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MANAGEMENT OF ENTERPRISE CIRCULAR ECONOMY DEVELOPMENT AS A FACTOR OF ECONOMIC RESILIENCE AND COMPETITIVENESS

The article examines the theoretical and practical foundations of managing enterprise circular economy development as a factor in strengthening economic resilience and competitiveness. It is substantiated that the traditional linear economic model based on the sequence of resource extraction, production, consumption and waste generation no longer meets contemporary requirements for resource efficiency, environmental responsibility and long-term business performance. The transition to a circular model involves retaining the value of products, materials and resources within economic circulation for as long as possible through reuse, repair, refurbishment, remanufacturing, recycling and the creation of closed production cycles.

It is proved that the circular economy should be considered not only as an environmental concept but also as a strategic enterprise management model capable of reducing resource intensity, lowering production costs, decreasing dependence on unstable supply chains, generating new revenue streams and increasing organizational adaptability to external crises. Effective circular transformation requires the integration of economic, environmental, technological, organizational, investment and marketing instruments into a unified enterprise development management system.

Special attention is paid to digital technologies, eco-innovation, industrial symbiosis, circular design, reverse logistics and responsible consumption in the formation of closed-loop value creation models. Digitalization is shown to ensure the traceability of resource flows, improve the transparency of production operations, support forecasting of material consumption and optimize management decisions related to resource recovery and reuse.

The article proposes conceptual directions for managing enterprise circular economy development, including strategic planning of circular transformation, resource diagnostics, product ecodesign, modernization of production processes, development of partnership networks, implementation of circular business models and assessment of economic, environmental and social outcomes. It is concluded that the systematic application of circular principles contributes to strengthening enterprise economic resilience, increasing resource efficiency, stimulating innovation activity and creating long-term competitive advantages.

Keywords: *circular economy, economic resilience, competitiveness, enterprise management, resource efficiency, circular business models, eco-innovation, industrial symbiosis, reverse logistics, sustainable development.*

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УПРАВЛІННЯ РОЗВИТКОМ ЦИРКУЛЯРНОЇ ЕКОНОМІКИ ПІДПРИЄМСТВ ЯК ЧИННИК ЕКОНОМІЧНОЇ СТІЙКОСТІ ТА КОНКУРЕНТОСПРОМОЖНОСТІ

У статті досліджено теоретичні та прикладні засади управління розвитком циркулярної економіки підприємств як чинника зміцнення їх економічної стійкості та конкурентоспроможності. Обґрунтовано, що традиційна лінійна модель господарювання, заснована на послідовності «видобування ресурсів – виробництво – споживання – утворення відходів», не відповідає сучасним вимогам раціонального використання ресурсів, екологічної відповідальності та довгострокової ефективності бізнесу. Встановлено, що перехід до циркулярної моделі передбачає збереження цінності матеріалів, продукції та ресурсів у господарському обігу протягом максимально тривалого періоду завдяки повторному використанню, ремонту, відновленню, модернізації, переробленню та формуванню замкнених виробничих циклів.

Доведено, що циркулярна економіка повинна розглядатися не лише як екологічна концепція, а як сучасна модель стратегічного управління підприємством, здатна забезпечити скорочення ресурсомісткості, зниження виробничих витрат, зменшення залежності від нестабільних ланцюгів постачання, формування нових джерел доходу та підвищення адаптивності суб'єктів господарювання до зовнішніх криз. Визначено, що ефективне управління циркулярною трансформацією потребує інтеграції екологічних, економічних, технологічних, організаційних, інвестиційних і маркетингових інструментів у єдину систему управління розвитком підприємства.

Особливу увагу приділено ролі цифрових технологій, екоінновацій, промислової симбіозності, циркулярного дизайну, реверсивної логістики та відповідального споживання у формуванні замкнених моделей створення вартості. Обґрунтовано, що цифровізація забезпечує простежуваність ресурсних потоків, підвищує прозорість виробничих операцій, дозволяє прогнозувати рівень споживання матеріалів і сприяє оптимізації управлінських рішень щодо повторного використання ресурсів.

Запропоновано концептуальні напрями управління розвитком циркулярної економіки підприємств, які охоплюють стратегічне планування циркулярної трансформації, ресурсну діагностику, екодизайн продукції, модернізацію виробничих процесів, розвиток партнерських мереж, застосування циркулярних бізнес-моделей та оцінювання економічних, екологічних і соціальних результатів. Доведено, що системне впровадження принципів циркулярності сприяє зміцненню економічної стійкості підприємств, підвищенню ефективності використання ресурсів, розвитку інноваційної активності та формуванню довгострокових конкурентних переваг.

Ключові слова: *циркулярна економіка, економічна стійкість, конкурентоспроможність, управління підприємством, ресурсоефективність, циркулярні бізнес-моделі, екоінновації, промисловий симбіоз, реверсивна логістика, сталий розвиток.*

Problem statement. Modern enterprises operate in conditions of increasing resource constraints, instability of raw material supply, rising cost of energy and material resources, aggravation of environmental problems and increasing social demands for business responsibility. The traditional linear business model, which involves the extraction of resources, their processing, production, consumption and subsequent generation of waste, is gradually losing its ability to ensure long-term efficiency and sustainability of business activities. Given the limited natural resources and high dependence of production on external supplies, such a model creates significant eco-

nomic, environmental and logistical risks. The problem of rational use of resources becomes particularly relevant in the context of structural transformation of the economy, technological modernization of production and the need to adapt enterprises to the principles of sustainable development. Enterprises are increasingly faced with the need not only to reduce production costs, but also to change the logic of value creation itself, moving from single-use of resources to their multiple involvement in economic circulation. This necessitates the development of a circular economy, which involves minimizing material losses, extending the life cycle of products, reusing components, restoring products, and converting waste into secondary resources. The circular economy forms a fundamentally new approach to enterprise management. Its implementation requires changes not only in production technologies, but also in strategic planning, investment policy, logistics, marketing, product design, and interaction with suppliers and consumers. Within the framework of the circular model, the enterprise must manage not individual operations, but the entire life cycle of products, starting from the selection of materials and ending with the return of used goods to the production system.

At the same time, circular transformation creates not only additional obligations for enterprises, but also significant economic opportunities. Reducing the consumption of primary raw materials, reusing materials, reducing disposal costs, developing service models and implementing environmentally friendly innovations can ensure increased profitability, stability of cash flows and independence from external resource fluctuations. Due to this, the principles of circularity are directly linked to the economic sustainability of the enterprise and its ability to maintain functionality in crisis conditions. The competitiveness of enterprises in the modern environment also increasingly depends on their ability to meet environmental requirements, demonstrate resource efficiency, ensure transparency of the origin of materials and implement innovative business models. Consumers, investors, partners and other stakeholders pay attention not only to the price and quality of products, but also to their environmental characteristics, durability, maintainability and reusability. Accordingly, circularity is becoming an important factor in market positioning, business reputation and the formation of long-term consumer loyalty. Despite the growing attention to the problems of the circular economy, in practice, enterprises often implement its individual elements in a fragmented manner. The most common measures remain waste reduction, energy saving or the use of secondary raw materials, while the strategic transformation of business models, product life cycle management and the formation of inter-organizational circular networks are underdeveloped. This indicates the need to develop a holistic management approach that will allow to harmonize the resource, technological, financial, organizational and market aspects of circular transformation.

Thus, the relevance of the study is due to the need for theoretical justification and practical improvement of the management system for the development of the circular economy of enterprises. Of particular importance is the definition of mechanisms by which circular principles can be transformed into real factors of economic sustainability, innovative development and increased competitiveness of business entities.

Analysis of publications. The issues of circular economy development and its impact on the economic sustainability of enterprises are increasingly being studied by

both foreign and domestic scientists. Modern research shows that the transition from a linear to a circular business model is not only an environmental necessity, but also an important tool for increasing competitiveness, resource efficiency and innovative development of enterprises.

The works of I. M. Biletska substantiate the need to form modern management mechanisms for innovative development of enterprises, which are based on the integrated use of infrastructure, organizational and management tools. The author emphasizes that effective management of enterprise development should be based on systematic decision-making, innovation and adaptability to changes in the external environment [1]. The research of O. Honchar and A. Berdychevsky is devoted to the issues of increasing the efficiency of enterprise development on the basis of innovation. Scientists prove that the long-term competitiveness of modern enterprises is largely determined by the ability to implement innovative business models, improve management processes and effectively use available resources, which is fully consistent with the concept of a circular economy [2]. A significant contribution to the development of modern approaches to enterprise management was made by O. Khodakivska, I. Hnatenko, T. Dyachenko and I. Sabii, who substantiated business models in the conditions of an innovative economy and a knowledge economy. The authors focus on rational resource management, cost optimization and integration of innovative development mechanisms, which are important components of the transition to a circular business model [3]. The issue of implementing innovative management solutions was also reflected in the works of I. Antonenko and I. Melnyk, who consider service innovations as an effective tool for modern enterprise management. Their findings confirm that innovative management directly affects the increase in the efficiency of business entities and the creation of new competitive advantages [4]. Scientific results of O. Tabenskaya are devoted to the development of integration processes that contribute to the formation of partnership models of interaction between business entities. In modern conditions, it is the integration of enterprises into production networks, clusters and innovation ecosystems that creates the prerequisites for the development of industrial symbiosis, resource reuse and the formation of circular value chains [5]. An important place among modern research is occupied by the works of I. Hnatenko, Y. Popova, I. Bachkir and K. Nechyporenko, which reveal the strategic priorities of innovative economy management based on scenario foresight, development of intellectual potential and scientific and technological resources. The approaches proposed by the authors can be used in the formation of strategies for circular transformation of enterprises [6]. The research of Y. Borutskaya, O. Krupa, N. Stoyko, M. Zos-Kior, V. Ilyin, E. Svyryda, O. Perepelyukova, O. Mikhailuk, N. Niecheva, as well as I. Hnatenko, E. Snitko, R. Markova and V. Utkin is devoted to the issues of clustering, development of labor potential, innovative entrepreneurship, logistics management and interorganizational cooperation. The obtained results show that the development of cluster models, effective use of human capital, digitalization of management and integration of enterprises into network structures create favorable conditions for the spread of the principles of the circular economy, ensure more efficient use of resources and contribute to increasing the economic sustainability of enterprises [7-11].

At the same time, the analysis of modern scientific literature shows that, despite significant scientific achievements in the field of sustainable development, innovation

management, resource efficiency and circular economy, the issues of comprehensive management of the development of the circular economy of enterprises as an integrated system for ensuring their economic sustainability and long-term competitiveness remain insufficiently researched. This is what led to the need for further research and development of the author's approach to the formation of a mechanism for managing the circular transformation of enterprises.

Presentation of the main results. The transformation of the modern economy necessitates a review of traditional approaches to enterprise development management. If for a long time the main goal of production activity was to maximize the volume of production and sales of products, today the priority is to ensure the efficient use of resources throughout the entire product life cycle. That is why the concept of a circular economy is gradually transforming from a purely environmental initiative into a strategic tool for long-term development of enterprises, which combines economic, environmental, technological and social goals. Unlike the linear business model, the circular economy is focused on maximizing the value of resources through the multiple use of materials, extending the life cycle of products, restoring individual components, upgrading products and using secondary raw materials in production processes. This approach allows you to significantly reduce the dependence of enterprises on the instability of global raw materials markets, minimize the impact of resource crises and form more sustainable production systems. The economic sustainability of an enterprise in the context of circular transformation is determined not only by the financial results of its activities, but also by the enterprise's ability to maintain the stability of production processes in the face of limited resources, changing market conditions, increased environmental regulation and rapid technological development. In this context, the circular economy acts as a mechanism for diversifying resource supply, which allows reducing production risks and increasing the adaptability of the enterprise to changes in the external environment. An important feature of the circular economy is the change in the principles of value formation. If in the traditional model the main source of profit is an increase in the volume of sales of new products, then circular business models provide for obtaining additional economic benefits through service, repair, modernization of products, resale of refurbished products, processing of materials and the use of secondary resources. This allows enterprises to form new markets, increase profitability and strengthen long-term relationships with consumers [2; 6; 10-11].

One of the key areas of development of the circular economy is the implementation of eco-design principles. The formation of products should be carried out taking into account the possibility of their repair, modernization, reuse of individual components, easy dismantling and effective recycling after the end of operation. This approach allows, even at the design stage, to minimize future costs for waste management, reduce the use of primary raw materials and ensure a longer product life cycle [1; 3-5]. The development of reverse logistics plays an equally important role. Unlike traditional logistics systems that ensure the movement of material flows from the manufacturer to the consumer, reverse logistics organizes the return of used products, packaging, individual parts and materials to the production cycle. Thanks to this, enterprises are able to reuse a significant part of resources, reduce the purchase of new materials and generate additional economic benefits. In modern conditions,

one of the determining factors of successful circular transformation is the digitalization of resource flow management. The use of digital platforms, Internet of Things (IoT) technologies, artificial intelligence systems, digital twins of production, blockchain technologies and big data analytics allows for continuous monitoring of resource use, forecasting the volume of waste generation, optimizing production processes and ensuring traceability of materials throughout their life cycle. An important component of the development of the circular economy is industrial symbiosis, which involves the interaction of several enterprises with the aim of effectively using secondary resources. In such a system, the waste of one enterprise becomes a resource for another, which allows minimizing material losses, reducing production costs and reducing the negative impact on the environment [3; 8; 11]. In addition to the economic effect, industrial symbiosis contributes to the formation of new partnerships, the development of regional production clusters and stimulates the spread of innovations between participants in economic networks. In order to systematize the areas of management of the development of the circular economy, an author's model is proposed that covers all stages of the circular transformation of an enterprise (Table 1).

The proposed model demonstrates that the circular economy cannot be limited to individual environmental measures. It must be integrated into the strategic management system of the enterprise and cover all stages of value creation – from product planning to resource reuse. It is the complex nature of the circular transformation that provides a synergistic effect, when increasing resource efficiency simultaneously contributes to reducing costs, reducing environmental burden, strengthening economic sustainability and forming new competitive advantages [4; 10]. Thus, the development of the circular economy should be considered as a strategic direction of enterprise modernization, which allows combining the economic interests of business with the principles of sustainable development, innovation and responsible use of natural resources. In modern conditions, it is the ability of an enterprise to implement circular business models that will increasingly determine its position in the domestic and international markets, investment attractiveness and long-term development potential. After implementing the basic elements of the circular economy, the enterprise moves to a qualitatively new stage of development, which is characterized by the integration of resource efficiency into all functional management subsystems. In such a system, management decisions are made not only taking into account financial feasibility, but also from the standpoint of long-term preservation of natural capital, minimizing production losses, increasing environmental responsibility and ensuring sustainable development. This allows enterprises to form a new model of economic growth, in which the source of competitive advantages is not the scale of resource consumption, but the efficiency of their use. Of particular importance is the integration of the principles of the circular economy into the functional subsystems of enterprise management [3; 8; 11]. Production management is focused on the implementation of resource-saving technologies, financial management – on assessing the economic feasibility of circular investments, marketing management – on the formation of demand for environmentally responsible products, logistics management – on the development of reverse logistics systems, and personnel management – on the development of personnel competencies in the field of environmental management and innovation. It is the complex combination of these areas that ensures the achievement of a synergistic effect from circular transformation.

Table 1. **Conceptual model of management of the development of the circular economy of an enterprise,** *author's development*

Management stage	Key management activities	Expected results
1. Formation of a strategic vision	Defining circular transformation goals, integrating circular economy principles into corporate strategy	Formation of a long-term strategy for sustainable development of the enterprise
2. Comprehensive resource diagnostics	Analysis of the use of material, energy and information resources, assessment of resource losses	Identification of reserves for increasing resource efficiency
3. Design of a circular business model	Formation of a model for resource reuse, closed production cycles and new sources of value creation	Increasing the efficiency of resource potential use
4. Eco-design of products	Development of products taking into account the possibility of repair, modernization, reuse and recycling	Extending the product life cycle and reducing waste
5. Modernization of production processes	Implementation of resource-saving technologies, use of secondary raw materials, minimization of losses	Reducing production costs and material consumption of products
6. Digitalization of management	Use of digital platforms, IoT, Big Data, artificial intelligence to control resource flows	Increasing the efficiency and quality of management decisions
7. Development of reverse logistics	Organization of the return of products, packaging and materials to the production cycle	Reducing costs for purchasing resources and waste management
8. Formation of partner networks	Development of industrial symbiosis, inter-industry cooperation and cluster interaction	Optimizing the use of secondary resources and expanding partnerships
9. Innovation management	Implementation of ecological, technological, organizational and marketing innovations	Increasing innovative activity and competitive advantages
10. Monitoring and evaluation of effectiveness	Analysis of economic, environmental and social indicators of circular transformation, adjustment of management decisions	Increasing management effectiveness and continuous improvement of the system
11. Strategic results	Integration of all elements of the circular economy into the enterprise management system	Strengthening economic sustainability, increasing competitiveness, resource efficiency, investment attractiveness and ensuring long-term sustainable development of the enterprise

At the same time, the effectiveness of the development of the circular economy largely depends on the level of managerial maturity of the enterprise, its innovative potential, financial capabilities and the ability to quickly adapt to changes in the external environment. Practice shows that the greatest effect is achieved under the condition of simultaneous implementation of technological innovations, digitalization of business processes, modernization of production and formation of partnership

networks between enterprises, scientific institutions and state authorities. In order to comprehensively characterize the main tools for managing the development of the circular economy, it is advisable to systematize them by functional areas (Table 2).

Table 2. **Characteristics of the main tools for managing the development of the circular economy of an enterprise,** *author's development*

Management Direction	Implementation tools	Expected economic effect	Impact on competitiveness
Resource Management	Resource audit, material reuse, secondary raw materials	Reduction of material costs and lower product costs	Increasing resource efficiency and financial sustainability
Production Management	Resource-saving technologies, eco-design, equipment modernization	Reduction of production losses and energy intensity	Increasing productivity and product quality
Logistics Management	Reverse logistics, product life cycle management, waste return	Reduction of logistics costs and reuse of resources	Forming closed production cycles
Innovation Management	Eco-innovations, digital technologies, automation of production processes	Increase in management efficiency and optimization of business processes	Forming technological competitive advantages
Marketing Management	Green marketing, eco-labeling, service business models	Increase in demand for products and expansion of sales markets	Strengthening the image of the enterprise and consumer loyalty
Investment Management	Green investments, ESG financing, circular projects	Attracting long-term capital and reducing investment risks	Increasing the investment attractiveness of the enterprise
Personnel Management	Environmental training, development of circular competencies, staff motivation	Increase in labor productivity and innovative activity	Forming human capital for circular transformation

The presented systematization shows that the circular economy covers almost all functional subsystems of enterprise management. Unlike traditional approaches, in which environmental measures are considered as a separate area of activity, the proposed approach involves the integration of circularity principles into the general system of strategic management. This allows to ensure the consistency of management decisions, increase the efficiency of the use of production resources and create conditions for the formation of long-term competitive advantages.

An important factor in the successful implementation of the circular model is continuous monitoring of its effectiveness. The assessment of effectiveness should be carried out according to a system of interrelated economic, environmental, social and innovation indicators, which allow determining the degree of achievement of the strategic goals of the enterprise. A comprehensive assessment system creates an information basis for timely adjustment of management decisions, optimization of resource flows and increasing the effectiveness of circular transformation [1; 5; 8-11].

In modern business conditions, it is enterprises that are able to integrate the principles of the circular economy into their corporate strategy that receive significant advantages in the field of resource conservation, innovative development, investment attractiveness and adaptation to global economic challenges. This gives grounds to consider the circular economy not as a separate environmental concept, but as a modern management paradigm that forms a new model of economic sustainability and competitiveness of enterprises. Further development of the circular economy of enterprises should be carried out on the basis of quantitative assessment of the effectiveness of management decisions. The use of integral indicators allows not only to assess the current level of circular transformation, but also to identify areas for improving the efficiency of resource use, innovative activity and economic sustainability of the enterprise. A comprehensive approach to assessment provides the opportunity to compare results between enterprises in different industries, form management ratings and justify investment decisions regarding the implementation of circular projects.

One of the key indicators proposed is the Integrated Circular Economy Development Index (ICED), which summarizes the level of resource efficiency, material reuse, innovation activity, environmental performance, and digital maturity of the management system:

$$ICED = \sum_{i=1}^{n} wi \times Ci,$$

where $ICED$ – integral index of circular economy development of the enterprise; Ci – normalized partial indicators of circular development; wi – weight coefficients of the corresponding indicators; $wi = 1$.

The proposed indicator allows for a comprehensive assessment of the level of circular transformation of an enterprise and to identify the strengths and weaknesses of the management system. The next important criterion is the resource circularity coefficient, which characterizes the share of material resources that are returned to the production cycle after use:

$$Krc = \frac{Rr}{Rt},$$

where: Kr – resource circularity coefficient; Rr – volume of reused or recycled resources; Rt – total volume of used material resources.

An increase in the value of this coefficient indicates a reduction in the enterprise's dependence on primary raw materials, an increase in the efficiency of using material flows and a decrease in the negative impact of production on the environment.

From the perspective of strategic management, the assessment of the economic result from the implementation of circular technologies is of particular importance. For this purpose, it is proposed to use the economic efficiency index of circular transformation, which reflects the ratio of the obtained economic effect to the investments made:

$$IEce = \frac{S + Ca + Pi}{Ic},$$

where: *IEce* – index of economic efficiency of circular transformation; *S* – savings in material and energy costs; *Ca* – additional income from the reuse of resources and secondary raw materials; *Pi* – increase in profit due to the implementation of circular business models; *Ic* – total investment in the development of the circular economy.

The proposed system of indicators allows for a comprehensive assessment of both the level of development of the circular economy and the effectiveness of management decisions regarding its implementation. Unlike the use of separate economic or environmental indicators, the integrated approach ensures simultaneous consideration of resource efficiency, financial results, innovative activity and environmental impact of the enterprise. The use of the above models creates a methodological basis for the formation of a system of strategic monitoring of circular transformation. The results obtained can be used by the management of enterprises to adjust the corporate strategy, assess the effectiveness of investment programs, select priority areas for modernization of production and increase the level of economic sustainability. In addition, the proposed toolkit is universal and can be adapted to enterprises of various types of economic activity, which increases its practical value and the possibility of use in the system of strategic management of circular development [4; 7; 11]. The next direction of improving the system of management of the development of the circular economy is the formation of an effective organizational and economic mechanism for its implementation. Such a mechanism should combine the strategic goals of the enterprise with current management processes, ensuring consistency between production, financial, innovation, marketing and environmental policies. It is integrated management that creates the prerequisites for achieving long-term results of circular transformation and minimizes the risks of fragmented implementation of individual environmental measures. An important component of such a mechanism is the information and analytical support system. In modern conditions, management decisions should be based on operational information on the movement of material flows, the level of resource use, the structure of production costs, environmental indicators and the effectiveness of innovation activities. The formation of a single digital information environment allows for constant monitoring of the efficiency of resource use, timely detection of losses and prompt correction of production processes.

An equally important prerequisite for the development of a circular economy is the improvement of the corporate governance system. The management of the enterprise must ensure the integration of the principles of circularity into strategic documents, investment programs and the system of corporate values. This involves the formation of an appropriate organizational culture in which the economical use of resources, environmental responsibility and innovation become integral components of management activities. Of particular importance is the development of human capital as one of the key factors of successful circular transformation. The transition to new business models requires not only technological renewal of production, but also the formation of new professional competencies of personnel. Employees must

have modern knowledge in the field of resource efficiency, environmental management, digital technologies, product life cycle management and the implementation of innovative projects. Investments in the professional development of personnel ensure increased labor productivity, stimulate the generation of innovative solutions and accelerate the adaptation of the enterprise to changes in the external environment.

In the process of implementing a circular economy, the development of a risk management system is also an important task. The main risks of circular transformation include insufficient financial resources, technological uncertainty, low level of development of the secondary raw materials market, instability of the regulatory environment, insufficient readiness of personnel for organizational changes and fluctuations in demand for circular products. Accordingly, the risk management system should provide for the identification of potential threats, assessment of the probability of their occurrence, determination of the level of possible losses and development of a set of preventive measures to minimize the negative impact. The effectiveness of the circular model is largely determined by the level of interaction of the enterprise with external stakeholders. Suppliers ensure the use of environmentally safe raw materials and materials, research institutions contribute to the development of innovative technologies, state authorities form the regulatory environment and financial incentive mechanisms, while consumers determine the market demand for circular products. Thus, the successful implementation of the circular economy is possible only if an integrated ecosystem of cooperation is created, within which all participants in the value chain are interested in achieving common economic, environmental and social results [3; 8; 10].

At the same time, the development of the circular economy opens up new opportunities for diversifying the sources of income of the enterprise. In addition to the sale of the main products, enterprises can receive additional economic benefits from the sale of secondary raw materials, the provision of services for the repair and modernization of products, after-sales service, equipment restoration, processing of production waste and the implementation of models for the sharing of products. Such diversification contributes to increasing financial stability, reducing dependence on the situation of individual markets and ensuring the stability of cash flows in the long term. Thus, the strategic management of the development of the circular economy should be based on the principles of complexity, adaptability, innovation and continuous improvement. The combination of modern management technologies, digital tools, effective use of human capital and integration of the enterprise into circular production ecosystems creates the basis for the formation of a qualitatively new model of economic development. It is such a model that ensures not only an increase in the competitiveness of enterprises, but also their ability to function effectively in the conditions of global economic transformations, resource constraints and increased requirements for sustainable development.

Conclusions. As a result of the research, it was established that the development of the circular economy is one of the key strategic directions for increasing the economic sustainability and competitiveness of modern enterprises. Unlike the traditional linear business model, the circular approach ensures the integrated use of resources, minimizing losses, re-involving materials in the production cycle and creating new sources of economic value. This allows enterprises to adapt more effective-

ly to resource, environmental and economic challenges, ensuring stable functioning in conditions of high uncertainty. It is substantiated that effective management of the development of the circular economy should be carried out on the basis of integrating production, financial, logistics, innovation, personnel and marketing components of management. This approach contributes to the formation of a holistic management system in which the principles of resource efficiency, environmental responsibility and innovative development are integrated into all business processes of the enterprise. The proposed conceptual model of circular economy management reflects the relationship between strategic planning, digitalization, modernization of production, development of partner networks and assessment of the effectiveness of management decisions.

The article improves the methodological approach to assessing the level of development of the circular economy by proposing an integral index of the development of the circular economy of an enterprise, a resource circularity coefficient and an index of economic efficiency of circular transformation. Unlike existing approaches, the proposed system of indicators allows for a comprehensive assessment of the efficiency of resource use, the effectiveness of innovation activity, the level of material reuse and the economic effect of the implementation of circular business models. This creates a methodological basis for strategic monitoring of circular transformation processes and making informed management decisions. It is proven that digitalization is one of the key drivers of the development of the circular economy of enterprises. The use of artificial intelligence technologies, the Internet of Things, digital platforms, big data and analytical management support systems ensures transparency of material flows, increases the efficiency of management decision-making, optimizes production processes and contributes to the formation of closed cycles of resource use. At the same time, digital technologies increase the adaptability of enterprises to dynamic changes in the market environment and create the prerequisites for the development of innovative business models. The practical significance of the results obtained lies in the possibility of using the proposed conceptual provisions, methodological approaches and a system of indicators when forming corporate strategies for circular development, developing resource efficiency programs, modernizing production, assessing the investment feasibility of circular projects and implementing strategic management systems for enterprises. The proposed recommendations can be used by heads of enterprises, state authorities and local governments when forming a policy of sustainable industrial development, supporting innovative activities and stimulating the transition to a circular economy model.

It is advisable to link the prospects of further scientific research with the development of economic and mathematical models for predicting the effectiveness of circular transformation of enterprises, improving the methods of integral assessment of the level of circularity of business processes, studying the impact of digital technologies and artificial intelligence on the management of resource flows, as well as the formation of organizational and economic mechanisms for the development of industrial symbiosis, circular clusters and inter-industry partnership networks. The implementation of these areas will contribute to the further development of the theory and practice of the circular economy, ensuring the economic sustainability of enterprises and increasing their competitiveness in the conditions of global transformation of the world economy.

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