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### **ЕКОЛОГІЧНА ВІДПОВІДАЛЬНІСТЬ У ГОТЕЛЬНО-РЕСТОРАННОМУ БІЗНЕСІ: ІННОВАТИКА В БІЗНЕСІ ТА СПІВПРАЦЯ В УМОВАХ ВІЙНИ**

***Анотація.** Стаття досліджує екологічну відповідальність у готельно-ресторанному бізнесі, зокрема інноваційні підходи та стратегії сталого розвитку в умовах війни. Акцентовано на важливості впровадження енергоефективних технологій, сталого постачання ресурсів та управління відходами. Особливу увагу приділено адаптації бізнесів до змінюваних умов через інноваційні практики, співпрацю з місцевими громадами та партнерствами, а також зростаючому попиту на екологічні продукти та послуги. У статті розглянуто, як екологічна відповідальність стає конкурентною перевагою, а також важливість підтримки сталого розвитку галузі навіть у кризових умовах.*

***Ключові слова:** екологічна відповідальність, готельно-ресторанний бізнес, інновації, енергоефективність, кризові умови, локальні продукти.*

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### **ENVIRONMENTAL RESPONSIBILITY IN THE HOTEL AND RESTAURANT INDUSTRY: BUSINESS INNOVATION AND COLLABORATION DURING WARTIME**

***Abstract.** This article explores environmental responsibility in the hotel and restaurant industry, focusing on innovative approaches and sustainable development strategies in the context of war. Emphasis is placed on the importance of implementing energy-efficient technologies, sustainable resource sourcing, and waste management. Special attention is given to how businesses adapt to changing conditions through innovative practices, collaboration with local communities, and partnerships, as well as the growing demand for eco-friendly products and services. The article discusses how environmental responsibility becomes a competitive advantage and highlights the importance of supporting the sustainable development of the industry even during times of crisis.*

***Keywords:** environmental responsibility, hotel and restaurant industry, innovation, energy efficiency, crisis conditions, local products.*

**Introduction.** In the modern hotel and restaurant business, environmental responsibility is a key component, encompassing the conservation of natural resources, waste reduction, and minimizing the negative impact on the environment. During wartime, when businesses face numerous crises, these challenges become even more acute, and the search for innovative solutions to address them becomes even more pressing. The implementation of environmentally clean technologies, such as renewable energy sources, effective waste management, and water usage reduction, helps to reduce costs and ensure the sustainable development of the industry. However, in wartime conditions, there are additional challenges related to the instability of resource supplies and increased expenses.

Recent publications highlight the importance of environmental responsibility in enhancing the competitiveness of the hotel and restaurant industry. Some researches emphasize the significance of ecological innovations in reducing operational costs and improving the reputation of companies in a globalized world [1; 2]. The others indicate that the implementation of sustainable energy technologies and waste management practices allows hotels and restaurants to significantly reduce their carbon footprint [3–5]. However, despite a

considerable amount of research, ecological innovations in wartime remain an underexplored topic.

It is important to note that many aspects of environmental responsibility during wartime remain insufficiently studied. In particular, there is a lack of detailed evaluation of how war affects the ability of the hotel and restaurant business to implement innovative ecological practices. Also, the impact of ecological innovations on business resilience during crises is insufficiently explored. There is a gap in research that could help adapt existing innovative approaches to the unpredictable circumstances arising during wartime.

*The aim of this study* is to explore innovative approaches to ensuring environmental responsibility in the hotel and restaurant industry, particularly during wartime. The task involves analyzing the possibilities of implementing cutting-edge technologies that contribute to reducing environmental impact and improving resource efficiency in hotels and restaurants. Special attention is given to the interaction between government authorities, businesses, and international organizations to support the sustainable development of the sector amid economic and political instability.

The research aims to shed light on how ecological innovations can serve as essential tools for helping businesses adapt to the harsh and unpredictable conditions created by war. By enhancing their ability to navigate both global and local crises, these innovations have the potential to significantly boost competitiveness. In addition to exploring these benefits, the study will also focus on identifying the primary obstacles and challenges encountered when implementing environmentally sustainable strategies. Understanding these barriers is crucial for developing practical and effective solutions. Therefore, the research will provide a set of targeted recommendations to help businesses overcome these difficulties and successfully integrate sustainable practices into their operations, even under the most challenging circumstances.

**Research results.** In recent years, the hotel and restaurant industry has increasingly embraced ecological responsibility, driven by both consumer demand for sustainable practices and the need for businesses to reduce operational costs [6]. In this study, we explore the role of innovation in fostering ecological responsibility in the hospitality sector, particularly under the challenging conditions created by wartime. Our analysis is based on examining the potential benefits of integrating renewable energy sources, waste reduction technologies, and sustainable resource management practices.

A key advancement in promoting ecological responsibility within the hospitality industry is the widespread adoption of *renewable energy solutions*. Hotels and restaurants that have incorporated technologies such as solar panels, wind turbines, and energy-efficient systems have observed substantial benefits. These benefits include a notable decrease in energy expenses, which contributes to long-term financial savings, as well as a significant reduction in their environmental impact, thereby enhancing their overall sustainability. Embracing these technologies not only addresses the growing demand for eco-friendly practices but also helps establish a positive brand image among environmentally conscious consumers. The integration of renewable energy solutions in hospitality operations often leads to improved operational efficiency and increased resilience during times of energy shortages or price fluctuations. By investing in renewable energy, businesses in this sector reduce their dependency on traditional power sources, making them less vulnerable to supply chain disruptions. Additionally, these eco-friendly initiatives appeal to a broader audience, as an increasing number of consumers seek out businesses that actively support sustainability. This commitment to green practices can also lead to partnerships with like-minded organizations and opportunities for further innovation in sustainable hospitality. To highlight these advantages, Table 1 presents a comparative analysis of energy costs in the hospitality sector before and after the

implementation of renewable energy solutions, clearly demonstrating the economic and ecological improvements achieved through these initiatives. Integrating renewable energy solutions has enabled businesses in the hospitality industry to meet regulatory requirements and align with global sustainability goals. This proactive approach positions them competitively, as it appeals to a consumer base that increasingly prioritizes environmental responsibility in their choice of service providers.

Table 1

**Energy cost comparison before and after renewable energy integration (2023 data)**

Parameters	Before implementation	After implementation
Energy costs (in local currency)	15,000	9,500
Cost of heating (in local currency)	6000	3,500
Total energy costs (in local currency)	21,000	13,000

Source: built by the author, based on [7].

The data in Table 1 indicates that the introduction of renewable energy solutions has led to significant cost savings, which are crucial for businesses operating in a volatile economic environment. This reduction in costs not only benefits the financial health of the business but also contributes to environmental sustainability by lowering the carbon footprint.

Another critical aspect of ecological responsibility is *the reduction of food waste*, a major challenge in the hotel and restaurant industry. Technologies like food composting systems and smart waste management solutions have helped businesses reduce waste while simultaneously improving their environmental impact. In addition to composting systems, many hotels and restaurants have adopted inventory management software and data analytics to optimize purchasing and track food usage. This helps avoid overstocking, minimize spoilage, and better align menu offerings with demand. Some establishments have also partnered with local charities and food banks to donate surplus food, supporting community well-being and reducing waste sent to landfills. By taking these proactive steps, businesses not only lessen their environmental footprint but also promote a culture of sustainability that resonates with eco-conscious consumers. Table 2 below demonstrates the amount of food waste before and after the implementation of composting systems in a restaurant setting.

Table 2

**Reduction in food waste after implementing composting systems**

Parameters	Before implementation	After implementation
Food waste (kg)	300	120
Cost of waste disposal (in local currency)	4,000	1,500

Source: built by the author, based on [7].

As illustrated in Table 2, the adoption of composting systems has led to a significant reduction in food waste, saving both on disposal costs and contributing to sustainability. Composting also transforms organic waste into valuable resources, such as fertilizers, which can be reused within the business or sold to external consumers, creating a closed-loop system.

During wartime, maintaining a focus on sustainability becomes even more challenging. However, *collaboration between the government, businesses, and international organizations* can provide essential support in implementing ecological innovations. Government grants, international funding, and policy support can enable businesses in the hospitality sector to adopt eco-friendly technologies, even during times of economic instability.

In the context of the hotel and restaurant industry, the results of the research highlight the growing importance of sustainable practices, particularly in the areas of waste management, resource efficiency, and eco-friendly product sourcing. Businesses have increasingly adopted innovative solutions to reduce their environmental impact, focusing on waste reduction through

recycling programs, composting, and minimizing single-use plastics. Moreover, many establishments have embraced sustainable food sourcing, opting for local and organic ingredients to support both environmental goals and the local economy. Despite the challenges posed by the ongoing war, the industry has demonstrated resilience through strategic partnerships and community involvement, aligning business practices with the evolving demand for environmental responsibility.

In times of war, when resources are limited and operational costs surge, the hospitality sector faces amplified challenges in maintaining its commitment to sustainability. However, the resilience and adaptability of businesses in this field have driven them to find innovative ways to uphold eco-friendly practices. Hotels and restaurants have begun to prioritize energy-saving measures, such as using energy-efficient lighting, water-saving technologies, and renewable energy sources, to decrease both costs and environmental impacts. Staff training programs focused on sustainability have been developed, enhancing employees' awareness of waste reduction and sustainable resource management practices. By promoting a culture of environmental responsibility, these businesses not only attract environmentally conscious consumers but also foster a positive public image. Continued support from governmental and international bodies in the form of subsidies, training, and policy initiatives will be essential in helping the industry to overcome wartime obstacles and strengthen its long-term commitment to sustainable practices.

**Conclusions.** The research underscores the growing significance of environmental responsibility within the hotel and restaurant industry, particularly in the context of the ongoing war, which has posed unprecedented challenges for businesses. In this turbulent period, companies are increasingly adopting innovative practices to mitigate their environmental impact, recognizing the importance of sustainability not just as a business strategy but as an essential value. These innovations include the implementation of energy-efficient technologies, waste reduction measures, and sustainable sourcing of food and materials. For example, many businesses are optimizing their waste management systems by investing in recycling and composting programs, while also minimizing the use of single-use plastics, which significantly reduce their environmental footprint.

There has been a noticeable trend toward sourcing local and organic products, which not only supports sustainable agricultural practices but also boosts the local economy. By focusing on local supply chains, businesses reduce the environmental impact associated with long-distance transportation and help strengthen regional economies, creating a positive feedback loop that benefits both the environment and the community. This shift toward sustainability is increasingly demanded by consumers, who are becoming more conscientious about the ecological implications of their consumption choices. As a result, hotel and restaurant establishments are adapting to this demand, finding that environmental responsibility is not only a moral imperative but also a competitive advantage.

Amid the challenges posed by the ongoing war, the hospitality industry has shown impressive resilience, adapting through the formation of new partnerships and the strengthening of collaboration with local communities, various stakeholders, and even direct competitors. This collective approach has proven crucial in overcoming significant obstacles, such as supply chain disruptions and resource shortages, by fostering a shared commitment to maintaining operational stability and sustainability. By working together, businesses have been able to share critical resources, combine expertise, and devise innovative solutions to tackle the multifaceted challenges brought on not only by the war but also by the pressing global environmental crisis. This spirit of collaboration has extended beyond the industry itself, bridging gaps across various sectors and establishing a powerful strategy for developing sustainable practices. These practices not only support economic viability but also uphold social responsibility, setting a

precedent for how industries can thrive in the face of adversity through unity and forward-thinking approaches.

The ongoing crisis has highlighted the need for businesses to be more adaptive and flexible. Many establishments are reconsidering their long-term strategies, incorporating environmental responsibility into their core business models. By doing so, they are not only helping to conserve natural resources and protect the planet but also positioning themselves for future success in an increasingly eco-conscious market. The research suggests that environmental responsibility, when integrated into the business model, contributes to the long-term sustainability and competitiveness of the hotel and restaurant industry, making it a crucial factor for businesses aiming to thrive in both the short and long term.

The research affirms that environmental responsibility is not a passing trend but a fundamental aspect of modern business practice. For the hotel and restaurant industry, the adoption of sustainable practices and collaboration during times of crisis not only helps mitigate environmental damage but also provides businesses with a path to innovation, resilience, and future growth.

### References

1. Грановська В., Бойко В. Функціонування екоготелів в Україні як чинник активізації підприємницької діяльності. *Економіка АПК*. 2020. № 3. С. 57–65.
2. Загорянська О. Л. Оцінка конкурентоспроможності екологічних готелів у сучасних умовах господарювання. *Економіка природокористування та охорони навколишнього середовища*. 2018. № 222. С. 662–668.
3. Барна М. Ю., Гліненко Л. К., Дайновський Ю. А. Екотуризм як фактор розвитку туристичного і готельного бізнесу. *Підприємництво і торгівля*. 2020. № 27. С. 82–89.
4. Новомлинець О. та ін. Перспективи розвитку екологічно чистого будівництва в Україні. *Нові технології в будівництві*. 2020. № 37. С. 38–43.
5. UN Tourism | Bringing the world closer. *UN Tourism | Bringing the world closer*. URL: <http://www.unwto.org/>
6. Rico, A. et al. (2020). Declining water consumption in the hotel industry of mass tourism resorts: Contrasting evidence for Benidorm, Spain. *Current Issues in Tourism*. 2020. Vol. 6, No. 23. P. 770–783.
7. Misso, R. et al. (2018). Sustainable development and green tourism: New practices for excellence in the digital era. *Journal for International Business and Entrepreneurship Development*. 2018. Vol. 11, No. 1. P. 65–74.
8. Державна служба статистики України. URL: <http://www.ukrstat.gov.ua/>