

DATES NEWSLETTER (Nuria de Lama-IDC)

Trends and Data-driven Transformation of the Tourism Industry: qualitative and quantitative insights

The tourism industry went through radical changes with the Internet and mobile technologies some decades ago. However, the need for increased competitiveness, affordability of other digital technologies and macro-economic factors such as COVID-19 have accelerated a new wave of transformations. Three of them seem particularly important for the goals of DATES:

Digitalization of the sector: the path that started with the emergence of online booking platforms and mobile applications has been followed by an explosion of data as a result of IoT systems, social media and data generated by such platforms. Technologies like Data analytics and AI enable the use of such data to improve efficiency, generate new revenue sources and increase customer satisfaction thanks to more personalized services. Digital twins or the metaverse will soon add new disruptive elements in tourism that have incipiently started through advanced and extended reality applications.

Sustainability: there is an urgent call for protecting the environment and supporting local communities due to many years of exploitation of resources without limit that have led to shortage of resources. Nowadays reducing carbon emissions, minimizing waste, and supporting local businesses and communities are priorities shared by most actors of the value chain. Conscious travelers also value sustainability as one of the factors that influence the choice of a product.

Change in consumer behavior: traditional packages created by tour-operators are evolving towards customized experiences that respond to more diverse preferences and habits, with niche tourism markets around adventures, gastronomy and wine, culture and even health. This relationship with other sectors opens new avenues for collaboration with players in other industries where mutual benefit could be generated and as such, anticipates the need to create synergies with datasets created in domains other than tourism itself.

If we go deeper into the digital transformation of the tourism sector, we may highlight specifically the following enablers of change: online bookings (online platforms where travelers can easily search and compare prices for flights, hotels, and activities), personalization (recommendations; customized services and activities for tourism based on profiles and preferences as well other criteria), mobility (mobile applications provide customers with real-time information about their destinations, activities, and accommodations while at the same time tourists are also able to feed such applications with their own customer-generated data in real time), social media (as channel for brand awareness, to improve customer satisfaction, and generate new business) and big data analytics (that enables organizations to take informed decisions about pricing, marketing, and customer service). **Data emerges as a key enabler** and in many cases digital transformation becomes a data-driven transformation. In this context, one of the major challenges is the availability and access to data in machine-readable format that will feed the development of next generation AI-based applications.

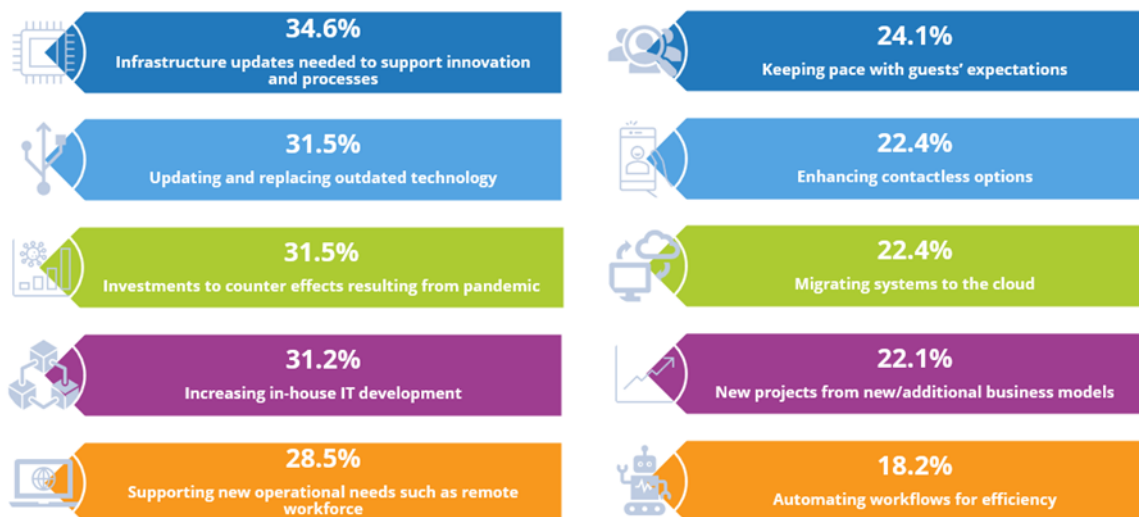
Benefits of data sharing in the Tourism industry include: i) **Improved collaboration:** more effective collaboration through better understanding of the overall market, identification of new opportunities, and data-driven decisions; ii) **Enhanced customer experience:** data enabling the

creation of more personalized and seamless experiences for customers as hotels and airlines do nowadays for activities and attractions in a particular destination; iii) **Improved efficiency**: sharing data can lead to reduce the duplication of effort and improve overall efficiency, including increase in sustainability and iv) **Better market insights**: more comprehensive understanding of the tourism market to identify trends, opportunities, and challenges and react accordingly.

Data is already being shared by some stakeholders in the tourism industry, with major trends around open data, use of collaborative platforms, real-time data sharing (this is very typical in the context of transport and accommodation), AI and machine learning (ML algorithms are used to analyse customer reviews and sentiment to identify areas for improvement in tourism services) and personalization (including both preferences of customers as well as using data from past experiences, interactions and ratings). Use of data analytics goes hand in hand with the deployment of AI solutions to improve customer experiences, optimize business processes, and enhance decision-making. Current use of AI in tourism is characterized mainly by chatbots and virtual assistants, personalized recommendations, revenue management, marketing and advertising and translation services.

What do numbers say? Quantification of the Digital Transformation in Tourism

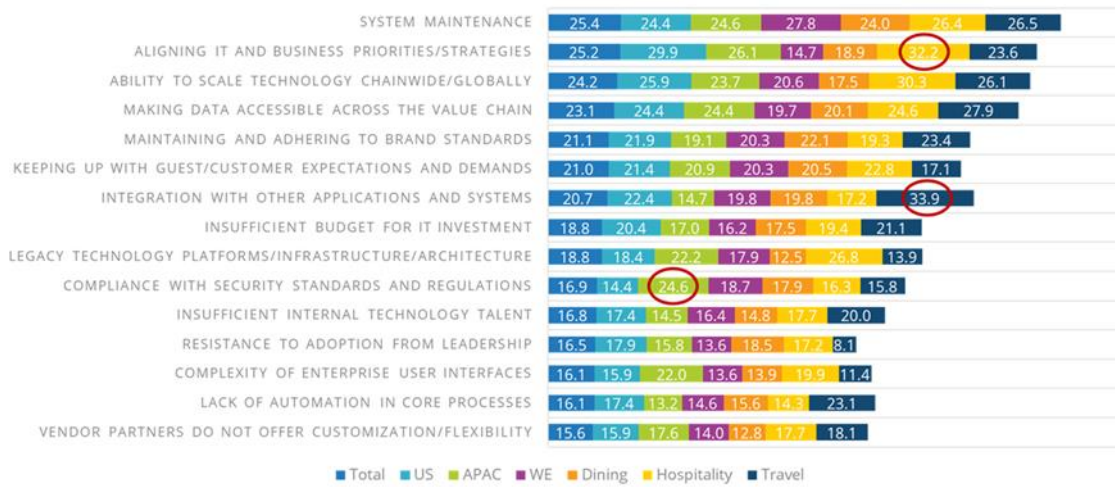
According to IDC data, worldwide total ICT spending for the travel industry was estimated to be \$90.7B in 2020 and is expected to grow to ~113B in 2025. 63% of hospitality and travel organizations are very concerned with the growing amount of technology investments required to remain competitive. In fact, generally speaking, sharing investments in infrastructure and technology is one of the motivations that has been pointed out by companies to invest in data spaces. 38% of hospitality and travel organizations say they have a longer-term investment plan in place and the enterprise strategy is to use DX to transform markets and customers by creating new business.



Reasons for IT budget increases; Source: Hospitality and Travel Survey, IDC, August 2021, Total n=192

If we look at the top challenges faced by industry, the figure below shows that there is a wide range of them, with some directly associated to the potential benefits of data spaces, such as availability of data across the value chain or compliance with security standards and regulations; many others could be highly impacted by the suitable use of data for internal and external

processes. The picture showcases challenges for different sub-sectors in tourism like dining, hospitality and travel and for different geographies.



Top challenges; Source: Hospitality and Travel Survey, IDC, August, 2021, Total n=603, Dining n=270, Hospitality n=272, Travel n=61

The DATES project is monitoring the evolution of the Tourism industry to get insights on which use cases could be highly benefited by data spaces and to understand the positioning of organizations with respect to investments so that a credible roadmap towards a fully fledged Data Space for Tourism can be implemented.

If you are interested in getting additional market insights and data-driven business models, get involved in DATES and stay tuned!