication technologies (ICT) has been shown;
- the problems of creation of information infrastructure functioning mechanism in Ukraine have been determined;
- the experience of information infrastructure development in the USA as a leading country in that field has been studied.

The research on the given problem is caused by the necessity of forming the knowledge economy in Ukraine, as that type of economy is capable of bringing it to an advanced level based on the scientific and technological progress providing the competitiveness of the Ukrainian products on the world market.

As a result of research it has been stated that the effectiveness of the innovation development in Ukraine is rather low.

To solve the mentioned problems it is necessary to study and use the experience of the countries that have successfully solved the tasks of innovation development of their national economy.

Keywords: knowledge economy, national innovation system, information and communication technologies, innovation development problems and prospects.

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