
**GREEN TRANSFORMATION AND SUSTAINABLE
DEVELOPMENT OF THE HOSPITALITY AND TOURISM
SECTOR IN UKRAINE**

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INTRODUCTION

The modern hospitality and tourism sector is at the crossroads of global economic, social and environmental challenges. The growth of tourist flows, the increase in resource intensity and energy consumption of hotel enterprises, as well as the increase in the burden on the environment create complex tasks for enterprises, governments and local communities. In a global context where the climate is changing, the requirements for social responsibility of business are increasing and competition in hospitality markets is increasing, the integration of the principles of sustainable development and green transformation is becoming a necessary condition for the effective functioning of the tourism sector.

Green transformation is a comprehensive modernization process that includes the introduction of energy-efficient and resource-saving technologies, eco-innovations in the hotel and tourism business, the optimization of internal processes and the integration of environmental standards. It involves the use of modern management methods, digital solutions for controlling energy consumption, water use and resources, as well as the development of strategies that ensure the reduction of negative impact on the environment. The use of international environmental certification and eco-labeling systems, such as Green Key, ISO 14001 and EU Ecolabel, allows businesses to comply with sustainable development standards, increase consumer trust and create additional market value.

Energy efficiency and eco-innovation in the hotel business are of particular importance in the process of green transformation. The implementation of energy management systems, automated control of heating, air conditioning and lighting allows to significantly reducing the operating costs of enterprises. At the same time, the use of innovative technologies in the field of water use and waste management ensures the rational use of resources and a reduction

in the environmental burden. These measures not only increase the economic efficiency of enterprises, but also form the basis for the long-term stability and resilience of the tourism sector.

Green transformation also has a pronounced social effect. It creates new jobs, requires highly qualified personnel and stimulates the development of competencies in the field of environmental management, sustainable tourism and digital monitoring. In addition, the implementation of socially responsible practices forms a culture of sustainable consumption among tourists, increases their awareness and willingness to support enterprises that adhere to the principles of sustainable development. The social aspects of green transformation create a positive effect for local communities: the development of tourism taking into account environmental and social responsibility stimulates the economic activity of regions, attracts investments and contributes to improving the standard of living of residents.

The economic effects of green transformation include reducing operating costs, increasing profitability and competitiveness of enterprises. Optimizing energy consumption, using resource-saving technologies and implementing digital management systems can significantly reduce costs for utilities and infrastructure. Enterprises that successfully integrate the green course into their activities are able to attract more solvent tourists, receive premium income and increase market attractiveness. In the context of modern economic and environmental challenges, these aspects are keys to ensuring financial sustainability and development of the tourism sector.

The integration of sustainable development, green transformation, eco-innovation and certification forms a systemic approach to managing enterprises in the tourism and hotel industry. It covers economic aspects (cost optimization, revenue growth, competitiveness), social (job creation, competence development, formation of a culture of sustainable consumption), environmental (reduction of negative impact on the environment, improvement of the ecological quality of territories) and strategic (long-term sustainability, adaptability to global challenges, compliance with international ESG criteria) components.

Particular attention should be paid to the relationship between eco-innovation and economic effects, which consists in creating a synergistic effect on all levels of the functioning of enterprises and regions. Innovative solutions allow not only to optimize resources, but also to improve the quality of services, creating a unique guest experience and a positive image of enterprises. This, in turn, contributes to strengthening competitive positions in the market and stimulates the development of related sectors of the economy, such as the production of energy-efficient equipment, IT solutions for resource management and consulting services in the field of sustainable tourism.

Thus, green transformation and sustainable development in the field of tourism and hospitality are key mechanisms for ensuring efficiency, competitiveness and socio-ecological responsibility. They create the basis for integrated enterprise management, ensuring the synergy of economic, social and environmental factors. This approach forms the prerequisites for further scientific analysis of the directions of ecological modernization, the implementation of certification systems and the assessment of socio-economic effects.

1. The concept of green transformation in the field of hospitality and tourism

The current state of the tourism and hotel and restaurant industry is characterized by high dynamism, globalization challenges, changes in consumer behavior and increased environmental responsibility. World practice shows that enterprises that integrate the principles of sustainable development receive not only economic benefits, but also form a positive image and competitive advantages. In the context of modern crises and geopolitical conflicts, green transformation becomes critical for the recovery and sustainable development of the tourism and hospitality sector. It includes a systematic approach to resource management, innovative technologies, social responsibility and comprehensive interaction with all stakeholders.

Theoretically, the concept of green transformation is based on the principles of the sustainable development triad, which includes economic efficiency, environmental responsibility and social value. Economic efficiency is understood as optimizing costs and increasing the profitability of enterprises through the rational use of resources and innovative practices. The environmental component involves minimizing the negative impact on the environment through energy-efficient technologies, waste management and the use of renewable energy sources and the implementation of circular economy practices. The social component includes the development of local communities, training of personnel, the formation of environmental awareness of tourists and ensuring the availability of services. The interaction of these three aspects ensures the comprehensiveness and effectiveness of the green transformation¹.

Methodologically, green transformation is implemented through five interconnected stages that form a system of strategic and operational management of sustainable development².

¹ Asadi, S., Nilashi, M., Raza, S. A., Samad, S., & Abdullah, R. Green innovations and sustainability in tourism enterprises: A systematic review. 2020. doi.org/10.1016/j.jclepro.2023.139582

² European Green Deal: Striving to be the first climate-neutral continent. URL: <https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal>

1. Strategic planning.

The first stage involves a comprehensive analysis of the state of infrastructure, resources and environmental risks. Enterprises form long-term sustainable development goals, integrating them into strategic plans and the organization's mission. Key performance indicators are determined, such as the volume of energy and water consumption, the amount of waste recycled and the use of local products. Strategic planning allows you to create a transformation roadmap, ensure the consistency and consistency of the implemented practices with business goals.

2. Implementation of technological and organizational innovations.

The second stage includes the practical implementation of innovative solutions. This is the introduction of energy-efficient lighting, heating and air conditioning systems, renewable energy sources, water reuse systems and waste management. Organizational innovations involve changes in internal processes, the formation of a corporate culture of sustainable thinking and the integration of environmental criteria into procurement policies. The success of this stage depends on the consistency of innovations with strategic goals and the economic feasibility of decisions.

3. Monitoring and evaluation of effectiveness.

The third stage involves systematic monitoring of the results of the implementation of green practices. This includes collecting data on key sustainability indicators, analyzing them and comparing them with planned goals. Methods of environmental audit, carbon footprint assessment, and financial and economic analysis of the effectiveness of investments in sustainable development are used. Monitoring allows you to adjust the strategy, identify the most effective practices and provides transparency of activities for stakeholders, including guests, partners and regulatory authorities.

4. Integration of digital solutions.

The fourth stage is aimed at using digital technologies to improve the efficiency of resource management and control of sustainability indicators. The implementation of the Internet of Things (IoT), big data analytics platforms, mobile applications and energy management systems allows for operational control, identifying inefficiencies and adapting processes to changes in the external environment. Digitalization also improves the quality of guest service, combining environmental efficiency with comfort and personalization of services.

5. Socially oriented practices and stakeholder engagement.

The fifth stage focuses on the social component of transformation. It includes the active involvement of local communities, training staff in the principles of sustainable development, forming environmental awareness of tourists,

developing partnerships with public organizations. Social practices involve the use of local products in restaurants, creating jobs and implementing socially responsible projects. This stage increases the legitimacy and acceptance of green initiatives, forms a positive image of the enterprise and contributes to the long-term sustainability of the region.

The implementation of all five stages ensures the integrity and comprehensiveness of green transformation, allowing enterprises and destinations to simultaneously increase economic efficiency, environmental responsibility and social value. Global examples of successful transformation demonstrate that the integration of sustainable development principles into tourism and hospitality practices creates competitive advantages, attracts new customers and strengthens brand positions.

Thus, the concept of green transformation in tourism and hospitality forms a theoretical and methodological framework that combines strategic planning, technological and organizational innovations, monitoring and digitalization, socially-oriented practices and interaction with stakeholders. It allows you to move from traditional business models to comprehensive sustainable development, ensuring the economic, environmental and social sustainability of tourism facilities and regions.

The development of the concept of green transformation in the field of tourism and hospitality logically leads to the need for a deeper understanding of the concept of “green economy”, which is a fundamental platform for the implementation of sustainable development. A green economy is defined as an economic system aimed at improving human well-being and social justice while reducing environmental risks and the resource intensity of economic growth³.

It integrates economic, environmental and social principles into business processes, which is directly relevant to the tourism sector and the hotel business, where resource consumption and environmental impact are significant.

Sustainable development in the context of a green economy means a balance between economic efficiency, environmental responsibility and social value. For hotel complexes and tourist destinations, this is manifested in reducing energy consumption, minimizing waste, using local products and services, as well as in social programs for staff and local communities. The implementation of the principles of a green economy allows enterprises not only to reduce their negative impact on the environment, but also to increase competitiveness and attract conscious tourists⁴.

³ United Nations Environment Programme (UNEP). Sustainable tourism and green economy. URL: <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-tourism>

⁴ World Bank. Green transition and resilience in emerging economies. URL: <https://www.worldbank.org/en/topic/climatechange>

Theoretically, the green economy is based on three fundamental principles: economic efficiency, environmental responsibility and social justice. Economic efficiency involves optimizing the use of resources while achieving maximum economic results. Environmental responsibility includes minimizing negative environmental impacts, using renewable energy sources and waste management systems. Social justice is aimed at engaging staff and communities, creating jobs and ensuring social equality⁵ (Fig. 1).

ESG Framework

Adapted to Hospitality and Tourism

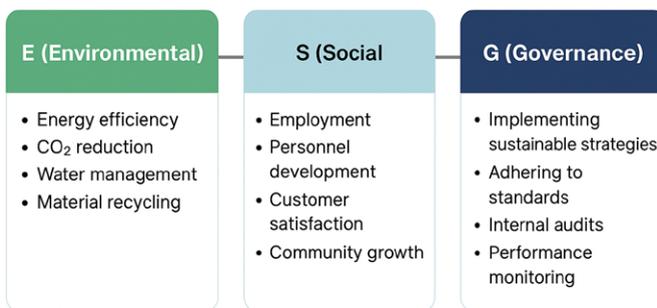


Fig. 1. Principles of integrating green economy with ESG

The integration of these principles with ESG approaches and the concept of a circular economy form a system in which economic, environmental and social goals are interconnected. In the hospitality and tourism sector, this provides a comprehensive resource management strategy and the development of sustainable tourism.

To better understand the differences between traditional and green approaches in tourism and hospitality, you can use the analytical table. Table 1 demonstrates the keys areas of transformation and the main benefits of implementing green practices.

As shown in Table 1, the green economy encompasses not only the environmental dimension but also economic and social benefits, enabling the creation of systemically resilient models of enterprise development within the tourism sector. The difference between traditional and green-oriented practices

⁵ World Economic Forum. Future of nature and business. URL: <https://www.weforum.org/reports/new-nature-economy-report-series>

lies not only in technological innovation but also in the integration of socio-economic components and advanced management approaches.

Table 1

Comparative characteristics of traditional and green practices in hospitality and tourism

| Direction | Traditional Model | Green Economy Model | Key Advantages |
|------------------------|---|---|--|
| Energy consumption | Standard lighting, traditional heating | Energy-efficient systems, automated consumption | Cost reduction, CO ₂ emissions decrease |
| Water consumption | Conventional plumbing fixtures | Reuse systems, low-flow faucets | Lower water stress and costs |
| Waste management | Single-use packaging, landfill disposal | Sorting, recycling, zero-waste principle | Reduced environmental impact |
| Food products | Mass purchasing | Local, seasonal products | Support for local economy |
| Social interaction | Limited community involvement | Staff training, partnerships with local communities | Social resilience and improved image |
| Innovation development | Minimal technological implementation | Digital solutions and IoT use | Higher management precision |

Below is Table 2, which presents a comparative assessment of the economic, environmental, social indicators for the traditional model and the green economy model.

Table 2

Comparative assessment of economic, environmental and social indicators

| Indicator | Traditional Model | Green Economy Model | Implementation Effect |
|---|--------------------------|--|--|
| Economic (costs) | High resource costs | Optimized resource and energy use | Reduction of costs by 25–30% |
| Environmental (CO ₂ emissions) | High level | Emission reduction through energy efficiency | Environmental impact minimization |
| Social (staff involvement) | Limited | Active training and staff participation | Improved qualifications and motivation |
| Social (community engagement) | Absent | Partnership with local communities | Enhanced social legitimacy |
| Innovative (technologies) | Traditional | Digital solutions and IoT | Improved control and management accuracy |

The analysis of this table demonstrates that the green economy ensures a systemic improvement in enterprise efficiency.

2. Sustainable development and green course in tourism enterprises: strategic and methodological dimensions

The modern tourism industry operates in conditions of growing global challenges, among which climate change, resource constraints, increasing demands of tourists for environmental and social responsibility, as well as the growing influence of international standards of sustainable development stand out. In this context, the concept of "green course" acts as a strategic tool that ensures the systemic transformation of tourism enterprises, integrating economic efficiency, environmental responsibility and social integration⁶.

The green course is not limited to the implementation of eco-practices, it is a conceptual management model that forms the basis for the long-term sustainability of enterprises and the regional tourism system. Its theoretical basis is based on the principles of sustainable development, systems thinking, innovative management and social responsibility. This approach allows you to create tourism products that not only meet the economic needs of the enterprise, but also contribute to the preservation of natural resources, cultural heritage and social value for local communities.

The main components of the green course are⁷:

1. Ecological efficiency, which involves minimizing the negative impact of the enterprise's activities on the environment through the use of resource-saving technologies, optimization of transport flows, introduction of renewable energy sources and development of eco-oriented tourism products.

2. Social integration, which includes interaction with local communities, their involvement in planning and implementation of tourism programs, as well as support for the cultural and social heritage of the region.

3. Economic stability, which ensures optimization of resources, economic efficiency and competitiveness of the enterprise in a changing external environment.

4. Innovative development, which involves the use of digital technologies, analytical tools and innovative approaches to creating tourism products focused on the needs of conscious consumers.

Implementation of the green course in tourism enterprises involves the systematic identification of areas of activity where the implementation

⁶ OECD. Green growth and sustainable tourism. URL: <https://www.oecd.org/cfe/tourism/greengrowth.htm>

⁷ European Commission. The European green deal. Communication from the Commission COM (2019) 640. URL: https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

of sustainable solutions is possible. It is important that these areas have a conceptual basis in terms of strategic development and integration of sustainable development principles. Key areas include transport, tourism product development, interaction with communities and cultural heritage, implementation of innovative technologies and systematic monitoring of management processes.

Table 3

Comparison of traditional and green solutions in tourism enterprises

| Area of Activity | Traditional Model | Green Solutions | Theoretical Significance |
|-----------------------------|---|--|--|
| Transport | Internal combustion engines, unregulated routes | Electric and hybrid vehicles, route optimization | Reduced anthropogenic impact and rational resource use |
| Tourist products | Mass routes and standard services | Eco-routes, local resource integration | Higher socio-cultural value of the product |
| Community interaction | Minimal community involvement | Partnerships and social programs | Social legitimacy and resource integration |
| Technologies and innovation | Basic technologies, minimal automation | Digitalization, analytics, resource-saving solutions | Improved adaptability and transparency |

The table 3 demonstrates that the green course in tourism enterprises represents not only a practical approach but also a theoretically grounded transformation paradigm that unites economic, social and environmental dimensions of development. Each area of activity reflects a conceptual shift toward sustainable management: transport modernization reduces anthropogenic pressure; eco-routes ensure the inclusion of local ecosystems and communities; and digital innovation reinforces systemic management efficiency. Such integration forms the theoretical foundation for the transition of the tourism sector toward a sustainable and competitive green economy.

The strategic importance of the green course is manifested in the formation of competitive advantages of the enterprise through social and ecological value propositions. Tourism companies that integrate the principles of sustainable development into strategic planning create unique tourism products focused on conscious consumers who value environmental and cultural authenticity. This approach contributes to the formation of a positive image of the enterprise, as well as increasing the sustainability of tourist flows and the regional economy.

The conceptual model of implementing the Green Deal establishes a holistic framework for transforming the operational logic of tourism enterprises through sustainability-oriented management. Within this model, business strategies are not limited to achieving economic profitability but are equally focused on resource efficiency, environmental protection and social well-being.

Table 4

Priorities of the Green Deal in Tourism Enterprises

| Priority | Theoretical Justification | Conceptual Effect |
|------------------------------|---|--|
| Innovative Technologies | Use of digital platforms, analytics and resource-efficient technologies | Enhancement of strategic transparency and adaptability |
| Eco-oriented Routes | Minimization of environmental impact and integration of local resources | Formation of tourism products with high socio-environmental value |
| Partnership with Communities | Inclusion of local communities in planning and implementation of tourism programmes | Social legitimacy and sustainability of the regional tourism system |
| Cultural Integration | Use of local cultural heritage | Enhancement of tourism attractiveness and preservation of cultural capital |

The integration of green technologies, renewable energy solutions and eco-certification standards becomes the foundation for long-term competitiveness. Tourism enterprises adopting the Green Deal approach reconfigure their internal processes supply chains, human resource management, marketing and customer relations based on circular economy principles. This transformation promotes transparency, accountability and innovation, enabling businesses to align with European sustainability objectives and contribute to the decarbonization of the tourism sector.

Moreover, such enterprises gain reputational advantages, as environmentally responsible behavior increasingly shapes consumer preferences and stakeholder trust.

The theoretical analysis of the Green Deal's priorities in tourism highlights the need for strategic alignment between environmental governance and socio-economic growth. By embedding sustainability principles into decision-making, tourism enterprises can identify strategic directions that integrate economic, social and ecological dimensions. These directions include diversification of green tourism products, promotion of local cultural heritage, reduction of carbon footprints, and fostering partnerships with communities to enhance regional resilience.

The systemic application of these principles ensures that tourism evolves as a driver of inclusive and sustainable development rather than a source of ecological strain. In this sense, the Green Deal conceptual model acts as a catalyst for rethinking the purpose and value of tourism – shifting the focus from short-term profit to long-term prosperity built on harmony between humans, nature and innovation (Fig. 2).

The management approaches of the Green Deal are based on systems thinking and the integration of sustainable development principles into corporate strategy. This involves taking into account the interrelations between local

resources, cultural and social factors, infrastructure and the needs of tourists. Such an approach ensures harmonious development of tourism enterprises and regional tourism systems, forming sustainable models of behavior and interaction among all stakeholders⁸.



Fig. 2. Conceptual model for implementing the Green Deal

Table 5

Theoretical Aspects of Green Deal Management in Tourism

| Aspect | Content | Scientific Justification |
|------------------------|---|---|
| Strategic Planning | Integration of economic, social and environmental goals | Systemic approach to sustainable development |
| Innovative Adaptation | Use of digital and resource-efficient technologies | Enhancement of adaptability and flexibility of the business model |
| Social Integration | Partnership with communities, cultural interaction | Formation of social legitimacy and local support |
| Ecological Orientation | Rational use of resources, minimization of environmental impact | Preservation of natural resources and ecological sustainability |

The table 5 highlights that the Green Deal in tourism is a scientifically grounded management system, where every aspect of enterprise activity

⁸ Global Sustainable Tourism Council (GSTC). Criteria for hotels and tour operators.URL: <https://www.gstcouncil.org/gstc-criteria>

is interconnected and aimed at forming long-term sustainability and competitiveness.

Table 6

Integrated summary of sustainable development priorities in the tourism and hospitality sector

| Dimension | Focus Area | Expected Outcomes | Strategic Impact |
|------------------|---|---|----------------------------------|
| Environmental | Energy efficiency, waste reduction, renewable sources | Lower emissions, cleaner environment | Long-term ecological resilience |
| Economic | Resource optimization, cost efficiency | Increased profitability and competitiveness | Sustainable business growth |
| Social | Community engagement, fair employment | Enhanced well-being and inclusion | Positive destination image |
| Technological | Digital monitoring, smart management | Increased control accuracy and adaptability | Innovation-driven transformation |

The data presented in Table 6 reflect a holistic integration of sustainability principles across four key dimensions – environmental, economic, social and technological – within the tourism and hospitality sector. Each dimension demonstrates the shift from short-term operational efficiency toward strategic, long-term sustainability outcomes. The environmental focus on renewable energy, waste reduction and resource efficiency ensures the minimization of ecological footprints and supports the global transition to a low-carbon economy. This approach not only enhances destination resilience but also aligns with international sustainability standards and the UN Sustainable Development Goals (SDGs).

From an economic standpoint, the emphasis on resource optimization and cost efficiency strengthens business viability while fostering sustainable competitiveness. Companies that prioritize eco-efficient operations often experience higher brand loyalty and reduced operational risks. Economic sustainability, therefore, becomes a driving force for innovation and market differentiation, enabling tourism enterprises to adapt to evolving global challenges such as fluctuating energy prices and regulatory demands.

The social and technological dimensions further reinforce the systemic nature of sustainable transformation. Community engagement and fair employment practices enhance social cohesion and empower local populations, generating a positive social image of destinations. Meanwhile, the adoption of digital monitoring and smart management systems contributes to data-driven decision-making, ensuring agility and precision

in resource use. Ultimately, the synergy among all four dimensions leads to innovation-driven transformation, positioning the tourism and hospitality sector as a proactive agent of global sustainable development rather than a passive beneficiary.

Thus, the concept of a green course in tourism enterprises is not only a management tool, but a systemic theoretical basis for strategic development, which ensures the integration of innovative solutions, cultural and social interaction, environmental responsibility and economic stability. It creates the basis for the formation of modern tourism products that meet the challenges of the global environment and the expectations of conscious consumers.

3. Eco-innovations and energy efficiency in the hotel business: a conceptual approach

The modern hotel industry operates in conditions of increased resource and environmental instability, which determines the need for strategic integration of the principles of sustainable development into corporate policy. Increasing environmental awareness of consumers, the rise in the cost of energy resources and global climate challenges create prerequisites for the implementation of eco-innovations and energy efficiency systems as key tools for the competitiveness of hotel enterprises. Eco-innovations are not limited to technical solutions; they form a holistic management system that integrates economic efficiency, environmental responsibility and social value of the tourism product⁹.

Energy efficiency is considered as a strategic management resource that allows you to optimize the use of electricity, heat and water, reduce costs and at the same time increase the environmental and social value of activities. An important aspect is a systematic approach to the implementation of eco-innovations, which combines technological solutions, digitalization of management and modernization of infrastructure and integration of sustainable practices into guest services.

The effectiveness of such solutions is determined not only by economic indicators, but also by a comprehensive assessment of environmental and social impact, which emphasizes the need for scientifically sound resource management.

When considering Table 7, it is important to emphasize that the effect of eco-innovation is formed through a synergy of models, where each model

⁹ Deloitte. Sustainable travel study 2024. URL: <https://www.deloitte.com/global/en/issues/green-economy/sustainable-travel.html>

reinforces the other. Resource efficiency creates an economic foundation, social orientation increases legitimacy and cultural value, and digitalization provides control and transparency. The comprehensive integration of these models allows the enterprise to achieve sustainable development and increase competitive advantages.

Table 7

Theoretical Models of Eco-Innovation Integration in the Hotel Business

| Model | Essence | Theoretical Justification |
|--------------------|--|--|
| Resource-Efficient | Optimization of energy and water resources | Principle of rational resource use and reduction of environmental impact. Ensures economic efficiency and stability of operational processes |
| Socially-Oriented | Interaction with guests and local communities | Includes cultural and educational programs for guests, integrates social aspects into business processes, and enhances the social legitimacy of the enterprise |
| Innovation-Digital | Use of modern management technologies | Provides transparency, control and analytics of processes, allowing scientifically grounded decision-making and forecasting of resource consumption |
| Comprehensive | Combination of resource, social, and innovation components | Forms a holistic sustainable development strategy, ensuring adaptability and competitiveness in the modern tourism market |

Theoretically, the implementation of eco-innovation is justified by a number of management models that provide a comprehensive approach to the sustainable development of the enterprise. They combine resource efficiency, social responsibility and digital technologies, creating the foundation for an integrated corporate strategy.

Increasing energy efficiency directly affects the new quality of the tourism experience, as guests become co-participants in environmentally responsible practices, which forms brand value and reputation of the enterprise. This emphasizes that eco-innovations have a technological, economic and social effect at the same time, making them a fundamental component of a sustainable development strategy.

Between these priorities, a systemic interdependence arises, which allows achieving comprehensive energy efficiency and environmental responsibility. The scientifically substantiated implementation of eco-innovations forms a strategy for the long-term sustainability of the enterprise, where economic, environmental and social aspects are integrated into a holistic management process.

Thus, ecological innovations and energy efficiency in the hotel business are not only a technical measure, but a strategic, conceptually justified component of sustainable development, which provides the enterprise with economic stability, social legitimacy and competitive advantages in the modern tourism market.

Table 8

Priorities for Implementing Eco-Innovations and Energy Efficiency in the Hotel Business

| Priority | Extended Theoretical Justification | Conceptual Effect |
|--|---|--|
| Renewable Energy Sources | Reducing dependence on fossil fuels, integrating ecological strategy into corporate planning | Enhances enterprise resilience and competitive position |
| Energy-Efficient Equipment | Rational resource use without service degradation, supporting sustainable management principles | Economic optimization and resource conservation |
| Smart Management Systems | Analytics and control of resource consumption in real time, cost forecasting | Increases transparency and adaptability of management strategies |
| Integration of Sustainable Practices into Services | Educational programs, ecological services for guests, interaction with local communities | Enhances social and cultural value of the tourism product, fosters loyalty and hotel image |

4. The system of environmental certification and eco-labeling in hospitality and tourism

The modern tourism market is increasingly feeling the impact of global environmental challenges, in particular climate change, depletion of natural resources and growing public awareness of sustainable development. In these conditions, environmental certification and eco-labeling are becoming key tools that allow hospitality and tourism enterprises to adapt to modern requirements. They perform not only a control function, but also a strategic role in the formation of corporate policy that integrates economic, environmental and social responsibility.

Certification and eco-labeling allow enterprises to evaluate their activities according to established international and national standards, determine the level of compliance with environmental criteria and form a transparent resource management system. For tourists, this is a guarantee that the chosen facility complies with the principles of sustainable development and environmental safety. From a theoretical perspective, certification forms a feedback mechanism that stimulates continuous improvement of internal processes, reduces negative environmental impact, and increases the social value of the tourism product.

Eco-labeling and certification perform three key functions¹⁰:

1. Control and standardization of enterprise activities – establish clear criteria for the use of energy resources, water resources, waste and materials management;

2. Communication function – provide transparent information for guests and partners about the enterprise’s environmental practices;

3. Strategic value – integrates sustainable development into corporate strategy, increase competitiveness and form the enterprise’s brand as environmentally responsible.

The implementation of environmental certification involves not only technical measures, but also a comprehensive organizational management system, which includes resource analysis, energy consumption optimization, waste management and personnel training. This approach allows enterprises to ensure a balance between economic efficiency and environmental responsibility, which is a fundamental component of the concept of sustainable development.

Table 9

Main Environmental Certification Systems in the Hotel and Tourism Business

| System | Application Area | Theoretical Significance |
|---------------|--------------------------------------|---|
| Green Key | Hotels, hostels, resort complexes | International certification evaluating energy efficiency, water conservation, waste management and educational programs for guests. Enhances social legitimacy and competitiveness |
| EU Ecolabel | Tourist facilities and EU hotels | European standard confirming ecological compliance of services promotes integration into the international green market and strengthens responsible business image |
| EarthCheck | Hotels and resort complexes globally | Provides comprehensive evaluation of environmental impact, economic efficiency and social responsibility. Used for strategic management and marketing communication |
| Green Globe | Tourism companies and hotels | Includes assessment of resource management, social interaction with communities, and ecological sustainability. Forms a basis for integrating sustainable practices into business processes |
| ISO 14001 | Hotels and tourism enterprises | International standard for environmental management systems, establishing principles for environmental impact management and risk assessment. Enhances systemic management efficiency |

¹⁰ About the EU Ecolabel: The EU official voluntary label for environmental excellence. URL: <https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel/about-eu-ecolabel>

The variety of certification systems allows enterprises to choose the optimal strategy for implementing environmental standards, taking into account the specifics of their activities, geographical location and customer needs.

For example, Green Key or Earth Check focuses on communication with consumers and increasing reputational value, while ISO 14001 provides systematic management of environmental processes. Such integration allows the enterprise not only to meet the requirements of certification, but also to form a long-term sustainable development strategy, where economic, social and environmental goals are implemented in a comprehensive manner.

Environmental certification also plays a social and educational function. It helps to increase the level of environmental awareness of staff and tourists, forming a culture of sustainable consumption. Educational programs for guests and staff training become a tool for integrating environmental practices into the daily activities of the enterprise. Theoretically, this fits with the concept of a "sustainable tourism experience", where the consumer not only receives a service, but also participates in preserving the environment.

An important aspect is the economic value of certification. Enterprises that implement eco-labeling gain a competitive advantage in the market, as the modern tourist more consciously chooses facilities with environmental standards. In addition, resource optimization within the framework of certification ensures reduction in operating costs, increased energy efficiency and more efficient use of water and materials.

The integration of certification systems into the strategy of a hotel or tourism enterprise provides a strategy of integrated sustainable development management, where economic, environmental and social aspects operate in close interrelation. The enterprise gets the opportunity to assess its impact on the environment, plan measures to reduce negative effects and implement innovations that increase resilience and adaptability to market changes¹¹.

Thus, ecological certification and eco-labeling in hospitality and tourism is not just a formal procedure. They represent a strategic management tool that allows:

- To form a holistic system of sustainable development;
- To increase economic efficiency and resource conservation;
- To integrate social and cultural value into the tourism product;
- To strengthen the competitive position of the enterprise in the national and international market;
- To stimulate innovative development and modernization of infrastructure.

¹¹ Statista. Global hotel industry sustainability initiatives 2024. URL: <https://www.statista.com/topics/8519/hotel-sustainability/>

The effectiveness of the implementation of certification depends on the systematic approach, which combines management, technological and communication practices, which ensures the achievement of comprehensive sustainable development of enterprises in the tourism industry.

The modern tourism industry is undergoing profound transformation under the influence of global environmental, social and economic challenges. One of the key factors determining the sustainable development of hospitality and tourism enterprises is the implementation of international environmental certification standards, which ensure the systematic organization of activities, resource control and integration of sustainable development principles¹².

Environmental certification is not a purely technical or marketing tool, it forms a system of management, technological and social practices aimed at minimizing the negative impact on the environment and optimizing the use of resources.

The main international standards used in the hospitality and tourism sector are Green Key, ISO 14001 and EU Ecolabel, each of which has a specific methodology, assessment criteria and implementation mechanisms, but together they form a holistic model of sustainable enterprise operation.

The Green Key program was created as an international environmental initiative for hotels, hostels and resort complexes and is focused on increasing the level of environmental responsibility of enterprises. Methodologically, Green Key is based on an integrated approach that covers energy efficiency, rational use of water resources, waste and materials management, as well as staff training and communication with guests on environmental practices. An important aspect of the program is the interaction of enterprises with local communities and suppliers, which allows integrating social and environmental standards into all business processes.

The scientific justification for this standard is that it provides consistency and control over resources, increases operational efficiency and creates competitive advantages, while stimulating the development of an environmental culture among staff and tourists. Green Key is not only a tool for assessing the implementation of environmental criteria, but also a strategic management mechanism that ensures long-term adaptability of enterprises to changes in the global market and consumer expectations.

ISO 14001 is an international standard for an environmental management system that creates a scientifically sound basis for managing environmental risks and resources in the hotel and tourism business. The basis of ISO 14001 is the systematization of the processes of planning, implementation, control

¹² Sustainable Hospitality Alliance. Pathway to Net Positive Hospitality. URL: <https://sustainablehospitalityalliance.org/pathway-to-net-positive-hospitality>

and continuous improvement of environmental practices. This involves the development of a corporate environmental management policy, the definition of strategic goals for reducing environmental impact, the assessment of resources and environmental risks, the integration of procedures into the daily activities of the enterprise and personnel training. Systematic monitoring, internal audits and the implementation of corrective actions allow maintaining management efficiency and provide the possibility of continuous improvement.

The scientific significance of the standard lies in the formation of a holistic management system where environmental, economic and social aspects are interconnected, which ensures the long-term stability and adaptability of the enterprise to changes in market and regulatory conditions.

The EU Ecolabel is a European certification system applicable to tourist facilities, hotels and resorts in the European Union. The main objective of this standard is to confirm the compliance of services with high environmental standards and support the development of sustainable tourism.

The EU Ecolabel methodology covers a comprehensive assessment of energy efficiency, emission reduction, water and wastewater management, rational use of materials and waste recycling, as well as the integration of environmental practices into guest services and corporate social responsibility. Continuous monitoring, auditing and control of compliance with the criteria ensure the consistency and reliability of the certification.

The scientific justification is that the EU Ecolabel creates additional value for the tourist product for the conscious consumer and forms a management model that combines economic efficiency with environmental and social responsibility, stimulating enterprises to innovate and modernize.

The interaction of these standards ensures the formation of a system approach to managing the environmental responsibility of hospitality and tourism enterprises, where Green Key and EU Ecolabel are focused on increasing visibility and marketing attractiveness, and ISO 14001 provides an internal management structure and predictability of processes. The combined application of these standards allows enterprises to integrate the principles of sustainable development into corporate strategy, ensure economic efficiency and resource conservation, increase the trust of tourists and partners, form competitive advantages in the international market and stimulate innovative development. Certification and eco-labeling in this context act as strategic management tools that ensure holistic integration of economic, environmental and social aspects, creating the basis for long-term sustainability and adaptability of tourism enterprises¹³.

¹³ World Tourism Organization (UNWTO). International tourism highlights 2024 edition. URL: <https://www.unwto.org/international-tourism-highlights>

In European countries, sustainable development in the hospitality sector is integrated into the corporate strategy of enterprises and municipal tourism development plans ¹⁴.

In Germany, the hotel sector widely uses energy-efficient technologies, waste management systems, Cradle-to-Cradle certification, as well as resource consumption monitoring programs. This allows for high consistency and significant economic and environmental impact.

In Switzerland, premium hotels are certified by EarthCheck Gold and Swisstayable, integrating an integrated approach to energy, water, waste and social responsibility. The use of renewable energy sources, local products and staff training programs ensure high sustainability and attractiveness for tourists.

French hotels are actively certified by Green Key and Clef Verte, implement local environmental programs and socially responsible practices. Municipalities include these requirements in tourism development strategies, which allow businesses to integrate sustainability into their business models. Similar practices are observed in Finland and the Netherlands, where state support and eco-labeling create systemic incentives for sustainable development of tourist facilities.

Table 10

European Countries: Sustainability Practices in the Hotel and Tourism Sector

| Country | Strategies and Innovations | Scale and Systematic Implementation |
|-------------|---|--|
| Germany | Energy-efficient technologies, Cradle-to-Cradle, waste management | High systematization, integrated into corporate strategies |
| Switzerland | Earth Check Gold, Swisstayable, renewable energy, local products | Comprehensive approach to ecological and social responsibility |
| France | Green Key, Clef Verte, local ecological programs | Well-integrated, but regional variations exist |
| Finland | “Green” tourism image, eco-labeling, social initiatives | High level of systematization, state support |
| Netherlands | Integrated energy efficiency programs, eco-labeling | Large-scale and comprehensive implementation |

European countries have established systems for implementing sustainable practices, where economic, social and environmental components are integrated into strategic planning. These models allow not only to achieve high environmental performance, but also to increase the attractiveness of cities for tourists, forming the image of "green" tourism.

¹⁴ UNWTO. Tourism for Sustainable Development Goals. URL: <https://www.unwto.org/sustainable-development>

In Ukraine, the implementation of sustainable development principles in the tourism sector is still fragmented, but regional leaders are observed. Kyiv, as the capital and the largest tourist center, has begun to actively modernize its hotel stock: energy management systems, digital resource accounting tools and electronic reservation management are being implemented, which allows reducing electricity and water consumption. However, there is no systemic integration of these practices at the city level yet and their effect is limited due to uneven modernization of buildings and insufficient funding.

Lviv actively participates in international sustainable tourism programs, in particular through the Green Destinations and Hospitality without Barriers initiatives. The city's hotels and restaurants receive Green Key certifications and local environmental awards, which enhances the city's image as a "green" tourist destination. However, at the city level, there is no unified strategy for spreading these practices to the entire hospitality sector, which reduces their systemic effectiveness.

Odesa and Dnipro are focused on building environmental and inclusive staff competencies. For example, individual establishments are providing training on energy efficiency and resource management, and implementing internal waste minimization policies. However, so far these initiatives remain spot-on, and their impact on the entire tourism sector is limited.

Ivano-Frankivsk and the Bukovel resort demonstrate local examples of systematic implementation of sustainable practices: several hotels have received Green Key certification and have implemented comprehensive energy efficiency, water conservation and resource management programs. These initiatives allow for the creation of a "cluster" model of sustainable development, where enterprises in the region coordinate their actions to achieve greater effect.

The main issue in Ukraine is not the absence of initiatives but the lack of systematic integration and scaling. Successful local practices can form the basis for a national sustainable development strategy if coordination, standardization and staff training are implemented.

Green transformation in the hospitality and tourism sector is not limited to environmental aspects alone – it generates complex socio-economic effects that affect the sustainability of enterprises, regions and the national economy. This process involves the integration of environmental, energy-efficient and resource-saving practices into the strategic and operational management of enterprises, which, in turn, leads to cost optimization, improved service quality and the formation of new sources of income.

One of the key economic effects of green transformation is reducing operating costs of enterprises through the implementation of energy-efficient technologies, optimization of water and material resources use, as well as the use of digital management systems.

Table 11

**Ukrainian Cities: Key Sustainability Practices in the Hotel
and Tourism Sector**

| City | Sustainability and Innovation Practices | Systematic Implementation |
|-----------------------------|---|---|
| Kyiv | Energy management, digital management tools | Partial, limited modernization of individual facilities |
| Lviv | Green Key, Hospitality Without Barriers, local certifications | Local integration, no unified strategy |
| Odesa | Staff training, internal resource minimization policies | Disparate projects without systematic scale |
| Dnipro | Eco-education for staff, resource management | Initial level of systematization |
| Ivano-Frankivsk/ Bukovel | Green Key, comprehensive energy efficiency programs | Cluster model, relatively high level of integration |

Studies show that investments in infrastructure modernization, although initially requiring significant capital investments, pay off within a few years due to reduced costs for electricity, heating, air conditioning and waste management. In the hotel sector of Ukraine and Europe, the implementation of energy-efficient lighting, climate control systems, and water conservation allows reducing total costs by 15–30% on average per year, which directly affects the financial stability of enterprises.

Green transformation also contributes to increasing the competitiveness of tourist facilities in national and international markets.

Tourists increasingly prefer establishments and regions that adhere to the principles of sustainable development, certified according to international standards (Green Key, ISO 14001, EU Ecolabel). This trend creates additional market value, as environmentally responsible hotels and tourist facilities receive a positive image, which increases the level of customer loyalty and allows attracting new segments of tourists who are willing to pay a premium price for "green" services. In economic terms, this means the possibility of increasing revenues without a proportional increase in costs, which forms a sustainable financial business model.

The social effect of green transformation is manifested in creating new jobs and improving staff qualifications. The implementation of energy-efficient technologies, resource management systems, environmental education and certification programs requires highly qualified specialists in the field of eco-innovation, sustainable development management and digital monitoring. This not only increases the professional level of personnel, but also stimulates the development of related sectors of the economy, such as the production of

energy-saving equipment, IT solutions for resource management and consulting services in the field of sustainable tourism.

In the conditions of Ukraine, where hospitality and tourism are traditionally one of the key sectors of the economy, such dynamics contribute to strengthening the economic integration of regions, stimulates internal labor mobility and attracts investments in local communities.

The environmental and social aspects of green transformation directly affect sustainability of regional development. Enterprises that implement sustainable management contribute to reducing the environmental burden on urban and resort areas, which increases the attractiveness of locations for tourists and local residents.

An equally important aspect is long-term economic stability. Green transformation allows enterprises to reduce their dependence on fluctuations in energy and resource prices, increases their adaptability to global climate change and regulatory requirements. Combined with effective sustainability marketing, environmental and social initiatives create additional value for investors, who increasingly evaluate businesses not only by financial indicators, but also by compliance with ESG criteria (environmental, social and governance standards).

Thus, the socio-economic effects of green transformation in tourism and hotel business can be summarized as follows:

- Economic effect: reducing costs, increasing revenues, increasing profitability and competitiveness;
- Social effect: creating new jobs, developing personnel competencies, stimulating the development of related sectors of the economy;
- Environmental and social effect: improving the quality of the environment, improving the image of cities and regions, increasing tourist attractiveness;
- Strategic effect: long-term sustainability of enterprises and regions, adaptability to global challenges and compliance with international ESG standards.

In general, green transformation acts as a catalyst for the integrated development of the tourism sector, ensuring the synergy of economic, social and environmental components. It not only increases the efficiency of enterprises, but also forms a competitive advantage in national and international markets, while ensuring socially responsible and environmentally safe development of tourist regions.

The modern paradigm of hospitality and tourism development is increasingly shifting towards sustainability, environmental friendliness and social responsibility. In the global economy, green transformation is seen not

only as a necessary response to climate challenges, but also as a powerful driver of competitiveness¹⁵.

Increasing the competitiveness of regions and enterprises in the context of green transformation and sustainable development of the hospitality and tourism sector of Ukraine requires a systemic and multi-level approach that combines technological innovations, organizational reforms, institutional support and changes in consumer practices.

Competitiveness in modern conditions is increasingly determined not only by price and traditional quality of services, but also by the ability to offer an environmentally responsible tourism product that meets the requirements of environmentally conscious travelers, meets international standards and reduces the vulnerability of business to external risks.

For Ukrainian regions with different natural resource potential and socio-economic prerequisites, green transformation opens up opportunities for creating unique competitive advantages – from the development of ecotourism and renewable energy at accommodation facilities to the formation of local gastronomic and cultural value chains.

The economic effect of green transformation for hospitality enterprises is manifested in two interrelated areas: reducing operating costs and increasing revenues through product differentiation.

The implementation of energy-efficient systems, climate control automation, water consumption metering and monitoring systems provides a direct reduction in utility costs, reducing the carbon footprint and increasing profitability. At the same time, certification according to international environmental standards and eco-labeling increase the attractiveness of facilities for the segment of tourists who are willing to pay more for environmentally responsible service.

At the regional level, this is transformed into an increase in the income of local communities through taxes and multiplier effects from local demand for products and services (food, excursions and crafts). Therefore, strategies for increasing competitiveness must take into account both short-term operational benefits and the long-term value of the destination brand and reputation.

The socio-institutional dimension of green transformation is crucial for its success. Businesses cannot operate in isolation: partnerships between the private sector, local authorities, educational institutions and civil society organizations are needed.

The development of local clusters of sustainable tourism promotes knowledge sharing, joint investments in infrastructure (e.g. networks of charging stations

¹⁵ Eurostat. Environmental indicators for the tourism sector. URL: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tourism_statistics

for electric vehicles, waste sorting systems), as well as the formation of joint marketing initiatives that increase the visibility of the region in domestic and international markets.

This is especially relevant for Ukraine, as many regions require integrated solutions and coordinated actions: synergy between enterprises allows overcoming barriers to scale and financial constraints of small and medium-sized enterprises. An important component of social sustainability is the development of human capital through training, retraining and certification of personnel in eco-management and customer-oriented "green" practices.

Regulatory policy and financial support mechanisms create a favorable environment for green transformation. National and local programs to stimulate investments in energy efficiency, subsidize the introduction of renewable energy sources, tax breaks for certified hospitality facilities create economic incentives for change. In addition to direct financial support, important program tools include: standardization of certification procedures, creation of "green" classifications for hotels and hospitality enterprises, as well as access to information and consulting services. For regions and enterprises in Ukraine, the priority areas are the development of long lists of financial and non-financial support measures at the local level, the introduction of transparent competitive procedures for grants and loans, and the stimulation of public-private partnerships.

The marketing and branding component of green transformation plays the role of a demand catalyst. In the world, niches of tourists who value environmental friendliness, locality and social responsibility have formed; access to these groups is ensured through targeted communication, participation in international platforms and the availability of confirmed certificates. Regions and enterprises that invest in transparent communication of their "green" practices (reporting on open indicators of energy efficiency, carbon footprint, projects to support local communities) increase the trust of tourists and partners, which in turn contributes to an increase in the long-term customer base. For Ukraine, it is important to develop digital marketing tools, collective destination brands and booking platforms with filters of "green" options to simplify the search and selection of environmentally responsible offers¹⁶.

Assessing the effectiveness of green transformation requires a clear system of indicators and monitoring. Without KPIs that measure both environmental (energy consumption per bed/day, volume of processed waste, water consumption) and socio-economic (number of new jobs in the region, share

¹⁶ WTTC. Travel & Tourism Economic Impact Report 2024. URL: <https://wtcc.org/research/economic-impact>

of local suppliers, staff satisfaction index), it is impossible to compare results and assess return on investment. Regional managers should develop a periodic reporting system with open access to aggregated indicators, which will increase transparency and stakeholder trust. It is also important to provide scientific and methodological support for interpreting data and formulating recommendations for policy adjustments.

Barriers to green transformation in Ukraine are both objective and subjective, reflecting the complex interplay between structural limitations, institutional inertia, and socio-economic challenges. Among the objective factors, the most critical include limited access to financial resources for small and medium-sized enterprises, which significantly restricts their ability to invest in energy-efficient technologies and sustainable innovations. The outdated physical infrastructure – including obsolete building stock, inefficient heating and water systems, and aging communication networks – further exacerbates environmental inefficiencies and increases operational costs. Additionally, the renewable energy sector remains underdeveloped, with insufficient generation capacity, lack of modern storage technologies, and an incomplete legal framework to stimulate private investments. These issues are compounded by the absence of long-term national programs to support energy transition in tourism and hospitality, resulting in fragmented efforts and low scalability of local eco-initiatives.

Subjective barriers, in turn, are rooted in behavioral, managerial, and cultural dimensions of the Ukrainian business environment. A considerable share of tourism entrepreneurs still perceives sustainability as a secondary or costly obligation rather than a strategic advantage. This mindset is often reinforced by limited environmental awareness, low motivation to implement voluntary eco-certification systems, and insufficient managerial competencies in green business transformation. Moreover, the lack of coordination among stakeholders – including local authorities, businesses, educational institutions, and civil society – hinders collective action and slows down the diffusion of eco-innovations. Overcoming these subjective constraints requires a paradigm shift toward environmental responsibility and an ecosystem approach to sustainable management. This involves developing targeted educational programs, strengthening incentives for green investment, and fostering public private partnerships that would collectively drive the tourism sector toward the principles of the Green Deal and sustainable development.

Innovation, in particular digital technologies, plays a key role in increasing competitiveness. Smart management tools allow for optimizing consumption, anticipating demand, and personalizing services, which increases both efficiency and attractiveness of offerings. For hospitality businesses, this means

implementing energy management systems, CRM systems focused on customer eco-priorities, and booking platforms for environmentally certified services. At the regional level, digitalization of tourist information, creation of interactive ecosystem and route maps, and visitor feedback systems contribute to improving the quality of destination management.

The strategic role of education and science in the process of green transformation cannot be underestimated. Academic and professional programs focused on sustainable tourism, energy management and eco-marketing should become a source of competent personnel. Joint educational initiatives of universities, business and public organizations, as well as the practice of internships in “green” hospitality facilities create the necessary basis for the transfer of knowledge and technologies. Scientific research should contribute to the identification of local optimal solutions, economic payback models and adaptation of standards to the Ukrainian context.

In summary, increasing the competitiveness of regions and enterprises in the context of green transformation requires a strategic vision, systemic institutional solutions and practical actions at the enterprise level. The combination of investments in energy efficiency and innovation, the development of human capital, the creation of favorable financial and regulatory mechanisms, as well as consistent communication of sustainable practices form the conditions for creating a competitive, sustainable and attractive tourism product. For Ukraine, this is not only a challenge, but also an opportunity to realize the potential of regions, strengthen the economic base of communities, and integrate into global chains in the hospitality and tourism sector.

CONCLUSIONS

Analysis of the current state of the tourism and hotel and restaurant sector shows that the integration of the principles of sustainable development and green transformation is a key factor in increasing the efficiency and competitiveness of enterprises. In the context of global economic, social and environmental challenges, tourism and hospitality require a comprehensive approach that combines economic, social and environmental aspects of activity. Such an approach allows ensuring long-term stability and resilience of enterprises, forms the basis for systematic resource management and increases adaptability to external changes.

Green transformation is not only a technological or infrastructure process, but a comprehensive development strategy that includes the implementation of energy-efficient solutions, eco-innovations, digital resource management systems and optimization of internal processes. It provides economic benefits to enterprises by reducing operating costs and increasing profitability, while

simultaneously reducing the negative impact on the environment. The implementation of environmental practices contributes to the formation of a positive image, increases consumer loyalty and creates competitive advantages, which is an extremely important factor in the modern market.

The social dimension of green transformation is manifested in the creation of new jobs, the development of personnel competencies and the formation of a culture of sustainable consumption among tourists. Improving professional skills in the field of environmental management and sustainable tourism stimulates the development of human capital and strengthens the interaction between enterprises and local communities. At the same time, economic efficiency and social responsibility are integrated into the strategic activities of enterprises, which ensure synergy between internal processes and the external environment.

Environmental certification and eco-labeling systems are important tools for implementing green transformation. They ensure compliance with international standards, increase consumer confidence and stimulate enterprises to implement comprehensive sustainable development practices. Eco-innovations and energy efficiency technologies allow optimizing the use of resources, improve the quality of services provided and contribute to the formation of a unique guest experience, which strengthens the positions of enterprises in the market.

The socio-economic effects of implementing green transformation include increasing the competitiveness of regions, developing infrastructure and improving the standard of living of local communities. An effective combination of economic benefits, environmental responsibility and social interaction creates the prerequisites for the long-term sustainability of the tourism industry and increases its adaptability to global challenges.

In general, green transformation and sustainable development in the tourism and hospitality sector act as complex mechanisms for ensuring efficiency, social responsibility and environmental sustainability. They form an integrated approach to enterprise management that combines economic, social and environmental factors, creating a basis for further scientific analysis, strategy development and implementation of practical solutions in the tourism and hospitality business.

SUMMARY

The study explores the concept of green transformation and its significance in ensuring the sustainable development of the hospitality and tourism sector in Ukraine. The relevance of this topic stems from the necessity for Ukrainian enterprises to adapt to emerging environmental, social, and economic challenges within the framework of the European Green Deal. The research defines

the theoretical and methodological foundations of the transition toward an environmentally oriented management model based on the principles of energy efficiency, resource conservation, social responsibility and innovation. Key directions of environmental modernization in the hospitality and tourism sector are analyzed, including eco-innovation, the implementation of international standards (Green Key, ISO 14001, EU Ecolabel) and the advancement of eco-labeling systems. Particular attention is devoted to the socio-economic effects of sustainable development, notably the enhancement of regional competitiveness, job creation and the improvement of Ukraine's image as an environmentally conscious tourism and hospitality destination. The findings demonstrate that green transformation serves not only as a tool for post-crisis recovery but also as a strategic foundation for the long-term development of the tourism and hospitality industries.

The results have practical implications for improving mechanisms of policy planning and implementation in the hospitality and tourism sectors, fostering the education of a new generation of specialists and enhancing the environmental awareness of tourism service consumers.

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