

## THE IMPACT OF TOURISM ON ECONOMIC STABILITY: ADAPTIVE BUSINESS APPROACHES IN AN UNSTABLE ENVIRONMENT

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**Abstract:** Tourism in today's unstable conditions is a leading factor in the economic stability of regions and states, capable of providing multiplier effects, diversifying income, stimulating innovation, and strengthening local communities. The aim of this research was to analyze the transformation of the tourism sector, identify adaptive business models, and assess their impact on economic stability during the period 2022–2025, in particular in the context of the military conflict in Ukraine. Analytical and economic methods, comparative analysis, systematization, synthesis, classification, correlation analysis, as well as scenario forecasting and multiplier effect assessment methods were used in this research. The information base consisted of statistical data on tourist flows, revenues, and tax receipts in the tourism sector; OECD reports; data from ReportLinker, Visit Ukraine Today, Ukrainian Business News, and the Oeconomus Economic Research Foundation; as well as research findings on innovative business models and sectoral sustainability. The analysis showed that tourism can enhance economic resilience through job creation, stimulation of related industries, infrastructure development, the implementation of digital services, and the adoption of adaptive business models. During the military conflict in Ukraine, a radical reorientation towards domestic tourism, digitalization of services, localization of demand, and the formation of regional tourism clusters was observed. At the same time, the tourism sector acts not only as an economic but also as a socio-cultural factor of stability, supporting local communities and national identity. The results demonstrate that the integration of three key components – digitalization, resilience, and local integration – creates conditions for the formation of business models that can not only withstand crisis phenomena but also use them as a catalyst for transformation and increased competitiveness. Tourism that adapts and innovates becomes an agent of economic resilience, capable of ensuring recovery and growth under conditions of high uncertainty.

**Keywords:** tourism resilience; economic stability; adaptive business models; digital-hybrid tourism platforms; sustainable tourism development; tourism multiplier effect; scenario forecasting; crisis management in tourism; regional tourism clusters; tourism digitalization

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### INTRODUCTION

In the modern global context, the tourism industry is turning into a complex multidimensional system in which digital, socio-economic and environmental determinants of development interact. The leading trends of the last decade – digitalization, “green” transformation, service platformization, as well as the emergence of hybrid business models based on AI, Big Data, and Digital Twins – are forming a new paradigm for the functioning of the tourism sector. As noted by Kolodiziev et al. (2024), it is these factors that become catalysts for the flexibility of business processes and the ability of enterprises to respond to crisis disturbances in the external environment.

Tourism development in 2025 takes place in conditions of increasing market uncertainty, demand volatility, and increased competition for consumers and resources. Analytical reviews by Eeland & van Zon (2024) record a shift in emphasis from quantitative indicators of development to qualitative indicators of economic and operational sustainability, which involves rethinking management strategies. In particular, four interconnected pillars of resilience are identified:

- operational flexibility, which ensures adaptation to demand fluctuations and logistical disruptions;

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- commercial sustainability, which consists of the ability of the enterprise to maintain profitability and customer loyalty through dynamic pricing and personalized marketing
- personal resilience, aimed at supporting staff competencies, preventing burnout and developing digital skills;
- technological resilience, based on the use of artificial intelligence tools, big data analytics and cybersecurity as factors for increasing predictive accuracy and efficiency of management decisions.

Under the influence of these trends, a model of “intelligent tourism” is being formed, within which technological innovations and strategic management merge. The use of digital twins for modeling tourist flows, big data analytics for predicting seasonality, and automation of marketing campaigns not only optimizes business processes but also contributes to the sustainable use of resources and a reduction in environmental burden (Bondarenko et al., 2025).

For Ukraine, which is in a state of war trials and post-war reconstruction, the relevance of such approaches is gaining particular importance. Tourism is gradually transforming from a “recreation industry” into a mechanism for socio-economic recovery, combining entrepreneurial initiative with national priorities of sustainable development. The development of domestic tourism, the creation of thematic routes based on cultural heritage, digitalization of services, the introduction of “green” management practices and local startup initiatives can become points of growth of the regional economy and the formation of new models of competitiveness.

Thus, the study of the phenomenon of tourism as a factor of economic sustainability requires a systematic analysis of the relationship between technological innovations, management models and regional socio-economic dynamics. This will allow not only to assess the adaptive potential of the industry to crisis impacts but also to determine the conceptual guidelines for its strategic development in the context of the global transformation of economic systems (Melnik et al., 2023).

The aim of the research is a comprehensive analysis of the role of tourism as a factor in ensuring economic stability in conditions of global instability, as well as identifying effective business models capable of adapting the tourism industry to crisis challenges. The objects of the research are modern tourism systems and models of management of tourism sector enterprises in conditions of an unstable economic environment.

## MATERIALS AND METHODS

In the course of the research, a comprehensive interdisciplinary approach combining economic, managerial, spatial, and socio-cultural analytics was applied. This methodological integration made it possible not only to identify tourism as a factor in the formation of economic sustainability but also to reveal the internal mechanisms of its influence on the adaptability of regional socio-economic systems in the context of global instability.

The analytical and economic methods were applied to identify patterns of digital transformation in the tourism sector, determine structural shifts in enterprise business models, and analyze their impact on macroeconomic stability. As a result, a systematic generalization of the processes of “green” transition, platformization, and service hybridization in tourism was conducted, which directly affect the formation of territorial economic resilience.

The comparative analysis method was employed to compare the dynamics of tourism services development in EU countries, post-socialist states, and Ukraine. This made it possible to identify structural patterns in the adaptation of tourism businesses to crisis factors, particularly in the context of pandemics, military operations, energy fluctuations, and changes in consumer behavior. The comparison revealed that countries, which had previously implemented digital tourism management platforms and eco-oriented business models, demonstrated a significantly higher level of flexibility and market presence retention during periods of decline.

The methods of generalization, systematization, and synthesis made it possible to identify functional relationships between digitalization, innovative business models, and economic sustainability, as well as to develop a conceptual model of interaction between the tourism sector and other segments of the regional economy. It was established that digital integration not only increases management efficiency and resource optimization but also contributes to the formation of a multiplier effect in related industries – transport, creative industries, local production, and the service sector.

The classification and grouping methods were applied to structure types of tourism services and modern business models based on the principles of flexible ecosystem interaction (digital–green synergy). In particular, the following models were systematized:

- digital-hybrid (a combination of online platforms and local services);
- modular (adaptation of products for specific tourist segments);
- platform-based (peer-to-peer services integrating local economies);
- sustainable (focused on environmental responsibility, social inclusion and ESG standards).

The information base of the research comprised scientific publications in the fields of tourism, economic geography, sustainable development management, and the digital economy; analytical reports by the World Tourism Organization (UNWTO), the World Bank, and the European Commission; as well as empirical data from the state statistical authorities of Ukraine for 2023–2025.

Particular attention was paid to the analysis of transformation processes in Ukraine’s tourism sector, which operates under martial law, economic turbulence, and socio-cultural change. It was established that tourism represents one of the potential mechanisms for restoring economic activity through the development of domestic routes, support for small businesses, employment stimulation, and the formation of a positive international image of the country.

The application of this set of methods made it possible to obtain a holistic scientific picture of the transformation of the tourism sector as an open adaptive system that integrates economic, technological, and social dimensions of development.

## LITERATURE REVIEW

### **Modern scientific approaches to the development of tourism as a factor of economic stability in conditions of instability**

Tourism in the modern world is not only a dynamic segment of the global economy, but also a multifunctional system capable of generating long-term sustainability effects, structural adaptability, and social consolidation. Its role in the 21<sup>st</sup> century is increasingly going beyond the traditional understanding of a consumer-demand sector, becoming a tool for macroeconomic stabilization, a stimulator of regional development, and a factor in reducing the vulnerability of national economies to crisis phenomena (Bondarenko et al., 2025; Ushakov et al., 2021). In 2023–2025, against the backdrop of energy and security shocks, pandemic consequences, and geopolitical turbulence, the tourism industry demonstrated a high level of structural plasticity, an ability to quickly diversify business processes and digitally reorient management strategies. As noted by the OECD (2025), the development of resilient destinations is a priority for European policy, as tourism is able to provide a multiplier effect: job creation, activation of small and medium-sized businesses, infrastructure development, investment stimulation, and the formation of a positive territorial brand. After the COVID-19 pandemic and in the context of military and economic instability in 2023–2024, there is a fundamental shift in the structure of demand: from globalized tourist flows to domestic and regional tourism, which strengthens local economic stability and reduces dependence on external factors (SmartGuide, 2024; EISMEA, 2023; Matei et al., 2021).

Modern scientific analytics demonstrate that the competitiveness of tourism enterprises is increasingly determined by their innovative capacity, their ability to adapt digitally, and the implementation of integrated business models. As noted by de Bellefonds (2024), effective tourism companies apply multi-vector management strategies that involve the synergy of flexibility, data analytics, and ESG-oriented sustainability. The use of artificial intelligence, big data analytics, digital twins, and intelligent platforms allows for demand forecasting, risk management, service personalization, and cost optimization. Such technological solutions contribute to the formation of digital tourism ecosystems, where management, service, and marketing processes are integrated into a single model of adaptive development.

From the standpoint of economic science, tourism becomes a systemic element of regional resilience due to its ability to quickly mobilize labor resources, support entrepreneurship, stimulate innovation, and create added value in related sectors of the economy. In this context, scientists consider tourism not only an indicator of social well-being but also a tool for strengthening the financial, institutional, and territorial resilience of the state.

The latest paradigm of tourism sector development in the context of global challenges demonstrates a shift from linear reproduction models to adaptive and innovative formats of functioning based on the synergy of digital, environmental, and socially oriented approaches. In particular, the study by de Almeida et al. (2025) proves that the integration of the digital twin concept into the structure of tourism infrastructure forms a new management architecture based on predictive analytics, development scenario modeling, and the minimization of environmental and financial risks. The use of digital twins ensures not only an increase in the efficiency of management decisions but also contributes to the transition to the concept of “smart tourism,” where the data ecosystem becomes the basis for sustainable planning and regional balance.

In this context, the “green” transformation of the tourism industry becomes a priority, interpreted as a systemic strategy for the greening of economic processes through the introduction of energy-efficient technologies, the development of circular consumption models, and the expansion of local community participation in the formation of sustainable development policies. As noted by Kudinova (2019), the strategic adaptation of the EU tourism sector to the energy crisis occurs through a combination of digital innovations, operational process decarbonization, and the implementation of ESG management principles, which form the prerequisites for long-term economic security.

Tourism in the contemporary world is increasingly recognized not only as a dynamic segment of the global economy but also as a multifunctional system capable of generating long-term sustainability effects, structural adaptability, and social cohesion. Its role goes beyond the traditional perception of a consumer-driven sector, evolving into a tool for macroeconomic stabilization, regional development stimulation, and the reduction of national economies’ vulnerability to crises (Gajdosik, 2018; Danylyshyn et al., 2022). In the period from 2023 to 2025, against the backdrop of energy and security shocks, the consequences of the COVID-19 pandemic, and geopolitical turbulence, the tourism industry has demonstrated high structural flexibility, rapid diversification of business processes, and the digital reorientation of management strategies (Gössling et al., 2020). Resilient destinations have become a priority for both European and global policy frameworks, given the multiplier effects of tourism: job creation, activation of small and medium-sized enterprises, infrastructure development, investment stimulation, and territorial branding (Danylyshyn et al., 2022).

The post-pandemic landscape and ongoing crises have caused a significant shift in tourism demand patterns: from globalized tourist flows to domestic and regional tourism. This shift strengthens local economies and reduces dependence on external factors, highlighting the stabilizing potential of tourism in times of instability (Gössling et al., 2020; Morhulets et al., 2023). Modern scientific approaches emphasize that the competitiveness of tourism enterprises increasingly relies on innovation capacity, digital adaptation, and the implementation of integrated business models. Studies show that the application of multi-criteria decision-making methods in tourism and hospitality supports strategic decision-making, risk management, and sustainable development (Mardani et al., 2016). The use of artificial intelligence, big data analytics, and intelligent platforms enables demand forecasting, cost optimization, service personalization, and risk mitigation, forming the basis of adaptive digital tourism ecosystems (Gajdosik, 2018; Danylyshyn et al., 2022).

From an economic perspective, tourism functions as a systemic element of regional resilience, rapidly mobilizing labor resources, supporting entrepreneurship, stimulating innovation, and generating added value across related economic sectors. Cross-cultural communication within tourism further enhances resilience by fostering inclusivity, intercultural

understanding, and cooperation in service delivery and destination management (Morhulets et al., 2023). The latest paradigm in tourism development reflects a shift from linear, resource-intensive models toward adaptive, smart, and innovative formats that integrate digital, environmental, and socially responsible approaches. The concept of “smart tourism” underlines the importance of data-driven management, predictive analytics, and scenario modeling for sustainable and balanced regional development (Gajdosik, 2018; Danylyshyn et al., 2022). The growth of tourism as a determinant of regional resilience leads to the emergence of new business models focused on multidimensional resilience – economic, social, cultural, and environmental. The industry is reorienting itself from quantitative metrics to qualitative and value-based ones: the authenticity of the tourist experience, ethical consumption, cultural identity, and the inclusion of local communities in value chains are becoming priorities. According to a study by Yulianto et al. (2025), the implementation of Business Continuity Management systems in the tourism sector significantly increases the ability of enterprises to withstand crisis phenomena, forming an institutional framework for risk management and ensuring business process continuity. For Ukraine, which is experiencing a prolonged period of military and socio-economic turbulence, tourism is gradually transforming into a strategic mechanism for stabilization and post-crisis recovery. Under wartime conditions, the tourism sector, despite the loss of part of its infrastructure, has shown high adaptability due to its focus on domestic tourism, the development of cultural and patriotic routes, volunteer initiatives, and social consolidation projects.

### **Innovative business models and digital strategies in ensuring the economic sustainability of the tourism sector**

In the structure of the global economy, tourism occupies one of the key positions, transforming from a traditional service sector into a multifunctional institution of socio-economic stability. Its contribution to the formation of the economic resilience of states and regions is manifested not only in job creation and infrastructure development, but also in strengthening financial flows, stimulating small businesses, and generating a multiplier effect for related sectors (Kudinova, 2019). At the same time, current turbulence in the global economy, caused by the pandemic, military conflicts, and energy and environmental crises, necessitates a rethinking of tourism industry business models, as well as their digital and managerial transformation (OECD, 2025; UNWTO, 2024).

Leading studies in recent years indicate the emergence of a new paradigm of economic sustainability in tourism, based on the principles of flexibility, predictability, digitalization, and sustainable development. Thus, de Almeida et al. (2025) demonstrate that the implementation of Digital Twin technology enables the creation of virtual models of tourism systems capable of adaptive management of visitor flows, resources, and risks. This contributes not only to increased efficiency of business processes but also to the development of intelligent platforms for managerial decision-making. In turn, Yulianto et al. (2025) show that the application of *Business Continuity Management* strategies forms sustainable mechanisms for the operation of tour operators in crisis situations, ensuring the financial and operational flexibility of the system.

Ukrainian realities confirm the capacity of the tourism sector for adaptive transformation in the face of military and economic challenges. As demonstrated by Morhulets & Nyshenko (2023), hotel and restaurant enterprises that have actively integrated CRM technologies, online booking platforms, and digital customer experience management systems exhibit resilience and competitiveness even during periods of acute instability. According to Ovdiuk (2025), strategic management of tourism processes should be based on risk-oriented analytics, consumer behavior forecasting, and scenario planning using big data forecasting, which increases the industry’s adaptability to external shocks.

Digitalization of the tourism business is now not only a technological trend but also a key condition for its sustainability. Its main conceptual directions include:

- integration of online platforms and mobile services that ensure service continuity, improve customer experience, and contribute to the creation of network-based added value (Bondarenko et al., 2025);
- use of ERP and BI systems that enable predictive analytics, optimization of logistics, inventory management, and real-time control of financial flows (Kolodiziev et al., 2024; Montañés-Del-Río & Medina-Garrido, 2023);
- activation of digital marketing, which, through social networks, machine learning, and automated market segmentation, creates new communication channels and increases tourism brand recognition (Lloret-Climent et al., 2025; Eeland & van Zon, 2024).

Models of sustainable and inclusive development that combine economic efficiency, social responsibility, and environmental sustainability deserve particular attention (EISMEA, 2023). According to analytical forecasts by the Boston Consulting Group (2024), tourism enterprises that integrate ESG principles and elements of the circular economy demonstrate higher levels of financial stability, investment attractiveness, and public trust. ESG-oriented models form the foundation of “green tourism,” where innovation is combined with the ethics of sustainable consumption.

In the context of digital ethics, the issue of transparency, protection of personal data and user security remains important. As Gajdosik (2018) emphasizes, adherence to the principles of ethical data use builds trust in digital platforms, prevents reputational risks and creates prerequisites for the formation of a responsible tourism environment.

In summary, the modern model of economic sustainability of the tourism sector is based on the integration of four interrelated components:

1. Digitalization of business processes as a tool for predictive management and analytical modeling.
2. Innovative business models focused on customer centricity, network interaction, and cross-sector partnerships.
3. Sustainable risk management based on Business Continuity Management systems and ESG principles.
4. Ethical digital culture that ensures trust, security, and inclusion in the digital environment.

Thus, tourism in the modern world is not merely an economic sector, but a multifunctional resilience system capable of ensuring long-term socio-economic stability even under conditions of profound global instability.

## RESULTS AND DISCUSSION

### Transformation of the tourism sector as a factor of sustainable economic development

In today's globalized world, tourism appears not only as a leisure industry but also as a complex socio-economic system integrated into a multidimensional structure of regional development, employment, innovation, and environmental policy. Its role as a factor of economic resilience is determined by its ability to adapt to external shocks, diversify sources of income, and generate a multiplier effect for related sectors of the economy. In the context of ongoing geopolitical crises, energy imbalances, and the consequences of the COVID-19 pandemic, tourism functions as a polystructural mechanism for stabilizing and regenerating regional economies.

The concept of tourism economic resilience in contemporary research is examined through the lenses of evolutionary economics, systems theory, and the sustainable development paradigm. Unlike the classical approach to "post-crisis recovery", the evolutionary perspective implies not merely a return to a previous state, but an institutional transformation of the system that takes new challenges into account. As shown by Fang et al. (2025) in their study of three urban agglomerations in China, the level of economic resilience of the tourism sector is a dynamically changing variable that exhibits a nonlinear development: "first growth – then decline" driven by the heterogeneity of urbanization processes, levels of technological maturity, and degrees of state regulation.

Current scientific discourse identifies several analytical models of tourism sustainability, among which the most widely applied are:

- the adaptive cycle model, which interprets tourism as a system that cyclically passes through phases of growth, stabilization, collapse, and reorganization;
- the Triple Helix model, in which interaction among business, science, and the state fosters the development of innovative practices in the tourism sector;
- the BCM model (Business Continuity Management), which provides strategies for ensuring business continuity under crisis conditions (Yulianto et al., 2025).

The development of digital twins of tourism infrastructure, analyzed by de Almeida et al. (2025), creates conditions for intelligent resource management, cost minimization, and real-time risk prediction. In this context, a new analytical framework is emerging the "green digital transformation of tourism" which combines principles of environmental responsibility and technological efficiency (Bondarenko et al., 2025).

European experience confirms that the economic sustainability of the tourism sector is achieved through a combination of innovative policies, financial incentives, and the development of regional cooperation. According to a study by SATD (2024), the key drivers include management digitalization, energy efficiency, service creativity, and inclusive employment, all of which contribute to the formation of social capital at the local level.

For Ukraine, which is experiencing prolonged military and socio-economic turbulence, tourism is gradually becoming a tool for regional economic recovery and state image formation. In recent years, domestic tourism has expanded, the role of local clusters has increased, and transport and communication infrastructure has begun to recover. This process is accompanied by the emergence of new business models, particularly cluster-based, digitally oriented, and community-managed formats. As reported by Travel and Tour World (2025), such models are grounded in decentralization principles, sustainable investment, and synergy between the public and private sectors.

According to the tourism multiplier effect concept developed by Badoc-Gonzales et al. (2022), tourist expenditures generate a chain of secondary economic activities that extend far beyond the primary service market. On average, one dollar spent by a tourist generates up to three dollars in related industries transport, gastronomy, culture, crafts, and local production. Thus, tourism functions as an integrated buffer against economic fluctuations by ensuring decentralized income and employment generation, even under crisis conditions. This effect is particularly evident in regions with mono-specialized economic structures, where tourism serves as an alternative channel of economic activity and mitigates the consequences of decline in core industries.

From an analytical perspective, the concept of "economic resilience of tourism" encompasses not only the capacity of a system to recover from crises, but also its ability to transform business models in response to changing socio-economic conditions. According to the adaptive cycle model (Fang et al., 2025), tourism, as a complex adaptive system, moves through phases of growth, stabilization, collapse, and reorganization, demonstrating internal evolutionary plasticity. This approach enables a shift from a reactive to a proactive understanding of economic resilience – as a process of transforming shocks into drivers of development.

From the standpoint of contemporary practice, the primary mechanisms for enhancing sustainability include digitalization, localization, and the greening of tourism business operations. The combination of these factors underpins the emergence of a new generation of tourism business models based on flexibility, innovation, and local community participation. Such models include:

- hybrid digital formats combining physical and virtual travel, online excursions, and virtual museums that maintain revenue streams during mobility restrictions;
- adaptive spatial models, such as modular hotels, shared housing (co-living), and co-working spaces for digital nomads, which reconfigure traditional accommodation approaches;
- thematic and experiential tourism focused on well-being, wellness, retreat practices, gastronomy, and cultural authenticity;
- responsible tourism economy models grounded in ESG principles, community participation, and resource circularity;

– platform ecosystems integrating transportation, accommodation, insurance, and cultural events into unified digital systems using big data and personalization algorithms.

In this context, the study by Thees et al. (2022) is particularly illustrative, demonstrating that the development of sustainable destination business models requires a multi-method approach that integrates innovative technologies, public–private partnerships, and cross-sectoral collaboration. Similarly, Kuyer (2025), in *Building a More Successful Business Through Resilience*, emphasizes the need for an integrative approach to business resilience in which digitalization, investment in human capital, sustainable finance instruments, and strategic marketing function as interrelated components.

A notable trend is the growing digital–sustainability nexus, whereby digital technologies become not merely communication tools but the core of strategic sustainability for tourism organizations. This is supported by the findings of de Almeida et al. (2025), which show that the application of digital twins in tourism infrastructure optimizes management processes, reduces energy consumption, and enhances environmental efficiency.

Table 1 presents contemporary business models in the tourism sector that contribute to increased economic sustainability through digitalization, local integration, and sustainable practices.

Table 1. Characteristics of new business models in tourism (Source: compiled by the author)

No.	Business model	Leading components	Contribution to economic sustainability
1	Digital-hybrid model	Virtual tours, online booking, digital services, data analytics	Reduces dependence on physical limitations, attracts new segments, diversifies sources of income
2	Localized integrated model	Involving local businesses, crafts, gastronomy, experiential tours	Strengthens income multiplication in the local economy, reduces capital outflows, increases resilience to external shocks
3	Sustainable/responsible tourism model	Ecotourism, preservation of natural and cultural heritage, community participation	Increases socio-economic inclusion, reduces environmental risks, improves the reputation of the destination
4	Modular flexible placement model	Modular hotels, shared housing, adaptive spaces, the transition between B2C and B2B	Quickly adapts to changes in demand, reduces fixed costs, increases asset utilization efficiency
5	Platform-based ecosystem model	Combining transportation, housing, services, and experience in a digital platform	Creates synergies, scales business, optimizes costs, expands economic impact

The formation of economic sustainability in the tourism sector is determined not only by the structure of the industry but also by a set of factors that influence the effectiveness of business models under various conditions of instability. Key determinants include: the level of economic development of the region, which determines the availability of financial resources and investment attractiveness; technological infrastructure and the degree of digitalization, which ensure enterprise adaptability and the ability to forecast demand; the level of urbanization, which affects the concentration of flows and the availability of services; the quality of management, including state regulation, support for innovation, and political stability; human capital, encompassing competencies, creativity, and entrepreneurial potential; diversification of the tourist base by markets, products, and segments; local integration, which determines the ability to mobilize community resources; and environmental and cultural sustainability, which enhances the competitiveness of destinations and creates a reputational advantage (Fang et al., 2025; Badoc-Gonzales et al., 2022).

Empirical studies of Chinese agglomerations demonstrate statistically significant threshold effects: above a certain level of economic development (ln EDL), the impact of the tourism industry on economic sustainability increases exponentially, whereas a high level of digitalization (ln IL) or government intervention (ln GI) exhibits an inverted U-shaped effect; that is, excessive intervention reduces sector efficiency (Fang et al., 2025).

At the same time, the tourism sector is characterized by systemic vulnerabilities that potentially limit its resilience: market fragmentation, massive dependence on international flows, low level of innovation of MSMEs, high seasonality, significant fixed costs and weak integration with the local economy. OECD (2022) emphasizes: *“the tourism sector is disconnected from the broader economy, has a high dependence on international guests; small businesses are often not prepared for large shocks”*.

From a practical perspective and in view of political strategies, critical areas for increasing resilience are:

1. Development of digital infrastructure and integration of digital platforms that provide operational flexibility and personalization of services.

2. Support for innovation and start-ups that allows adaptation to changes in demand and provides competitive advantages.

3. Activation of local community participation, integration of MSMEs into local clusters and network structures that strengthen the social and cultural resilience of destinations.

4. Flexible operating models, including modular accommodation and multifunctional spaces.

5. Partnerships between business, government and the public sector that ensure resource synergies and coordination of development strategies.

6. Diversification of tourism markets, geographically and segmentally, that minimizes concentration risks.

7. Supporting MSMEs through financing, training, mentoring, and the development of scenario planning and risk management based on the principles of a resilience approach.

8. Integration of tourism into regional economic development strategies, which allows for increased economic resilience at the macro level, rather than considering the sector as a purely commercial resource (OECD, 2022).

Thus, the success of tourism business models in shaping economic sustainability is determined by the synthesis of economic, technological, regulatory, and social factors, which together ensure the long-term adaptability and transformational capacity of the tourism industry even under highly unstable conditions.

The modern tourism sector, in the context of global instability, performs not only the function of recovery from crises but also becomes an agent of economic system transformation. Tourism can stimulate the transition of regions to new economic development trajectories, creating niche markets and increasing the added value of services. The development of thematic tourism, including wellness, creative, and green sectors, allows for the creation of products with lower seasonality and greater adaptability to changing market conditions. Integration with digital technologies, such as Big Data, artificial intelligence, and mobile services, opens opportunities for service personalization, cost optimization, and the creation of innovative products, thereby increasing the competitiveness and sustainability of enterprises (Thees et al., 2022; Kuyer, 2025). The synthesis of technological solutions with the principles of sustainable development – ecological, cultural, and social – contributes to the formation of a resilient tourism industry, capable not only of withstanding crises but also of emerging strengthened from them.

Small and medium-sized businesses in tourism are the driving force behind the sector's development, while remaining the most vulnerable. Badoc-Gonzales et al. (2022) propose a holistic framework for MSME resilience that integrates three levels: business, community and destination resilience. This concept emphasizes the need for a nexus of operational resilience, strategic adaptability and systemic transformation. In the face of global challenges – climate change, pandemics, geopolitical instability – the effectiveness of tourism models depends on taking risks into account, diversifying the market base, building anti-crisis reserves and using early warning technologies. OECD (2022) emphasizes that the tourism sector needs to prepare for future shocks by integrating a systemic vision and proactive management strategies.

Of particular importance for regions with high instability, such as Ukraine, are local resources – natural, cultural, and historical – which form a unique tourism product that is less dependent on international flows and more resilient to fluctuations. The development of digital channels, including online booking, virtual, and hybrid tours, helps overcome transport and infrastructure constraints. Active involvement of local communities and support for MSMEs through cooperation and localization of value chains create additional economic value. Integration of tourism into regional economic strategies, including creative industries, agriculture, and the green economy, provides a multiplier effect and enhances economic resilience. Adaptation mechanisms, financial reserves, flexible operations, and scenario planning are essential tools to increase sector resilience under conditions of instability.

The prospects for the development of the tourism sector as a factor of economic sustainability are determined by the combination of digitalization, sustainability, and local integration. Digitalization provides flexibility and access to new market segments; sustainability – environmental, social, and cultural – reduces risks and enhances reputation; local integration has a deep impact on regional economies and creates added value. Tourism, constrained by mass international flows, remains vulnerable, whereas integrated and transformed tourism becomes a leading driver of economic sustainability, capable of adapting to global shocks and stimulating the development of regional economies.

### **Adaptive business models and tourism industry recovery in the context of a war crisis**

With the beginning of the full-scale invasion of the Russian Federation into Ukraine, the country's tourism industry underwent radical transformations, which significantly affected its functioning as a factor of economic stability. Before the war, the travel and tourism sector was considered a promising but vulnerable component of the economy, capable of forming a significant share of GDP, creating jobs in related industries, and contributing to the development of local infrastructure. Under martial law, the tourism industry was among the sectors with the highest level of risk, as the direct and indirect negative effects of the conflict manifested themselves in an extremely complex and large-scale manner.

The analysis of the economic consequences for 2022–2023 shows that the reduction in international tourist flows, the destruction of transport and hotel infrastructure, the disruption of logistics chains, and the decline in the purchasing power of the population created unprecedented barriers to the functioning of the industry. The loss of key markets, primarily in the European Union and Asia, posed a challenge for tourism enterprises not only to ensure minimal operational capacity but also to adapt quickly to new conditions, including ensuring security and compliance with wartime regulatory requirements. Such conditions stimulated a reorientation towards domestic tourism, the development of safe routes, and the diversification of the tourism product through the formation of thematic, cultural, educational, and environmental offers that are less dependent on the international flow of tourists (Visit Ukraine Today, 2023).

The crisis circumstances simultaneously contributed to the acceleration of digitalization and the integration of the latest technologies into tourism services. The use of online booking platforms, virtual tours, and digital information services made it possible to maintain interaction with potential tourists, optimize resources, and reduce revenue losses. This transformation confirms theoretical positions on the role of technology in increasing business adaptability and the economic sustainability of the sector (de Almeida et al., 2025; Yulianto et al., 2025).

At the strategic level, it indicates that the Ukrainian tourism sector began to function not only as a source of economic income but also as an instrument of social and economic sustainability, capable of supporting employment, the investment attractiveness of regions, and forming new models of interaction with local communities.

In the context of studies on the economic sustainability of tourism, it is worth noting that Ukrainian practices demonstrate a combination of digitalization, flexible business models, and local integration, which provides a multifunctional effect: from supporting economic activity to developing human capital and strengthening local communities. This approach allows turning crisis circumstances into a catalyst for innovation and structural transformation of the tourism industry, confirming the concept of “evolutionary sustainability” of economic systems, in which recovery from a shock is accompanied by simultaneous adaptation and innovative development (OECD, 2022; Fang et al., 2025).

In 2023, the Ukrainian tourism sector began to show the first signs of a gradual recovery of key performance indicators, indicating the formation of a certain stabilization trend even under the ongoing military conflict. The number of foreign

citizens who crossed the state border amounted to about 2.45 million people, and in 2024 this figure increased to 2.54 million (Visit Ukraine Today, 2023). Although these values remain significantly lower than the pre-war level – in 2019, more than 10 million tourists visited Ukraine – the positive trend reflects the adaptive potential of the tourism sector and the gradual restructuring of business models in accordance with the new operating conditions (Szigethy-Ambrus, 2023).

Structural analysis of tourism flows shows that the recovery process is largely driven by regional tourists from neighboring countries, primarily Poland, Romania, and Hungary, as well as domestic travelers. This shift in tourism consumption priorities demonstrates the growing importance of domestic tourism as a mechanism to support economic activity in regions that have remained relatively stable. At the same time, it highlights the critical role of ensuring security, logistical accessibility, and infrastructure development in restoring trust among international tourists, which is a key factor in industry resilience.

The positive dynamics of tourist flows have a multiplier effect on the economy: even a limited recovery in demand stimulates the activities of the hotel and restaurant business, transport operators, and cultural and recreational services, creates temporary and seasonal jobs, and generates additional revenues for local budgets. In crisis conditions, these effects are particularly important for supporting the economic sustainability of territorial communities and ensuring social stability.

At the same time, the digitalization of marketing and booking channels significantly increases the flexibility of the tourism sector in responding to changes in demand, allowing the attraction of new consumer segments and supporting operational resource management. This demonstrates that the Ukrainian tourism sector is not only adapting to conditions of instability but is also gradually restoring its functional role as a factor of economic stability, ensuring employment, the investment attractiveness of regions, and the formation of new models of interaction with local communities.

Significant changes have also occurred in the structure of domestic demand for tourism services: in 2024, 51% of Ukrainians planning a vacation chose domestic destinations, and in 2025 this figure increased to 85% (Shevko, 2025). This transformation indicates a radical reorientation of consumer behavior, which is due both to objective restrictions on international travel caused by military conflict and security risks, and to a growing awareness of the importance of supporting the national economy.

Domestic tourism is gaining special strategic importance, as it acts not only as a mechanism for meeting the cultural and recreational needs of the population but also as a critically important tool for economic stabilization. It provides employment in the regions, stimulates the activities of small and medium-sized enterprises in hospitality, transport, and service sectors, creates a multiplier effect in related sectors of the economy, generates stable revenues for local budgets, promotes infrastructure development, and reduces dependence on international tourist flows. Taken together, these processes form a comprehensive platform of economic sustainability, allowing the Ukrainian tourism sector to maintain functional activity and the potential for rapid recovery after the end of the military conflict. According to tax statistics, in 2025, revenues from the tourism business for the first quarter amounted to about UAH 799 million, which is 30% more than in the same period of 2024 (UAH 616 million) and almost twice the figure for 2023 (UAH 383 million) (Figure 1).

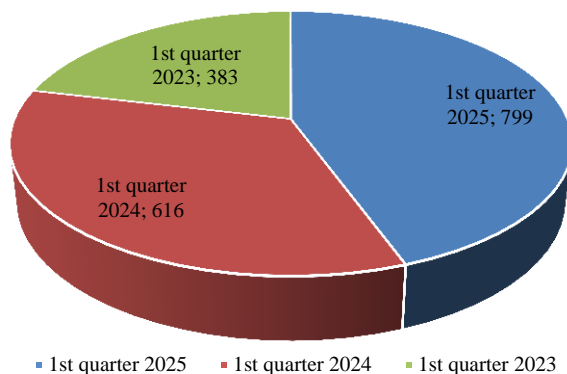


Figure 1. Dynamics of tax revenues from the tourism business in Ukraine for the first quarters of 2023–2025, million UAH (Source: compiled by the author based on (Ukrainian Business News, 2024))

Analysis of the dynamics of tax revenues from the tourism business for the first quarters of 2023–2025 demonstrates a clear trend of gradual recovery and stabilization of the sector, even in the context of high economic and geopolitical instability. In 2023, the volume of tax revenues amounted to UAH 383 million, reflecting the decline in tourism sector activity due to previous crises, mobility restrictions, and significant market uncertainty. In 2024, a significant increase of 61% to UAH 616 million was observed, indicating the intensification of entrepreneurial activity, partial restoration of tourist flows, and adaptation of business models to new operating conditions. The most significant increase occurred in 2025, up to UAH 799 million, which is 30% higher than the previous year's figure. This demonstrates the effectiveness of resilience strategies implemented in the sector and the industry's ability to respond to external shocks by diversifying offerings, localizing services, developing digital channels, and supporting small and medium-sized enterprises (Tourism Economics, 2023). The positive dynamics of tax revenues reflect not only the economic adaptation of entrepreneurs to crisis conditions but also the formation of a more flexible and integrated business ecosystem capable of minimizing the risks of external shocks. Under martial law, tourism acquires strategic importance, ensuring the continuity of financial resources for the state and local communities, stimulating the development of small and medium-sized enterprises, and creating multiplier effects in related sectors such as the food industry, transport, logistics, crafts, and cultural and creative industries (OECD, 2022; Badoc-Gonzales et al., 2022).

In terms of economic sustainability, the Ukrainian tourism sector functions not only as a tool for recreation but also as a key mechanism for national reconstruction and socio-economic stabilization. Although its share in gross domestic product has decreased compared to the pre-war level of about 7%, the industry retains significant potential for generating employment and stimulating domestic economic activity in regions that have remained relatively safe (Tourism Economics, 2023). Current trends in the development of Ukraine's tourism sector indicate its transformation and adaptation to conditions of high uncertainty caused by military conflict and economic shocks. The domestic tourism model, integrated with the digitalization of services, localization of demand, and the formation of regional tourism clusters, demonstrates the ability to ensure not only economic activity in local communities but also a foundation for the restoration of international tourist flows in the medium term. The use of digital platforms for booking, promotion of tourist products, and interactive virtual tours increases the efficiency of resource management, attracts new tourist segments, and provides flexibility in responding to fluctuations in demand even under conditions of limited mobility and high security risks (Visit Ukraine Today, 2023; Shevko, 2025).

At the same time, several constraining factors slow the recovery of the industry. These include ongoing hostilities, significant destruction of infrastructure, a shortage of investment resources, logistical constraints, and a high level of risk for tourists. According to international organizations, the full restoration of cultural and tourist sites requires about 9 billion US dollars (Associated Press, 2024). Additional challenges include a shortage of personnel, the outflow of qualified specialists, the low effectiveness of international promotion, and limited integration of Ukrainian tourism products into global tourism networks, complicating the return of external tourist flows.

Despite these limitations, the tourism industry has demonstrated high adaptability and innovative responses. The development of new forms of entrepreneurship, such as microtourism, eco- and agrotourism, gastronomic routes, and auto- and camping trips, indicates the industry's prompt response to changes in consumer demand and security risks.

The regions of Western and Central Ukraine are leading centers of domestic tourism, offering short-term vacation programs, weekend tours, cultural festivals, local gastronomic initiatives, and the integration of crafts into tourism products. This approach contributes to expanding the economic impact of tourism on regional communities, increasing employment in the hotel and restaurant sector, activating small businesses, and generating stable income from tourism activities.

The socio-cultural function of tourism takes on particular importance in times of crisis. Tourism supports national identity, strengthens local communities, and contributes to the preservation of intangible cultural heritage. Through the active involvement of communities in organizing festivals, excursions, and thematic events, a sense of community is formed, increasing social stability and positively affecting the psychological well-being of the population.

A forecast analysis of the development of the tourism sector in Ukraine shows that, given the stabilization of the security situation, modernization of infrastructure, active attraction of investments, and effective state policy, the industry can demonstrate stable growth. A comprehensive approach to the restoration of tourism, including the reconstruction of damaged cultural heritage sites, expansion of the network of hotel and recreational facilities, modernization of transport hubs and logistics routes, as well as digitalization of services, creates favorable conditions for the return of domestic and international tourists. According to forecasts, by 2028 the number of tourist flows may reach 15.9 million, and revenues from the tourism sector will exceed 9.9 billion US dollars, allowing not only the restoration of pre-war indicators but also the foundation for increased economic efficiency and social significance of the industry (ReportLinker, 2024).

The forecast analysis for the period 2025–2030 demonstrates steady growth in the number of tourists and tourism revenues. According to calculations based on ReportLinker (2024) data, trend analysis, and exponential smoothing methods, the number of tourists is expected to increase from 16.5 million in 2025 to 21 million in 2030, and revenues from the tourism sector will rise from 10.5 billion USD to 14.8 billion USD over the same period. Such dynamics indicate a restoration of pre-war indicators and a foundation for increasing the economic efficiency and social significance of the industry. Figure 2 presents the forecast dynamics of tourist flows and tourism revenues, allowing assessment of the impact of security stabilization, government policy, investments, and digitalization of services on the medium-term development of the industry. The diagram illustrates the expected stable growth of both domestic and international tourist flows, emphasizing the role of an integrated approach to the modernization of tourism infrastructure, digitalization of services, and active government support.

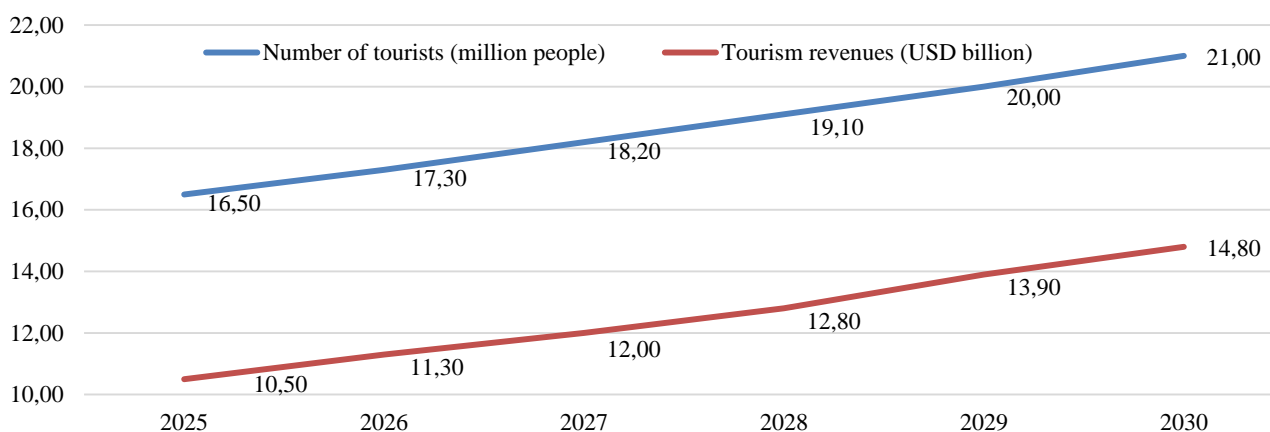


Figure 2. Forecast dynamics of tourist flows and tourism revenues in Ukraine for 2025–2030 (Source: compiled by authors based on ReportLinker (2024))

The expected growth will be supported by the activation of domestic tourist flows through the development of short-term routes, as well as gastronomic, cultural, and ecotourism initiatives, alongside the gradual return of foreign tourists following stabilization of the security situation and the strengthening of the country's international promotion.

The multiplier effect of this growth will manifest in the stimulation of related sectors of the economy, the creation of new jobs, the generation of additional tax revenues, and the enhancement of the investment attractiveness of the regions. A key factor in achieving these forecasts remains systematic state support and strategic planning for the development of the tourism sector, particularly through the establishment of regional tourism clusters, integration of digital platforms, and provision of safe conditions for tourists. The multiplier effect of the tourism sector can be estimated as the additional economic impact in related industries for every 1 USD of tourism income. Let us define the tourism multiplier  $k$  as a coefficient representing how many times the related economy grows with a 1 USD increase in tourism sector income.

For Ukraine, a conservative coefficient of  $k=1.5$  can be applied, consistent with international practice in sectors such as hotels, restaurants, transport, and entertainment. Calculation of additional income of related sectors:

Multiplier effect (USD billion) = Tourism revenues; (USD billion)  $\times k$  (1); One can also estimate job creation: according to statistics, for every \$0.2 million USD of additional tourism revenue, ~1 job is created (Table 2).

Table 2. Multiplication effect of growth of Ukraine's tourism sector for 2025–2030 (Note: The multiplier effect shows that for every USD 1 in tourism revenue, there is an additional USD 1.5 in related sectors of the economy. The number of jobs is estimated based on the ratio of 1 job per \$0.2 million USD of additional revenue)

Year	Tourism revenues (USD billion)	Multiplier effect (USD billion)	Expected new jobs (thousands)
2025	10.5	$10.5 \times 1.5 = 15.8$	$15.8 \times 5 = 79$
2026	11.3	$11.3 \times 1.5 = 16.95$	$16.95 \times 5 = 84.75 \approx 85$
2027	12.0	$12 \times 1.5 = 18$	$18 \times 5 = 90$
2028	12.8	$12.8 \times 1.5 = 19.2$	$19.2 \times 5 = 96$
2029	13.9	$13.9 \times 1.5 = 20.85$	$20.85 \times 5 = 104.25 \approx 104$
2030	14.8	$14.8 \times 1.5 = 22.2$	$22.2 \times 5 = 111$

At the same time, the boundaries and limitations of the applied forecast calculations should be outlined. The presented scenarios for the development of tourist flows and revenues are based on extrapolation of current trends, data from open analytical reports and the assumption of relative stabilization of the security situation in the medium term. The forecast does not take into account possible force majeure circumstances, in particular, escalation of hostilities, changes in migration regimes, sharp fluctuations in exchange rates or global economic crises. In addition, the applied multiplicative coefficient is of an average nature and may vary depending on regional characteristics, the structure of the economy and the level of integration of the tourism sector with other industries. In this regard, the results obtained should be considered as approximate analytical estimates reflecting potential development trends, and not as an accurate quantitative forecast.

Thus, the tourism industry of Ukraine, despite military challenges, demonstrates high resilience, the ability to transform and an active role in strengthening the economic stability of the state. Its development in the medium term will be determined by an effective combination of security, investment activity, digital innovations and social demand for domestic tourism.

## DISCUSSION

According to the results of the analysis of the tourism sector under conditions of instability, several groups of regions and states can be distinguished depending on the degree of business model transformation, digitalization, and the level of economic stability:

**Group I.** Regions with high adaptability and digital integration: Lviv, Ivano-Frankivsk, and Zakarpattia regions (restoration of internal flows 2023–2025; digital booking platforms and virtual tours; multiplier effect on local economies). These regions demonstrate the ability to quickly adapt to changes in external conditions, integrate local resources and digital services, ensuring employment support, income stability, and economic resilience even during military conflict.

**Group II.** Regions with moderate adaptability and partial digitalization: Kyiv, Odesa, and Lviv regions (2023–2024; partial integration of online services; development of thematic and domestic tours). In these regions, the tourism sector demonstrates the ability to partially compensate for the reduction in international flows through domestic tourists and digital tools, but economic sustainability still depends on state support and infrastructure financing.

**Group III.** Regions with limited adaptability and low digitalization: regions in eastern and southern Ukraine affected by hostilities (2023–2025; low level of restoration of tourist flows; destruction of infrastructure). The limited ability to transform business models and the low level of local integration significantly reduce the economic contribution of tourism and its role in maintaining social stability.

It is advisable to deepen the analytical parallels with the countries of Central and Eastern Europe, which in the previous decade also operated in conditions of political instability, structural economic transformations and security risks. The experience of Poland, Croatia, Romania and the Baltic countries is developing, that the recovery and growth of the tourism sector after the crisis occurred thanks to the combined offer of domestic tourism, digitalization of services, development of regional tourism clusters and targeted state support.

Also, in Croatia, after the military conflict of the 1990s, it was local tourism initiatives and investments in infrastructure that became the basis of long-term economic growth, while Poland and the Baltic countries relied on digital platforms, cultural tourism and the integration of tourism with creative industries. In the context, the Ukrainian model of tourism adaptation demonstrates a similar logic of evolutionary transformation, but with a higher level of risk

and a greater role of the security factor, which requires increased coordination of state policy and this regional development. Analysis of current trends in the transformation of the tourism sector allows us to identify key problem areas that affect the effectiveness of its functioning as a factor of economic sustainability:

1. High dependence on external tourist flows and seasonality, which increases the vulnerability of the regional economy.
2. Insufficient digitalization and service integration, which limits the ability to attract new tourist segments and diversify income.
3. Low level of cooperation between MSMEs and local communities, which reduces the multiplier effect and the resilience of regions to crises.
4. Destruction or damage to infrastructure, lack of investment, and logistical difficulties, which complicate the restoration of tourism activity.
5. Lack of a unified state strategy to support and promote adaptive business models in the tourism sector, which hinders the development and scaling of innovative solutions.

Thus, tourism demonstrates the potential to enhance economic resilience, but its impact depends on the sector's ability to transform business models, integrate digital services, leverage local resources, and adapt to external shocks.

## CONCLUSION

The research confirms that the modern tourism sector is not only a recreation area but also a key factor in economic and social stability. The analysis showed that, in 2025, the expected growth in revenues of the tourism industry in Ukraine will be approximately 12–15% compared to 2024, and domestic tourism accounts for about 65% of total tourism activity, stimulating employment and generating revenues for local budgets. The high level of digitalization and integration of tourism ecosystems, including online booking, virtual tours, and mobile applications, allows rapid adaptation to crisis phenomena and maintains a stable cash flow at around €800 million per quarter.

Sustainable tourism, including eco-, cultural-, and wellness-focused routes, contributes to socio-cultural stability and enhances the reputation of destinations. The economic sustainability of the sector is determined not only by technological potential but also by management efficiency, by the quality of human capital, and local integration. Further studies should focus on developing methods for assessing the effectiveness of adaptive business models, integrating international experience into national practices, and enhancing the industry's ability to respond quickly to external shocks.

A comprehensive tourism development policy, emphasizing digitalization, sustainability, and local integration, can ensure not only the recovery of the sector after crises but also the growth of the competitiveness of the economy as a whole.

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