Digitalization: A Strategic Approach for the Travel and Tourism Industry

Roxana Elena POPȘA[*]

Lucian Blaga University of Sibiu, ORCID: 0009-0007-8691-7811

Currently, we live in a world that is constantly changing, one in which the digital environment is constantly evolving. In the travel and tourism industry, there is practically no management decision that is not related to digitization. Additionally, this is not only when thinking about the ease of interaction with consumers of tourist services, but also when considering optimizing and reducing costs or when we refer to the management of the business itself. Therefore, this paper aims to analyze the evolution of the online tourism market, the most visited travel and tourism websites, and the use of several digital transformation topics among accommodation businesses, such as: social media marketing, online advertising, customer relationship management, and online distribution channel management.

Keywords: *digitalization, artificial intelligence, travel, tourism industry*

JEL Classification: *M30, L83, O14*

1. Introduction

In recent years, the travel and tourism industry has been marked by numerous changes caused by the effects of the coronavirus pandemic, leading to a shift in paradigm of the processes and operations by integrating advanced technologies, such as artificial intelligence or augmented/virtual reality. Being one of the first industries that started using digital technologies for booking travel products online, such as accommodation or flights, digitalization represents an opportunity for tourism, so that in 2030 online sales channels are expected to generate over one trillion U.S. dollars.

In an environment characterized by fierce competition, digitization ensures a quick reaction to market changes and unexpected events, thus building resilience. Moreover, investments in the implementation of new technologies provides the increase in profit based on optimized costs and a higher rate of customer retention through easy and direct methods of approaching. The use of various tourist-facing devices, such as: mobile travel applications, digital personal assistant, virtual and augmented marketing or chatbot, ensures distinct value to traveler's experience.

Innovation and the creation of new digital solutions represents the engine of tourism competitiveness. The ever-changing needs of travelers can be managed using big data and analytics based on numbers allowing enterprises and tourism sector to personalize guests experience and generate loyalty through targeted marketing. Therefore, it becomes necessary to analyze the digitalization of travel and tourism industry as an innovative potential by using a methodology based on empirical studies focused on outlining the most

important digital transformation topics among enterprises and tourism sector, the most effective tourist-facing devices and interfaces and the opportunities and benefits of using digital technologies.

2. Digitization: New possibilities for the Travel and Tourism industry

In the current socio-economic context, we are witnessing a change in travelers' behavior who want a flawless experience and new benefits with the help of technology. So that to create a remarkable experience for travelers, digitization is necessary and represents a new toolbox for smart tourism development,

2.1. Theoretical Aspects Regarding Digitalization of Travel And Tourism Industry

The analysis of specialized practice and literature indicates that the almost two years of coronavirus pandemic, characterized by restrictions and social distancing measures, but also numerous solutions to adapt to the current context, had led to changes in the global tourism and travel industry (Gössling et.al, 2021). The COVID-19 crisis had a strong impact on tourism economy and has changed consumer behavior and purchasing habits (Roggeveen and Sethuraman, 2020).

The pandemic has accelerated the digitalization of the travel and tourism industry (Akhtar N. et al., 2021) considering that almost all processes now happen online, both tourism companies and travelers have invested in their platforms, applications, and digital skills. This trend is an upward one and will continue to develop the travel and tourism industry and offer more opportunities to travelers. Looking at these aspects it should be mentioned that the new customer experience management and the digitalization of tourism sector as innovation potential have not been fully explored (Munar and Doering, 2022), although the role of various technological solutions in business scaling were emphasized (Sobocinska, 2020).

Digital transformation does not only involve the integration of new technologies in the travel and tourism industry, but also efforts to maximize digital capabilities in organizational processes, facilitating innovation, and finally changing the way of operation, and providing added value (Hadjielias et.al., 2022).

Augmented Reality (AR) and Virtual Reality (VR) technologies now allow consumers to preview hotel accommodations and rooms before making a reservation, thus increase their experience (Chamboko-Mpotaringa and Tichaawa, (2021). Furthermore, these digital environments influence consumers purchasing initiatives (He et.al., 2018)., being increasingly used by tourism companies as marketing tools. At the same time, social media has an important role in the development of suitable products and services for travelers and influencing their choice for a company or tourist destination, being proven that this communication tool ensures high performance and brand awareness among stakeholders (Hysa et.al., 2021).

So, digital technologies such as big data analysis, artificial intelligence, cloud computing, virtual and augmented reality are essential for the development of the travel and tourism industry, contributing substantially to the increase in productivity, innovation, and opportunities to generate income, simultaneously with the elimination of complexity among the processes of tourism enterprises.

2.2. Digital Technologies as A Driver for The Development of The Travel and Tourism Industry

In the current socio-economic context, digitization is an essential factor for stimulating innovation and competitiveness in the travel and tourism industry. For certain tourism enterprises, digitalization can be oriented towards the deepening of analytical data, while for others the focus can be on the automation of operational processes. Although the approach may differ depending on the company's needs, the use of new digital technologies ensures the improvement of digital channels and customer interaction processes, keeping abreast of changes in consumer behaviour and expectations, or exploring and developing new business models to remain competitive and generate new revenues.

Thus, if in 2017, 60% of the revenues from the global travel and tourism market came from online sales channels, in 2023 an increase of 9% is expected, reaching 521.18 billion U.S. dollars. In addition, according to the forecasts made by Statista, an upward trend is anticipated, so that in 2027 online sales channels will represent 74% of revenues (see figure 1) and rise to over one trillion U.S. dollars by 2030.
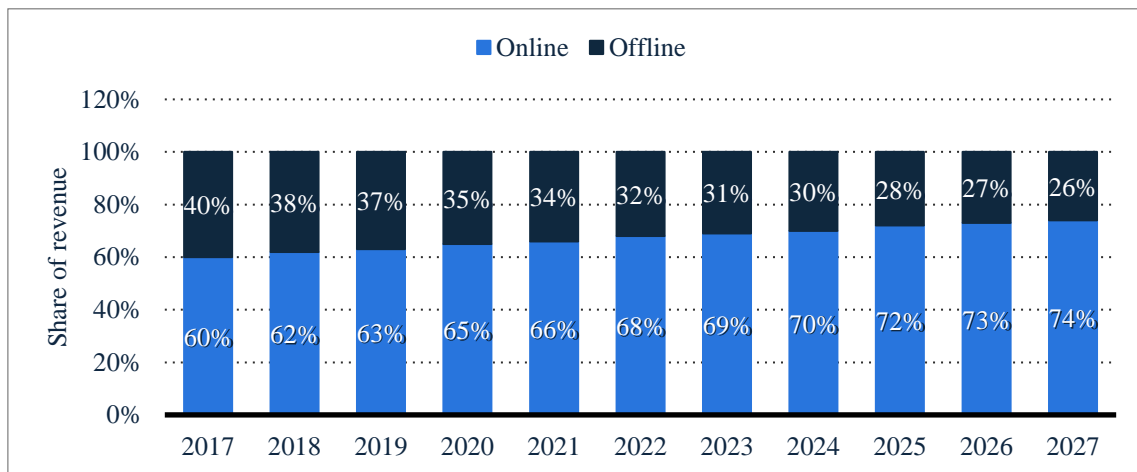
Figure 1: Revenue share of sales channels of the travel and tourism market worldwide from 2017 to 2027
Source: Statista.com, 2023a

The development of technologies worldwide has led tourism companies to see online presence as a necessity and as a result to increase the share of digital advertising spending to capitalize on its advantages such as access to important target markets; creation of a permanent information service; updating the information provided, quickly, whenever needed; receiving feedback from the consumer of tourist products. Thus, the country with the highest share of digital advertising spending in the travel industry was United Kingdom with 11.8%, followed by Australia with 10.5% and Greece with 9.8%. While other countries, such as Saudi Arabia and Thailand spend in a lower proportion, namely 3.7% and 0.9%

Therefore, the development of the tourism and travel industry depends crucially on the extent to which digital technologies are used in business processes. Regarding this aspect, the most visited travel and tourism websites worldwide are presented in the figure bellow.
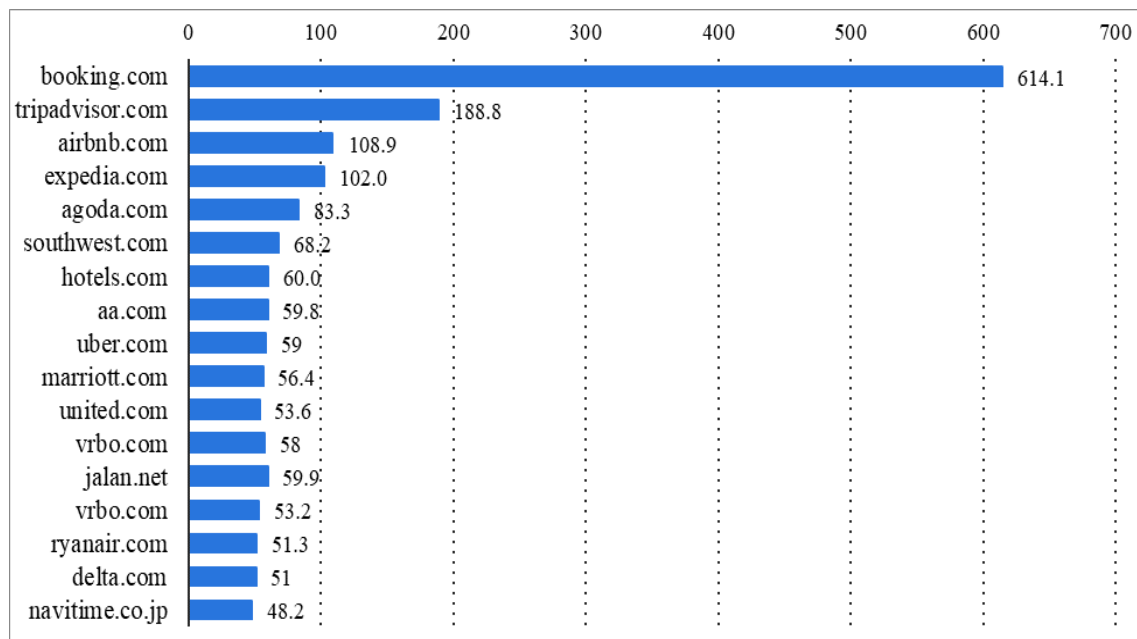

Figure 2: Most visited travel and tourism websites worldwide as of January 2023 (in million visits)
Source: Statista.com, 2023b

Analyzing the data contained in the figure 2. we can observe that in June 2023 booking.com ranked first among the most visited travel and tourism websites, reaching 614.1 million visits, with 425.3 million more than tripadvisor.com and 505.5 million more than airbnb.com. At the same time, Booking Holding ranks first in estimated expenditure on Google advertising, which are expected to reach 3.1 billion U.S. dollars by the

end of 2023, followed by Expedia Group with 2.8 billion U.S. At the opposite Airbnb and TripAdvisor intend to use a smaller budget for Google advertising, namely 480 million U.S. dollars, respectively 450 million U.S. dollars.

Travellers' skills are found in consumption habits and the basic use of search engines, social networks, streaming platforms, but also artificial intelligence for the purpose of travel planning. Thus, a study conducted by statista.com in 2022, revealed that in 2033 over half of travellers worldwide, will use apps which have everything they need to plan their travel (52% of travellers) and virtual reality preview tours (50% of respondents). Similarly, 44% of travellers who participated to the survey are expected to rely on price comparison websites and online travel agency websites. Other planning tools for trips include social media reviews (42% of respondents), automated suggestions based on their personal data (39% of respondents) or verified guest reviews (38% of travellers).

Furthermore, "hotels" and "flight tickets" are the top travel products booked online among U.S. travelers – 37% for hotels and 23% for flight tickets – Canada – 31% for hotels and 25% for flight tickets – and U.K. – 40% for hotels and 27% for flight tickets, while package holidays are preferred in a lower proportion, namely by 5% of U.S. travelers, 6% of Canadian travelers and 16% of U.K travelers (Statista Consumer Insights, 2023).

Regarding the accommodation sector, digital transformation involves a new strategy that changes the operationalization of the management system and provides distinct added value for stakeholders. Also, digital transformation is characterized by consumer-oriented organizational changes, supported by leadership, and driven by significant challenges from the environment.
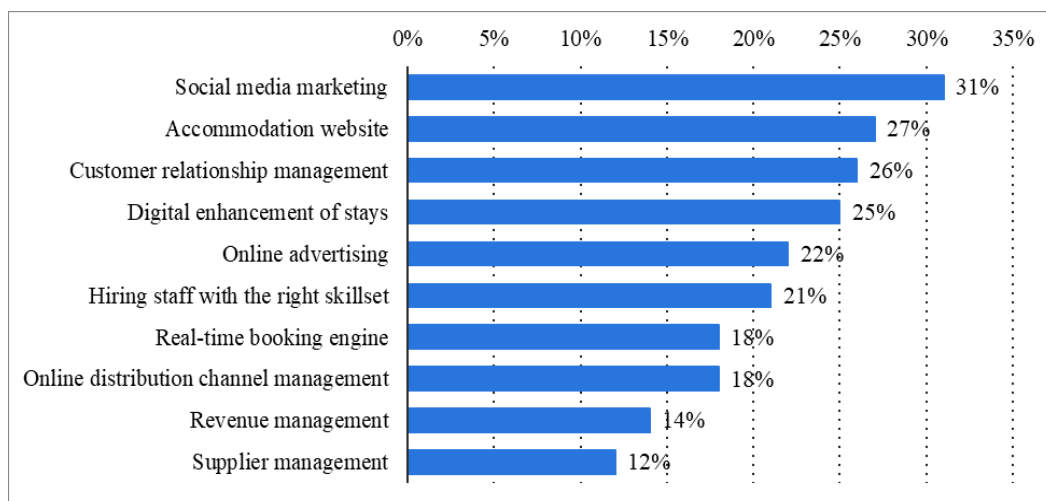

Figure 3. Important digital transformation topics among accommodation businesses in Europe 2022
Source: Statista.com, 2023c

In this context, according to the data mentioned in the figure above, the new strategic guidelines for the digital agenda of the accommodation sector in Europe place the emphasis on the power of big digital data series and on consumers, giving a percentage of 31 to social media marketing, 27% to accommodation website, 26% to customer relationship management and only 14% to revenue management.

Therefore, it is fundamental for hoteliers to understand the evolution of customer behavior and the ways in which digital technology helps to reach higher levels of interaction with guest. As can be seen from the data mentioned in figure 4, following the survey conducted among hoteliers from Europe, Asia, and North America the most frequent reason (24%) for using technology was improve guest experience, followed by grow profits (18%). At the same time, only 6% of hoteliers motivated their choice by the possibility to save money.
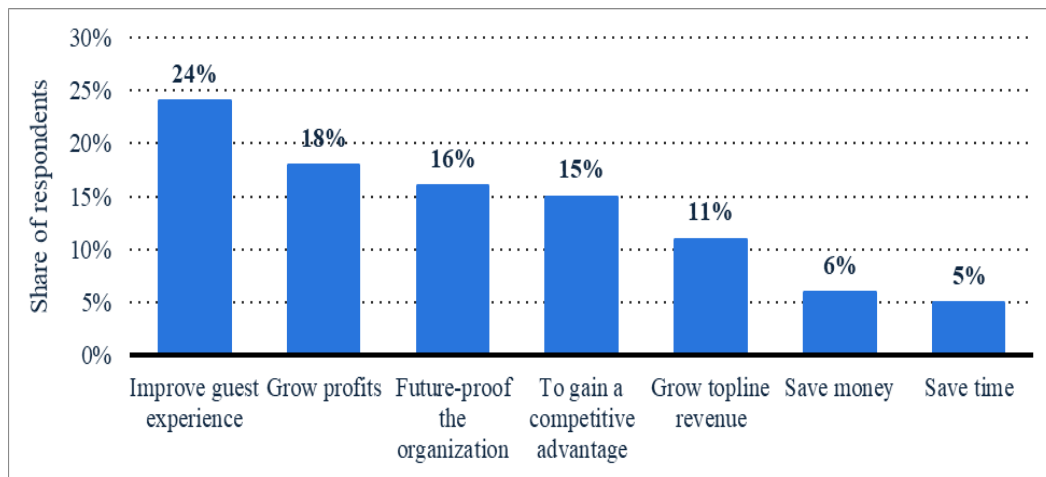
Figure 4. Main reasons for hoteliers to use technology worldwide as of February 2021
Source: Statista.com, 2023d

To improve guest experience, the main aspects hoteliers from Europe, Asia, and North America are willing to digitize are hotel information for the guest (70%), check in/check out process (57%) and room service requests (38%). Furthermore, hotel managers are focused on implementing new technologies worldwide, the main reasons being ability to increase profitability (69%), quality of ongoing support (64%), Application Programming Interface availability and quality (48%), technology capabilities today (43%).

More and more consumers are using the Internet during the purchase process, and advances in mobile technology and its adoption by consumers mean that hoteliers need to redesign customer experience. Through chatbots, hoteliers can offer personalized support and information to customers, thus improving their experience and overall satisfaction. In this context, forecasting the measure in which hotel managers will increase the use of chatbots is presented in figure 5.
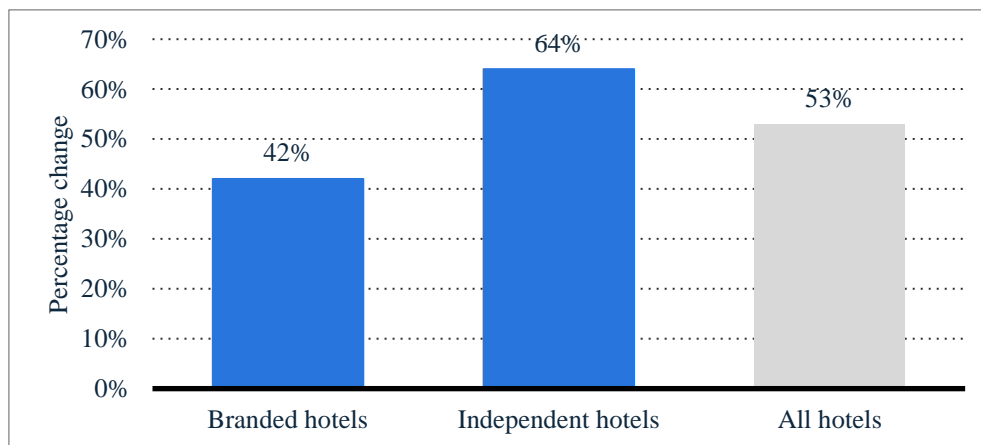

Figure 5. Forecast annual percentage increase in hotels using chatbots worldwide in 2022, by hotel type
Source: Statista.com, 2023e

Worldwide, there is a trend among hotel managers to increase the use of chatbots by 53%. The integration of advanced technologies, such as chatbots in the accommodation sector shows growing interest for 42% of branded hotels.

The use of chatbots, social media marketing and customer relationship management represents an innovative approach for the smart development of the tourism and travel industry thus ensuring a high competitiveness in an ever-changing environment.

3. Conclusions

One of the challenges facing the travel and tourism industry is the pace at which travelers' expectations are changing. Today's travelers rely heavily on digital channels and are becoming increasingly demanding in terms of how they interact with tourism enterprises. Therefore, digital technologies ensure permanent contact with travelers and a business model capable of meeting the most demanding requirements, creating unforgettable experiences for tourists.

Artificial intelligence together with the internet of things and big data, augmented and virtual reality are enablers for the approach and investment in the traveler's experience. A consumer-centered approach and the integration of digital technologies represent an intelligent strategy that ensures the competitiveness, development, and profitability of any business in the current digital context.

At present, in the travel and tourism industry, chatbots have begun to replace customer service representatives and provide companies with a reduction in costs and an increase in productivity. Thus, artificial intelligence ensures improved experiences for travelers, on-demand services, high satisfaction by reducing waiting times and handling possible problems in a personalized way.

Therefore, to offer guests unique and customized experiences, technology must be part of the travel and tourism industry. The use of various technologies represents a strategic approach, ensuring tourism enterprises many benefits, among which can be mentioned: allow for more flexible business, makes it easier to scale the business, makes it easier to automate company functions, accelerates the pace of innovation, enable to serve customers globally and finally enhance customer experience.

References

Akhtar, N., Khan, N., Khan, M.M., Ashraf, Sh., Hashmi, M.S., Khan, M.M. and Hishan, S.S., 2021. Post-COVID 19 Tourism: Will Digital Tourism Replace Mass Tourism?. *Sustainability, 13*(10), pp. 1-18. https://doi.org/10.3390/su13105352

Chamboko-Mpotaringa, M. and Tichaawa, T.M., 2021. Tourism Digital Marketing Tools and Views on Future Trends: A Systematic Review of Literature. *African Journal of Hospitality, Tourism and Leisure*, 10(1), pp. 712-726. https://doi.org/10.46222/ajhtl.19770720-128

Gössling, S.; Scott, D., and Hall, C.M., 2021. Pandemics, tourism, and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), pp. 1–20. https://doi.org/10.1080/09669582.2020.1758708

Hadjielias, E., Christofi, M., Christou, P. & Drotarova M.H. 2022. Digitalization, Agility, and Customer Value in Tourism. *Technological Forecasting and Social Change*, 175, pp.1-15. https://doi.org/10.1016/j.techfore.2021.121334

He, Z., Wu, L. and Li, X., 2018. When Art Meets Tech: The Role of Augmented Reality in Enhancing Museum Experiences and Purchase Intentions. Tourism Management, 68, pp.127-139. https://doi.org/10.1016/j.tourman.2018.03.003

Hysa, B., Karasek, A. and Zdonek, I., 2021. Social Media Usage by Different Generations as a Tool for Sustainable Tourism Marketing in Society 5.0 Idea. *Sustainability, 13*(3), pp. 1-27. https://doi.org/10.3390/su13031018.

Munar, A.M.; Doering, A., 2022. COVID-19 the intruder: A philosophical journey with Jean-Luc Nancy into pandemic strangeness and tourism. *Tourism Management Perspectives*, 43, pp.1-10 https://doi.org/10.1016/j.tmp.2022.100999

Roggeveen, L. and Sethuraman, R., 2020. How the COVID Pandemic May Change the World of Retailing. *Journal of Retailing*, 96 (2), pp. 169–171. https://doi.org/10.1016/j.jretai.2020.04.002

Sobocinska, M., 2020. The Internet in Management of Value for Customers in the Sector of Culture in the Era of Coronavirus Pandemic. *Humanitas University's Research Papers Management*, 21, pp.71–86. https://doi.org/10.5604/01.3001.0014.8064

Statista Consumer Insights, 2023. *Statista Consumer Insights* [online] Available at: https://www.statista.com/global-consumer-survey [Accessed on 20 July 2023].

Statista.com, 2023a. Travel, Tourism & Hospitality: Leisure Travel, *Revenue share of sales channels of the travel and tourism market worldwide from 2017 to 2027* [online] Available at: https://www.statista.com/forecasts/1239068/sales-channels-travel-tourism-worldwide [Accessed on 14 July 2023].

Statista.com, 2023b. *Travel, Tourism & Hospitality: Leisure Travel, Most visited travel and tourism websites worldwide as of June 2023* [online] Available at: https://www.statista.com/statistics/1215457/most-visited-travel-and-tourism-websites-worldwide/ [Accessed on 18 July 2023].

Statista.com, 2023c. *Travel, Tourism & Hospitality: Accommodation, Important digital transformation topics among accommodation businesses in Europe 2022* [online] Available at: https://www.statista.com/statistics/1358524/digital-transformation-topics-accommodation-businesses-europe/ [Accessed on 18 July 2023].

Statista.com, 2023d. *Travel, Tourism & Hospitality: Accommodation, Main reasons for hoteliers to use technology worldwide as of February 2021* [online] Available at: https://www.statista.com/statistics/1250334/key-reasons-hotels-use-technology-worldwide/ [Accessed on 20 July 2023].

Statista.com, 2023e. *Travel, Tourism & Hospitality: Accommodation, Forecast annual percentage increase in hotels using chatbots worldwide in 2022, by hotel type* [online] Available at: https://www.statista.com/statistics/1310836/forecast-annual-percentage-increase-hotels-using-chatbots-by-type-worldwide/ [Accessed on 20 July 2023].