

The Effects on the Hot Pot Industry Due to the COVID-19 Pandemic's Outbreak in China

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Abstract. This article illustrates influences to catering industry especially hot pot industry during COVID-19 pandemic. The consequences of the economy from this event were undoubtedly severely and unfamiliar to all businesses. These firms were difficult to make profits since they had expanded too many offline restaurants and they could not afford the spending on a huge number of stores during the pandemic. In the process of exploring this situation, figures such as operation revenue and total liability are essential factors to having the results. There are two public hot pot companies, and this article applied their figures from annual reports. After collecting these data from the specific restaurants, the formula used for calculating year-on-year rate (YoY) is necessary to judge the consequence of pandemic. Besides these direct changes, both of these two corporations develop own methods to assist them to profit, and they can be seen that it is useful for these companies to survive in market. This essay can not only contain the negative effects of the pandemic to hot pot industry, but it also brings creative services to customers and benefits to entrepreneurs.

Keywords: COVID-19, catering industry, hot pot restaurants, year-on-year rate, takeout and other new services.

1. Introduction

In December of 2019, the COVID-19 outbreak was on a massive scale and got into an uncontrolled situation. Since the data was increasing constantly, governments in different cities implemented the policy that all citizens could only order takeout or cook by themselves instead of eating in restaurants.

However, catering market has been hit hard due to the policy. The COVID-19 pandemic brings effects to the industry which is sensitive to the situation and crowd most directly. Meanwhile, it also alters people's consumption customs and increases the needs of online services^[1]. In addition, COVID-19 can also decrease the income of citizens, which is proved by a logit model. It leads people to produce precautionary savings motive and rational consumption tendency, or even revenge spending^[2]. A large part of restaurants has collapsed since their expenditure is higher than income for a very long time. The catering industry has already faced the issue of 'three high and one low' (high rent, high human cost, high food ingredient cost, low profit), pandemic makes this situation more serious^[3]. Hot pot restaurants are one of the most affected due to their business pattern^[4].

Citizens could have meal in restaurants after the number of epidemic cases had been brought under control, which means the income of hot pot restaurants will increase in general. In addition, hot pot restaurants have more experience in the food delivery industry so they can both earn profit from food delivery (climate factor) and the people who eat in the restaurants^[5]. In combination of with the times, pandemic has a profound effect on the economic system which means it affects different industries such as entertainment, transportation and especially catering industry. Hot pot restaurants are the main part of catering industry and based on offline restaurant food, so the data of this field is valuable to research the whole industry^[6]. Listed companies provides data which can illustrate the influence of pandemic since there are annual profit and the year-on-year growth.

These figures also demonstrate the rise of newly developing field such as take-away service and business sectors. In most people's opinion, the appearance of COVID-19 pandemic can only bring negative effects to catering industry since they have to overcome the issue of lower profit and increasing price of food ingredients, staff costs, rents and other expenditures at the same time^[7]. These statements do exist. However, it also provides these businesses some opportunities to create

another method of making money. Since it is tough to have hotpot takeout, the invention this service is attractive and original for customers, which means a part of them will be more likely to order hotpot takeout instead of eat in restaurants although there are no limitations anymore^[8].

In addition, hotpot is also a field that has some differences with other catering corporations. The reason is that hotpot is a form for people to gather, and people can easily become addicted to this form and the tastes. There is a long history that Chinese people like having hot pot and a report recorded that there are about 400000 hot pot restaurants, and they account for 4% of all Chinese restaurants^[9]. It means hot pot restaurants are essential to Chinese daily lives. To illustrate this phenomenon, Haidilao and Xiabu xiabu which are well-known hot pot restaurants in China are typical examples which establish many restaurants and also developed their takeout industry before. They are the brands which are a leading company of hotpot industry and listed hot pot companies so the data from them is valuable to evaluate.

2. Methodology

2.1. Experimental design

To describe the effects to catering industry especially hot pot industry by Pandemic, figure of public companies such as H and X can present clearly. The most direct set of data is their revenue from the outbreak of pandemic to the present which is between the latter half of 2019 and the whole year of 2021. In addition, the tendency of these corporations' total and gross liability are also able to reveal the results of this period since they contain a similar tendency as the revenue. Besides that, it is also essential for collecting the specific value of these enterprises in the takeout industry and other part of this company^[10]. Since the figures in each year and even the half of the year are different, year-on-year rate need to be calculated for contrasting the changes.

2.2. Calculate change ration during the pandemic

In order to show how much the epidemic situation has affected the catering industry, figures from annual report of H and X were used for calculating the tendency. YoY means Year-over-Year Growth in this formula. It means the difference in values at the same time in another year which can judge the influence of external factors.

$$YoY\ rate = \frac{(currently\ period - prior\ period) \times 100\%}{prior\ period} \quad (1)$$

After working out the results of YoY rate, the positive figure means the corporation has an upward tendency and the negative one indicates the opposite influence.

3. Results and discussion

After calculating the results of each year-on-year rate in different situations, these can indicate influences by the event. They can also be revealed in bar charts and curve graphs.

3.1. Analysis of H

Since the outbreak of pandemic during the ending of 2019 and the beginning of 2020, catering industry was affected seriously. In 2020, H made about 310 million profits, however, it made about 4.16 billion lost in 2021. The overall average table turnover rate in 2021 is only 3times per day and it is the lowest level in five years. This rate was about 3.5 times per day in 2020, 4.8 times per day in 2019 and 5 times per day in 2018. As we all know, the pandemic of 2020 did a huge impact on catering industry. According to the data, the scale of hotpot industry shrank from 518.8 billion to 438 billion which decreased 15.57%. The reason of leading this phenomenon is that the closure of more than 300 restaurants resulted in a one-time loss on the disposal of long- term asset, impairment loss,

as well as the prudent manner of the management of impairment loss. In addition, H stated in the semi-annual report that the impact of pandemic to restaurants were still exist.

In figure 1, FY means fiscal year and H1 means first half year. This chart shows the changes of H's operational revenue in 3 years which is from the beginning of pandemic to the annual revenue in 2021. It clearly reveals that the revenue in 2021H1 was dropped form 2019 since the pandemic was outbreak in the latter half year of 2019 and the beginning of 2020. Due to this event, the year-on-year rate during this period was negative which was about -16.54%.

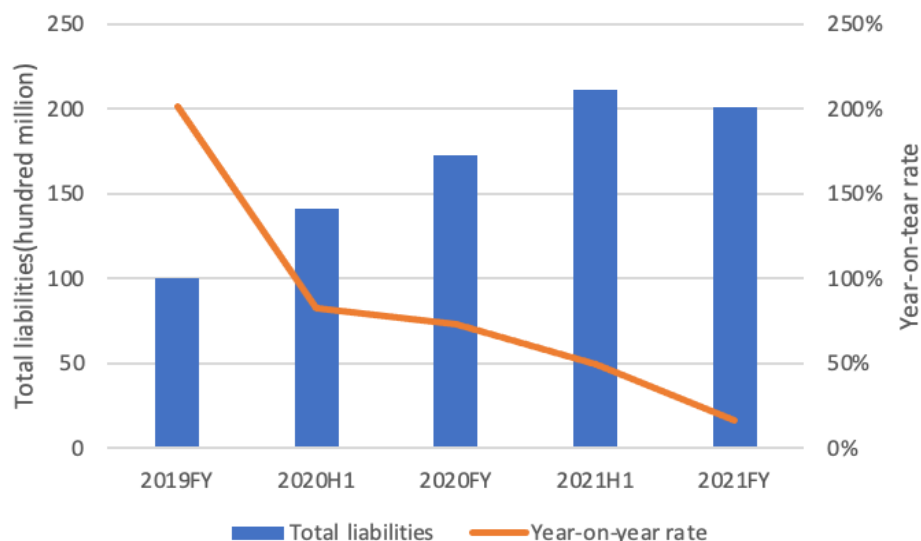


Figure 1. Operation revenue and YoY rate of H

Although the pandemic brings effects to a certain extent, the cash flow of H is within the range that it can manage. The Table 2 can be used for calculating total operating activities, total investment activity and total financing activities which about 11.286 billion, -15.146 billion and 5.832 billion. The net funds used in investment activities and net operating income generally show the same trend of change which means the risk is under controlled.

Table 1. Cash flow of H (hundred million)

	2017	2018	2019	2020
Cash and cash equivalents at the beginning	4.07	2.82	41.19	22.22
Net cash flow from operating activities	14.00	23.85	45.80	29.41
Net cash flow from investing activities	-15.65	-38.64	-50.26	-46.91
Net cash flow from financing activities	1.05	53.39	-19.36	23.24
Cash and cash equivalents at the end	2.82	41.19	22.22	26.83

In Figure 3, it displays total liabilities and year-on-year growth rate of H, there was an increasing tendency and the rate reached the peak value in 2019 which was +201.30%. Nevertheless, the rate started to decrease constantly after 2019 until it arrived at 1.79% in 2021 which contains an upward tendency since H started to develop takeout service which help them to reduce debt stress.

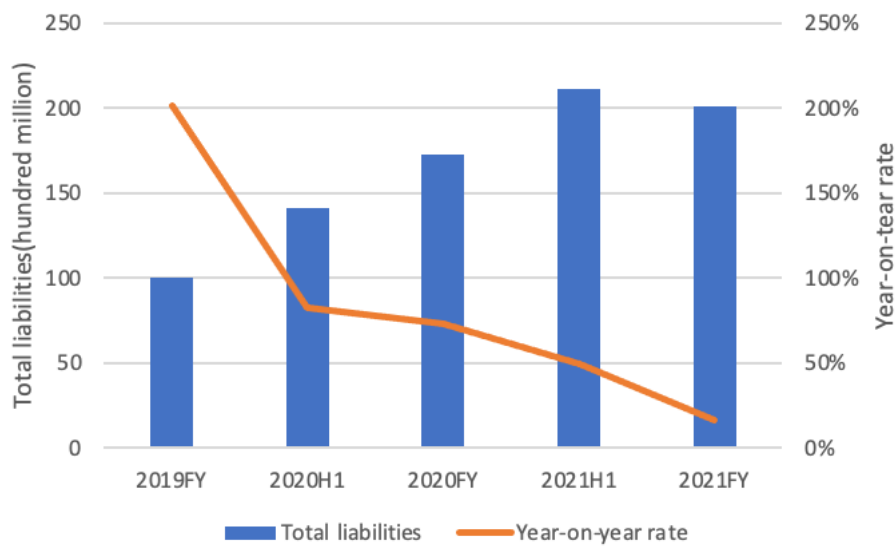


Figure 2. Total liabilities and YoY rate of H

Meituan review released a report called ‘Chins Restaurant Report 2019’. It claimed that hotpot ranked the first category in online order volume and the annual consumption of it accounted for 20.3% of the whole category. Hotpot industry has become one of the core formats of China’s catering industry. From the baidu index of the later half of 2020 until now, the sarch index remained at about 200 which proved that the market of hotpot takeout were enlarged constantly.

Figure 4 shows the development of H’s takeout service which covers about 300 cities. The revenue from this area was increased from 219 million in 2017 to 706 million in 2021 which was increased 222%. The number of orders received 1.0867 million. Pandemic is one of the most necessary reason of this increasing since the takeout service can not only help customers to solve the meal problem, but also reduce operators’ pressure.

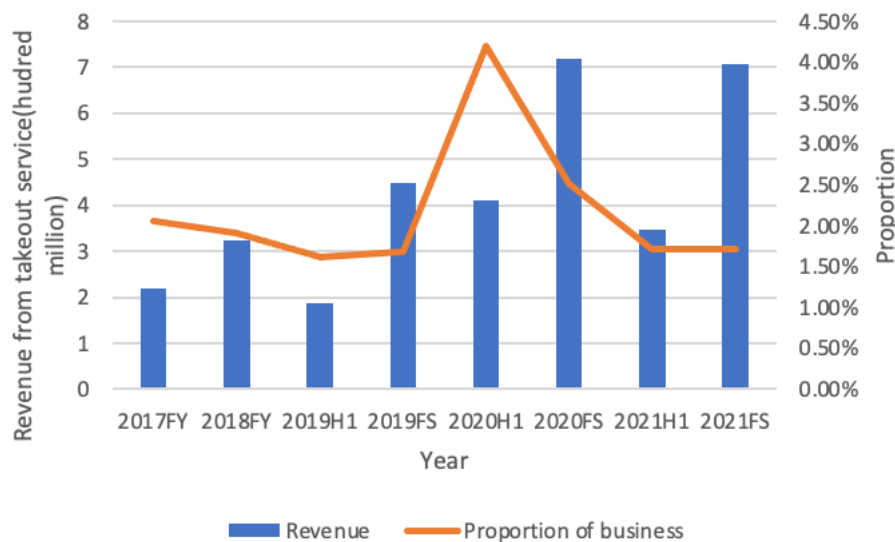


Figure 3. Revenue from takeout service and YoY rate of H

3.2. Analysis of X

According to the announcement of X which was released on March 11, 2022, it said that the net profit appeared its first loss in a decade. The estimated loss is about 275 million yuan to 295 million yuan, with net profit of 11.49 million yuan in the same period of 2020. The first reason of this phenomenon is the closure of about 230 restaurants throughout the year resulted in long-term assets and operating performance of some stores declined which is about 220 million yuan. Secondly,

restaurants in some cities were still influenced by COVID-19 pandemic that couldn't fully open and has dragged down overall earnings.

To be specific, the operating revenue in the first half year of 2020 decreased suddenly and the year-on-year rate was also negative even into the second half of this year. However, after the beginning of pandemic's outbreak, Figure 5 shows the revenue started to rise in 2021 since the YoY rate achieves 58.53% and still be positive in the whole year of 2021.

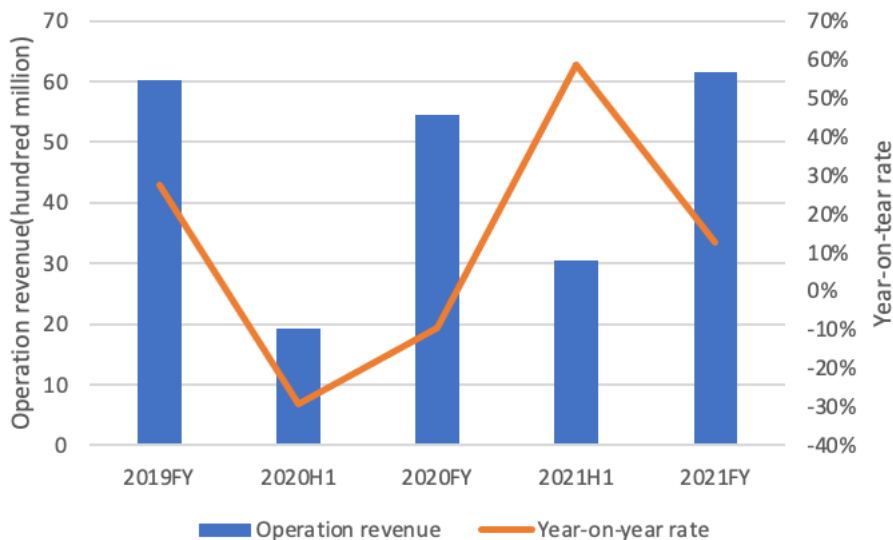


Figure 4. Operation revenue and YoY rate of X

The tendency of liability situation of X contained a factor that is similar as it in H which also appeared a declination of its year-on-year rate. By contrast, the total liability has more stable values that remained at about 33.

Table 2. revenue from C and proportion of business

Year	Revenue from C	Proportion of business
2020H1	0.593billion	30.86%
2020FY	1.689billion	30.96%
2021H1	1.127billion	36.97%
2021FY	2.354billion	38.29%

However, the way for X to solve the management problem is to promote the development of Coucou (C) which is a branch brand of X. During the period that X closed stores, the revenue increased instead of decreasing which achieved to 6.15 billion yuan and raise 13 percent year on year. The revenue from C was about 38% of X in 2021. It is a different method with H that X put more attention on inventing a new brand, however, H was more willing to develop their takeout service. The table 2 indicates the percentage of profit from C which has an increasing tendency.

3.3. Comparing H and X

The influence of COVID-19 pandemic is a blow to the catering industry. According to the specific example of 2 public hot pot restaurants: H, X, data from them between 2019 and 2021 can explain the effects of this situation.

Both of them has closed several hundreds of stores because it's tough for them to survive during the pandemic especially the initial outbreak period so the figure in 2019 was bleak. Their year-on-year rates of operating receipt in 2020H1 are both negative which means it is a difficult period for catering industry since it was the time of pandemic's peak and there were several cities adopted lockdown policies, so people were unable to have meal in restaurants. However, this policy influenced hotpot industry in a huge degree since their main profits were from eat-in and it limited their main

income. Due to this issue, many restaurants were in a crisis and forced them to invent a new way to profit more. Then, different brands made different ideas such as developing takeaway service or setting up a new brand. These methods prevent their corporations from further losing profits and assist them to turn into the initial state of operation. Because of the hot pot industry's liability situation, they have the highest year-on-year rate in 2019 because both of them closed a huge number of their stores. After they discovered novel methods, this rate started to decline but the total number of their liability didn't decrease in a same way. These two specific examples had a steady and fluctuant tendency instead of decreasing.

These two trends are generally same including operating revenue and total liability which are both in a dangerous situation during the outbreak of pandemic. This result can be used to infer that the whole hotpot industry or even catering industry encounter the same influences by this event. Although the effects of pandemic are negative for hot pot industry, it didn't illustrate that there is no way for them to survive in catering industry anymore. In addition, it is also not a terrible thing to consumers, which means they can enjoy more services and have more choices than before. A brand-new way has probability to reverse loss pattern to return or even surpass the original situation.

4. Conclusion

To draw a conclusion, the COVID-19 pandemic leads an undoubted hit to the global economy. Catering industry is the one which influenced by this situation most seriously since the policy limit a large amount of their profits directly. For some chain of restaurants, it is difficult for them to insist opening too much chain's stores and most of some have to close them to decrease liabilities. It leads these hot pot industries to be affected similarly and these trends can be discovered from the graphs clearly.

Pandemic brings negative influences on hot pot industry is a common viewpoint since the main benefit of hot pot restaurant is eat-in instead of carry-out. Takeout service is complicated before which needs to deliver fresh food ingredients, hotpot seasoning and even a stove and a pot. It deviates from the convenience of takeout service so only a small part of people will choose it. However, the policy during pandemic makes people more willing to order this service, which can bring both the meal that is hard to cook at home and also a sense of freshness. This can be seen as the psychological need and these hot pot companies also started to invent method to attract customers. Under this situation, these hot pot corporations are able to earn profit again in different ways.

According to the analyses to H and X, both of them are still expanding instead of stagnating. There are 4 points that other catering industry can learn from them. First, sufficient can be conducive to risk resistance. Secondly, improving inventory management can help catering industry to save cost since it is hard for catering industry to decline human cost and rent. The next point is that they need to use the internet to make benefits and cultivate their core competitiveness. The last but not least is that creativity is an essential factor to provide rich experiences to customer.

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