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How the Fast Food Industry can Protect Its Lunch (And Eat It Too)

The digital transformation of the industry.

by Xuesong Geng, Andrew Chin, and Andrew Chen

Fast food restaurants, as we know them, are ideal for grab-and-go customers. Industry players compete fiercely when it comes to providing consumer convenience, so they pick outlet locations where foot traffic is strong, such as shopping malls, community centres, airports, railway stations, or attractions like amusement and theme parks. The COVID-19 pandemic, however, has affected the fast food business dramatically as consumers switched from grab-and-go to getting their orders delivered to their homes. More and more restaurants, including those selling fast food, have adapted to this new norm by offering food delivery through online delivery portals like Grubhub, Zomato, Deliveroo, and Foodpanda, or the fast food provider's own app.

Providing a delivery option may not appear to be a notable change for fast food restaurants and chains. After all, preparing extra portions for non-dine-in customers or setting up a delivery portal seems simple enough. But online delivery has a catch. Outlets serving fast food are designed to rapidly deliver hot food bags to customers waiting in queues, so they manage their staffing and operations accordingly, based on periods of high peak and low peak consumer traffic. However, during the pandemic, online delivery became a survival necessity as considerable consumer traffic migrated online. For example, home delivery accounted for 32 percent of total sales for KFC and Pizza Hut in China in 2021, a 60-percent jump from pre-COVID days in 2019.¹ So this seemingly innocuous change is fundamentally changing the industry's operating model. For one thing, fast food restaurants are turning from consumption centres into fulfilment centres. Fast food businesses have had little choice but to rework their priorities across all facets of their business model, including

resource allocation and operations, as going digital is no longer a good-to-have, but a must-have.

In this article, by using examples from China's fast food sector, we look at the digital transformation happening in the fast food industry and analyse changes in practices and mindset shifts that have taken place. We explain how digital transformation efforts are profoundly reshaping business models, and propose a 3S model—Synchronised, Smart, and Systemic—with recommendations on how it can guide fast food players on their digital transformation journey.

THE TRADITIONAL FAST FOOD BUSINESS MODEL

The fast food business is a sizeable segment of most economies. In 2021, the global fast food market size was estimated to be approximately US\$648 billion and forecast to surpass US\$998 billion by 2028 at a compound growth rate of 4.6 percent annually.² Take China for instance. In 2022, this sector generated an estimated US\$184 billion in revenue, and provided employment to over 11 million people.³ Although the industry boasts many big players, the market is quite fragmented. Major international brands like McDonald's, KFC, and Burger King are the top choices in China. McDonald's, for instance, sold 50 million Big Macs burgers in China in 2017, with Beijing boasting the highest sales in the country.⁴ Local Chinese fast food brands like Daniang Dumpling, Real Kung Fu, and Malan Ramen also enjoy considerable popularity,⁵ and several local brands like Dicos and Wallace have expanded to the second- and third-tier cities in China.⁶ In fact, fast food penetration into the Chinese market has been remarkably high and eating fast food has become part of daily life for many Chinese.

The business model of most fast food providers is similar, with standardised food menus featuring burgers, fries, chicken wings, nuggets, ice creams, desserts, and beverages. The standardised menu and food preparation processes, along with the generally shorter time required to consume fast food, enables efficiency, quicker delivery and turnaround, and cheaper prices. While the paraphernalia of a typical full-service restaurant is missing, consumers generally do not mind self-service given the convenience and price. Additionally, economies of scale and outlet traffic are key requisites for fast food restaurants, as they guarantee higher revenues while keeping average costs low by spreading thin overheads. Traditionally, fast food restaurants are located in accessible and popular places to ensure high foot traffic, and the bigger the outlet, the better the economies of scale. However, landlords for such places tend to demand high rentals, which can erode profit margins. At the same time, fast food providers need to balance between high peak and low peak traffic in resource allocation across outlet locations.

Therefore, the choice of outlet location is a critical decision for any fast food business. The winning formula for traditional fast food businesses is simply to have more profitable outlets at the right locations. Accessible locations are an integral component of the value proposition for fast food consumers. However, if the fast food business generates more traffic online than at its physical outlets, the value propositions of physical outlets and their geographical attractiveness are diminished. Hence the new business model must focus on creating new value propositions to attract more online traffic and monetise it.

DIGITAL TRANSFORMATION OF FAST FOOD BUSINESSES

Digital transformation efforts are fundamentally reshaping the fast food sector's business models in the following three key ways: the shift from being outlet-centric to consumer-centric, the seamless integration of both offline and online models, and the use of data analytics as a new driver for competitive advantage.

Not just store-centric, but customer-centric

While the traditional offline fast food business model revolves around brick-and-mortar outlets and attracting customers to these outlets, the online model revolves around the individual customer, hence it requires a

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mindset shift. To begin with, the traditional model captures purchase and other business-related data by outlets, rather than by individual customers. This is because the identity of consumers is unknown to the fast food providers. As such, the unit of analysis for the traditional offline model is at the outlet level, that is, total revenue is determined by the number of outlets multiplied by the average revenue or profitability of each outlet. On the other hand, an online home delivery model allows the tracking of business data at the customer level, where total revenue can now be calculated as the number of consumers times the average revenue of each consumer. This data granularity at the consumer level allows food businesses to design more efficient and customised strategies for their customers.

Traditional marketing strategies aim to 'pull' consumers when they are in the vicinity of the outlet premises, whereas the online option allows for more 'push' promotions to alert consumers to product offerings regardless of where they are. With the consumer as the starting point, there are now many more scenarios under which consumption can happen, and the business logic becomes more about leveraging such scenarios to convert visiting consumers to regular patrons.

By focusing on different scenarios, fast food businesses can now customise their offerings for different consumer needs. An example would be how KFC China has developed new ways to cater to the gym-going crowd. The traditional solution would have most likely been to locate an outlet close to a gym, and the outlet would promote diet-friendly and healthier food like grilled chicken and salad. The new scenario-based digital approach enables KFC to develop new offerings and delivery options specifically tailored to this health-conscious profile. So in one scenario, those working out at gyms can order microwave-ready grilled chicken and enjoy a huge discount because the food can be delivered directly from the central kitchen, bypassing the need for physical outlets as the sites for



purchase and consumption. In another scenario, several people working out in the same gym may have a similar need, so they may opt for a group purchase through social commerce, thereby enjoying even bigger discounts.

Put in place hybrid online-offline processes

Fast food chains across the world are finding that their customers are increasingly shifting online. For example, more than a quarter of McDonald's sales in its six biggest markets come from digital channels. Yum! Brands generated more than US\$22 billion in revenue from digital channels in 2021, while Taco Bell generated more than 20 percent of its revenue from its digital channels.⁷ There has also been a considerable push towards gaining new customers through online channels. McDonald's, for instance, introduced a rewards loyalty programme in 2021 and attracted 21 million active users in just a year. Such trends indicate that customers are keen to go online, and this is especially true in growing markets like China, where companies like KFC and Starbucks reported obtaining 46 percent and 38 percent of their orders respectively from digital channels.⁸ It has thus become imperative for fast food businesses to integrate both online and offline models, which are two very different operation models that can sometimes come into conflict, and develop processes that can serve both online and offline customers efficiently. One such

key change is taking place during the customer acquisition process. In China, a KFC customer at a physical outlet can easily register for the loyalty programme using the KFC stand-alone app or the KFC mini-program in popular apps like WeChat or Alipay. This helps convert offline traffic to online traffic. Members then receive promotional offerings pushed by KFC, which can draw them to the physical outlet, so the online traffic converts back to offline traffic and real consumption. Such strategies can nudge customers to try new products (similar to how Apple aficionados are repeat visitors to the brand's flagship stores) and help dilute the geographic limitations of physical outlets in attracting consumer traffic.

Under the traditional model, the customer acquisition cost (CAC) is estimated through costs incurred on building and maintaining physical outlets. With the new digital business, the cost of online channels has to be factored in when calculating the CAC. For example, fast food providers in China can readily go online using third-party food delivery platforms like Ele.me (owned by Alibaba)

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or Meituan. But the dynamics across these intensely competitive platforms often lead to a 'winner-takes-all' situation, leaving only one or two players dominating the entire market. Their dominant market position means the cost of online delivery platforms becomes much more expensive than that for offline channels.

Another factor to consider is that with the online option, business processes will shift from being product-oriented to being service-oriented. With the knowledge on consumers, customer lifetime value (CLTV), rather than the value of each meal, becomes the focus of analysis and insights. This revised business logic also means branding becomes even more important for digital businesses in the fast food industry, and is the reason why popular fast food brands continue to develop new products to keep their offerings fresh and invigorate their brand. These efforts build trust with customer members, resulting in higher CLTV. They also help to retain flagship outlets at premium locations and boost branding efforts.

With more consumers migrating online, and orders streaming in from both online and offline channels, the process complexity invariably increases exponentially. One challenge is fulfilment both on the spot at restaurants and through delivery. The delivery of fast food is very time-sensitive—fries can taste stale and soda drinks can taste 'flat' when they are served or delivered late. It also does not help that consumers have lofty expectations of

the consistency for fast food items. Another challenge in the process is that the spike in orders during peak times can be multiple times higher. With the online option, the challenge becomes even more acute. Therefore, the capacity of information systems and predictive capabilities need to be scaled up and improved substantially.

To cope with such increasing complexity, fast food providers must consider business process redesign, including digitising and optimising existing practices. One way is to make visible, digitally tag, and streamline information from all operations. For example, fast food providers are installing IoT (Internet of Things) sensors in warehouses, centralised kitchens, and food preparation stations. This enables information on when supplies arrive and are used, as well as when the food is sold, to be collected, synchronised, and reported in real-time. Outlet managers can use smart devices such as smartwatches or smartphones to receive succinct, real-time information collected from these IoT sensors to make prompt adjustments to match fulfilment demands. Such revamped information systems help manage the increasing complexity of digital transformation.

At the same time, we need to recognise that online channels may also provide the solution for problems that have troubled offline businesses. For instance, it used to be that there was little outlet managers could do when they realised that food had been overprepared 30 minutes before closing time. This can be resolved digitally today. Through

apps and social media, managers may be empowered to broadcast to customers within a specified geographical range about huge time-limited discounts for online orders. Inventory waste can thus be reduced significantly through online channels.

Therefore, although the online model imposes unprecedented challenges for the traditional fast food business, it offers tremendous opportunities to unleash new potential in terms of revenue and profitability. Given the ever-increasing rental and labour costs, there has been a decrease in the average revenue and profitability of physical outlets. By integrating the online and offline models seamlessly, the revenue per square foot and per employee can now increase significantly. Hence the number and size of outlets need not be the only factors to focus on in the drive to improve performance.

Build a data-driven business model

As alluded to above, online channels highlight the increasingly significant role of data in digital transformation. This is the last piece of the puzzle to unleash the potential for fast food businesses in the digital era. Let us walk through an example about how a fast food provider sets up new outlets. Under the traditional model, it would start by looking for physical locations with high foot traffic. Given that there is typically only rudimentary and incomplete data to estimate potential foot traffic, it would invariably turn to known areas of high density footfall like shopping malls. Now with the online option, a provider can naturally offer a delivery option for many locations, but the problem comes when the waiting areas for delivery riders become overcrowded at those locations where real estate is premium.

How did some big fast food brands in China tackle this issue? By changing their mindset. For instance, one of the firms opened an online delivery-only outlet first, instead of a full-service outlet with a delivery option. This was a much cheaper option in some less popular locations. This way, it collected data on the location, and the customer consumption patterns around the location. Six months later, the company revised the configuration of outlets in the vicinity based on insights gained from the data analysis. It built full-service outlets at hotspots that were most profitable and kept delivery outlets that fit delivery patterns in the region, significantly lowering search costs for the best locations and ensuring that the decision is based on a more holistic reading of an entire city.



Such a data-driven approach is no longer a pipe dream. Enabled by the availability of granular data, leaders in the fast food business all over the world can now create tens of thousands of labels for individual customers, thus developing a deep and nuanced understanding of their consumption habits like order size and variety, or their demographic profile including gender variances and lifestyle habits.

As more data on consumers become available, fast food providers can use data analytics to provide even greater customisation for individual consumers, such as modifying their offerings through novel combinations or types of food and drinks, or offering new services in new settings like mini fitness stations and medical clinics. This data will also help them make more accurate predictions to cope with the operational complexity brought on by digital transformation. When the granularity of consumer data increases multifold, the total amount of data becomes gigantic. The demand for data capabilities multiplies further when providing customised services. The increased complexity in inventory control, fast-paced operations, resource allocation, and delivery fulfilment—all relies on the new capabilities developed to cope with big data.

As data becomes increasingly important to businesses, the cost of obtaining such information becomes a concern. For example, for fast food providers, third-party platforms may be reluctant to share data, or will only share partial data with them. As a result, they either miss out on valuable data and its associated insights, or acquisition of such data becomes too expensive. Therefore, many start to develop their in-house capability to build, collect, manage, and most importantly, own such data. They also develop the e-commerce, social commerce, and membership management capabilities to provide consumer-centric offerings through their own mobile apps.



THE 3S MODEL

Going digital is not just about creating an additional online channel on top of existing options. It is about transforming a traditional business by taking a fresh look at its value proposition and operational processes. The digital business will only become valuable when it can be combined seamlessly with the offline business. In this regard, it is not that the physical outlet or offline channels are outdated; instead, it is more a matter that the offline business model will have to be different and adapt to new ways to unleash its potential for value creation, together with the digital business.

Based on the analysis above on the importance of data in the digital transformation of the fast food sector, we propose a 3S (Synchronised, Smart, and Systemic) model to guide what a business should do regarding its data capability during its digital transformation. We believe this model can apply not only to fast food businesses, but also many other retail businesses.

First, with the omni-channel business model, data needs to be *synchronised* across every aspect of the business model and operations. At the front end, service for customers has to be seamless in different settings, regardless of whether the order is made online or offline. At the backend, the operational processes have to be automated, efficient, and able to deal with spikes and dips in demand. This normally implies that the data will have to be stored in some centralised place like the cloud. The real-time information will be collected from all aspects of the business through apps, websites, IoT sensors, POS (points of sale), or other physical terminals. The data will also be accessible from multiple points like the smart handheld devices of managers, instruction screens at food preparation stations for employees, and consumers' mobile phones. All the data should be synchronised such that only one source of accurate data will be provided to all users of the system.

Second, the data should enable the business to become a *smart* business. If data can be collected, analysed, and used to understand consumers better, businesses can produce better tailored offerings. A flywheel or virtuous cycle can form where better data translates into better service and helps attract more customers, which in turn generates more data for the business to become even smarter. This is already happening in many other retail businesses. For example, Hema Supermarket in China has developed an integrated system where it can intelligently prepare an online order for delivery under 30 minutes by combining

the deliveries of different customers in a single route. E-commerce giant JD.com has developed an integrated system to process orders through robots that can self-adjust according to the situation. The retailers can also use the insights generated from the data to create new scenarios and value propositions for consumers. For instance, Pinduoduo adds different grocery items to its vegetable stores depending on the different demographic profiles of consumers. While businesses are becoming smarter, their business models are becoming more heavily data-driven, so much so that this quality permeates every aspect of their operations, including touch points with their customers. Future businesses will thus become high-touch and hi-tech at the same time.

Third, the business needs to take a *systemic* view.⁹ It must be prepared to change its value chain and the way it co-creates value with partners when it builds its digital business. Fast food is only one of the many items the customer needs. There might come a time when different partners need to collaborate to create greater value for their customers. For example, the popular Chinese coffee chain Luckin has used data analytics to determine where to locate its outlets. To achieve this, it collaborated with Baidu Map to obtain location, traffic, and online activities data, which have been collected from the mobile users of Baidu Map services. Moreover, coffee consumption might be related to fast food consumption or shopping activities in a mall. What new products or services can be developed if we can combine these diverse types of data? This is when scenario-oriented and customer-centric data comes



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in to facilitate the conceptualisation and redesigning of products and processes. At the same time, the business needs to better protect its data, while also figuring out how to share it more efficiently with its partners and other providers (e.g., data marts), so as to monetise the data for revenue and insights.

THE FUTURE OF FAST FOOD BUSINESSES

We hope this article has provided some food for thought on how the fast food industry players can be better prepared for a post-pandemic world. Even when public health restrictions are lifted, food delivery as an option is here to stay. Consumer behaviour has indeed fundamentally changed. Online and offline integration will become the new normal. And fast food providers will need to be guided by a synchronised, smart, and systemic business model to succeed in their digital transformation. [AMI](#)

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