

FOOD TECH

The F&B space in hospitality is getting a tech makeover of sorts with a plethora of new age solutions that promise to up the ante for dining experiences.

BY BINDU GOPAL RAO



➔ Hotels are using robots to deliver food from the kitchen to the dining room called robot stewards, increasing the overall efficiency of the kitchen

The hospitality industry has been quick to adopt new technologies to improve the food and beverage experience for guests. Technology has touched all aspects like online ordering and delivery, kitchen automation and robotics, AI-powered menu recommendations, food tracking and traceability and cashless and contactless payment.

AUTOMATED INVENTORY MANAGEMENT SOFTWARE

The use of automated inventory management software is a growing trend in the F&B and hospitality industries. This technology is designed to help businesses

streamline their inventory management processes and reduce manual errors by automating data collection and analysis. It provides real-time visibility into inventory levels and reduces the risk of overstocking or stock-outs. This can help businesses optimize their purchasing decisions and identify opportunities for cost savings.

“The benefits of automated inventory management software go beyond just reducing costs. It also saves time and reduces labour costs by eliminating the need for manual inventory tracking and data entry. Additionally, it allows businesses to monitor inventory in multiple locations simultaneously, which is especially important for hotels and other hospitality businesses with multiple outlets or properties. In the post-pandemic world, cost control has become even more critical for the hospitality industry, and technology solutions like automated inventory management software are helping hotels make smarter choices. By providing convenience to guests and making operations more efficient, technology is transforming the way hotels operate and interact with consumers,” says Gautam Kumar, Executive Chef, Moksha Himalaya Spa Resort.

Overall, automated inventory management software is a game-changer for the F&B and hospitality industries, allowing businesses to save time, reduce costs, and make better-informed decisions. As the demand for efficient and effective inventory management solutions continues to grow, technology will play an increasingly important role in helping businesses stay competitive and profitable.

TABLE MANAGEMENT

Space and revenue management has been the forte of hotels and airlines for a long time now. Apart from top-of-the-line food and beverage offerings, there is a renewed focus on key performance indicators like average realisation per square meter and GOP (Gross Operating Profit) per square meter, for all the food and beverage spaces.

Vinesh Gupta, General Manager, The Den, Bengaluru, says, “It is not only about multiple turnarounds but also about maximising revenue and profitability in a restaurant. A lot of new start-



➔ Gautam Kumar, Executive Chef, Moksha Himalaya Spa Resort



➔ Shubhendu Shekhar, Food & Beverage Manager at THE Park Chennai

ups have mushroomed in table management and restaurant revenue management spaces. Today, when guests prefer making online reservations, it becomes easy to configure automatic table and seat allocation algorithms to maximise seating with minimal disruption or waiting time. Furthermore, we have seen that effective utilization of table management software can increase the yield and revenue up to 25 %, wherein we are using revenue management techniques such as discounts by meal period, variable discounts in the same meal period, and help push spare capacity in off-peak hours. The future as we see is all about dynamic price points in restaurants that are something like airline pricing, and preferred location charges in restaurants and based on these initiatives or futuristic thoughts dining is an experiential affair, where AI (Artificial Intelligence) and IOT(Internet Of Things) can be embedded into the table management software to understand ‘the purpose of dining’ and customise the guest experience to a next level and monetize it.”

ONLINE ORDERING SYSTEMS

Online ordering is one system that has replaced the concept of phone ordering for in-room dining service and for physical menus presented in restaurants. Customers today prefer



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easy, fool proof online ordering systems which are swift, seamless, and user-friendly. It has become a matter of convenience and ease for most customers.

“The online ordering solution used at THE Park Chennai, like various other solutions, limits the communication with a guest as it is POS (Point Of Sale) integrated, thereby also avoiding human errors, efficiency in timely service and guest satisfaction. This directly and organically impacts restaurant sales. The QR Code menu ordering systems were implemented at THE Park Chennai as a COVID safety mechanism but has remained a digitized system that has seen immense traction from maintaining guest data, customer patronisation (first and repeat customers), seeking online feedback, paperless billing processes and even running promotional offers directly through the application to engage customers,” says Shubhendu Shekhar, Food & Beverage Manager, THE Park Chennai.

The advantages of online aggregators or delivery applications is that it offers convenience and familiarity to the customer, redefining the way customers eat.

KITCHEN AUTOMATION AND ROBOTICS

Today, automated robots are being used for tasks such as chopping, mixing, and other repetitive tasks. These robots can work



➔ Vinesh Gupta, General Manager, The Den, Bengaluru



➔ Saurav Dutta, General Manager, Parkinn By Radisson IP Extension, New Delhi

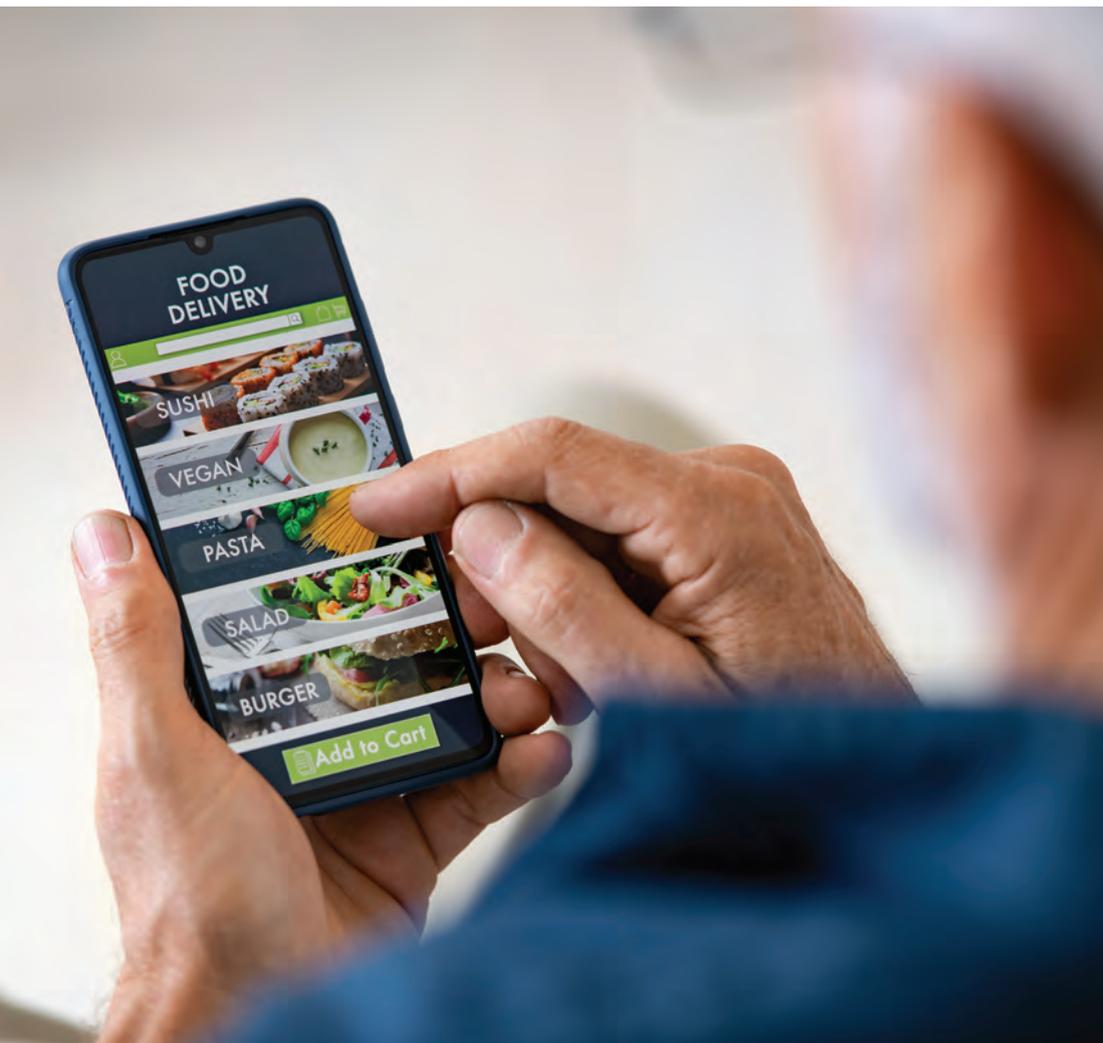
24/7 without getting tired and can increase the consistency and quality of the food being prepared.

“The standard recipes are derived and fed into the software hence the taste is consistent. Hotels are using robots to deliver food from the kitchen to the dining room which we call robot stewards. This helps reduce wait times and increase the overall efficiency of the kitchen. The food does not remain on the counter and there is minimal human touch resulting in good hygiene. Automated inventory management systems are being used to keep track of food and ingredient stock levels. This helps reduce waste and ensure that the kitchen always has the ingredients it needs to prepare dishes,” says Saurav Dutta, General Manager, Parkinn by Radisson IP Extension, New Delhi.

INTERNAL FOOD MANAGEMENT TECHNOLOGY

The Leela Hotels & Resorts has a robust software for managing their entire food and beverage inventory. The software is backed by a lot of data and helps the chef in two ways. First, it keeps them abreast of the ingredients and food items that are in stock, and he knows when he needs to place orders for fresh stocks. Second, if there are any events or sets of recipes that need to be prepared, the chef can place the order accordingly. The parameters are set in the software so that the chef places the order in the perfect quantity.

“It helps minimize incidents of over-ordering, which can lead to higher costs. We can also avoid under-ordering which can lead to dissatisfaction with guest experience if a certain dish or item is unavailable. The software is designed in a way that it will send out alerts and notifications if a certain ingredient that is used regularly but usually takes longer to procure is not in stock. The alert helps us in taking the dish off the menu and replacing it with something else. Our systems are layered with two or three levels of approval mechanisms. This helps in monitoring the ordering. We also have tech systems in place to pre-



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vent food wastage during inventory management. This helps in optimizing ordering and avoiding unnecessary stockpiling,” says Kapil Dubey, Executive Chef, The Leela Gandhinagar.

AI POWERED MENU RECOMMENDATIONS

The food and beverage industry is continuously evolving, and with the integration of artificial intelligence (AI), this transformation has taken a significant leap forward. The transformational development in this area can be AI-powered menu and kiosks which can revolutionize a customer's dining experience.

“These technologies include AI-enabled kiosks, smart speakers, apps, and metaverse avatars which not only help build a personal connection but also allows a brand to build a strong image and identity. Conversational AI allows customers to interact using their voice or text, while natural language processing allows human-like communication. Recommendation engines then use data to develop personalized recommendations for customers. In the future, AI-powered menu recommendations have the potential to take this to another step. By customizing menu recommenda-



➤ Kapil Dubey, Executive Chef, The Leela Gandhinagar



➤ Jatin Puri, Food & Beverage Manager, Taj Lakefront Bhopal



➤ Manisha Bhasin, Corporate Executive Chef, ITC Hotels

tions to individual customers based on their preferences and dietary requirements, restaurants can continue to enhance the personalized experience. AI can also help with menu innovation by suggesting dishes and ingredient combinations that are currently trending. Restaurants can be the early adopters of AI-generated results that are getting very popular across the world. AI can analyse customer data to identify trends in food preferences, store them, use facial recognition features to identify a customer if they visit again and make recommendations accordingly,” says Jatin Puri, Food & Beverage Manager at Taj Lakefront Bhopal.

The future of AI in the industry is promising, but challenges such as ethical marketing decisions, data privacy, and ensuring regulatory compliance must be addressed. As AI continues to evolve, we can expect to see even more exciting developments in the food and beverage industry that will benefit both customers and restaurants.

NEWER COOKING TECHNIQUES USING TECHNOLOGY

New and extremely accurate cooking equipment is making cooking more fun and scientific and has also enhanced customer and chefs experiences.

Manisha Bhasin, Corporate Executive Chef, ITC Hotels, says, “Older recipes are becoming more precise and are dishing out standardized output due to improved technologies. Cooking techniques like Sous-Vide are making cooking extremely easy and cook-friendly. Nutritional guarding of fresh ingredients makes these age-old recipes more nutrient dense and healthier. There is a greater focus on sustainability and health. Convenience and precision are superior while these new technologies also are environment-friendly saving on resources in many ways. There are some extremely new and still developing technologies that would reduce the reliance on human resources, making automation a reality in kitchens tomorrow. A positive start in this direction is already visible.” 



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