

5 TECHNOLOGY TRENDS IMPACTING THE QSR INDUSTRY

2018
THE FUTURE STARTS NOW



Quick service restaurants have become a force to be reckoned with in the restaurant sector, growing faster than full-service restaurants as more Americans look for value, speed and convenience in their dining choices.

The global QSR market is expected to reach more than \$690.80 billion in 2022, with CAGR of 4.2 percent between 2017 and 2022.¹ In the United States, QSR sales are expected to total \$233.7 billion in 2017, an increase of 5.3 percent over the previous year. In comparison, full-service restaurant sales are expected to reach \$263 billion in 2017, an increase of just 3.5 percent from 2016 numbers.²

Technology is helping spur much of the growth in the QSR space. As QSR chains look for new and innovative ways to attract customers, they increasingly are turning to technology to offer customer-facing and backend services that provide the customer demands of speed, convenience and value.

Millennials and Generation Z diners in particular crave a technology-centric experience when dining. As digital natives, neither have ever been without a mobile device. As such, both groups expect technology to be a part of their dining experience, even if it is something as simple as free Wi-Fi.

Adults today are 30 percent more likely to use restaurant technology than they were two years ago.³ That said, 32 percent of diners believe restaurants are lagging in their technology use.⁴ QSRs, then, must step up their efforts to become more technology-centric to attract more customers.

A bevy of new technologies are on the horizon to help QSRs gain a more competitive edge and appeal to a wider swath of diners. Imagine, for example, a cashless payment system that automatically “swipes” a diner’s credit card when they enter, enabling them to grab what they want without having to stand in line. Going a step further, imagine backend analytics automatically know the customer’s preferences and pushes out special deals or coupons to their mobile device in an effort to upsell the customer.

TECHNOLOGY TRENDS IN THE QSR SPACE

The technologies driving QSRs are more evolutionary than revolutionary, and all serve to improve the customer experience while increasing operational efficiency. Some technologies, such as kiosks, already are in limited use and are poised to be a game-changer for QSRs ready to embrace them.

Five technologies in particular—voice ordering through multiple channels, robotics and artificial intelligence, mobile payments, personalization of customer rewards and kiosks—have the ability to impact the QSR industry and perhaps change the way we view the dining experience.

VOICE ORDERING

Smart devices such as Amazon Echo, Google Home and Apple’s upcoming HomePod are changing the way we interact with technology, giving users the ability to turn off lights, listen to music or create shopping lists simply by telling the device. So, too, now with ordering food.

In 2017, a handful of QSRs including Wingstop partnered with Amazon to enable customers to place orders through their Echo devices. Through an Alexa-enabled “skill,” customers can manage their favorites, set order locations and save payment information, making the process both quick and easy—customers simply tell their device to “ask Wingstop to order wings.”⁵

Voice-enabled ordering is still in its infancy, but it offers myriad advantages to customers focused more on relaxing than cooking. And, when paired with other voice-enabled options such as making reservations—as with TGIFriday’s partnership with Amazon—voice-enabled services using smart devices will be embraced by more QSRs, especially as more customers demand it.

ROBOTS AND ARTIFICIAL INTELLIGENCE

Robotics is helping usher in an era of automation in numerous industries. It should come as no surprise, then, that the restaurant sector is poised to embrace the technology. While they are still very limited in scope, robots designed for the restaurant industry do exist. For example, ChowBot’s Sally the Salad Robot is a robotic vending machine that can create a custom salad from a variety of lettuces, dressings and toppings—all without human intervention.⁶

Zume Pizza’s “Doughbots,” meanwhile, work alongside employees helping to press out dough, dispense and spread sauce and remove pizzas from the oven.⁷

Robotics currently are being used to reduce the amount of manual labor employees must handle, but adding artificial intelligence could make them even more useful in the QSR setting. Imagine, for example, an interface that can scan a customer's face to access their order history and preferences, then greet the customer with order suggestions or a reminder of their last order. Or a robotic system that uses geofencing to know when a customer who placed an order online is within a certain distance of the restaurant and begins to make the order so that it is ready when the customer walks in.

Some of this technology is still more within the realm of science fiction. However, advances in artificial intelligence and robotics are bringing these closer to reality. It may not be too long before the robots are making meals and employees are instead focused on more customer-focused activities that add greater value and improve the dining experience.

MOOYAH BURGERS, FRIES & SHAKES LAUNCHED ITS APP IN 2016 AND IS USING THE INSIGHTS GLEANED FROM THE DATA TO PROVIDE A DEEP LEVEL OF CUSTOMER INTERACTION

MOBILE PAYMENTS

The idea of using a smartphone to pay for a meal isn't new, thanks to mobile payment technologies from Apple, Samsung and other vendors, as well as a growing number of QSRs adding "scan to pay" capabilities to their mobile apps. And, as more customers look to their mobile apps to order and pay before arriving to the restaurant, mobile payment technologies will evolve to provide an even higher level of convenience for customers.

The next generation of mobile payment technologies will enable customers to simply scan their smartphones as they enter, then select their choices and be on their way without having to stand in line at the register. Alternatively, beacons placed at the entrance can

"ping" the customer's mobile app to automatically charge for purchases, again without having to visit the register. In either case, the mobile payments also could interact with the restaurant's loyalty program to automatically apply discounts to customer orders based on rewards points or special promotions.

PERSONALIZATION OF CUSTOMER REWARDS

QSRs have long recognized the importance of reward programs in building and maintaining customer loyalty. Besides the obvious benefit of free or discounted meals for customers, reward programs are key to the QSR in collecting valuable customer information, such as their food preferences, most-visited locations and average bill amount.

In providing this information, however, customers want QSRs to do more than send them coupons—they're looking for rewards that are customized to their preferences. One recent survey noted that more than half of customers would be more likely to take part in a loyalty program if rewards were customized based on their preferences.⁸

Savvy QSRs have already latched on to personalized loyalty programs with much success. MOOYAH Burgers, Fries & Shakes launched its app in 2016 and is using the insights gleaned from the data to provide a deep level of customer interaction.⁹The app is integrated with the restaurant's point-of-sale and online ordering systems to collect information such as what the customer, their frequency of visits, what time of day they visit most often, their food preferenc-

es and personal information. Combined, that information enables the restaurant to send out highly relevant and valuable promotions. For example, knowing a customer tends to frequent an establishment every Wednesday between the hours of 5:30 and 7 p.m., the restaurant knows not to send out coupons for a free breakfast sandwich or information about weekday lunch specials.

KIOSKS

Kiosks, another technology that already has made its way into the QSR space, is poised to make a huge impact. Customers are embracing kiosk technology—47 percent of surveyed diners said they would use a self-service technology such as a kiosk to customize their orders¹⁰—so it stands to reason that QSRs are looking more seriously at kiosk technology to help them improve the customer experience and streamline their employee tasks.

The ranks of QSRs using kiosks are growing, as customers get used to placing their order on tablets or oversized touch screens rather than with a person at the counter. Kiosks also allow users to customize their order through a series of screen prompts, accept payment and, when integrated with the QSR's loyalty program, allows the user to swipe their loyalty card or tap their mobile device to record the transaction or even pay using the mobile app.

Beyond improving the customer experience, kiosks also can help QSR locations better manage their workforce by reassigning employees to more value-added tasks, such as ensuring customers are happy with their order, providing drink refills and looking for ways to further improve the customer experience. Through kiosk technology, employees can shift their role—and their mindset—from order fulfiller to one focused solely on customer satisfaction.

WHY THE NETWORK MATTERS

As technology is proven to have an impact on the customer experience, QSRs must embrace new technologies and new ways of doing business to succeed in today's fiercely competitive restaurant market.

In embracing the next generation of technologies, QSRs first must prepare their networks to ensure they are able to handle the increase in demand. Kiosks, artificial intelligence, mobile payments and other technologies can stress the bandwidth of traditional networks and impact performance.

QSRs need to ensure they have the right foundation for both customer-facing and back-office operations, as well as new opportunities yet to be imagined. Today's efficient networks comprise multiple technologies and platforms all chosen to ensure the solutions they support operate at peak performance without issue.

In building a network for the next generation of QSR technologies organizations should consider an environment that includes both on-premises, cloud, and networking technologies such as SD-WAN to ensure traffic is handled efficiently. And networking components such as WiFi and unified communications can ensure users of the network—customers and employees alike—can interact and transact using their preferred method of communication.

To help ease stress on an organization's current network—not to mention the daily burden on IT

managers—managed services can be utilized to offer certain services, such as loyalty program management, without further impacting the network. Managed services can be used to help tie disparate systems and “fill in the gaps” as retail organizations update their current infrastructure and can prove useful even after networks have been upgraded.

Working with a network service provider can help ease the burden associated with building and maintaining a network capable of handling the bandwidth-intensive needs of the technologies changing the dining experience at QSRs and other restaurants. By working with a third-party network services provider, QSRs can leverage software-defined networks and Ethernet connectivity to ensure there are no gaps in network performance and availability for critical applications. They also can receive all or some of their most critical connectivity functions as a managed service, including managed connectivity, WiFi, and security.

CONCLUSION

Quick service restaurants are growing in popularity, in part because of their convenience, speed and value. Technology is a major driver in the growth of QSRs. Having the right network infrastructure in place to handle increasing bandwidth and data management needs will enable QSRs to address the customer demands of speed, convenience and value in an increasingly competitive market.

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3 “2017 State of the Industry: The Next Course in Restaurants,” research report, National Restaurant Association, <http://www.restaurant.org/News-Research/Research/soi/Member-Download-2017-State-of-the-Industry>

4 Ibid

5 Ron Ruggless, “5 Technology Trends in 2017,” slide show, Nation’s Restaurant News, Dec. 8, 2017, <http://www.nrn.com/technology/5-technology-trends-2017/gallery?slide=1>

6 Mary Avant, “5 Technology Trends to Know,” QSR, October 2017 <https://www.qsrmagazine.com/technology/5-technology-trends-know>

7 Ibid

8 Marcella Veneziale, “Data: What diners want from customization,” slide show, Nation’s Restaurant News, Nov. 7, 2017 <http://www.nrn.com/technology/data-what-diners-want-customization>

9 Mary Avant, Ibid

10 Andrea Nysen, “What Ordering Kiosks Mean for the Future of Quick Service Restaurants,” CAKE, April 25, 2017 <https://www.trycake.com/blog/future-of-quick-service-restaurants/>