

# The Impact of Internet Platforms on the Catering Industry

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**Abstract.** This paper aims to discuss the effects of Internet platforms on the catering business, particularly on food delivery services and online reviewing and booking platforms like Dianping and Meituan. In the light of the strategy and finance, this paper scrutinises these platforms to understand how they have transformed the restaurant sector, altered customer habits and affected the market. The paper aims at identifying and explaining the different roles that have been introduced in the market by these platforms and the effects that have come along with them. Furthermore, this paper is also an attempt to explore the possibility and threats of those new technologies to let people understand that restaurants must transform and change their strategies because the world is continuously advancing. Finally, the conclusion is made to demonstrate that restaurants have to become more digitised to sustain and thrive in this market. Embracing digital change is essential for future success.

**Keywords:** Internet platforms; Food delivery; Restaurant Business.

## 1. Introduction

Internet technologies have developed quickly over the years and impacted many industries, and the catering industry has not been exempted. The internet has changed how restaurants are managed, and consumers relate to food delivery services through online platforms and reviews. This paper investigates the various effects of these Internet platforms on the catering sector, especially on food delivery services and well-known review/booking sites in China, such as Dianping and Meituan.

## 2. An Outlook of Internet Platforms in The Catering Industry

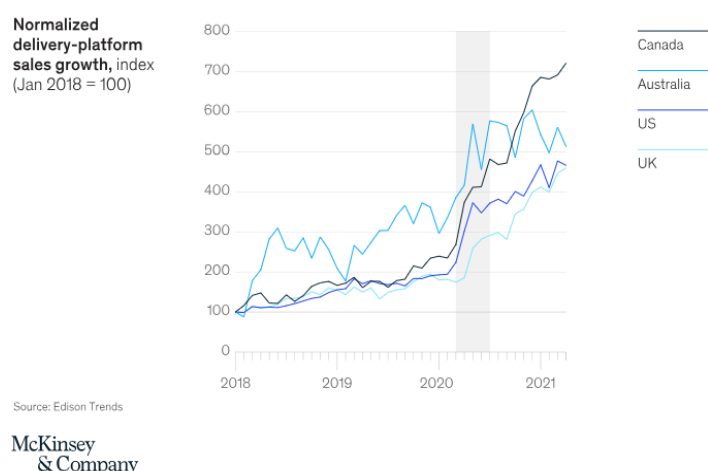
### 2.1. History of Food Delivery Platforms

Food delivery service is not a new concept that has just come to the market, but the new internet platforms have changed the scale and availability of food delivery services. The first online food ordering service, World Wide Waiter, now known as Waiter.com, was established in 1995 [1]. However, the further development of online food delivery began only at the end of the 2000s, when companies like GrubHub in the United States and Deliveroo in Europe started. In China, Ele.me, launched in 2008, created the online food delivery segment [2].

### 2.2. Growth of Review and Booking Sites

In concordance with the growth of delivery platforms, review and booking sites have become very popular, moreover, the food delivery industry experienced a dramatic surge in sales after the onset of pandemic-related lockdowns (See: Figure 1). Yelp, which started its operation in 2004, was already a significant player in the Western market, while Dianping, which began operation in 2003, was already a leader in the Chinese market [3]. One of China's most prominent O2O (Online-to-Offline) services is Meituan, which started its operation in 2010 and became a serious rival; in 2015, it merged with Dianping [2].

Since pandemic-related lockdowns started in March 2020, the growing food-delivery business has spiked to new heights in the most mature markets.



**Figure 1.** Food Delivery Sales Growth Post Pandemic

## 2.3. Market Development

The global online food delivery market has grown rapidly and exponentially to be worth over one trillion U.S. dollars in 2023 and is expected to grow to US\$1.20tn in 2024 [4]. The market size of online food delivery in China was calculated to be US\$ 74.2 billion by 2023 (See Table 1), with an annual growth rate of 10.3% [5]. This rapid growth has resulted from the rising mobile phone usage, especially smartphones, growth in urbanisation and alteration in consumer behaviour [2].

**Table 1.** China Online Food Delivery Market Size

Report Attribute	Key Statistics
Base Year	2023
Forecast Years	2024-2032
Historical Years	2018-2023
Market Size in 2023	US\$ 74.2 Billion
Market Forecast in 2032	US\$ 184.1 Billion
Market Growth Rate 2024-2032	10.3%

## 2.4. Present Scenario of the Catering Business

These technological advancements have significantly disrupted the traditional catering industry. Restaurants are no longer competing for consumers' patronage based on the quality of their food, store atmosphere, where they are found online and what consumers say about them. The impact of the COVID-19 outbreak has continued to push users to digital solutions, and restaurants are no exception as they had to rely on delivery services during lockdowns and social distancing [6].

## 3. Analysis of The Internet Platforms Strategic Effects

### 3.1. PESTEL Analysis

Political factors are gradually emerging as the governments of different countries come up with questions regarding labour employment and market regulation concerning food delivery platforms [7]. On the economic impact, these platforms have provided additional sources of revenue to restaurants; however, they also have new costs in the form of commissions that may challenge restaurants' profit margins [8]. On the social level, there is a change in expectations and demands of the population, especially the millennial generation, who prefer not to engage with the service providers personally and prefer easy access to food delivery services and the option to read other customers' reviews online [9]. In terms of technology, they are not static, and progress has been made

with the help of improvements in mobile platforms, artificial intelligence, and data processing [6]. Environmentally, growing worries about the impacts of packaging waste and delivery emissions have significantly increased because of e-commerce [9]. In the legal sense, new legal issues concerning data privacy, fair competition, and workers' classification are emerging in the industry [7].

### **3.2. Porter's Five Forces**

The threat of new entrants is moderately high since the growth of network effects that positively affect mature platforms is possible while the market is still open for new players who can create new solutions. The bargaining power of suppliers, especially restaurants, can be considered low/moderate; while many independent restaurants have little clout against the giant platforms, the high-traffic restaurants can negotiate better terms of cooperation. The bargaining power of buyers or consumers is high due to the availability of many platforms and the ability to change them. The threat of substitute products is moderate; however, going to a traditional dining restaurant or home-cooked meal is still possible, but the convenience of the platforms cannot be ignored. Lastly, competition is stiff because current players are involved in a race to capture market share and acquire restaurants.

### **3.3. SWOT Analysis for Restaurants that Changed Their Business Model to Internet Platforms**

The strengths of virtual restaurants are excellent coverage and awareness, customer information and analysis, and the ability to reach customers beyond geographical locations. Nevertheless, there are weaknesses, namely, dependence on other platforms or applications, relatively low margins due to commissions, and lack of direct control over customers' purchasing experience when receiving orders. Opportunities stem from diversifying the number of the restaurants' locations, attracting clients of different profiles, responding to the issues linked to virtual kitchens, and applying analytics for menu creation and restaurant advertisement. On the other hand, threats are challenges such as intense competition that virtual restaurants experience, brand dilution, and sensitivity to nasty comments.

## **4. Financial Impact Analysis**

### **4.1. Revenue Changes For Restaurants**

Including food delivery platforms has shifted the revenue model of restaurants significantly. Research shows a 30-50% sales boost for restaurants that engage with such platforms [6]. This has helped create extra revenues, especially during the low traffic and for outlets in less busy areas such as in the evening. However, the financial gains are not as cut and dry. The commission charged by the platforms varies between 15-30% of each order value, which can significantly reduce the profit [8]. Further, restaurants experience augmented packaging costs, extra human resources, and upgrading the technology for handling delivery orders. While gross revenue may rise, net profitability, on the other hand, may be hard to sustain, let alone improve, especially for establishments operating on very tight margins.

### **4.2. Profitability Ratios**

#### **4.2.1. Impact On Profit Margins.**

Delivery platforms have created a mixed effect on restaurant profit margins. According to the study conducted by Hwang and Kim in 2019, it was identified that restaurants' profit margins were reduced by 5-8% after the integration with delivery platforms, although sales growth was noticed. This is mainly due to high commission charges levied by the platforms and the extra costs of preparing food for the delivery mode. Such costs include the cost of packaging, extra cooks to meet the large number of orders, and possible changes in menu prices to offset the fees of the platforms. Also, the transition to delivery may affect the sales of additional items and products, such as drinks and desserts, which

would also affect profitability. Thus, Gourmet eateries have no option but to rethink the price structures, menu and operating models to sustain reasonable profit margins in this new environment.

#### **4.2.2. Fluctuations In The Return On Investments.**

The ROI that restaurant businesses with Internet platforms achieve depends on the kind of business the restaurant is. Restaurants that operate efficiently, offer popular food items, and possess a strong brand image are likely to realise positive ROI from platform partnerships. Such enterprises can secure more orders, minimise marketing expenses, and, thus, cover the costs of platform commissions and other expenses [10]. However, restaurants with low margins or less customer preference for their foods may be unable to make a positive ROI. These are the restaurant location, type of food offered, current profit margin, and the restaurant's efficiency in managing its operations for deliveries. Others have seen it wise to develop delivery-only options or virtual kitchens to increase their efficiency in the business. The ROI can also be affected by the restaurant's bargaining power with the platforms or by building its delivery network to reduce reliance on third-party companies.

### **4.3. Operational Efficiency**

#### **4.3.1. Table Turnover Rates.**

Online platforms such as Dianping and Meituan have completely transformed table management for restaurant-oriented dining establishments. The restaurants using these platforms experienced a 15-20% increase in the table turnover rates [3]. This improvement is mainly due to a lower no-show rate and better capacity planning. By using the online booking system, restaurants can estimate customers' movement, the restaurant's space configuration, and waiting time. They may include a reservation deposit or a cancellation policy that will help reduce cancellations at the last minute and no-shows. In addition, these systems also help gather data on the customers' choices and when they are most likely to order food, which helps manage the staffing and inventory in restaurants. The turnover rates mean more revenues per table and better organisational productivity, especially during the busiest meal times.

#### **4.3.2. Order Processing Efficiency.**

Most restaurants have recorded significant improvements in their order processing through the help of food delivery platforms. It was observed that restaurants adopting third-party order management systems integrating with delivery platforms saw their order processing time cut by a third [6]. This improvement is a result of the following factors. Firstly, digital ordering systems help reduce human errors in the taking and passing of orders to the kitchen. Secondly, integrated platforms enable restaurants to have convenient interfaces that help manage orders through easy confirmation and preparation initiation. Also, these systems can sort orders by preparation time and delivery distance, which helps organise the kitchen line. It is also expected to find platforms that provide real-time updates to customers and thus save staff time on order status inquiries. The former aspect of efficiency also enhances customers' overall satisfaction due to the quick delivery of services, while the latter aspect implies that restaurants can address the requests of more customers using the same resources and thus increase overall profits.

### **4.4. Cost Structure Changes**

The use of Internet platforms has brought changes in the cost structures of restaurants. While reducing some traditional costs (e.g., front-of-house staff for delivery-focused operations), it has introduced new expenses such as transaction commission to platforms (15% to 30% of the order value), investments made for technological platforms and for managing the platform itself and possible necessity for modification of the kitchen layout to accommodate a higher amount of deliveries.

## 4.5. Investment in Technology

Due to the new market structure where platforms play a significant role in the business, most restaurants have had to expand their capital based on technology, which includes elements such as the POS systems that are linked to delivery solutions, ordering systems located in the kitchen to handle several orders at once, tools and technologies used in data analysis for menu optimisation and customer profiling and online ordering systems for their website to minimise third-party platforms. 63% of restaurant operators invested in technology due to delivery and online ordering services.

## 5. Conclusion

The role of Internet platforms in the catering industry can be described as rather influential and diverse. Although these platforms have opened new possibilities for development and market expansion, they also have brought new problems, especially in revenues and business management.

Some restaurants that adapted to this new environment have effectively adopted the platforms' best features while avoiding pitfalls. This is usually done by balancing platform-dependent and proprietary investments and operational excellence.

Regarding future development, the application of Internet platforms in the catering industry seems to be an unchangeable trend. Thus, restaurants must keep up with these technologies as the market becomes more digital, and their strategies must be adjusted constantly. Therefore, it can be expected that the success of restaurants in the future will depend on how these platforms are effectively utilised without losing the identity of the restaurants and the established relationship with the customers.

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