AI, Analytics and DS: pool of opportunities for the hospitality industry

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In the last 10 years, digital transformation has spurred numerous innovations and disruptions in the travel industry. Digital and data-centric technologies have enabled the hospitality and travel sector to redefine customer experience. More recently, mobile technologies have taken center stage as pre-purchase behavior among consumers, is increasingly dominated by extensive research and comparison of multiple options through smartphones and mobile apps.

A key benefit of using digital technologies for customer-facing processes is that, they produce a tremendous amount of data for travel companies. Customers create data on multiple touchpoints through historical online searches, past bookings of hotels and flights, reviews, referrals, etc., and greater the number of touch points, more detailed are the insights. Given such a surge in the volume of data from so many platforms, brands can sometimes find it intimidating to make sense of all this information and apply it productively. However, this is precisely where integrating data science and analytics, can offer a brand huge dividends.

WHERE DOES DATA SCIENCE FIT INTO THE GAME?

The expectations of each customer are as varied as their purpose of travel. Hence, identifying customer demands and meeting their expectations can be a daunting task for the travel and hospitality sector. Nonetheless, these expectations have to be met and exceeded in order to retain customers and elicit their loyalty towards the brand. To this end, more and more brands are integrating data-driven tools and advanced analytics into their enterprise solutions to derive contextual insights through their interactions with both existing and potential customers. These tools can play a major role in helping brands deliver a seamless and satisfying customer experience, especially for high-involvement purchasing activities like booking hotels or leisure services.

Moreover, besides optimising front-end business processes, analytics and AI-driven automated enterprise solutions can enable brands to enhance their back-end functions as well. Through data-intensive enterprise analytics, hotels and hospitality providers can further plan and optimise the use of resources, design efficient revenue management strategies, and automate workflows – all in real time.

CREATING OPPORTUNITIES FOR DATA SCIENCE:

Data science provides the tools for managing guest services and hotel operations, which ultimately influence a customer's overall experience with the brand. Let us also look at a few areas where AI and its allied technologies can play a big role:

Open pricing: Hotels are increasingly shifting towards an open pricing model, wherein they price their services for different segments (loyal versus occasional, repeats versus premium customers). They evaluate each customer's profile, and price their services based on the same, using a Machine Learning-led revenue optimisation system which integrates multiple data sources to derive a pricing figure. This can create a substantial positive impact on ROI, by optimising the Average Daily Rate (ADR) and bringing in higher RevPAR (revenue per available room).

Seamless customer experience: Customers look for quick redressal to their problems as much as they seek quick service from brands. Thus, hotels can adopt messaging support with AI-driven virtual assistants to maximise guest satisfaction by making them feel welcomed and attended. Talking about hyper-personalisation, hotels can equip their rooms with the latest technology-driven amenities to cater to guest preferences and demand for convenience.

Refined Travel Searches: Virtual-assistant platforms allow both companies and consumers to perceive travel-related transactions in a new light by curating a vast pool of information through AI-powered tools. In addition to textual searches, such tools also allow customers to simplify their search process through images and voice, thereby enabling brands to deliver more accurate outcomes.

Operational support by Robots: Digitising customer journeys means re-engineering steps such as an efficient check-in and check-out experience, room-key access, or room-service ordering to make them immediately available via a smartphone-based interface. Bots can also be deployed for basic room services, including delivery of food, drinks, and toiletries to optimise on-floor movement and ergonomics of the hotel space.

Demand Forecasting: From hotel brands to technology start-ups, hospitality and travel players are using self-learning algorithms to extract insights from online searches and historical customer data to predict future price movements. These self-learning algorithms are further aided by data obtained through API integrations to analyse multiple factors influencing the travel segment, such as seasonal trends, demand growth, limited-time special offers, airfares, as well as consumer preferences and purchase patterns. API integrations also allow the algorithms to assess the occupancy data from nearby hotels or the prices quoted by competitors to accurately predict the demand for each room type.

HAPPY CUSTOMERS MEAN HAPPY HOTELS

Leveraging Data Science doesn't only work for hotels but is good for the customer too. The data can create a clear picture of who the customer is and what they want. From this a hotel or destination can tailor its ancillary services to meet these needs, providing a better stay experience and boosting incremental revenue at the same time.

The hotel industry must get rid of business silos, embrace and integrate new technologies such as AI and cloud platforms to streamline and optimise their revenue strategy. Smart hoteliers are already realising this, and adopting integrated hospitality management solutions which deploy predictive analytics to price products and services as well as to promote a wide range of services across multiple channels. With prior knowledge of guests, their demographic data, purchase behavior, interests, etc., hotels can effectively price and promote their services across multiple customer segments through a single automated and data-driven enterprise solution. ∎

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