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Smart Tourism and Smart Destinations:
The Path to Recovery Post Covid-19

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This insight paper discusses how applying strategies of smart cities technologies to smart destinations and smart regions can help build tourism recovery due to current pressures of the Covid-19 pandemic. By expanding smart cities to smart regions, it creates tourism prospects across smaller ecosystems. Recovery is facilitated by introducing innovative technologies and adapted business models offering stronger safety measures for tourists.

Introduction

Advanced technologies have exponentially shaped the global tourism sector. As a result, tourism has evolved from basic lodging to complete luxury designed experiences. Tourism is perceived as a major actor in promoting sustainability in destinations. It does this by fostering economic growth along with the protection and conservation of environmental

and socio-cultural resources. By combining technology innovation with sustainability principles, smart tourism and smart destinations were introduced as new concepts with advanced strategies for managing tourism.

The global Covid-19 pandemic has had negative impacts on the tourism industry. It has led to a renewed focus on using smart tourism operationalization to strategically address economic and social threats resulting from the shutdown of this international industry. The tourism government authority SEGITTUR, in its smart designations report, defined smart cities as those "with fully defined limits from a geographical and political-administrative point of view, [which] assign primacy to ICT to design innovative urban spaces which facilitate sustainable development and improve the quality of life of their residents" (SEGITTUR, 2015, p. 24).

From Smartness to Smart Destinations

Increased interest in researching and operationalizing the smart tourism concept rose from significant impacts destinations suffered due to growth of the tourism industry. First, advanced technologies shaped the development of the tourism sector by providing faster and cheaper alternatives for travel. Extensive tourism marketing campaigns were world-wide. However, exponential industry growth negatively impacted environmental and socio-cultural dimensions of destinations. Growing threats from crowding and pollution impacted the quality of life in communities. In addition, residents were experiencing increased costs of living due to the high demand of goods and services by the tourism sector. Seeking to address these issues, governments began introducing new technological infrastructure as a strategy to achieve sustainability.

The notion of smartness originated in the 1990s as an idea of using technologies within the urban areas to promote sustainability and foster economic growth along with social and environmental stability (Boes, Buhalis, & Inversini, 2016). Within the tourism context, Femenia-Serra and Neuhofer (2018) highlighted how applying big data to smartness to enhance tourists' experiences fosters stakeholder involvement and co-creation practices. Thus, one principle of the smartness concept is to address the needs of different users or stakeholders. Its aim is to fulfill the needs of local communities and visitors as well by enabling them to be active participants in creation, utilization, and evaluation processes (Nam & Pardo, 2011). Nam and Pardo (2011) furthered the smart term concept by identifying three fixed dimensions: technology, human, and institutions.

Smart tourism operationalizes smartness by establishing tourism development guidelines. Gretzel, Werthner, Koo, and Lamsfus (2015) emphasized how smart tourism focuses on experience enrichment and sustainability efficiency through the inclusion of four primary elements: (1) physical infrastructure, (2) social networks, (3) governance sources, and (4) advanced technologies. They identified near-field communication (NFC), mobile applications, radio-frequency identification (RFID), the internet of things (IoT), cloud computing, and databases as important technologies. However, Gretzel (2018) pointed

out that managing smart tourism as a development strategy requires more than technology adoption, it also requires the administration of organizational and human resources. Buhalis and Amaranggana (2015) recognized competitiveness, sustainability, and inclusiveness as the major goals of smart tourism with an emphasis on the role of human assets. Similarly, Gretzel, Ham, and Koo (2018) made an important contribution to the smart tourism conceptual framework by defining its composition as containing five layers, as shown in Figure 1.
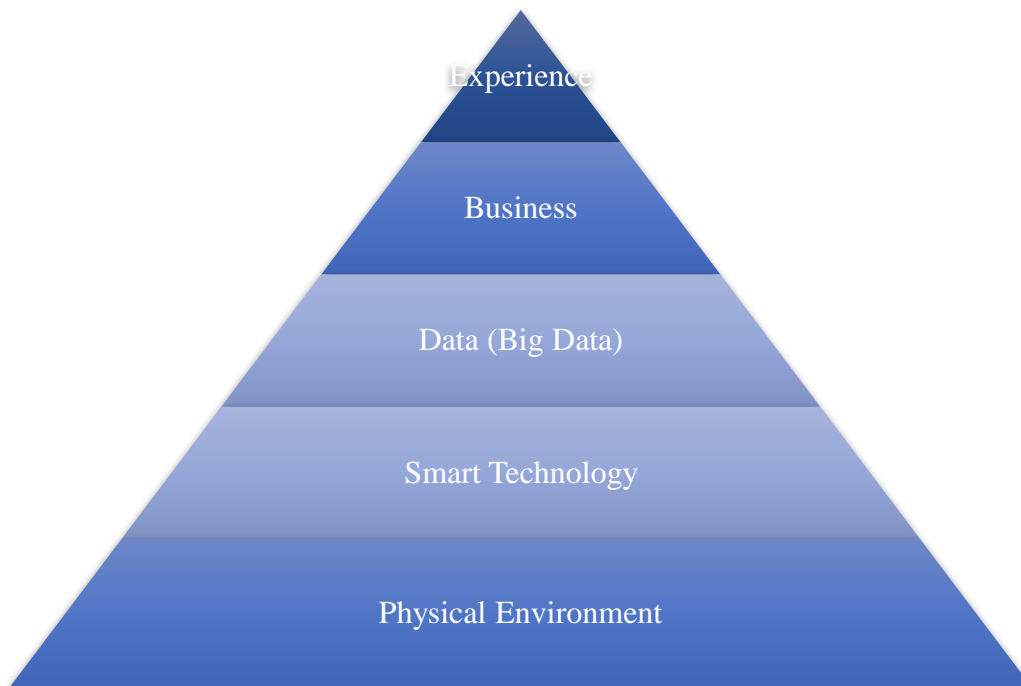

Figure 1. Five Layers of Smart Tourism.
Source: Gretzel, Ham, & Koo (2018)

The first layer consists of the physical attributes of a destination including natural and human tourist attractions as well as the infrastructure required for transportation and services for both tourists and residents. The second layer is represented by smart technology acting as a communicating bridge among infrastructures, businesses, and users. The third layer refers to implementation of big data by providing alternatives to data storage, data clearing houses, and data mining. The fourth layer embodies the businesses which need to innovate by taking advantage of the different technologies available. Finally, the fifth layer addresses the ultimate goal of enriched tourist experiences through an enhanced relationship between data technologies and improved business practices that address what tourists need and want.

Gretzel (2018) pointed out that smart tourism is generally limited to adoption of innovative practices in urban areas. This means that most smart destinations are smart cities. Furthermore, when looking at the definition of smart cities proposed by the Spanish authority, SEGITTUR (2015), an important reference within the tourism smart application

for many countries, the core urban factor is identified. To support this tendency, many practical factors such as the concentration of technology companies; a higher educated workforce; communication, transportation, and energy infrastructure; and higher tourism demand the entire year (less seasonality) are listed (Gretzel, 2018). In addition, some authors have explored how island destinations are looking to engage in smart tourism practices (Yigitcanlar, Sabatini-Marques, Lorenzi, Bernardinetti, Schreiner, Fachinelli, & Wittmann, 2018). Another important contribution to smart tourism literature was made by Yigitcanlar et al. (2018) when they identified eight major areas to guide smart city development (see Figure 2).

1) Governance	→	2) Planning	→	3) Productivity	→	4) Innovation
5) Liveability	→	6) Wellbeing	→	7) Sustainability	→	8) Accessibility

Figure 2. Areas of Smart City Development
Source: Yigitcanlar et al. (2018)

While all these areas embody the main goals of smart cities, there is overall agreement on the overarching role of governance characterized by openness and public participation of the main stakeholders (Khan, Woo, Nam, & Chathoth, 2017; Lalicic & Önder, 2018; Gretzel, 2018).

Covid-19 Repercussions on Smart Tourism Regions

The Covid-19 pandemic had almost an immediate and significant economic and social repercussion on the tourism industry. Moreover, in post Covid-19, tourism businesses expected they would return to how they performed in the past. However, predictions are that future airline experiences will be characterized by disinfection tunnels and thermal scanners (Carter, 2020). The restaurant sector will need to embrace higher food safety and cleanliness standards (Malbec, 2020). Given these new realities, applying smartness concepts is pivotal to fostering recovery of the tourism industry.

Developing innovative technologies, as well as integrating knowledge (Romão & Neuts, 2017) that addresses existing gaps in tourism demand will be essential for promoting tourism development. It is expected that at the end of this crisis the slow recovery of the tourism industry will be particularly evident for international tourism. Since the perceived risk to travel to certain destinations is expected to be higher, introduction of innovative

technologies along with adapted business models based on big data sources is essential to understand changing tourism demand.

Post Covid-19 it is expected that tourists will prefer to travel to destinations closer to home. Future tourism practitioners and researchers will need to focus on expanding the notion of smart cities to smart regions by orchestrating an expanded ecosystem. This could follow the examples of the Helsinki Region in Finland (Markkula & Kune, 2015) and the European Union, which is implementing a recognition scheme called European Capital of Smart Tourism (Gretzel, 2018). Although regional smartness can be difficult to achieve because of different goals held by stakeholders in governance organizations and smart development maturity, this approach is an opportunity for collaborative revitalization of tourism. Lastly, as discussed by Wesley Scott (2007), important considerations including new coalitions of governments, civic actors, and businesses are needed for achieving smart regional development and effective crisis management.

Next Steps – Enhanced Safety and Security

Smart tourism embodies sustainability principles with technology innovation as the benefit of managing tourism destinations. However, its practical application has been limited to urban areas within city limits. The current shutdown of the tourism industry due to the Covid-19 pandemic has caused drastic changes in tourist demand and tourist experiences. Governments, practitioners, and scholars need to collaborate in developing new smartness approaches by using adaptive business models that will foster industry recovery. Further, a paradigm shift from delimited cities to regional destinations offers another strategy for appealing to potential tourists. By containing travel to smaller geographic areas and offering enhanced safety and security systems, tourists are more likely to engage in the experiences offered in a regional destination.

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