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CURRENT CHALLENGES AND FUTURE PERSPECTIVES OF TOURISM MARKETING

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Abstract: *This article explores the main challenges and future perspectives of tourism marketing in the context of climate change, globalization, and demographic transformations. These factors reshape both demand and supply, requiring the adoption of sustainable and innovation-driven strategies. The paper discusses the vulnerability of mountain and coastal destinations to climate risks, the impact of globalization on overtourism and competitiveness, and the shifting preferences generated by demographic changes. At the same time, it highlights the growing role of the collaborative economy, digitalization, artificial intelligence, blockchain, and immersive technologies in shaping tourist experiences.*

Key words: *tourism marketing, climate change, Globalization, digital transformation.*

1. Introduction

This article explores the fundamental challenges and emerging trends that are shaping the future of tourism marketing within an ever-changing global context. Positioned at the intersection of socio-economic dynamics and climate vulnerabilities, the tourism industry faces increasing pressure to reinvent itself. Such reinvention entails both adapting to the new realities imposed by climate change and globalization, as well as anticipating demographic shifts that influence tourist preferences and behaviours. In this context, analysing the impact of these factors becomes essential for developing sustainable, resilient, and future-oriented marketing strategies. At the same time, the article examines how these three dimensions, climate, globalization, and demography, affect the structure of tourism demand and supply at both global and national levels.

2. The Impact of Climate Change, Globalization and Demography on Tourism

The tourism industry is profoundly influenced by climate change, globalization and demographic dynamics, factors that reshape tourism consumption patterns and highlight the need for sustainable strategies. As global temperatures rise and extreme

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weather events become more frequent, the industry must adapt to preserve the attractiveness of destinations and to minimize negative environmental impacts. At the same time, globalization continues to shape tourist flows by increasing connectivity and international accessibility, while demographic changes generate new consumer demands and preferences (Sharif, Ullah, Shahb, and Mahalik 2021).

The effects of climate change are felt across all segments of the tourism industry, particularly in mountain and coastal regions. Rising temperatures, glacier retreat and the reduction of snow cover threaten winter tourism, especially in ski resorts where the cold season is becoming shorter and less predictable. Studies indicate that without the use of artificial snow, between 53% and 98% of European ski resorts will be significantly affected in the event of a global temperature increase of 2°C and 4°C respectively (Steiger, 2019).

A significant example of the effects of climate change in mountain regions is the accelerated retreat of glaciers in China, where their surface area has decreased by 26% over the past six decades, according to a recent report by the Chinese Academy of Sciences. Moreover, more than 7,000 small glaciers have disappeared completely. This trend affects not only alpine ecosystems but also access to drinking water, posing a serious threat to regions that depend on seasonal glacier melt. The decline in freshwater resources is expected to intensify competition for water in areas already vulnerable from a tourism perspective (Reuters, 2025).

In mountain regions, the retreat of glaciers and changes in precipitation patterns contribute to an increased frequency of floods and landslides, affecting tourism infrastructure and visitor safety (Masson-Delmotte, 2021). In addition, the reduction in water volume from mountain sources has a direct impact on drinking water resources, affecting both local residents and tourists (Comisia Europeană, 2024).

Climate change also has major consequences for coastal tourism. Rising sea levels endanger tourism infrastructure, particularly in small islands and low-lying cities. In regions such as the Maldives, French Polynesia and parts of the Caribbean, coastal erosion reduces beach areas, which undermines tourist attractiveness and places pressure on local economies (Guan, Rani, Yueqiang, Ajaz, and Haseki, 2022).

Another key aspect of tourism's vulnerability to climate change is the capacity of tourism destinations to adapt to new climatic conditions. Studies show that tourism adaptability is determined by factors such as existing infrastructure, diversification of the tourism offer and proactive measures taken by authorities. For example, mountain areas that rely heavily on winter tourism can implement diversification strategies such as developing summer activities, promoting ecotourism and investing in technologies for artificial snow production. Coastal destinations, on the other hand, can take protective measures against coastal erosion and rising sea levels through the construction of natural or artificial barriers and the reconfiguration of tourism infrastructure. In Romania, a recent study identified tourism vulnerability to climate change using 25 indicators and highlighted that the most exposed areas are those along the Black Sea coast and the mountain resorts (Mitrica et al., 2025). The study also emphasized the importance of local-level planning in reducing vulnerability and increasing the resilience of tourism destinations. The implementation of effective adaptive measures can help

maintain tourism competitiveness and reduce the negative impact on the local economy and the environment (Mitrica et al., 2025).

Although sustainable tourism is increasingly promoted as a strategic direction, the industry faces consumer reluctance to pay extra for eco-friendly options. A study conducted in Germany showed that 24% of respondents consider sustainability an important criterion when choosing vacations, yet only 5–10% are willing to pay an additional cost for it. For example, fewer than 3% of Ryanair passengers participate in the carbon offset program. In contrast, companies such as Lufthansa are attempting to integrate these costs into standard fares through "green fares," but participation rates remain low. This contrast between declared attitudes and actual behaviour compels tourism operators to seek more creative solutions and gradually educate the public toward climate responsibility (More 2023).

Despite international efforts and massive investments in the energy transition, global greenhouse gas emissions continue to rise, while climate policies often clash with economic and energy realities. According to experts, fossil fuels (coal, oil and natural gas) still account for more than 80% of global energy consumption, whereas renewable sources such as wind and solar represent only 3.5%. Moreover, countries like China and India continue to invest heavily in coal-fired power plants, and the withdrawal of the United States from the Paris Agreement under the new Trump administration suggests a return to traditional energy policies. These global developments undermine efforts to combat climate change and indirectly affect the tourism industry, which is becoming increasingly vulnerable to climate instability (Chancellor, 2025).

The most recent scientific research suggests that the planet has already reached the critical threshold of 1.5°C above pre-industrial levels, which means that the risks of irreversible and extreme climate change are higher than previously estimated. According to a study published in Nature Geoscience, ice core data from Antarctica show that the average global temperature reached 1.49°C in 2023. These findings indicate that phenomena such as the collapse of the AMOC ocean circulation, mass coral bleaching and the intensification of hurricanes may become increasingly frequent, directly affecting industries dependent on climate stability, including tourism (Dickie, 2025).

In 2024, the International Ski and Snowboard Federation (FIS) and the World Meteorological Organization (WMO) formed a partnership to raise awareness of the impact of climate change on winter sports and mountain tourism. This marks the first collaboration between the WMO and an international sports federation, highlighting the severity of the situation. During the 2023–2024 season, FIS organized 616 World Cup races, of which 26 were cancelled due to weather-related conditions. European ski destinations such as Italy reported snowless mountains and abandoned ski centres, as rising temperatures threaten the ski industry worldwide. FIS President Johan Eliasch stated that "the climate crisis is, quite simply, an existential threat to skiing and snowboarding," stressing the need for science-based efforts and objective analysis to address these challenges (Reuters, 2024).

Another climate-related challenge is the increasing frequency and intensity of extreme weather events such as hurricanes, heatwaves and prolonged droughts. These events not only affect the perceived safety of tourism destinations but also lead to

changes in travel patterns, as tourists increasingly choose destinations considered more climatically stable (Sharif, Ullah, Shahb, and Mahalik, 2021).

The heatwaves in Southern Europe, such as those recorded in Italy, Greece and Spain during the summer of 2023, have prompted an increasing number of tourists to reconsider their destinations or travel periods. Data from the European Travel Commission show a 10% decline in the intention to travel to the Mediterranean region between June and November compared to the previous year. At the same time, destinations such as Denmark, the Czech Republic and Ireland have seen growing interest. This trend suggests a possible reconfiguration of the European tourism calendar, with a stronger orientation toward spring and autumn. Italy's Ministry of the Environment warns that, in the long term, some foreign as well as domestic tourists may shift to cooler regions, which could severely affect the summer tourism economy of Southern Europe (Plucinska and Mangiapane, 2023).

Globalization has facilitated the expansion of international tourism, contributing to the growth in tourist numbers and the diversification of tourism offerings. In 2017, international tourist arrivals reached a record level of 1.34 billion, driven by the development of air transport, the reduction of travel costs and the expansion of digital infrastructure (Chiu, Zhang, and Ding, 2020).

A controversial aspect of globalization is its impact on economic inequality. In emerging economies, tourism contributes to job creation and poverty reduction, while in developed economies the effects are less significant and, in some cases, the growth of tourist flows exacerbates social disparities (Fang, Gozgor, Paramati, and Wu 2020).

Another notable effect of globalization is the intensification of competition among tourism destinations, which increases pressure on natural resources. For example, the phenomenon of overtourism has become a major issue in cities such as Barcelona and Venice, prompting authorities to implement restrictions on tourist access (Sharif, Ullah, Shahb, and Mahalik, 2021).

Demographic changes directly influence the structure of tourism demand. Population aging in developed economies drives increased demand for wellness tourism and cultural tourism, while younger generations are attracted to authentic and personalized experiences (Bunghez, 2021).

Another important phenomenon is the increasing international mobility of workers and students, which leads to the diversification of tourist flows and the emergence of new consumer segments (Sharif, Ullah, Shahb, and Mahalik, 2021). In this context, tourism marketing strategies need to adapt to the needs of diverse categories of tourists, with a focus on sustainability, digitalization and the personalization of experiences.

The impact of climate change, globalization and demography on tourism is profound and requires significant adjustments in tourism development and promotion strategies. To address these challenges, the tourism industry must adopt sustainable practices, invest in technological innovation and diversify its offerings. Future solutions include the use of renewable energy sources, the implementation of smart technologies in destination management and the promotion of responsible forms of tourism that protect both natural heritage and local communities.

3. The Collaborative Economy, Digitalization and Predictions for the Next 10 Years

Collaborative economy and digitalization are two of the most important factors shaping the future of tourism marketing. The rise of sharing economy platforms such as Airbnb, BlaBlaCar and GetYourGuide has fundamentally changed the way tourists plan and experience their trips. These platforms have democratized access to tourism services, providing more flexible and often more affordable alternatives to traditional models. At the same time, digitalization continues to transform the industry, driving the adoption of advanced technologies such as artificial intelligence, blockchain, augmented reality and big data analytics to enhance tourism experiences and marketing strategies (Ivars-Baidala, Vera-Rebollo, Perles-Ribes, Femenia-Serra, and Celdran-Bernabeu, 2021).

In the next decade, tourism will become increasingly interconnected with emerging technologies, and artificial intelligence will play a key role in the personalization of tourism offerings. AI systems will enable detailed analysis of consumer preferences, generating personalized itineraries and real-time tailored recommendations. For example, Google and TripAdvisor are already using machine learning to improve searches and provide more relevant suggestions to tourists (Rane, Choudhary, and Rane 2023). At the same time, AI-based chatbots and virtual assistants will become a standard in the industry, facilitating fast and efficient communication between tourists and service providers (Vujičić et al., 2024).

Blockchain will continue to expand its influence in tourism, providing a high level of transaction transparency and security. Blockchain-based smart contracts will enable secure and efficient bookings, eliminating the need for intermediaries and reducing administrative costs (Ivars-Baidala, Vera-Rebollo, Perles-Ribes, Femenia-Serra, and Celdran-Bernabeu, 2021). In addition, technology will enhance supply chain traceability in the hospitality industry, enabling tourists to make more informed choices regarding the sustainability and origin of the services they use (Breque, De Nul, and Petridis 2021).

Augmented reality (AR) and virtual reality (VR) will redefine tourism experiences, allowing tourists to explore destinations virtually before making a reservation. Museums and cultural sites will increasingly implement AR to enhance guided tours, providing interactive real-time information about the attractions visited (Rane, Choudhary, and Rane, 2023). At the same time, VR will reduce the need for physical travel, providing sustainable alternatives for exploring tourist attractions in fragile or hard-to-reach areas (Girau, Ferrara, Pintor, and Sole, 2018).

The metaverse, as a three-dimensional virtual space where users can interact as avatars, is becoming one of the most promising technologies for the future of tourism. It combines augmented reality (AR), virtual reality (VR), mixed reality (MR) and artificial intelligence, offering tourists the possibility to experience destinations, tourism products and services in an immersive, realistic and fully personalized way (Leung, Buhali, and Lin 2023). Thus, tourists can virtually visit locations before traveling, which helps reduce anxiety and supports more informed choices of suitable offerings.

Beyond providing virtual experiences, the metaverse also serves as a co-creation platform where tourists and providers can collaborate in developing digital tourism products and prototypes. This approach reduces testing costs, enables deep

personalization and offers tourism unprecedented creative flexibility (Leung, Buhali, and Lin 2023).

At the same time, the metaverse paves the way for "endless tourism" - a form of continuous virtual travel in which users can access tourism experiences beyond conventional temporal and spatial boundaries. This approach is driven by digital generations (Gen Z and Alpha), who show a growing interest in rich and multisensory virtual interactions (Fazio, Fricano, Iannolino, and Pirrone, 2023). The smooth transition between the physical and the digital is redefining the notion of a "tourist place," transforming it into a state of interactive consciousness rather than a fixed geographical location (Leung, Buhali, and Lin, 2023).

Digital tourism in the metaverse creates new forms of interaction and engagement, offering opportunities for education, immersive storytelling and the promotion of lesser-known destinations, thereby contributing to a sustainable redistribution of tourist flows (Fazio, Fricano, Iannolino, and Pirrone 2023).

In addition, research shows that the metaverse can serve as a testing environment for marketing strategies, consumer behaviour and the design of tourism experiences before their implementation in the real world (Leung, Buhali, and Lin, 2023).

Collaborative economy will continue to grow but will face stricter regulations from authorities. Cities such as Barcelona and Amsterdam have already imposed restrictions on short-term rental platforms in order to control the negative impact on the housing market and local communities (Ivars-Baidala, Vera-Rebollo, Perles-Ribes, Femenia-Serra, and Celdran-Bernabeu, 2021). However, sharing economy platforms will become increasingly integrated with other digital services, enabling a seamless tourism experience based on personalized recommendations and fast transactions (Botsman and Rogers, 2010).

With regard to predictions for the next 10 years, tourism will continue to be shaped by megatrends such as sustainability, hyper-personalization and integration with smart cities. Tourism destinations will adopt management systems based on big data to monitor and optimize visitor flows, preventing overcrowding and protecting natural resources (Vujičić et al., 2024). At the same time, new economic models such as tokenized tourism could allow visitors to earn digital rewards for sustainable behaviours, such as using eco-friendly transportation or participating in environmental conservation initiatives (Breque, De Nul, and Petridis, 2021).

At the same time, predictive models based on machine learning will become essential for forecasting tourism demand and for the efficient planning of resources, especially in the context of climate and economic uncertainties (Yu and Chen, 2022). Real-time big data analytics can enhance the strategic decisions of DMOs by quickly identifying changes in consumer behaviour and enabling the immediate adaptation of offerings (Li, Law, Xie, and Wang, 2021).

In addition, correlating data on online ratings and expressed sentiments with quantitative indicators will allow for a more nuanced prediction of tourist satisfaction (Puh and Babac, 2022).

In November 2024, more than 50 governments signed a UN declaration to make global tourism more climate-friendly, considered a major success of the COP29 climate summit

in Azerbaijan. The global tourism industry accounts for 3% of world GDP and is responsible for 8.8% of greenhouse gas emissions. The signatory countries committed to acknowledging the need to address tourism in their climate plans, such as Nationally Determined Contributions (NDCs). In addition, the World Sustainable Hospitality Alliance presented a framework for measuring and reporting data on greenhouse gas emissions, water consumption, waste and energy use in the sector. These efforts will help the tourism industry and travellers better understand their environmental impact (Strohecker, 2024).

In addition, the concept of "future memory tourism" is taking shape, in which tourism experiences are consciously planned to create sustainable, positive and transformative memories. This trend aligns with the expectations of future generations, who prioritize meaning, impact and sustainability (Gupta, Modgil, Lee, and Sivarajah, 2022).

As climate change and geopolitical crises continue to affect global mobility, tourism will become increasingly localized, temporary and personalized, supported by technology as well as by a profound reconfiguration of the tourism narrative (Dube, 2024).

In conclusion, the future of tourism marketing will not only be digital but also immersive and interactive, driven by technologies such as the metaverse, artificial intelligence and blockchain. These innovations promise not only to optimize promotion and sales processes but also to completely redefine the tourism experience, from planning and personalization to consumption and feedback. The metaverse in particular offers opportunities for sustainable, personalized and continuous tourism, yet its large-scale adoption depends on overcoming barriers related to accessibility, awareness and stakeholder trust (Fazio, Fricano, Iannolino, and Pirrone 2023; Leung, Buhali, and Lin 2023). Therefore, future strategies should include educating the stakeholders involved and developing hybrid ecosystems, both physical and virtual, which fully harness the potential of the new tourism era.

4. Conclusion

Tourism marketing stands at a critical juncture, confronted simultaneously by the disruptive pressures of climate change, the intensification of globalization, and the structural shifts of demographic transitions. These multidimensional challenges underline the necessity for tourism destinations and operators to adopt adaptive, resilient, and innovation-driven strategies. Climate change exposes mountain and coastal destinations to existential threats, requiring proactive measures of diversification, infrastructural resilience, and community-based adaptation. Globalization, while expanding accessibility and connectivity, has also magnified the risks of overtourism, resource depletion, and socio-economic inequalities, making governance and regulation indispensable. Demographic transformations are reshaping demand patterns toward wellness, cultural enrichment, personalization, and digital immersion, forcing tourism marketing to recalibrate its approaches.

Simultaneously, the collaborative economy and the rapid digitalization of the sector introduce new opportunities and imperatives. Artificial intelligence, blockchain, big data,

augmented and virtual reality, and the emerging metaverse collectively redefine the contours of the tourist experience, shifting from linear consumption models to interactive, co-created, and hyper-personalized journeys. These technological advances promise more sustainable and efficient practices, but their success depends on stakeholder education, regulatory alignment, and the building of trust and accessibility across markets.

The evidence considered demonstrates that the future of tourism marketing will be increasingly determined by its capacity to integrate sustainability with digital transformation. Only through a hybrid paradigm, where ecological responsibility, technological innovation, and cultural sensitivity are balanced, can the sector remain competitive, resilient, and socially relevant in the decades to come.

References

Botsman, R., and Rogers, R. 2010. *What's Mine Is Yours: The Rise of Collaborative Consumption.* New York: HarperCollins Publishers.

Breque, M., De Nul, L., and Petridis, A. 2021. *Industry 5.0—Towards a sustainable, human-centric and resilient European industry.* Brussels: Directorate-General for Research and Innovation (European Comission).

Bunghez, C. L. 2021. The Emerging Trend of Niche Tourism: Impact Analysis. *Journal of Marketing Research and Case Studies*, 1-9.

Chancellor, E. 2025. *Climate policy requires a more realistic approach*. Retrieved from Reuters: https://www.reuters.com/breakingviews/climate-policy-requires-more-realistic-approach-2025-02-28/

Comisia Europeana. 2024. *Consecințele schimbărilor climatice*. Retrieved from Comisia Europeana: https://climate.ec.europa.eu/climate-change/consequences-climate-change_ro

Dickie, G. 2025. *Climate change: what the latest science is telling us*. Retrieved from Reuters: https://www.reuters.com/sustainability/climate-energy/what-is-latest-science-telling-us-about-climate-change-2025-01-06/

Dube, K. 2024. Evolving Narratives in Tourism and Climate Change Research: Trends, Gaps, and Future Directions. *Atmosphere*, 1-17.

Fang, J., Gozgor, G., Paramati, S. R., and Wu, W. 2020. The impact of tourism growth on income inequality: Evidence from developing and developed economies. *Tourism Economics*, 1-23.

Fazio, G., Fricano, S., Iannolino, S., and Pirrone, C. 2023. Metaverse and tourism development: issues and opportunities in stakeholders' perception. *Information Technology and Tourism*, 507-528.

Girau, R., Ferrara, E., Pintor, M., and Sole, M. 2018. Be right beach: A social IoT system for sustainable tourismbased on beach overcrowding avoidance. *IEEE 2018 International Congress on Cybermatics: 2018 IEEEConferences on Internet of Things, Green Computing and Communications, Cyber, Physical and Social Computing,Smart Data, Blockchain, Computer and Information Technology, iThings/GreenCom/CPSCom/Smar* (pp. 9-14). Beijing: IEEE.

Guan, C., Rani, T., Yueqiang, Z., Ajaz, T., and Haseki, M. I. 2022. Impact of tourism industry, globalization, and technology innovation on ecological footprints in G-10 countries. *Economic Research*, 6688–6704.

Gupta, S., Modgil, S., Lee, C.-K., and Sivarajah, U. 2022. The future is yesterday: Use of AI-driven facial recognition to enhance value in the travel and tourism industry. *Information Systems Frontiers*, 1179-1195.

Ivars-Baidala, J. A., Vera-Rebollo, J., Perles-Ribes, J., Femenia-Serra, F., and Celdran-Bernabeu, M. 2021. Sustainable tourism indicators: what's new within the smart city/destination approach? *Journal of Sustainable Tourism*, 31(7).

Leung, D., Buhali, D., and Lin, M. 2023. Metaverse as a disruptive technology revolutionising tourism management and marketing. *Tourism Management*.

Li, X., Law, R., Xie, G., and Wang, S. 2021. Review of tourism forecasting research with internet data. *Tourism Management*, 1-11.

Mitrica, B., Serban, P. R., Roznovieţchi, I., Micu, D., Persu, M., Grigorescu, I., . . . Damian, N. 2025. The tourism sector's vulnerability to climate change-related phenomena. Case study: Romania. *International Journal of Disaster Risk Reduction*, 1-29.

More, R. 2023. *Travel sector mulls green future but tourists reluctant to pay*. Retrieved from Reuters: https://www.reuters.com/business/environment/travel-sector-mulls-green-future-tourists-reluctant-pay-2023-03-13/

Plucinska, J., and Mangiapane, G. 2023.. *Europe's sweltering summer could send tourists to cooler climes*. Retrieved from Reuters: https://www.reuters.com/world/europe/europes-sweltering-summer-could-send-tourists-cooler-climes-2023-07-18/

Puh, K., and Babac, M. B. 2022. Predicting sentiment and rating of tourist reviews using machine learning. *Journal of Hospitality and Tourism Insights*, 1188-1204.

Rane, N., Choudhary, S., and Rane, J. 2023. *Sustainable tourism development using leading-edge Artificial Intelligence (AI), Blockchain, Internet of Things (IoT), Augmented Reality (AR) and Virtual Reality (VR) technologies.* Mumbai: University of Mumbai.

Reuters. 2024. *FIS, WMO join forces to raise climate change awareness*. Retrieved from Reuters: https://www.reuters.com/business/environment/fis-wmo-join-forces-raise-climate-change-awareness-2024-10-03/

Reuters. 2025. *La superficie de los glaciares chinos se reduce un 26% en seis décadas*. Retrieved from Reuters: https://www.reuters.com/es/mundo/VHCZDVOJIFKSNJTP3KSXQI6EDY-2025-03-26/

Sharif, A., Ullah, S., Shahb, M., and Mahalik, M. K. 2021. Sustainable tourism development and globalization: Recent. *Sustainable Development*, 1-17.

Steiger, R. S. 2019. A critical review of climate change risk for ski tourism. *Current Issues in Tourism*, 1343-1379.

Strohecker, K. 2024. *More than 50 countries sign UN sustainable tourism declaration*. Retrieved from Reuters: https://www.reuters.com/sustainability/more-than-50-countries-sign-un-sustainable-tourism-declaration-2024-11-20/

Vujičić, M., Stankov, U., Basarin, B., Krejtz, I., Krejtz, K., and Masliković, D. 2024. Accessibility in Tourism 5.0 Approach: Enabling Inclusive and Meaningful Tourist

Experiences. In Ann Marcus-Quinn, Krzysztof Krejtz, and Carlos Duarte (eds.), *Transforming Media Accessibility in Europe* (pp. 3-200. Cham: Springer.

Yu, N., and Chen, J. 2022. Design of Machine Learning Algorithm for Tourism Demand Prediction. *Computational and Mathematical Methods in Medicine*, 1-9.