MARKET REPORT

HVS Monday Musings: Transforming Dining Experiences with Artificial Intelligence

AUGUST 27, 2023

AI adoption is on the rise globally, including in the F&B industry, where it's streamlining processes, reducing waste, and enhancing guest experiences. Read on to know more.

Artificial Intelligence (AI) is transforming industries across the world and as per a recent IBM report, global AI adoption is increasing steadily, reaching 35% in 2022, up four points from the previous year. The food and beverage (F&B) industry is also gradually catching up with this trend. From streamlining processes and assisting with waste management to improving guest experiences, AI is emerging as a key facilitator for the industry's growth. With the addition of Machine Learning (ML) and Big Data, this could become a game-changer for the F&B industry, with endless potential. The global market for AI in the F&B industry is expected to grow from over USD 4 bn in 2022 to nearly USD 28 bn in 2027 at a CAGR of ~44%.



Currently, the most widespread application of AI in the F&B industry is the use of chatbots and apps to automate simple tasks such as responding to customer queries, taking reservations, and making online payments. These have become the norm today, even in India, and help reduce employees' time on mundane tasks, while allowing them to focus on more complex ones, a boon for an industry struggling with staffing shortages. Major quick-service restaurant (QSR) chains such as KFC and McDonald's have introduced touchscreen kiosks in their stores to reduce waiting time at counters. Moreover, companies like Starbucks, Taco Bell, and McDonald's are also testing automation tools at drive-throughs to take self-service to the next level.

Globally, some of these chains are also using AI and ML to predict demand patterns and adjust menus accordingly, optimizing inventory management and reducing food wastage. This is done by analyzing historical sales data, seasonal trends, and even external factors such as local events, weather patterns, etc. Reports indicate that after deploying Dynamic Yield's personalization technology in the drive-through menus, McDonald's was able to reduce drive-through wait times by 30 seconds. Besides this, companies like Starbucks utilize AI and ML to personalize customer experiences through customized recommendations and offers. Not only that, but several chains are also using generative AI, such as the popular ChatGPT, to boost their marketing efforts by reaching out to the right target market. Generative AI is also being used to create unique and innovative recipes and menus by exploring unconventional flavor combinations and cooking techniques. For instance, the Axelrad Bar in Houston recently generated an entire cocktail menu using this tool, while the Sydney-based restaurant, Rafi, introduced Luminary, an AI-generated pop-up concept.

In a futuristic twist to dining, some chains such as Chipotle and CaliBurger have gone a step ahead and are using robots in the cooking process which reduces prep time. Dominos, on the other hand, is using bots for pizza delivery. Robot waiters have also made an appearance across the world. The Yellow House Restaurant with outlets in Jaipur and Noida and the Robot Restaurant in Chennai are some restaurants in India embracing this concept.



AI offers a myriad of applications within the restaurant industry, and while some may appear tailored for large QSR chains, there are several AI-driven solutions that can benefit fine dining establishments, stand-alone restaurants, and smaller chains alike. From optimizing menu offerings, streamlining operations, and reducing food wastage to enhancing customer experiences, AI can facilitate all types of F&B businesses to thrive in today's competitive world. However, it's essential to understand that the integration of AI into restaurant operations does not imply redundancy for the human workforce. While AI excels in tasks such as predictive analysis, operational optimization, and process automation, there are aspects of hospitality and dining that are still distinctively human. For instance, a robot cannot mimic the subtle art of tasting and creating dishes like a human chef, and neither can it replace the warmth and hospitality of the human waitstaff. It’s this fusion of technology and human connection that promises to enrich dining experiences going forward.