



ECONOMICS AND MANAGEMENT OF ENTERPRISE

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THE ROLE DEFINITION OF CORPORATE SOCIAL RESPONSIBILITY IN ENSURING SUSTAINABLE DEVELOPMENT OF AN ENTERPRISE

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The relevance of this paper is due to the close connection between corporate social responsibility and ensuring sustainable development of enterprises to achieve the long-term goals of the economy and society in the post-war recovery of Ukraine. The paper is aimed at studying corporate social responsibility of enterprises with a focus on customer commitment and developing a mechanism for implementing a system of corporate social responsibility of enterprises based on certain principles of sustainable development. The paper considers the main approaches to defining corporate social responsibility, its impact on society and business, as well as the prospects for development in the context of global challenges. The object of research is the processes of formation and implementation of corporate social responsibility at enterprises in the context of ensuring their sustainable development. The development of the concept of corporate social responsibility can be traced from an ethical approach that emphasizes the moral obligations of companies to a strategic approach that considers social responsibility as a tool for creating long-term value. It is emphasized that integration of corporate social responsibility into the business strategies of leading companies contributes to sustainable development, competitiveness and formation of a positive image. The results indicate that managers of enterprises should pay special attention to the implementation of the corporate social responsibility system during crises and military conflicts and coordinate its implementation with the principles of sustainable development. It is determined that social responsibility of business is a prerequisite for maintaining social cohesion, helping vulnerable groups of the population and strengthening national resilience. The study provides companies with the opportunity to develop their own mechanism for the formation of a corporate social responsibility system according to the proposed step-by-step algorithm. The practical application of the research results allows enterprises to determine specific strategies for implementing corporate social responsibility, adhering to the principles of environmental balance, economic sustainability and social justice.

Keywords: business strategy, implementation mechanism, efficiency, corporate culture, social responsibility, management.

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ASSESSMENT OF THE IMPACT OF TECHNOLOGICAL CHANGES ON THE DYNAMICS OF ENTERPRISES' ECONOMIC DEVELOPMENT

pages 13–23

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The object of this research is the impact of technological changes on the dynamics of economic development of enterprises. The main hypothesis is the assumption of the presence of such an impact for a significant number of companies.

The implementation of this research made it possible to make a certain contribution to the process of solving the problem of finding ways to accelerate the economic development of business entities. At the same time, technological changes were divided into three groups, namely: resource-saving; changes that ensure the improvement of the quality of the enterprise's products; changes that ensure the improvement of management, sales and other processes at enterprises. A methodological approach to assessing the impact of technological changes on the dynamics of economic development of companies was also developed. This approach involves the implementation of two main methods of assessment, namely: establishing the presence or absence of such an impact and determining the magnitude of the impact of technological changes on the dynamics of economic development of enterprises.

The testing of the developed tool on a sample of industrial enterprises showed that the impact of technological changes on the dynamics of their economic development exists and is statistically significant. At the same time, the average impact of technological changes on the growth of financial results of enterprises is quite high. In particular, the average values of the indicator of the impact of technological changes on the net profit of those enterprises that have undergone at least two types of such changes, by type of economic activ-

ity, range from 11.25% to 13.32%. Since a significant number of the enterprises studied have not carried out technological changes in recent years, at least some of these enterprises may have significant potential to accelerate their economic development.

The developed toolkit for assessing the impact of technological changes on the dynamics of economic development of enterprises can be used to establish the presence and extent of such an impact both at the level of an individual company and at the industry level. This will allow owners and managers of enterprises to increase the validity of the strategies for technological renewal of these enterprises.

Keywords: enterprise, technological change, resource saving, economic development, financial and economic result, dynamics, product quality.

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INCREASING THE ROLE OF MILITARY LOGISTICS IN THE CONTEXT OF GROWING GEOPOLITICAL INSTABILITY BASED ON STRATEGIC MANAGEMENT

pages 24–29

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The object of research is the process of strategic management of military logistics to ensure national combat capability in the face of growing geopolitical instability.

The study presents provisions on the global role of military logistics – it is the basis of any defense operation, because it includes planning and organizing the movement and maintenance of military forces.

The key driving forces of military logistics are revealed: growing geopolitical instability, technological progress in the defense sector, which contributes to new profitable opportunities, opportunities for using the Logistics 4.0 concept. The volume of the global military logistics market in 2024 is analyzed, which is estimated at 419.46 billion USD and the forecast for 2025–2032, according to which it will reach 600.91 billion USD.

It is revealed that the development of military logistics is hindered by budget constraints and poorly developed infrastructure, which are key challenges.

The content of the concept of "strategic management of military logistics" as a process of planning and coordinating resources, personnel and materials necessary for conducting military operations at all levels, aimed at achieving long-term goals, is substantiated.

A methodological approach has been developed regarding the model of strategic management of military logistics as a complex structure adapted to the specific needs of military operations, integrating logistics processes with the overall strategy and tactics of military operations. It includes four main components (information base formation, strategy development, implementation and evaluation and control) and defines key strategic directions for the development of military logistics.

It is revealed that the development of military logistics is hindered by budget constraints and poorly developed infrastructure, which are key challenges. Modern innovative solutions in military logistics are identified: autonomous vehicles and drones, artificial intelligence (AI) and machine learning, blockchain for secure supply chains, 3D, Internet of Things (IoT), renewable energy solutions, advanced training and simulation. The results of the study are to justify the need to use the achievements of military logistics to ensure and maintain the combat capability of the country with the lowest possible total costs in the context of the growing threat of military conflicts.

Keywords: military logistics, efficiency, National combat capability, geopolitical instability, strategic management, innovation, digitalization.

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CONCEPTUAL PRINCIPLES FOR BUILDING A BALANCED AND COMPETITIVE DEVELOPMENT PORTFOLIO FOR A DIVERSIFIED ENTERPRISE

pages 30–38

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The object of research is the process of forming a balanced competitive portfolio for the development of a diversified enterprise in conditions of limited resources and high variability of the external environment. It was determined that one of the most problematic areas is the lack of capabilities of existing matrices to take into account the specifics of goods that are in close production or market interaction with existing or prospectively attractive goods of the enterprise.

The following methods were used: analysis; synthesis; comparison; abstraction; analogy; measurement; grouping; graphic; mapping of strategic groups; experimental and game methods; industry analysis.

During the study, the modified BCG matrix was improved by adding another square, "chest". It reflects goods that are no longer on the market, but are technologically or structurally related to the existing goods of various business units of the enterprise. The results of the implementation of the improved BCG matrix at the representative enterprise confirmed the expediency of allocating this square. The results obtained made it possible to determine the synergy between products, assess the prospects for their development and justify the expediency of regrouping the enterprise's capabilities within the portfolio. Successful and correctly justified strengthening of the activities of some business units at the expense of others allowed the studied enterprise to increase sales by 320 thousand UAH (8.45 thousand USD), profit by 175.2 thousand UAH (4.63 thousand USD), reducing the amount of loss, and also reducing demand fluctuations during the year. The proposed approach allows to take into account not only market indicators, but also the innovative potential, compatibility, and development opportunities of product groups. This increases the accuracy of strategic decisions. Compared with well-known analogues, the proposed model provides strategic balance and competitiveness.

Keywords: portfolio analysis, BCG matrix, balance, development portfolio, "dream" product, "chest" product.

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ECONOMIC CYBERNETICS

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ENHANCING HOUSING AND COMMUNAL SERVICES DELIVERY IN UKRAINE: AN INTEGRATED FRAMEWORK FOR RISK, STAKEHOLDER, AND PROJECT PRIORITIZATION

pages 39–50

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Object of research – an integrated framework combining risk analysis, stakeholder engagement, and dynamic project prioritization within the BOS CIS ERP-BPMS platform at Mastergaz, a major HCS provider in Kyiv (Ukraine) serving over 750,000 subscribers. Problem, which is solved – housing and communal service providers in Ukraine face critical challenges from Soviet-era aging infrastructure, severely constrained budgets, and fragmented management, resulting in frequent service disruptions and low customer satisfaction rates. Methods used – a convergent mixed-methods single case study design combining quantitative operational data from BOS CIS platform with qualitative insights from surveys of 220 respondents and 10 semi-structured management interviews; multi-criteria decision analysis (MCDA) with knapsack-style budget allocation algorithm; statistical validation through paired t-tests and repeated-measures ANOVA. Main results – over a six-month pilot period, the integrated approach achieved 23% reduction in critical infrastructure downtime, 44.4% improvement in mean repair times, 42.9% faster response times, 12% increase in customer satisfaction, and 8% decrease in monthly heating expenses, all within existing budget constraints. Scope of practical use of results – the framework provides a replicable model for HCS providers in Ukraine and similar post-Soviet contexts, offering transparent, data-driven decision-making for optimizing limited resource allocation and enhancing community trust. Integrating real-time risk management, systematic stakeholder collaboration through monthly forums, and adaptive multi-criteria prioritization within a unified digital platform significantly enhances HCS delivery efficiency and strategic decision-making even under severe budgetary constraints.

Keywords: housing, infrastructure, risk, stakeholder, prioritization, Ukraine, budget, integration, digital, performance.

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DEVELOPMENT OF VECTOR MODELS AND METHODS FOR THEIR SOLUTION FOR OPTIMIZATION OF LOGISTICS PROBLEMS IN E-COMMERCE

pages 51–59

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The object of research is the logistics processes of delivering goods in a digital environment (e-commerce), which require optimization using mathematical models. One of the most problematic areas is taking into account dynamic changes and unpredictable factors: seasonal and daily fluctuations in demand, delays in deliveries, fluctuations in delivery costs, changes in routes, etc. This necessitates the creation of adaptive mathematical models that can quickly respond to changing conditions and ensure high efficiency of logistics processes in real time.

The study used a comprehensive approach that includes: mathematical modeling, linear programming methods (in particular, the potential method, the

simplex method), the unloading cycle method, as well as multi-criteria analysis and decision-making methods. The experiments were performed using the MATLAB and Python computing environments based on both real and synthetic data that simulate e-commerce conditions.

The main results of the study are as follows. First, it was established that classical scalar models of the transport problem (TP) are insufficient for describing multi-criteria logistics conditions in e-commerce, where it is important to simultaneously take into account several performance indicators. Second, the feasibility of using vector models that allow optimizing delivery processes according to several criteria – in particular, minimizing total costs, transportation time or loading time – was demonstrated. Such models reflect the real conditions and requirements of e-commerce much more accurately. Third, it was proven that the use of vector models allows achieving a balanced distribution of resources between competing criteria, which makes it possible to find compromise, but strategically more effective solutions at the moment. The possibility of using normalization methods, as well as methods of multi-criteria selection, was also demonstrated. As a result, two-criteria and three-criteria models of the transport problem were developed, implemented and tested, adapted to the conditions of digital logistics. It is shown that, taking into account the priorities of the criteria, these models provide a more flexible and adequate solution to optimization problems, compared to classical approaches.

Keywords: e-commerce, logistics processes, optimization, vector transport problems, potential method, unloading cycles.

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DEVELOPMENT OF PRODUCTIVE FORCES AND REGIONAL ECONOMY

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DEVELOPMENT OF AN APPROACH TO FORMING A MODEL OF BALANCED DEVELOPMENT OF FOOD SECURITY UNDER CONDITIONS OF TECHNOLOGICAL LOAD

pages 60–68

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The object of this study is a model of balanced agricultural development to ensure food security in conditions of technogenic stress. This issue is relevant for many countries, which is increasing its food exports to the world market while actively developing industrial production. Technogenic pressure on agricultural land not only negatively affects production volumes, but also product quality, environmental purity and consumer safety.

The proposed approach to forming a model of balanced food security development in conditions of technogenic load allows facilitates the use of strategic components of industrial and agricultural production, thereby enabling the achievement of an optimal balance of development. In this work, the optimal balance is defined as a balance in which the level of influence of new technologies is simultaneously increasing. This approach will also allow for the adjustment of the growth of technological influence on food security. Consequently, the pro-

posed approach will enhance the impact of anthropogenic load on agricultural land and reduce anthropogenic pollution of agricultural land.

As a result of the work, a model of balanced food security development was created for three regions of Kazakhstan – Akmola, Kostanay and North Kazakhstan. To this end, aggregated large-scale coefficients for wheat grain and livestock meat were introduced into the Technological Development model. These products are essential for ensuring food security within the boundaries of the regions under study and for Kazakhstan as a whole. According to the criteria studied, the indicators for the Kostanay and North Kazakhstan regions are approximately the same, at 78.1 and 78.3, respectively. This allows for the large-scale cultivation of agricultural products that are safe for human consumption. For the Akmola region, the indicator is 24.7. This indicator is not critical, but it highlights the need to change production technologies both in agriculture in this region and in industrial production.

The proposed approach can be used to analyse the balanced development of regions with the aim of intensifying food production.

Keywords: agricultural land, Environmental Technogenic Oppression (ETO) index, TEDR, sustainability level.

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PROBLEMS OF MACROECONOMICS AND SOCIO-ECONOMIC DEVELOPMENT

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DEVELOPMENT OF AN INTERDISCIPLINARY FRAMEWORK FOR POST-CONFLICT ECONOMIC RECOVERY OF COUNTRIES WITHIN THE PARADIGM OF INTERNATIONAL ECONOMIC RELATIONS

pages 69–76

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The object of research is post-conflict economic recovery as a component of international economic relations, encompassing interactions among donors, recipients, international organizations, and foreign investors. One of the most problematic aspects is the excessive simplification of this phenomenon within technocratic or narrowly disciplinary approaches, which leads to the neglect of political, social, institutional, and cultural factors, as well as the deep-rooted contradictions underlying the conflict. Existing concepts are unable to fully reflect the complexity of the recovery process and the risks of conflict relapse, particularly in conditions of political uncertainty and limited state capacity.

The research employed methods of interdisciplinary analysis, content analysis of scholarly sources and normative-institutional documents, critical review of the limitations of current approaches, and inductive generalization for the development of a new conceptual framework. This enabled a systematic comparison of three leading academic approaches – conflict studies, institutional economics, and transition theory – in their interpretations of the key categories: “post-conflict”, “economy”, and “recovery”.

As a result, an updated interdisciplinary analytical framework was developed, within which post-conflict recovery is understood as a multidimensional process of transformation unfolding within a space of fundamental contradic-

tions: order / chaos, old / new, justice / injustice. This is due to the fact that the proposed model enables the integration of economic, institutional, and social dimensions, moving beyond the linear logic of reconstruction in favor of a flexible and context-sensitive approach.

This framework makes it possible to develop recovery strategies that are adapted to local conditions, enhance trust, legitimacy, and inclusion, and reduce the risks of conflict recurrence. Compared to existing well-known concepts, it offers such advantages as greater adaptability, multidimensionality, and practical relevance for international economic policy in the context of post-conflict transformations and the complex social legacy of war.

Keywords: FDI, post-conflict economic recovery, finance, financial instruments, international economic relations.

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SCENARIO-BASED MODELING OF HUMAN RESOURCE DEVELOPMENT TRANSFORMATION UNDER MACROECONOMIC UNCERTAINTY: PROBLEM-ORIENTED APPROACH

pages 77–85

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The object of research is the process of problem-oriented human resource development under macroeconomic uncertainty. The proposed scenario-based modeling approach integrates tools of cognitive mapping and system dynamics modeling to construct and evaluate alternative development scenarios. A problem-oriented human resource development model was constructed based on a scenario approach, incorporating indicators and instruments at three levels of governance (macro, meso, and micro). This model enables the formulation of a well-founded set of policies and measures, taking into account macroeconomic realities, wartime risks, and institutional constraints. Development scenarios-baseline, optimistic, and pessimistic- were elaborated. Key criteria for evaluating the effectiveness of human resource development and policy directions were identified, including macroeconomic effects (growth in GDP per capita, living standards), regional effects (growth in gross regional product, reduction of unemployment), microeconomic effects (increased productivity,

reduced employee turnover, improved workforce qualification), and the extent to which priority problems are addressed (brain drain, skills mismatch, etc.). The proposed system of evaluation criteria enables the alignment of objectives across different governance levels and facilitates multidimensional policy assessment. According to these criteria, all three scenarios – especially the optimistic and synergistic ones – outperform the existing inertial trajectory of development. The results demonstrate a synergistic effect of coordinated investments in human resource development across all governance levels, providing a solid foundation for national human capital development policies. The impact of the full-scale war in Ukraine was taken into account in the formulation of challenges and scenarios, and state support measures for transforming human resource development during crisis and post-war recovery were substantiated.

Keywords: development, human resources, problem-oriented approach, scenario modeling, macroeconomic uncertainty, cognitive map.

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