



How Does Online Ordering Affect the Restaurant Industry

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Abstract. In modern society, more people have decided to eat by ordering deliveries rather than visiting physical restaurants. This is becoming an increasing trend that influences almost everyone nowadays. The question arises: What will happen to physical restaurants? Will their profitability be negatively affected due to less demand? Therefore, I have chosen this topic to assess the effects of the gradually increasing online ordering platforms on physical restaurants. In this essay, we will first talk about the current trend and market situation, how this trend started, and whether this trend changed the consumer's behavior. We shall examine the theoretical benefits of online ordering and how they can affect the demand for physical restaurants. Then, we will reveal how previous research and reports have approached this and whether online ordering can increase the sales revenue of physical restaurants. After this, we will examine the correlation between the users of delivery apps and the sales revenue of US restaurants. Finally, developing an online ordering system will benefit physical restaurants by increasing their sales revenue from methodologies and analyzing and explaining the reasons and possible causes. This work has been done to address how physical restaurants can ride on this trend and boost their sales revenue through online order platforms.

Keywords: Benefit, effects, trend, boost, sales revenue.

1 Introduction

The rapidly changing food sector has pushed technology to the forefront, radically changing how restaurants run and interact with customers. One of these recent technological breakthroughs is placing an order over the Internet. Given the popularity of Internet shopping and meal delivery services, many traditional American restaurants are beginning to evaluate the benefits of providing online ordering alternatives. The subject is whether online ordering may increase revenues at traditional American eateries. In this context, before concluding that online ordering is a valuable tool for increasing sales revenue, evaluate the advantages it may give to genuine restaurants. Online ordering has revolutionized how people think about dining out because of its accessibility and convenience. In today's fast-paced environment, consumers frequently look for

quick, straightforward solutions that meet their schedules. Internet orders fill this demand by enabling customers to browse menus, place orders, and pay from the convenience of their homes or places of employment at any time of day or night. This convenience aspect directly contributes to physical restaurant sales growth. According to [1], restaurants' customer base has increased by around 30% in recent years. Restaurants can target consumers who require extra time or prefer to eat in person by providing several online ordering choices. Our clientele may include anxious professionals, families with young children, and people looking for crowded venues.

Online ordering can significantly affect the revenues generated by physical restaurants [2]. As it suggests, the most significant advantage of online ordering is that it can attract more customers from different areas within a region while providing a more convenient way of ordering to keep the existing ones coming back, increasing restaurant revenue and thus increasing sales revenue. Increasing sales revenue is generated from more customers and reduced costs; physical restaurants can profit better because of lower labor costs. Online ordering can help physical restaurants improve their output without needing more labor.

To assess and prove the accuracy of the theoretical assumption, we need to examine the ideas and investigations based on previous research while simultaneously providing our way of measuring to ensure that the latest statistics are gathered and show the most precise result.

2 Literature Review

The rise in internet ordering has conflicted with how much profits traditional eateries make. Some assume that developing and using online ordering systems will help physical restaurants increase profits; some believe online ordering will negatively affect the demand for authentic restaurants, thus leading to a decline in the restaurant industry. We can use the most updated research from the past three years to compare and contrast different perspectives and arguments that have arisen for this topic discussed.

On the one hand, internet ordering systems have given restaurants new ways to connect with patrons and increase income. According to the National Restaurants Association [3], restaurants have made around 90 billion dollars in profits this year, and a significant amount was attributed to online ordering. Online ordering's accessibility and ease have drawn more consumers who otherwise might not have visited the restaurant.

Online order has many benefits, including its capacity to transcend geographical boundaries [4]. Restaurants can now offer services to patrons outside their immediate neighborhood and serve patrons from other sections of the city or even from other towns altogether. At the same time, consumers can access a variety of food without worrying about the distance. The increased reach gives restaurants access to new audiences and new opportunities for revenue generation.

Additionally, customers may easily find and explore restaurants thanks to online ordering services [4]. Customers may peruse various selections, investigate menus, read reviews, and make a well-informed decision from the convenience of their homes or offices. Due to the comfort of access, restaurants may present their menu items in a way

that is both aesthetically pleasing and user-friendly, luring customers in to test their food.

However, several authors and authorities point out that online ordering harms the restaurant industry more than benefits. Online order has advantages but can also present problems that could hurt traditional businesses' earnings.

Many argue that online ordering systems often charge restaurants for listing their menus and processing orders [5]." For the past twenty years, this network of third-party delivery services has killed businesses off one by one. A 5 percent per order cost for restaurants in the early 2000s increased to 15 percent by 2010 and now stands closer to 30 percent. As fees have risen, businesses have been waging an uphill struggle."

These fees can severely impact restaurant profit margins, especially for smaller businesses with little funding. The cumulative impact of these fees can erode online purchase income, decreasing overall profitability.

In conclusion, while internet ordering has benefits, it also has drawbacks that could hurt physical eateries' bottom lines. Despite some potential negatives, internet ordering systems have benefited the restaurant sector in many ways. In this article, we shall examine, through transparent methodologies, how the online ordering system brings convenience to the industry while benefiting physical restaurants.

3 Methodology and Data

According to a recent Fundera report on food delivery and online ordering statistics, 60% of American consumers order takeout or delivery at least once a week, with online ordering growing 300% faster than in-house dining.

Figures released by Statista predict that the online food delivery market in the United States will reach \$231.3 billion in 2023 and be on track to hit a value of \$384.7 billion by 2027 [6].

Table 1. Market records and predictions

| Percentage of online ordering attributed to the restaurant industry | United States Market 2023 | Predicted United States Market 2027 | Historical demand growth since the Covid pandemic |
|---|---------------------------|-------------------------------------|---|
| | 231.3 billion dollars | 384.7 billion dollars | 8% |

According to the market analysis (Table 1), to prove that the increase in online ordering leads to a rise in the restaurant industry's revenue, we must find a method that shows the positive relationship between the two. Therefore, the total income from the beginning of 2010 to the end of 2019 of all restaurants in the US has been gathered, as well as the number of users of delivery apps. The data will be constructed into line graphs, and the slope of each line will be shown.

Table 2. US restaurants and other eating place sales revenue [7]

| Fiscal year | Annual restaurant sales revenue (Millions of Dollars) |
|-------------|---|
| 2010 | 401956 |
| 2011 | 428188 |
| 2012 | 453168 |
| 2013 | 471924 |
| 2014 | 503023 |

Table 3. US restaurants and other eating place sales revenue [7]

| Fiscal year | Annual restaurant sales revenue (Millions of Dollars) |
|-------------|---|
| 2015 | 546140 |
| 2016 | 573325 |
| 2017 | 604128 |
| 2018 | 638601 |
| 2019 | 674032 |

Table 4. Number of users of the delivery app in the US [8]

| Fiscal year | Number of users of the delivery app in the US (Million) |
|-------------|---|
| 2015 | 66 |
| 2016 | 75 |
| 2017 | 81 |
| 2018 | 88 |
| 2019 | 95 |

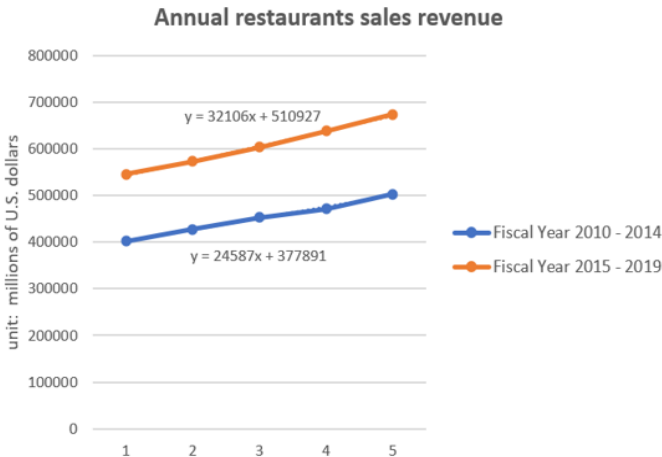


Fig. 1. Annual restaurant sales revenue 2010 to 2014 2015-2020 (7)

Note: "Search Results | FRED | St. Louis Fed." Fred.stlouisfed.org, <https://fred.stlouisfed.org/searchresults?st=u.s+restaurants>. Accessed 20 July 2023.

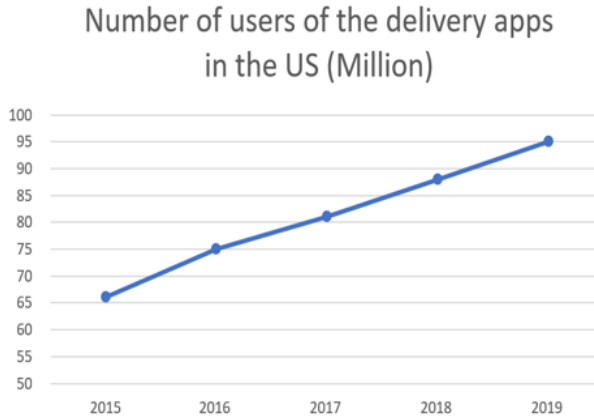


Fig. 2. Number of users of delivery apps in the US [8]

Note: Flynn, Jack. “18+ Food Delivery Statistics [2022]: Online Ordering Industry Numbers You Need to Know – Zippia.” Zippia, 2 Feb. 2022, www.zippia.com/advice/food-delivery-industry-statistics/.

I have obtained data on the sales revenue of all physical restaurants in the United States from 2010 to 2019. Since all the raw data obtained were monthly, I have summarized them to show a complete yearly report. I have chosen data from 2010 to 2019 to offer a whole decade trend of sales revenue of physical restaurants and, at the same time, compare the increasing slope before and after online delivery apps were established. I have yet to include further data after 2019 as COVID-19 has decreased sales revenue of physical restaurants significantly, disrupting our investigation pattern. Then, data have been proceeded into two comparative trends using the Ordinary least squares method.

Figure 1 shows the trend of the constantly increasing annual restaurant sales revenue in the United States from 2010 to 2019. I have split the decade and analyzed them comparatively to indicate the effect online delivery has on the industry.

4 Result and Discussion

As Figure 1 shows above, the sales revenue of domestic US restaurants has constantly been increasing in the past decades. By the decade's end, the annual revenue had grown from 401956 million US dollars to 674032 million US dollars.

What needs to be noticed is that the sales revenue from the fiscal year 2015 up to 2019(see Table 3) shows a more significant trend of increasing than the growth rate from 2010 to 2014(see Table 2). The slope from 2015 to 2019 is much steeper than from 2010 to 2014. As Figure 1 shows, the hill of the fiscal year 2010 to 2014 is 24587, which is less than the slope of the fiscal year 2015 to 2019, 32106. This shows that the increasing trend after the establishments is a lot faster. This fact correlates with the rapid rise of online ordering systems, as major online delivery apps such as Ubereats

and Doordash were first introduced in 2013 and 2014 and became viral in the coming years. This data trend can be seen in Table 4 and Figure 2, which shows that online delivery users have risen from 66 million dollars in 2015 to 95 million in 2019, and this continuously increasing trend shows a positive correlation with the increasing trend of sales revenue of the US restaurant industry. Increased sales of restaurants correspond with the growing restaurants' income from the National Restaurant Association. As discussed in the literature review, utilizing online ordering platforms allows restaurants to reach a broader customer base, which is far outside their neighborhoods, which allows restaurants to have a more significant customer base, thus increasing sales; at the same time, personalized services enable the restaurants to have more precise demand of their customers, which attract more eaters. Also, the growing sales revenue of physical restaurants has proven the argument mentioned by precious research that online platforms charge too much processing fees, which can leave restaurants with no profit. Restaurants don't lose revenue from paying the expense but gain more income due to the more customers acquired through the apps. From the figures and tables above, we can conclude that annual sales increased steadily, along with the increasing number of users of these apps. Therefore, it clearly shows that as the number of users of delivery apps increases, the sales revenue of physical restaurants also increases. In other words, online ordering increases demand for the restaurant industry and boosts industry revenue, not hurt the restaurant industry.

5 Conclusion

In conclusion, this shows a positive correlation between the two and proves that the rise of online ordering systems benefits physical restaurants. The graph has shown a more significant trend of increase and a positive correlation between the rise in online ordering app users and sales revenue of restaurants in the past half-decade. The slope of the movement from 2015 to 2019 is proven to be steeper. Thus, as online delivery apps grow and develop, they help physical restaurants increase sales revenue. The increasing use of online ordering benefits physical restaurants by assisting them to improve their total sales revenue in various ways. At the same time, online ordering helps restaurants in the short and long term. This is due to its capacity to adapt to changing trends, as mentioned in the introduction session. Consumer preferences and behavior are constantly evolving, and so is the restaurant industry. Restaurants may respond more readily to these improvements if they provide online ordering.

However, this does not necessarily mean that restaurants' profits would increase as the sales revenue increases. This is due to many reasons. As physical restaurants adapt to online ordering systems, a significant amount cost of sales would increase correspondingly which the businesses would pay more expenses to utilize the platforms as tools, such as Commission fees to the app, the cost of setting up and maintaining the app, advertising fees on the app, higher labor costs as the demand increases. All of them need to be considered when calculating the restaurants' profit. Also, the above data and analysis only depict a broad image of the revenues of the whole industry. It only shows

the well-being and effects of the restaurants from a macro view. This means it does not consider those specific types of restaurants or brands affected negatively.

I would like to use this result of the research to describe a general trend in the relationship between online food ordering and physical restaurants. By having this knowledge of increasing trends, I can utilize the information and encourage more restaurants to be familiar with the benefits, thus using the platforms as a tool for growth. This would not only help with the development of the restaurant industry but also the nation's economy.

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