

## AI-based Value Co-Creation in Tourism

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**Purpose** – There are many possible applications of artificial intelligence technologies (Russell and Norvig, 2016) in tourism (Kazak *et al.*, 2020; Samara *et al.*, 2020; Tussyadiah, 2020). These include classic applications such as decision support and recommendation systems (Stalidis *et al.*, 2015), Data-centered platforms (Keller *et al.*, 2017), AI-based assistant platforms (Schmidt *et al.*, 2021), the Internet of Things as well as robotics (Ivanov and Webster, 2019). Using these technologies, it is possible to increase efficiency, productivity and profitability for tourism suppliers (Samara *et al.*, 2020). However, there is a general lack of academic research on AI and its connection to tourism. This has already been identified by Gajdošík and Marciš (2019). Aiming to create a rich and personalized experience, a more comprehensive view is necessary, which exposes the value co-creation potentials of tourism.

**Design/Methodology/approach** - Building upon service-dominant (S-D) logic (Vargo and Lusch, 2008) we draw on the definition of value co-creation (Lusch and Nambisan, 2015): that means as a set of actors (operant and operand) that integrate resources accepted and exchanged in an ecosystem regulated by institutional arrangements. We investigate for each phase of value co-creation the impact of artificial intelligence and examine in particular the effect of artificial intelligence resource liquefaction and resource density (Lusch and Nambisan, 2015).

**Findings** - AI is being used in the tourism industry for various purposes such as improving the level of personalization, tailoring the recommendations of the customers and guaranteeing fast response times even when the staff members are not present (Samala *et al.*, 2020). The presence of artificial intelligence has become so crucial in the industrial setting that it is being used to assist and communicate with the customers and thus strengthen the quality of engagement. The value co-creation logic of SDL is applicable for conceptualizing the use of artificial intelligence in tourism. Assistant platforms are providing generic actors with the help of AI. Artificial intelligence also supports resource liquefaction in tourism by applying cognitive functions and lowering the threshold for using resources, e.g., it increases resource density by leveraging automation for improving the matching between the experiences and tourist expectations. Furthermore, we identify how to leverage AI for value proposition, filtering, and service exchange.

**Research implications** – Based on our research the different applications of artificial intelligence for value co-creation mechanisms and their interplay need to be further investigated pointing to another field for future research.

**Originality/value** – Our research findings demonstrate the importance of S-D Logic for researchers and practitioners in connection with artificial intelligence in tourism.

**Key words** –tourism, artificial intelligence, value co-creation, SD-Logic

**Paper type** – Research paper