

1 The role of AI-powered digital marketing analytics in the tourism industry

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Digital marketing analytics

Marketing analytics is defined as “the study of data and modelling tools used to address marketing resource and customer-related business decisions” (Iacobucci et al., 2019, p. 155). Digital marketing analytics include core elements such as marketing analytics value, marketing metrics, and big data. These elements of digital marketing analytics have a wide range of outcomes, including enhanced customer experience, optimized marketing decision-making processes, maximized return on investment, and improved predictive analytics (Iacobucci et al., 2019). With the increasing digital interactions and digital platforms, a new generation of consumers has increased demands for virtual interactions. Human interactions are revolutionised through human-like anthropomorphized robotics and chatbot interactions (Fatima et al., 2024). The proliferation of digital interactions has profoundly influenced the inclinations and anticipations of the contemporary consumer generation. An extraordinary increase in the demand for virtual interactions has been observed as consumers become more digitally interconnected, which generate big data and demand specialized marketing analytics (Kumar et al., 2021). One crucial factor that significantly contributes to this phenomenon is the widespread adoption of AI in social media platforms and online communication channels.

The field of marketing analytics has developed significantly with regards to (generative) AI technologies (Petrescu & Krishen, 2024). The adoption of AI in operational settings has gained considerable attention by practitioners as it is crucial in extracting external data, to learn from

such data, make predictions from these learnings (Basu et al., 2024), and achieve organisational goals (Hossain et al., 2022), however, there is need for hybrid intelligence. This is a human-AI collaboration that combines the efforts of both human intelligence and artificial intelligence to achieve better results (Petrescu & Krishen, 2023). For the tourism industry, hybrid intelligence can enhance the personalisation that improves the overall customer experience, as the human element can further improve the quality of the external data collected by AI.

Social media platforms, including but not limited to Facebook, Instagram, and X, have integrated themselves seamlessly into the daily lives of individuals. These platforms facilitate virtual conversations and exchange information (Shane-Simpson et al., 2018), and develop machine learning (ML) tourist-oriented digital marketing strategies with help of big data. This data can be extracted from several customer touch points, such as data audit of websites, data analysis of social media sites, and data analysis of user generated content (UGC) forums (Lacárce, 2022). Social media analytics helps in collecting, monitoring and analysing social media data about tourists. Social media data insights can help in establishing the best marketing strategies towards the target stakeholders in the tourism industry. Second, the semantic network analysis discloses the visitors' travel itinerary related words such as time, day, and year. Finally, social media monitoring helps in building the social capital of social networks, which is crucial for relationship marketing and brand loyalty (Park, Kim & Choi, 2019).

Primarily, marketing analytics should have three main steps to establish a successful marketing strategy, such as:

1. Introducing a diversified set of analytical methods,
2. Continuous developments in the analytical capabilities and competencies
3. Identifying the areas of developments and adjusting your strategies

Accordingly (Farooqui, 2023), today's era of hyper-digitalization is rapidly reshaping marketing strategy, based on digital customer decision making processes (Vollrath & Villegas, 2022), and creating many opportunities to create for value for customers (Lähtenmäki et al., 2022). Digital marketing data could be challenged through its sense-making, using the context where consumer decisions are being formulated or influenced;