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## DEVELOPMENT OF AN ECONOMIC QUALITY MANAGEMENT SYSTEM FOR SUSTAINABLE DEVELOPMENT WITHIN AN ENTERPRISE

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## ФОРМУВАННЯ СИСТЕМИ ЕКОНОМІЧНОГО УПРАВЛІННЯ ЯКІСТЮ СТАЛОГО РОЗВИТКУ ПІДПРИЄМСТВА

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*The article examines the theoretical and methodological foundations for the formation of a system of economic management of the quality of sustainable development of an enterprise under conditions of a transformational economy. The relevance of ensuring the qualitative characteristics of sustainable development, which determine the level of balance between economic, social, and environmental performance of an enterprise, is substantiated. The generalization of scientific approaches to the interpretation of sustainable development made it possible to define it as a complex multidimensional category that requires an integrated management approach. The essence of the concept of "quality of sustainable development of an enterprise" is clarified as an integral characteristic reflecting the enterprise's ability to ensure efficient, stable, and balanced functioning in the long term. The author proposes a definition of economic management of the quality of sustainable development as a system-based process of purposeful influence on the formation and maintenance of balanced development through the application of economic methods, tools, and mechanisms. A system of economic management of the quality of sustainable development of an enterprise is developed, which includes interrelated elements: goals, objects and subjects of management, principles, functions, methods, tools, resource and information support, and performance results. The economic content of each element is determined, which enhances the effectiveness of managerial decision-making and its practical implementation. A system of indicators for assessing the quality of sustainable development of an enterprise is proposed, covering economic, social, and environmental components. The use of an integral indicator is substantiated, which allows for a comprehensive assessment of the level of sustainable development, identification of imbalances, and formation*

*of an analytical basis for management decisions. A model of the system of economic management of the quality of sustainable development of an enterprise is developed, including target, subject-object, functional, instrumental, analytical-evaluative, and result blocks interconnected through feedback mechanisms. It is determined that the proposed model ensures adaptability and increases the efficiency of enterprise management in a dynamic environment.*

*The scientific novelty of the research lies in the development of a holistic approach to economic management of the quality of sustainable development of an enterprise, combining system structuring, management tools, and methods of integral assessment. The practical significance of the results lies in the possibility of their application by enterprises to improve management efficiency, ensure balanced development, and strengthen competitive positions in the long term.*

**Keywords:** *sustainable development of enterprise; quality of sustainable development; economic management; management system; integral assessment; sustainability indicators; enterprise efficiency*

**Introduction.** Against a backdrop of global economic transformation, intensifying competition and growing environmental and social challenges, ensuring the sustainable development of enterprises has taken on particular significance. Modern enterprises operate in an environment of high uncertainty, which requires not only the achievement of economic results but also adherence to the principles of social responsibility and environmental sustainability. In this context, the issue of establishing effective management systems aimed at ensuring the quality characteristics of an

enterprise's sustainable development becomes increasingly relevant. The quality of sustainable development should be viewed as a comprehensive characteristic reflecting the level of balance between the economic, social and environmental outcomes of an enterprise's activities in the long term.

At the same time, existing approaches to managing sustainable development are predominantly focused on individual aspects or indicators, which does not allow for the formation of a comprehensive system of economic management of the quality of this process. This necessitates the development of an integrated approach to establishing a system of economic quality management for an enterprise's sustainable development, which takes into account the interrelationship of all components and ensures the improvement of the effectiveness of management decisions.

#### **Analysis of basic research and publications.**

The issues surrounding sustainable development in enterprises and the management of its quality are the subject of research by both international and domestic scholars. The foundations of the concept of sustainable development were laid out in the report of the Brundtland Commission, in which sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In the works of foreign scholars, considerable attention is paid to the essence and evolution of the concept of sustainable development. In particular, T. Strange and A. Bayley view sustainable development as a concept, a process and a goal that is integrated into the management decision-making system [2]. P. Vare and W. Scott focus on the resource- and investment-based nature of sustainable development, emphasising its link to the long-term enhancement of the capacity to meet societal needs [3]. S. Bukovová and L. Foltínová justify the interdisciplinary nature of sustainable development and the need to take into account both short-term and long-term effects [4].

Research dedicated to the integration of environmental and managerial aspects into business operations has also made a significant contribution to the development of the concept. In particular, R. Hba and other authors propose management models that combine the principles of corporate social responsibility and «green» technologies, thereby contributing to the enhancement of the economic, social and environmental performance of businesses [5].

In domestic academic literature, research focuses on adapting the concept of sustainable development to the operating conditions of Ukrainian enterprises. Thus, A. Kasych justifies the need for a systematic approach to managing the sustainable development of enterprises, emphasising the importance of harmonising economic, social and environmental processes [6]. I. Tarasenko and K. Olefirenko view sustainable development as an object of strategic management, emphasising the complexity of its components and the need to integrate them into a single management system [1]. K. Antoniuk explores the issue of modernising quality management systems in the context of sustainable development, emphasising the role of marketing and socio-environmental tools in ensuring the safety and efficiency of enterprises' operations [7]. I. Stankovska and L. Smaga substantiate the impact of digital transformation on improving the quality of enterprise management based on sustainable development, which expands the toolkit of economic management [8]. At the same time, despite a significant body of research, insufficient attention has been paid in the scientific literature to the issue of developing a comprehensive system of economic management of sustainable development quality in enterprises, which integrates economic mechanisms, assessment tools and management functions. This necessitates further scientific research in this area.

**The purpose of this article** is to establish the theoretical and methodological foundations and to develop a system of economic quality management for sustainable enterprise development, based on the integration of economic, social and environmental components and designed to enhance the effectiveness of management decisions.

**Materials and results of the study.** In today's business environment, the sustainable development of an enterprise is viewed as a multidimensional concept encompassing the balance of economic, social and environmental outcomes. At the same time, ensuring sustainable development requires not only the achievement of relevant indicators, but also the development of their qualitative characteristics, which reflect the level of efficiency, stability and adaptability of the enterprise's operations.

The quality of an enterprise's sustainable development should be interpreted as an integral characteristic reflecting the degree of harmonisation of the economic, social and environmental parameters of the enterprise's development, as well as their ability to ensure long-term effectiveness and resilience to external and internal challenges.

In turn, economic management should be viewed as a targeted influence on the processes of forming and utilising an enterprise’s resources with the aim of achieving defined development goals through the application of economic methods, tools and levers [7].

The combination of these approaches allows for the formation of a comprehensive vision of the economic management of sustainable enterprise development as an integrated process that ensures the coordinated functioning of all components of the development system.

Economic management of quality in sustainable enterprise development is a systematically organised process of purposefully influencing the formation, maintenance and improvement of the balance between the economic, social and environmental outcomes of an enterprise’s activities, based on the use of economic methods, tools and mechanisms, with the aim of achieving long-term efficiency and sustainability in its development [2].

In order to put this approach into practice, it is necessary to establish an appropriate system of

economic management for the quality of an enterprise’s sustainable development, which must be based on the identification of its key elements, operating principles and supporting tools (tab. 1).

The proposed system of economic management of sustainable development within an enterprise is comprehensive in nature and encompasses interrelated elements that ensure a targeted influence on development processes. Defining its structural components makes it possible to systematise managerial influences and establish a coherent mechanism for ensuring the quality of sustainable development.

A distinctive feature of the proposed approach is the emphasis on the economic content of each element of the system, which enables the quantitative assessment of management outcomes and enhances the soundness of management decisions [9].

Assessing the quality of an enterprise’s sustainable development is a key stage in economic management, as it enables the determination of the level of balance in its operations and the effectiveness of management decisions. Given the multidimensional nature of sustainable development, it is advisable to use a system of indicators that covers economic, social and environmental components.

Table 1

**Elements of the economic quality management system for sustainable development of an enterprise**

System element	Element description	Economic content
System objective	Ensuring a high standard of sustainable development for the enterprise	Achieving long-term efficiency, increasing the enterprise’s value, and ensuring stable financial results
Management focus	Processes for establishing and ensuring the sustainable development of the enterprise	Economic, social and environmental outcomes of operations
Management actors	Enterprise leadership, managers at various levels	Making management decisions regarding the allocation of resources, investments and expenditure
Management principles	Systematic approach, comprehensiveness, adaptability, balance	Ensuring an optimal balance between costs and results, minimising risks
Management functions	Planning, organisation, motivation, control, regulation	Budgeting, economic analysis, performance monitoring
Management methods	Economic, administrative, socio-psychological	Pricing, investment, economic incentives
Management tools	Performance metrics, standards, benchmarks, development programmes	KPIs, ESG indicators, financial ratios, sustainability indices
Resource provision	Material, financial, labour and information resources	Optimisation of capital structure, efficient use of resources
Information support	Systems for collecting, processing and analysing information	Management accounting, analytical systems, digital platforms
System performance	Achieving a high standard of sustainable enterprise development	Increased competitiveness, investment attractiveness and social responsibility

Table 2

**System of indicators for assessing the quality of an enterprise's sustainable development**

Component	Indicator	Economic interpretation
Economic	Return on operations	Resource efficiency
	Revenue growth rate	Enterprise development dynamics
	Financial stability	Self-financing capacity
Social	Wage levels	Social security for staff
	Labour productivity	Efficiency of labour potential utilisation
	Staff turnover rate	Stability of the workforce
Environmental	Costs of environmental measures	Investment in sustainable development
	Level of emissions/waste	Environmental impact of operations
	Energy efficiency	Rational use of resources

The proposed assessment system is based on the principles of comprehensiveness, comparability and integration, which enables the formation of a summary indicator of the quality of an enterprise's sustainable development (tab. 2).

To summarise the results of the assessment, it is advisable to use an integrated indicator of an enterprise's sustainable development:

$$I_{sr} = w_1E + w_2S + w_3Ec, \quad (1)$$

where: E – integrated indicator of the economic component;

S – integrated indicator of the social component;

Ec – integrated indicator of the environmental component;

$w_1, w_2, w_3$  – weighting coefficients ( $\sum w = 1$ ).

The composite indicators for each component are determined by normalising the relevant sub-indicators and subsequently aggregating them. Weighting coefficients may be established using an expert-based approach or on the basis of analytical procedures, depending on the enterprise's development priorities.

The proposed approach allows for:

a comprehensive assessment of the quality of sustainable development;

the identification of imbalances between components;

the enhancement of the soundness of management decisions;

the monitoring of the enterprise's development dynamics.

A key feature of the proposed approach is the integration of economic assessment tools with the concept of sustainable development, which enables the quantitative measurement of an enterprise's development quality and the establishment of an analytical framework for economic management.

It is appropriate to view the economic quality management system for sustainable enterprise development as a multi-level integrated model that combines objective, functional, instrumental and outcome-oriented components into a single, logically coherent structure [5].

At the heart of the model lies the objective block, which defines the strategic direction of management and is geared towards ensuring a high level of quality in the enterprise's sustainable development. This block establishes key development guidelines aimed at achieving economic efficiency, social responsibility and environmental balance.

The next element is the subject-object block, which reflects the interaction between management subjects (enterprise leadership, management) and management objects (processes ensuring sustainable development). It is within this block that managerial influence on the economic, social and environmental parameters of the enterprise's activities is realised.

The central place in the model is occupied by the functional block, which includes the main management functions: planning, organisation, motivation, control and regulation. Their implementation ensures the continuity of the management process and the enterprise's adaptation to changes in the external environment.

An important component of the model is the instrumental block, which encompasses a set of economic methods, levers and management tools, including a system of indicators, evaluation mechanisms, financial and economic instruments, as well as digital technologies to support management decisions.

The analytical and evaluation block plays a special role, ensuring the monitoring and evaluation of the quality of the enterprise's sustainable development based on an integrated indicator. It is this block that forms the information basis for management decision-making and allows for the

identification of imbalances between the components of sustainable development.

The final element of the model is the outcome module, which reflects the results achieved by the system's operation, in particular the improvement in the enterprise's competitiveness, its investment attractiveness, economic resilience and social responsibility.

The model provides for feedback, which ensures that management decisions are adjusted in line with the results of the assessment and changes in the external environment, which, in turn, enhances the adaptability and effectiveness of the economic management system.

The proposed model is characterised by a comprehensive combination of economic management tools and a system for assessing the quality of sustainable development, which ensures the coherence of management interventions and enhances the efficiency of the enterprise's operations in a dynamic environment.

**Conclusions and proposals.** This article sets out the theoretical and methodological foundations for establishing a system of economic management of sustainable development within an enterprise in the context of contemporary transformational processes. A review of academic approaches to the interpretation of sustainable development has enabled it to be defined as a multidimensional concept that combines economic, social and environmental components, all of which require coordinated managerial intervention.

The research clarifies the essence of the concept of 'the quality of an enterprise's sustainable development' as an integral characteristic reflecting the level of balance and efficiency of the enterprise's operations in the long term. On this basis, the author has formulated a definition of the economic management of the quality of an enterprise's sustainable development, which is viewed as a systematic process of targeted influence on the formation and assurance of balanced development through the application of economic instruments and mechanisms.

The key result of the study is the development of a system of economic management of the quality of sustainable enterprise development, structured according to the following main elements: objective, object and subjects of management, principles, functions, methods, tools, resource and information support, as well as operational outcomes. Defining the economic content of each element has enhanced the practical significance of the proposed approach.

The paper proposes a system of indicators for assessing the quality of an enterprise's sustainable development, covering economic, social and environmental components. Based on the aggregation of partial indicators, the use of an integrated indicator is justified, which allows for a comprehensive assessment of the enterprise's development level, the identification of imbalances and the formation of an analytical basis for managerial decision-making.

A model of the economic management system for the sustainable development of an enterprise has been developed, comprising target, subject-object, functional, instrumental, analytical-evaluative and result-oriented blocks. A distinctive feature of the model is the presence of feedback, which ensures the adaptability of the system and the possibility of adjusting managerial interventions in accordance with changes in the external environment.

The scientific novelty of the results obtained lies in the formation of a holistic approach to the economic management of sustainable development quality in an enterprise, combining the structuring of system elements, instrumental support and a methodology for integrated assessment.

The practical significance of the proposed provisions lies in the possibility of their use by enterprises to improve the effectiveness of development management, ensure the balance of activities and strengthen competitive positions in the long term.

Prospects for further research should focus on refining methods for the quantitative assessment of sustainable development quality, expanding the system of indicators to account for sector-specific characteristics, and testing the proposed model in the practical operations of enterprises.

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### Кузьменко С.В., Зайченко С.П. Формування системи економічного управління якістю сталого розвитку підприємства.

У статті досліджено теоретико-методичні засади формування системи економічного управління якістю сталого розвитку підприємства в умовах трансформаційної економіки. Обґрунтовано актуальність забезпечення якісних характеристик сталого розвитку, що визначають рівень збалансованості економічних, соціальних та екологічних результатів діяльності підприємства. Узагальнення наукових підходів до трактування сталого розвитку дозволило визначити його як комплексну багатовимірну категорію, яка потребує інтегрованого управлінського підходу. Уточнено сутність поняття «якість сталого розвитку підприємства» як інтегральної характеристики, що відображає здатність підприємства забезпечувати ефективне, стабільне та збалансоване функціонування у довгостроковій перспективі. Запропоновано авторське визначення економічного управління якістю сталого розвитку підприємства як системного процесу цілеспрямованого впливу на формування та забезпечення збалансованого розвитку з використанням економічних інструментів, методів і важелів. Розроблено систему економічного управління якістю сталого розвитку підприємства, яка включає взаємопов'язані елементи: мету, об'єкт і суб'єкти управління, принципи, функції, методи, інструменти, ресурсне та інформаційне забезпечення, а також результати функціонування. Визначено економічне наповнення кожного елемента, що забезпечує можливість підвищення ефективності управлінських рішень та їх практичної реалізації. Запропоновано систему показників оцінювання якості сталого розвитку підприємства, що охоплює економічну, соціальну та екологічну складові. Обґрунтовано використання інтегрального показника, який дозволяє здійснювати комплексну оцінку рівня сталого розвитку, виявляти дисбаланси між його складовими та формувати аналітичну основу для управління. Розроблено модель системи економічного управління якістю сталого розвитку підприємства, що включає цільовий, суб'єктно-об'єктний, функціональний, інструментальний, аналітично-оцінювальний та результативний блоки, об'єднані механізмом зворотного зв'язку. Визначено, що запропонована модель забезпечує адаптивність системи управління та підвищує її ефективність у динамічному середовищі. Наукова новизна дослідження полягає у формуванні цілісного підходу до економічного управління якістю сталого розвитку підприємства, що поєднує структуризацію системи, інструментальне забезпечення та методичку інтегрального оцінювання. Практичне значення

*отриманих результатів полягає у можливості їх використання підприємствами для підвищення ефективності управління розвитком, забезпечення збалансованості діяльності та зміцнення конкурентних позицій у довгостроковій перспективі.*

**Ключові слова:** *сталій розвиток підприємства; якість сталого розвитку; економічне управління; система управління; інтегральна оцінка; показники сталого розвитку; ефективність підприємства*

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