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# Investments in Restaurant Technology: Past, Present and Future

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By Bhavin Asher, CTO and Founder of GRUBBRR, leader in self-ordering technologies.

Nowadays, it seems that talk of digitization and automation are ubiquitous throughout the restaurant industry, especially within quick service restaurants (QSRs). However, it wasn't always like this. In the past, restaurants have been notorious laggards when it comes to implementing automation, and specifically self-ordering technology. While other industries such as the banking and traveling industries began to automate their routine processes, the restaurant industry continued to throw cheap labor at its problems.

As a result, other industries have seen innovation driven by a plethora of startups, many backed by venture capitalists and private equity firms that are constantly shaping new realities for their respective industries. In the restaurant industry, this has been slow and rare to see. In the restaurant technologies vertical, adoption of new technology has been slow and met with criticism, thereby inhibiting innovation.

However, this all changed with the Covid-19 pandemic hit. In March 2020, as businesses across the nation were forced to change their operations or close their doors, restaurants were left with an ultimatum: innovate, automate, or get left behind. The labor shortage, increasing federal minimum wage and rising pressure to meet consumers at the point of sale sent restaurants searching for a solution, with self-ordering technology emerging as the clear answer.

In a typical QSR today, there are six to seven disparate pieces of technology that are siloed (not in communication with one another), making restaurant operations cumbersome. To avoid this, restaurants should seek solutions that are part of a platform or ecosystem and can easily integrate with other systems. Over the last five to seven years, several companies

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began innovating solutions for front of house, back of house, and digital ordering to solve this problem.

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According to Harry Patz, Senior Vice-President and General Manager, Display Division at Samsung, "...business models [were] reinvented on the fly during the pandemic, as innovation cycles shortened from years to months or even weeks. Our retail, QSR and hospitality customers sought ways to keep up business while maintaining social distancing, and needed solutions like curbside digital signage and kiosk technology for contact-less pickup and transactions. Those customers subsequently enjoyed significant savings during what was a critical period, and hence we see a lot of future opportunities for kiosk technology in 'grab and go' retail QSR, and hospitality operations."

With more and more digital adoption from restaurants and investments, restaurant technology startups are popping up and innovating at a pace never seen before. From robots that flip burgers to ADA-compliant kiosks, new technology is heating up the restaurant industry within the nation's top QSRs and improving the experience for operators and consumers alike.

A microcosm of the pandemic, consumers now want to be able to interact with their favorite businesses through various touchpoints. The customer now fully dictates how their journey and interaction with your brand happens. They want to order, experience and receive their food where they want, when they want and how they want. In restaurants, this is called omnichannel dining. In the omnichannel model, the customer orders how they want, and receives real-time updates about their order until it is picked up or delivered.

In other words, consumers want to be met where they're at, be it kiosk, online or mobile device. Before the pandemic, this omnichannel presence was virtually absent from the restaurant industry. After the pandemic, restaurants needed this technology to simplify operations, use data and reporting to make informed decisions to scale their business, and cut costs. Self-ordering technology also allows restaurant operators to use marketing to curate a personalized customer journey, similar to that offered by Amazon.

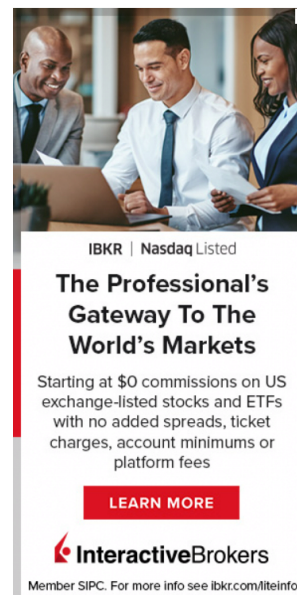
For larger restaurant companies, digital ordering channels like kiosks and mobile ordering help them scale faster, reduce costs and increase their bottom line through upsells, which is critical to their growth. Companies in this space today are innovating with use of the latest technology, moving away from traditional architectures to Cloud based architectures, which reduce operational costs and support resources needed.

This very sort of technology is allowing restaurants to think out of the box, as evidenced by the recent rise in ghost/dark kitchens. Ghost kitchens have no physical storefront and offer no in-house dining. Instead, they operate mainly through delivery, sometimes also offering takeout or drive-thru pickup. Ghost kitchens are unique in that, unlike many restaurants, they are inherently technologically-forward. For instance, the emphasis on mobile and online ordering means that the restaurant can also be easily optimized with innovative kitchen display technology, and apps allow them to track orders which allows them to try new avenues.

The rapid adoption of self-ordering technology within the restaurant industry is furthering innovation and key to future-proofing the industry. The next phase of innovation lies in AI and Machine Learning based operations and decision making. With digital intelligence and data collected with implementation of these technologies, AI will be able to predict labor forecasting, sales forecasts, and consumer choices at the kiosk with facial recognition or just their phone number. Collecting, aggregating and analyzing this data will make the restaurant experience personalized for every customer, and from here the possibilities are endless.

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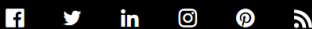
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