

INDUSTRY INSIGHTS

Seeing Ghosts: Virtual Kitchens and the Digital Evolution

“Ghost kitchens” seem to be emerging from the shadows. The restaurant industry has been on top of the trend for several years, and Fast Casual’s recent poll revealed more than 40% of readers currently operate ghost kitchens. But in recent weeks and months, mainstream media including the New York Times, CNBC and Forbes began to spotlight the trend and “ghosts” are more visible than ever. What is the real ghost story for restaurant operators? It’s a new sales channel, driven by digital, that requires focus on unique business and operational challenges.

The delivery imperative

Delivery is driving evolution of the food industry. Mintel research concludes that one-in-three consumers say they use a third-party food delivery service at least twice per week. Global consulting firm L.E.K. projects that between now and 2023, restaurant delivery will grow at more than three times the rate of on-premises sales, with the preponderance going to digital orders. Restaurants, understandably, want to find a way to meet this growing consumer demand.

The “ghost kitchen” model

Traditionally, restaurants provided only first-party delivery by the brand. However, increasingly, third-party services like GrubHub, Postmates, Seamless, and more are dominating the market. Essentially, that makes delivery a new channel sales opportunity. Ghost kitchens help address the operational priorities of this new distribution channel by eliminating the “front of house” of a traditional restaurant in favor of a facility designed to prepare food for delivery.



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Lower overhead and fixed costs as well as more flexibility (for instance, in menu changes and special pricing) are primary advantages. Because customers only interact with a ghost kitchen virtually, they present opportunity for shared costs and resources – one ghost kitchen can prepare signature food items from multiple brands. And ghost kitchens help keep the bustle and confusion of delivery services away from the restaurant environment, preserving a quality experience for in-house diners and keeping restaurant staff focused on on-site operations.

A different competitive set

The growing focus on delivery as a distribution channel and the rise of the virtual kitchen changes the competitive landscape. The efficiency and low overhead of a ghost kitchen operation has made it appealing to newcomers who choose not to operate full-service restaurants at all. Delivery diners might be surprised to find that, though they can order a meal delivered from Red Ribbon Fried Chicken, they cannot dine in there. It's one of many virtual-only restaurant concepts around the country.

Other players in the ghost kitchen space include businesses like Kitchen United, which profit from establishing ghost kitchens for both existing restaurant brands and fledgling virtual-only concepts. Finally, there are the delivery services themselves. UberEats and Doordash both have dabbled in creating their own ghost kitchens, acting as landlords to brands wanting to establish delivery-only operation centers. This spring, Amazon made a huge investment in London-based Deliveroo, which has its own delivery-only super kitchens.

The network, the network, the network

The real estate adage “location, location, location” has given way to a new reality in the delivery channel. As people, enterprises, and even *things* become increasingly connected, and the lines between the “real” and the virtual blur, nothing is more important than “the network, the network, the network.” Ghost kitchens are merely the latest addition to an increasingly complex networking challenge for restaurants.

Ghost kitchens are also aptly referred to as “cloud kitchens.” Operators of virtual kitchens must integrate the multiple delivery service platforms, all operated via their own cloud platform, and duplicate processes for every new delivery partner brought onboard. Often, this involves overlaying a new payment system and prep schedule on top of existing restaurant operations. The volume and variety of payment sources and the growing cloud environment create complexity and security risks.

Successful operations rely on an always-on, always available, high-performing, secure network to keep the orders flowing, the kitchen line producing the right food in the right order, and passing the completed orders to the right delivery partners at the right time. Considering all of those factors, ghost kitchens can be a scary proposition without the right network partner.





Looking ahead

Despite the buzz, ghost kitchens are not the end of restaurants as we know them. The traditional dine-in experience is not dead. While Mintel's research revealed the frequent use of delivery service, it also noted that two thirds (65 percent) of restaurant delivery users agree that it's "more fun going to a restaurant than ordering in." But one common trajectory for the restaurant-of-the-future is clear – increasing reliance on digital infrastructure. Like tableside POS, guest Wi-Fi, loyalty apps, curbside pick-up and other innovations, ghost kitchens are another way operators are upping their game to meet customer expectations and stay competitive.

Ghost kitchens aren't the first significant tech-driven transformation in the restaurant business, nor will they be the last. The rise of the Internet of Things (IoT), automation, AI, and machine learning will all have a profound effect on restaurant operations. On the delivery front, IoT applications can monitor food condition from kitchen to final destination, and drones or self-driving vehicles could be new delivery systems. Computer-aided vision to monitor food preparation or measure cook time, AI demand-planning for inventory and employee schedules, and, yes, robot "chefs" are on the horizon or in early practice.

If the New York Times is intrigued by "ghost kitchens," wait until they get a taste of "robot kitchens." In the meantime, we'll be working with our restaurant customers to make sure their networks are ready for whatever the future brings.

