



# ECONOMICS AND MANAGEMENT OF ENTERPRISE

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

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

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

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

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

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

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## SYSTEMIZATION OF ACCOUNTING AND TAXATION APPROACHES OF COMMISSION OPERATIONS

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

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

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

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

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

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**EXPLORATORY RESEARCH INTO ENERGY EFFICIENCY INVESTMENT AND STRATEGY**

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

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

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**IDENTIFICATION OF THREATS TO THE FINANCIAL SECURITY OF BANKS**

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

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

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

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

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

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

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## DEVELOPMENT OF PRODUCTIVE FORCES AND REGIONAL ECONOMY

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

page 34–42

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

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

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

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

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

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

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

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## REPORTS ON RESEARCH PROJECTS

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

page 43–45

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

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

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

page 46–48

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

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

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

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

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

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

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

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The object of research is a public-private partnership (PPP) as a tool for strategic management of alternative energy development. One of the most problematic places is the identification of functions, areas and ways of PPP interaction. The program-targeted research method, along with other used methods, allows determining priority directions for the effectiveness of PPP interaction as a tool for strategic management of alternative energy development. And also to make a choice of organizational ways of PPP development and to formulate the PPP concept. The study used the methods of system-structural, spatial analysis, logical generalization, synthesis, comparison, induction and deduction are used for preliminary analysis of the problem statement formation and the definition of goals. The essence of the «public-private partnership», «partnership» concepts is defined, autonomous state functions are investigated. Characteristics are defined regarding the advantages of partners from participating in joint projects using the method of analogies and comparative comparison. The definition of directions of regulation of partnerships from the public sector is obtained. This is due to the fact that the proposed method has a number of features that emerge in developing a stra-

tegy and principles for building interaction relations, facilitating the formation of an effective institutional environment and the development of forms, methods and specific mechanisms for PPP interaction. The organizational paths for the PPP development as a tool for the strategic management of alternative energy development are determined, which note that public sector participation extends to the level of obtaining a blocking minority. Thus, the state has a sufficient degree of influence. This ensures the possibility of timely, proper and skillful use of certain functions, areas and ways of PPP interaction as a tool for the strategic management of the development of alternative energy. This ensures the activation of innovation and investment activities and in the shortest possible time to achieve favorable economic indicators in the energy sector, both at the level of individual regions and the state as a whole, which contributes to the sustainable development of the country's economy.

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

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