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THE IMPACT OF DIGITAL TECHNOLOGIES ON THE DEVELOPMENT OF INTERNATIONAL TOURISM MARKETING

In the contemporary digital environment, international tourism is undergoing profound transformation, most evidently manifested in shifts in marketing strategies and consumer engagement practices. In the aftermath of the COVID-19 pandemic, digital technologies have evolved from mere tools for operational efficiency into a defining factor of competitive advantage for tourism enterprises. This development has prompted the key actors in the tourism market to adopt data-driven marketing, platform-based business models, and the widespread application of artificial intelligence.

The purpose of this study is to determine the role of contemporary digital technologies in transforming tourism marketing and to identify correlations between the level of digital technology penetration in the tourism sector and international tourist flows in the post-pandemic period.

Contemporary scholarly research [1–5] confirms that digital technologies substantially transform marketing approaches and instruments in tourism. To assess the impact of digital technologies on international tourism, it is relevant to analyse long-term trends in international tourist arrivals alongside key stages of information technology development (Fig. 1).

Analysis of the chart reveals a sustained upward trend in international tourist arrivals throughout the period under review, alongside the progressive development of digital technologies. During the initial phase (1975–1990), growth was relatively slow and associated with the introduction of computer reservation systems (CRS/GDS) and personal

computers, which improved the efficiency of information processing in the tourism sector.

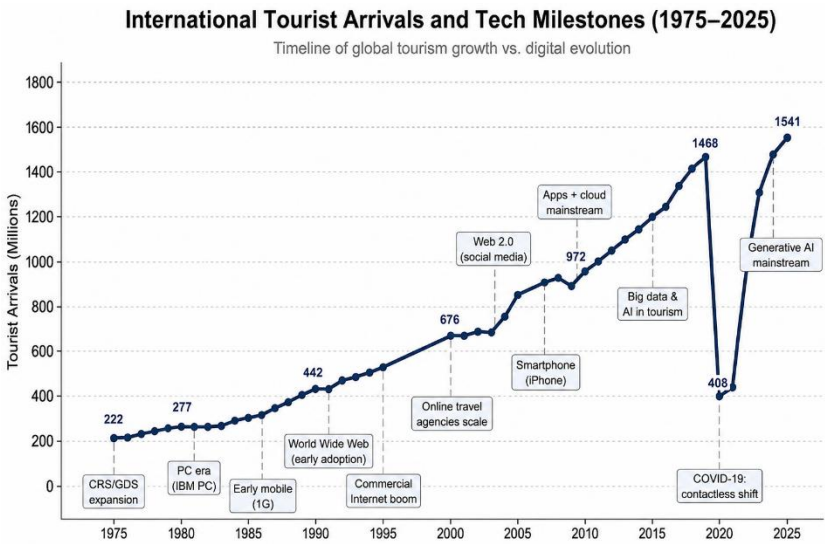


Figure 1. International tourist arrivals and technological development stages in information technologies (1975–2025)

Source: compiled by the author based on UN Tourism data “50 Years of Tourism: 1975–2025” (September 2025) [6]

Between 1990 and 2005, an acceleration in growth is observed, coinciding with the widespread adoption of the Internet and the emergence of online travel agencies. This substantially transformed marketing approaches by enabling global access to tourism services and reducing information asymmetry.

The period from 2005 to 2019 is characterised by the most intensive growth, driven by the proliferation of social media (Web 2.0), smartphones, cloud computing, and big data analytics. It was during this period that tourism marketing transitioned to personalised, digitally-oriented models.

The sharp decline in 2020 to approximately 408 million tourists was caused by the COVID-19 pandemic, which acted as an external shock and temporarily disrupted the established trend. As demonstrated by Sigala [7], the pandemic served as a catalyst for digital marketing, accelerating the transition to online communication and automated services. Consequently, the period from 2022 to 2025 saw rapid recovery, accompanied by the

adoption of contactless technologies and the active deployment of artificial intelligence.

The analysis reveals a strong positive correlation between the level of digital technology penetration – measured by internet and mobile connectivity rates – and international tourist arrivals, when crisis-related distortions of the pandemic period are excluded. This confirms that digitalisation is one of the primary drivers of tourism growth and a decisive determinant of marketing strategy effectiveness.

From a marketing perspective, the development of the platform economy is of particular significance, as digital platforms serve as primary intermediaries between consumers and tourism service providers. Current research highlights that such platforms facilitate global market access while simultaneously intensifying the dependence of small enterprises on algorithmic ranking and digital visibility.

Furthermore, the period from 2023 to 2026 has been marked by the active integration of artificial intelligence into marketing processes, including the automation of communications, personalisation of offerings, and demand forecasting. This signals the emergence of a new stage in tourism development – AI-driven tourism marketing – in which competitive advantages are built upon data analytics and the adaptive capacity of marketing decision-making.

The study concludes that digitalisation is transforming tourism marketing into a complex, integrated, and dynamic system in which data, algorithms, and digital platforms play a central role. The further development of international tourism will depend directly on the degree to which innovative technologies are adopted and on the capacity of enterprises to adapt their marketing strategies to the digital environment.

References:

1. Buhalis, D. (2020). Technology in tourism – from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: a perspective article. *Tourism Review*, vol. 75 (1), pp. 267–272. DOI: <https://doi.org/10.1108/TR-06-2019-0258>
2. Parra-Sanchez, D.T. and Viviescas-Jaimes, P.A. (2024). Application of digital technologies in nature-based tourism: A scientometric analysis. *Journal of Digital Economy*, no. 3, pp. 249–259. DOI: <https://doi.org/10.1016/j.jdec.2025.05.003>
3. Dang, T.D. and Nguyen, M.T. (2023). Systematic review and research agenda for the tourism and hospitality sector: co-creation of customer value in the digital age. *Future Business Journal*, vol. 9 (1), p. 94. DOI: <https://doi.org/10.1186/s43093-023-00274-5>

4. Pratisto, E.H., Thompson, N. and Potdar, V. (2022). Immersive technologies for tourism: a systematic review. *Information Technology & Tourism*, no. 24, pp. 181–219. DOI: <https://doi.org/10.1007/s40558-022-00228-7>
5. European Travel Commission (2025). Tourism Trends Report. Brussels: ETC. Available at: <https://etc-corporate.org/reports/european-tourism-2025-trends-prospects-q1-2025/> (accessed: 25.05.2026)
6. UN Tourism (2025). 50 Years of Tourism: 1975–2025. Madrid: UN Tourism. Available at: <https://www.untourism.int/50-years-of-tourism-1975-2025> (accessed: 25.05.2026)
7. Sigala, M. (2020). Tourism and COVID-19: Impacts and implications. *Journal of Business Research*, no. 117, pp. 312–321. DOI: <https://doi.org/10.1016/j.jbusres.2020.06.015>