

The Effects of Covid-19 on the Online Food Delivery Industry

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ABSTRACT

The Covid-19 pandemic is one of the major worldwide crises in the 21st century. The pandemic has caused a significant impact on different parts of the world. This paper will focus on the effects of the Covid-19 pandemic on the online food delivery industry. The effects are divided into several parts: company's performance, industry's development, and further development. The analysis will be made by comparing the data collected from companies in the online food delivery industry. As a result, there are both positive and negative effects where the pandemic provided a suitable condition for online food delivery companies to promote their service. Also, the pandemic attracted more new users to utilize the industry. However, the negative impact is that the pandemic may trigger the acceleration of market saturation and reduce the market potential. Moreover, suggestions are given to the government and companies to improve the industry under the effects.

Keywords: Covid-19, Online Food Delivery, Industry, Effects, Suggestions

1. INTRODUCTION

Industry could be affected by various factors. For example, political, economic, social, technological, environmental, and competitive[1]. The factors like the social environment at that time contribute to the observable change in an industry. Due to the Covid-19 pandemic, almost every industry is impacted both positively and negatively. At the industry level, sectors such as transport are likely to be output-constrained by demand shocks, while sectors relating to manufacturing, mining, and services are more likely to be constrained by supply shocks. Entertainment, restaurants, and tourism face large supply and demand shocks[2]. The effect is closely related to the imbalance in demand and supply. This comes across as a true statement for all industries including the food delivery industry. In a general sense, the pandemic has brought the industry unprecedented developments and advantages are often concluded. "Sales for the U.S. food-delivery business were about \$51 billion last year, increasing by \$28 billion from 2019"[3]. In terms of economic performance, the data presents considerable outcomes which other industries could not achieve. However, it is important to figure out whether the effects are positive or negative or both ways after identification with a broader consideration of different facets. In this paper,

the effects brought by the Covid-19 pandemic will be sought and discussed. The effects will be found by using data analysis of representative companies in the food delivery industry in the world such as Uber Eats, Grubhub, Doordash, Instacart, Meituan. Also, secondary data and literature will be reviewed to perform the analysis.

2. ANALYSIS

The effects would be analyzed with a time assumption of the emergence of Covid-19 pandemic. The effects on the performance of companies, development of the industry and further development would be discussed and identify whether they are positive or negative effects on the industry. Suggestions on improving the online food delivery would also be presented.

2.1. Chronological Assumption

In order to investigate the impact brought by the Covid-19, a timeline has to be made. On 30 January 2020, the WHO declared the SARS-CoV-2 outbreak a Public Health Emergency of International Concern. Thus, by February 2020, less than 2 months after the first reports, the new disease had been named COVID-

19 and three key features had been established that set it apart from the previous coronavirus outbreaks: an efficient person-to-person transmission; the strong signs that people could transmit the virus before, or even without ever, showing symptoms; and its longer incubation period of 5.7 days (pooled mean) than that of SARS-CoV (mean incubation time of 4.0 days) and MERS-CoV (range of incubation times from 4.5 to 5.2 days)[4]. The author assumes that the existence of Covid-19 is widely known by the governments and individual citizens in the early period of 2020. As a

result, the premise is introduced that the effects of Covid-19 would first be reflected in the year 2020 rather than 2019 due to a lack of information made available to the public.

2.2. Effects on the Performance of the Companies

First of all, the performance of a company could be indicated by data like sales and revenues. From referred data, revenue analyses are made as follows:

Table 1: Annual revenues of the companies

Companies/Revenue	2017	2018	2019	2020
Uber Eats	600,000,000	1,500,000,000	1,900,000,000	4,800,000,000
Grubhub		1,007,257,257	1,312,151,000	1,819,982,000
Doordash		291,000,000	885,000,000	2,886,000,000
Instacart	300,000,000	525,000,000	735,000,000	1,500,000,000
Meituan	33,927,987,000	65,227,278,000	97,528,531,000	114,794,510,000

Table 2: Percentage increases of annual revenues of the companies

% change of revenue	Uber Eats	Grubhub	Doordash	Instacart	Meituan
2018	150.00%			75.00%	92.25%
2019	26.67%	30.27%	204.12%	40.00%	49.52%
2020	152.23%	38.70%	226.10%	104.08%	17.70%

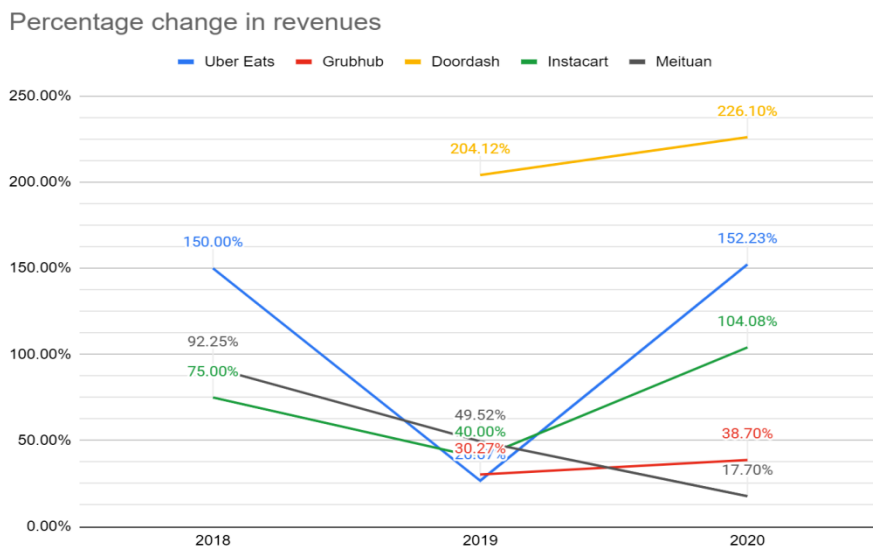


Figure 1: Percentage increases of annual revenues of the companies

From Table 1, it can be observed that for Uber all 5 companies, they have positive growth in their sales during 2017 and 2019. As shown in Table 2, their growth percentages are positive but show decreasing momentum. Uber Eats had a 150% increase in 2018 while the increment is lowered in 2019. The reason behind is deducible. USDA figures show that food away-from-home expenditures have grown to 47 percent of total household food expenditure, while food-at-home expenditures have fallen to 53 percent[5]. This implies that people are starting to consider dining meals different from homemade ones. Therefore, food delivery services like Uber Eats showed a skyrocketing increase as it was launched in the year of 2014. People are starting to understand the existence of the service and further utilize it in their daily life. However, the stimulation of the emergence of new dining styles fades over time, causing revenue to grow in a smaller range each year.

Meanwhile, the Covid-19 seems to be the new stimulus to the industry. The coronavirus (COVID-19) pandemic, and the associated preventative measures (such as ‘stay at home’) introduced in Germany in March 2020, caused severe societal and economic restrictions as well as an enormous surge in digitalization[6]. The measures taken by the government of most countries like “stay at home” is one of the significant stimulus to the industry. Due to the nationwide lockdown, many individuals were forced to stay inside their homes and they preferred to buy food items through OFDs[7]. This political decision is favorable to the food delivery industry since it is able to showcase its irreplaceable advantages that conventional dining style could not provide. Online food delivery service is more convenient due to its well-developed

user interface and ordering systems; it provides a wide variety of food choices as it has more partnerships with restaurants; it is safer under pandemics since customers enjoy the service while staying at home. OFDs have perceived benefits like contact-free delivery and e-wallet payments, which can reduce the risk of COVID-19 spread[7]. Thus, people tended to choose the service and adopt it into their daily life.

The favorable benefits received by the food delivery industry is represented in the data as well. Refer to Table 2, the percentage change of revenue has surged for every company except Meituan due to its originally stable coverage in China. According to Figure 1, there is an obvious difference in the pattern after 2019 showing the positive effects brought by the Covid-19. As a whole, sales for the U.S. food-delivery business were about \$51 billion last year, increasing by \$28 billion from 2019, according to the authors. Using credit-card, geolocation, and restaurant-listings data, they found that about \$19 billion, or around 70% of last year’s growth, was “purely due to the pandemic.”[3]. Therefore, the first effect brought by the Covid-19 is the positive stimulus to the food delivery industry.

2.3. Effects on the Development of the Scale of the Industry

An Increase in the revenue can be also associated with another indicator, the development in the scale of the industry. The scale of the industry can be also represented by the active users of the online food delivery platform. Under the pandemic situation, not only had the food delivery orders increased, but also the number of users who are new to the food delivery services. The figures are produced as follows:

Table 3: Active users per annual of the companies

Companies/Users	2017	2018	2019	2020
Uber Eats	9,000,000	15,000,000	21,000,000	66,000,000
Grubhub		17,688,000	22,621,000	31,417,000
Doordash		4,000,000	10,000,000	20,000,000
Instacart	3,300,000	4,300,000	5,500,000	9,600,000
Meituan			450,500,000	510,600,000

Table 4: Percentage change in active users per annual of the companies

% change of users	Uber Eats	Grubhub	Doordash	Instacart	Meituan
2018	66.67%			30.00%	
2019	40.00%	27.89%	150.00%	27.91%	
2020	214.29%	38.88%	100.00%	74.55%	13.34%

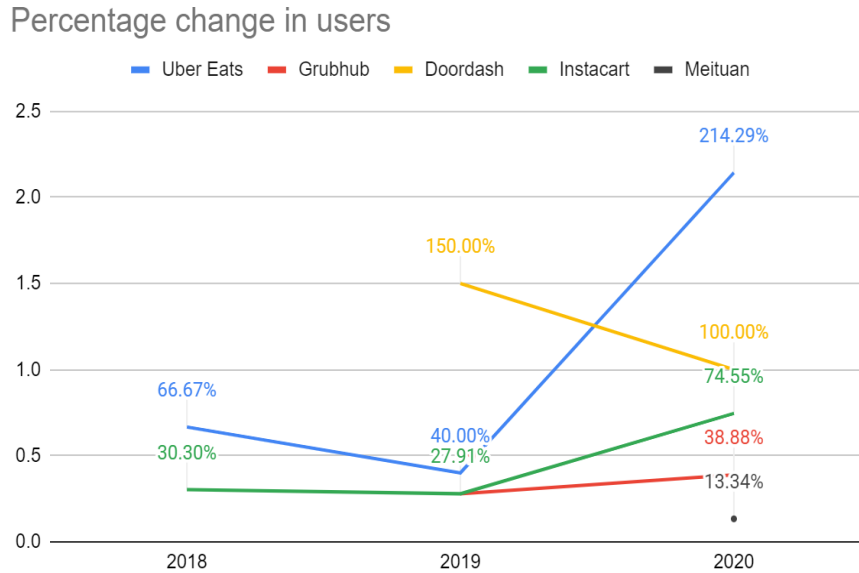


Figure 2: Percentage change in active users per annual of the companies

From Table 4 and Figure 2, there are positive growths for every company during 2018-2020. Meanwhile, there is a drastic increase in the percentage growth of Uber Eats and Instacart in 2020 which are 214.29% and 74.55% respectively. More and more people are turning to food delivery in recent years because of the current pace of life as well as the opportunity to discover more restaurants that food delivery offers[8]. This is likely the major reason for the increase in users during 2017-2019. We live in a fast-growing, technology-based money motivated world, leaving us no time to spare in for our work, family, friends, exercise, and events[9]. The fast-paced life gives people less and less time to do tedious routine work especially for those who are living alone. Plus, the household structure in modern society plays a role in it. The number of people living alone is increasing much more rapidly than the total population of the United States. In the period since 1960, approximately one-third of all new households contain but one person[10]. However, after the pandemic, it further accelerated the growth of the industry. Since those who had never used online food delivery services were influenced by different parties like government, peers, family members and service providers. The pandemic gave these new users a perfect environment to continuously use online food delivery services. This led to the significant increase in the service users. Therefore, the pandemic also affected the industry to grow rapidly.

2.4. Effects on the Further Development

Although the pandemic has facilitated a quick and significant development of the food delivery industry, it may still have a backlash. As the industry is on an

unstoppable wave, it attracts investors to join the industry, this is going to quicken the market saturation where the service in the marketplace would be maximized. Delivery services like DoorDash have arguably had greater leverage during the pandemic as many restaurants are more reliant on reaching customers at home, but the pendulum may swing the other direction post-pandemic[11]. As the vaccines become available, the demand for online food delivery services emerged from both restaurants and customers decreases. This poses a possibility of decreasing revenue in the whole industry. The effects will be more obvious as the pandemic goes on. However, it is possible that the users will continue their consumption behavior fostered during the pandemic but it will only in maximum maintain the market share but not an increase.

The market is expected to reach \$192.16 billion in 2025 at a CAGR of 11%[12]. Due to the high potential in the food delivery industry, it is projected to have more entrance of startup food delivery companies. With the explosive growth in the number of competitors within the industry, it may trigger virulent price competition(Price War) in order to attract customers using their services. However, virulent price competition can lead to a collapse of an ordinary pricing mechanism which could signal the market incorrect information. This is unfavorable in the sense of resource allocation as the price could not play the role to adjust the market. Plus, the price war will eventually drive small and micro corporations out of the industry as large corporations are more able to endure the low profit or even negative profit operation in the long term. Without effective competitors, a monopoly will be formed and the pricing power would be obtained by the only corporation and the market price will be decided by the

corporation. Monopoly can lead to an inefficient market with the existence of deadweight loss. The industry will be under a virtuous circle and lead to a recession of the industry.

3. SUGGESTION

In order to maintain a sustainable and competitive market, suggestions are made to companies and the government.

For companies, market saturation could be tackled by differentiating one from another in terms of the service, companies can consider establishing unique aspects of the service to attract the customers to use their services instead of others. To achieve this, the companies will need to allocate resources to understand the competitors and prevent developing similar features. Also, the companies can advertise their service in areas with lower coverage to attract both customers and collaborators in order to expand the market scale to seek for business opportunities.

For the government, monopoly can be solved by formulating policies to regulate the price increase so that the service provider would not have the dominant power to set the market price. Then, the government can intervene in the market and lower the barriers of entry to increase the number of firms in the industry. Other than that, the ultimate response that the government could consider is to operate the monopoly as a public enterprise.

4. CONCLUSION

From the paper, it is stated that there are both positive and negative effects posed on the food delivery service. Firstly, the pandemic situation will create a favorable situation for online food delivery services to promote their advantages and thus increase the revenue of the industry. Also, the pandemic situation will attract new users who have not used the service before the pandemic and they will have to use the service for a long period under the pandemic. Moreover, the pandemic may also accelerate the market saturation that may lead to the contraction of the industry in the long-term. Last but not least, several suggestions are given to the corporations and the government. Further identification would be needed to verify the negative effect proposed in the paper. Especially for the effects on the further development of the industry, those effects will have to be investigated in a later period in order to verify the effects on the industry based on exact data.

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