

The Impact of the Epidemic on the Revenue of the Catering Industry—Take leading Catering Enterprises as examples

Xinjian Dou^{1,*†}, Rui Ge^{2,†}, Yanqiu Wu^{3,†}

¹ Shanghai DTD academy High School, China

² University of Melbourne, Australia

³ Country Garden School, Guangdong, China

* Corresponding Author Email: gerg@student.unimelb.edu.au

† These authors contributed equally.

Abstract. From 2019 to 2021, the impact of the COVID-19 pandemic caused social panic and huge losses for various real economy sectors. For the catering industry, there are many problems that need to be paid attention to, such as cost control, the performance in the face of emergencies, and the scale of the sharp decline in revenue. The paper mainly focuses on the impact of Covid-19 to the revenue of the catering industry. The two leading catering enterprises are Haidilao and Jiumaojiu respectively. This paper discovers the action of these two enterprises and the government's measures to deal with the epidemic. Through the analysis of financial statements and costs to study the different countermeasures and effects. Based on the analysis of business reports and distribution of sales in stores, the appropriate business model after the pandemic was inferred. Compare two different listed companies, have different sales logic. The results shows that most of the stores of Haidilao are distributed in second-tier cities, followed by first-tier cities and second-tier cities, showing a spindle distribution.

Keywords: Covid-19, revenue of the catering industry, financial statements.

1. Introduction

The outbreak of COVID-19 occurred just before the Chinese New Year. It is sudden, quickly spread to the whole country, highly infectious, coinciding with the Spring Festival dining golden Week and other characteristics [1]. In terms of catering industry, it is the territory that essential in daily life, which can provide food to ordinary people. For the catering industry, there are many problems that need to be paid attention to, such as cost control, the performance in the face of emergencies, and the scale of the sharp decline in revenue [2]. Additionally, covid-19 is a virus that at the end of 2019, the number of patients with pneumonia of unknown cause was increasing in some medical institutions in Wuhan. Subsequently, in January 2020, a new virus, COVID-19, which causes human-to-human transmission, was discovered [3]. In contemporary society, the catering sector is indeed facing severe challenges because of the COVID-19 epidemic and even close directly. Our group's opinion is that in epidemic environment in recent years, because of the control of the country and the people to the attention of the covid-19, many places have been reversed eat-in, only some take-out food or cooking at home are allowed, so for the food industry has made great impact because the number of people who go to the restaurants is reduced. Some restaurants in order to save costs, they may shorten the opening hours and some restaurants may even directly closed. The COVID-19 outbreak caused huge losses for the catering industry. The outbreak's influence on consumers' risk perception and risk attitude was an important factor for these heavy losses for the reason that consumers' awareness of the coronavirus pandemic (consumers' epidemic risk perception) had a significant positive effect on their decision-making behavior under uncertain conditions (risk attitude); consumers' decision-making behavior under uncertain conditions (risk attitude) had a significant negative effect on their willingness to purchase from restaurants; consumers' awareness of the coronavirus pandemic (consumers' epidemic risk perception) had a significant negative effect on their willingness to consume products from restaurants; and risk attitude played a mediating role in the

influence of consumers' epidemic risk perception on their willingness to consume products from restaurants [4]. Additionally due to the impact of the epidemic and the impact of in-house dining, some small and medium-sized catering enterprises are on the verge of bankruptcy. After the outbreak of the epidemic, the number of enterprises in the catering industry has decreased significantly, which reflects the impact of the epidemic on the industry. For the catering industry, the low turnover rate is also a major problem. Through Porter's five forces model, which made by Wang, it analyzes the problems faced by enterprises in the industry, whether it is necessary for competitors to increase the unit price, and the impact [5]. For example, Jia, Chairman of Xibei Catering, caused widespread concern when he remarked that his business may go bankrupt in three months if the situation continues. To some extent, the situation described by Mr. Jia reflects the prevailing situation in the industry. To reduce physical interaction with customers and protect our employees, multiple brands under Dahui Group have chosen to suspend business activities [6]. Since the outbreak of the epidemic, China's huge economy has been hit to varying degrees by all walks of life. In this context, China's catering industry is recovering in an orderly manner. Additionally, the outbreak's influence on consumers' risk perception and risk attitude was an important factor for these heavy losses [7]. Moreover, our group discover that the COVID-19 pandemic swept the country during the Spring Festival of 2020, Hangzhou's catering industry was hit hard first and stagnated across the board state [8].

By understanding how business and government can address this problem because the COVID-19 pandemic has changed people's food consumption ability, consumer psychology and consumer behavior, this article can take reasonable measures to deal with these situations in the future. Learn about the impact of the outbreak on the industry and see how companies have responded to the sharp drop in the number of people eating out since the outbreak, and how the Chinese government has responded to the sharp drop in the number of people eating out since the outbreak, and how the Chinese government has responded to the outbreak. One possible way is that to accelerate the momentum of consumption recovery, it needs to speed up the resumption of work and production the service sector is recovering faster; they will work harder to stabilize employment and ensure people's well-being and raise the incomes of low-income residents [9].

Since the emergence of the epidemic, caused by the outbreak inconvenience was forced to shut down a lot of food and beverage industry, the second is to change people's consumption form, for example, people will be very afraid to go out after the outbreak, because there is a risk of infection, which causes the consumer to reduce, that consumption decrease, lead to the catering industry revenue decreased [10].

In addition, due to the abnormal operation of the catering industry, the inventory is overstocked, and many foods have expiration dates, so the cost of many restaurants will increase, leading to the price rise, or the closure of enterprises. Fewer customers and a decline in the number of restaurants will lead to a decline in restaurant revenue.

2. Methodology

The research is about the impact of the epidemic on the revenue of the catering industry, take leading catering enterprises as an example. An experiment was designed to achieve the objective, during the essay, our group will utilize excel to depict pictures and diagrams.

2.1. The data sources

All data were collected from companies' annual and quarterly financial reports, followed by business newspapers. The overall distribution of data is in decline compared with the growth rate of recent years.

2.2. Discussion of Michael Porter's Five Forces Model

Additionally, our group will focus on growth rate of the graph to show the situation. The specific process will be detailed on the paper. To achieve the conclusion, our group search and evaluate the data focus on the Michael Porter's Five Forces Model, which made by Wang. Michael Porter's Five Forces Model mainly focus on several essential details, which are the threat of potential entrants to the restaurant industry [3]. Bargaining power of suppliers in catering industry competitors in the catering industry. Current competitor's strength in the catering industry consumer bargaining power. The threat of alternative products in the restaurant industry. After these essential points, our group can discover several cost and marketing issues on catering industry. Additionally, with the help of excel. Our group can depict graphs exactly and clearly. Once collect the data from the financial report, our group member utilizes the information to plot the graph.

2.3. Increasing Rate of the Revenue and Cost

$$rate = (R_{after\ tax} - C) / R_{last\ year} \times 100 \quad (1)$$

To get the increasing rate and the percentage of the rate, which are used to compare the revenue of two enterprises Haidilao and Jiumaojiu.

3. Results and discussion

3.1. The Total Development Trend

According to the Fig 1 from 2015 to 2020, Without the pandemic, the overall trend would have been roughly the same as before 2018, with incremental increases each year. Due to the impact of the pandemic, 15% of the revenue was reduced, which is also the harm caused by the epidemic to the restaurant industry. Since the development of restaurant business is inseparable from the real economy, the epidemic caused the collapse of the real economic system. Catering industry be affected.

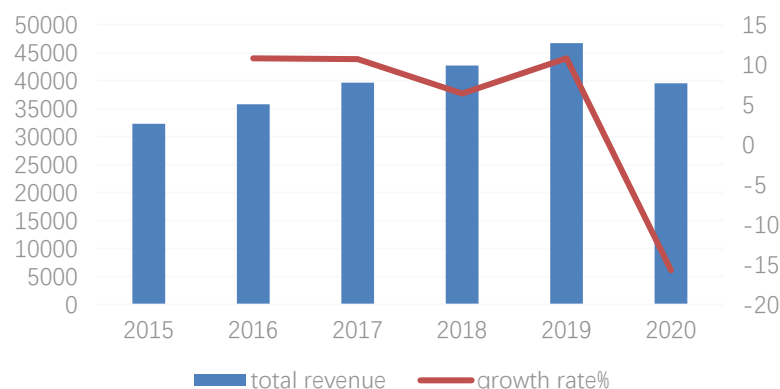


Figure 1. The Total Revenue about the Catering Industry between 2015 to 2020 (unit: 100million)

3.2. Analysis of the cost of two firms

Haidilao hotpot ceased operations in 2020 as the COVID-19 pandemic progressed. But when an outbreak hinders their operations, they still must provide rent and food consumption, and possibly pay for labor. This is undoubtedly a huge cost, for a closed catering enterprise is undoubtedly a huge blow. In addition, the expansion of Haidilao enterprises also needs more attention, because the development of enterprises and Haidilao development planning, Haidilao also needs to continuously promote the shop operation, which will undoubtedly further increase the cost.

Table 1. Consist of the cost about Haidilao during the epidemic

The cost of Haidilao around the epidemic (unit: 100 million)			
years	2019	2020	2021 (half)
food expand	112.39	122.61	85.02
salary	79.93	96.77	71.61
rent	2.4	2.36	1.98
Travel expenses	2.2	1.86	1.18
Financial cost	2.37	4.46	3.03
promotion	18.91	30.34	21.69
other spending	10	12.52	8.01



Figure 2. The cost of Haidilao around the Epidemic

From the Fig 2, we can find that the cost of Haidilao around the epidemic is a lot, which it is shown that it's increasing every year. In 2020, it reaches 122.61 hundred million, because of the Covid-19, the cost and lose has been sharply increased. The second cause of cost increase is the salary of employees. In 2020, Haidilao issued a policy to increase staff salaries, which also led to a significant increase in staff costs. In addition, due to the epidemic, employees cannot work normally but still receive high wages, which will further increase the cost pressure on enterprises, compare with 2019, it nearly increased 21.07%. In terms of financial expenditure, due to the sharp decline in income caused by the epidemic, most restaurants could not open normally and maintain a normal turnover rate. As a result, Haidilao enterprises cannot pay the bank's loans, which further increases the debt level of Haidilao and increases the borrowing interest to be paid. In terms of publicity and discounting, this represents a 60.4 percent increase compared to 2019. This is mainly due to the business policy of Haidilao, through large-scale expansion to achieve coverage, which undoubtedly requires investment in publicity.

3.3. Analysis of the revenue of two firms

Before the outbreak of the COVID-19 pandemic, the total revenue of Haidilao in 2017 was about 106.4 billion. And in 2018, its total revenue was experiencing an upward trend to reach about 170 billion, an increase of about 70 billion, and this trend continued to 2019, compared with the total revenue in 2018, there was a huge rise, that's an increase of about 10 billion year-on-year. By the end of 2019, the sudden outbreak of COVID-19 pandemic, has caused many stores closed due to no income, compared with between 2019 and 2020, although revenue rose by 20 billion, compared to previous years rise at a slower pace, in addition to the pre-tax income and net income also reached the lowest in recent years in the year 7.4 billion and 3.1 billion respectively; In 2021, the pandemic eased a bit, slowly making a qualitative leap to more than 400 billion in total revenue.

The network of Haidilao restaurant is relatively mature, with large store area and the target customer group is party oriented, which is very popular with the public. Therefore, its revenue has

grown rapidly in recent years. However, due to the impact of the epidemic, in order to actively cooperate with the epidemic prevention and control work, Haidilao voluntarily suspended the operation of all its stores in mainland China since the beginning of 2020. It reopened most of the stores it had suspended in mainland China once the pandemic was gradually brought under control in most regions. In the first half of 2020, Haidilao still actively opened new stores, continued to promote the expansion of store network stores, and opened 173 new restaurants.

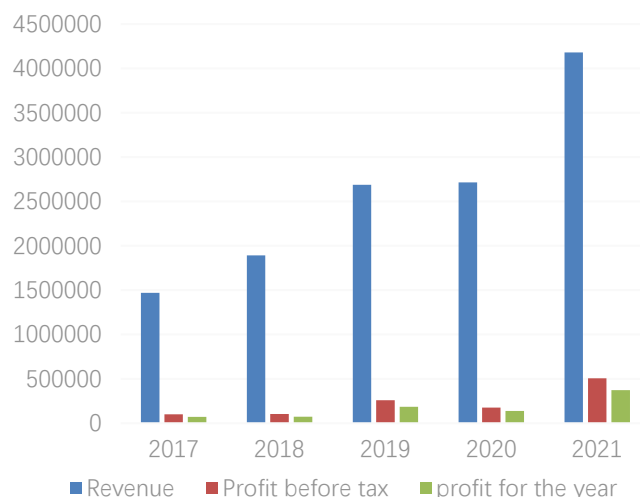


Figure 3. The revenue of Haidilao

From Fig 4, in 2017, the total revenue of Jiumaojiu was about 14.7 billion yuan, and it slowly rose to about 26.9 billion yuan from 2017 to 2019. However, the outbreak of the pandemic in between 2019 and 2020 led to the inability of offline brick-and-mortar stores to operate, and the revenue did not increase. Due to the rent of stores and the wages of employees, the expenditure was greater than the income. So net income in 2020 is down 400 million; But the pandemic eased considerably from 2020 to 2021, when the company opened 133 new stores, leading to an increase in its revenue to 41.8 billion. Compared with Haidilao, Jiumaojiu and Tai Er under its name are smaller in area, and their customers are younger, so it is more flexible to expand their stores. This kind of store scale can better meet the needs of life scene consumption and consumers' quick dining experience.

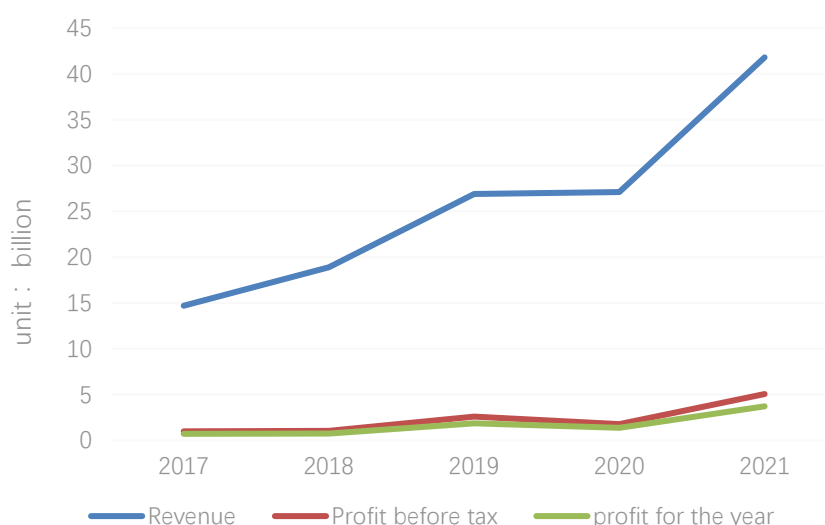


Figure 4. The revenue of Jiumaojiu

The total liabilities of the two companies increased by 6.7 billion yuan and 1.5 billion yuan respectively from 2017 to 2018. Because of the impact of the pandemic, both companies' stores have been closed, and on the other hand, they have no revenue, and need to buy COVID-19 pandemic related equipment, such as masks, temperature guns, disinfection supplies and so on. In order to

maintain the normal operation of the stores and prevent the loss and motivation of the employees, the company will also provide some subsidies to the employees accordingly. Therefore, it seems that the operating cost will become higher, so the total liabilities of the two companies will increase rapidly in 2019. After the pandemic eased, some stores opened and had revenue, so total debt grew more slowly between 2020 and 2021.

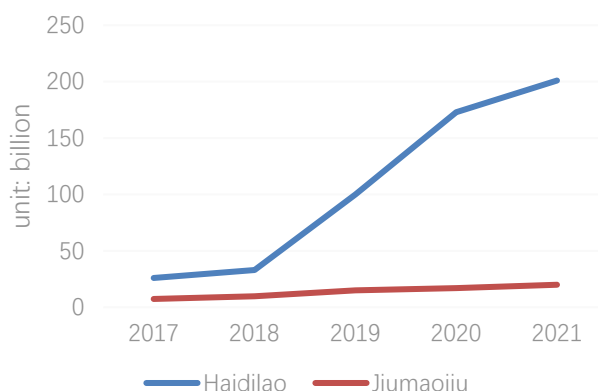


Figure 5. The total liabilities of two companies

Like Haidilao and Jiumaojiu the two companies before the outbreak of the epidemic, the previous years of income are increasing year by year to the maximum income. But revenue growth slowed in the year after the pandemic, then resuming its growth trend.

In addition, Haidilao has launched prefabricated dishes and self-heated pot services. Due to the epidemic and modern people's living habits, Haidilao has launched self-heated hot pot sales services. Self-heated food is more convenient than dining in a restaurant. Haidilao has made many pre-made dishes to increase the restaurant's turnover rate. The advent of pre-made dishes allows the speed of serving food to increase quickly, which also improves the efficiency of dining. The second is the emergence of self-heating hot pot, due to the brand effect of Haidilao, often people will buy self-heating products under the brand of Haidilao on the basis of better health. Due to the epidemic, home office has become the mainstream, and the sales of self-heating products have further increased.

3.4. Compare Haidilao with Jiumaojiu

3.4.1 Material

The proportion of raw materials and consumables used in the first half of 2020 was 39.19%, the first half of 2021 was 37.16%; The proportion of the cost of raw materials and consumables in the revenue of Haidilao was 44.55% in the first half of 2020 and 42.31% in the first half of 2021. To the extent that both companies' itemized expense ratios fell, both companies made some subtle price increases. The detailed cost rate of Jiumaojiu is lower than that of Haidilao. It may be that the management of raw materials and consumables of Jiumaojiu is finer than that of Haidilao. For the result, Haidilao is more profitable to consumers. The specific reason needs to be explored in detail on the site of the company. The consumer choose Haidilao when there is former and choose Jiumaojiu when there is a latter. For an enterprise's raw material, every step in production has a relative demand. For Haidilao, the cultivation of labour plays a vital role in the development of the whole enterprise, which is also the profit condition of the production enterprise. For jiumaojiu, the demand for publicity is even greater.

3.4.2 Staff costs

From the financial results, obviously, the current Jiumaojiu than Haidilao to have more advantages. Look at the staff cost, Jiumaojiu and Haidilao in this detailed project on the caliber should be consistent. The ratio of Haidilao's employee cost to revenue in the first half of 2020 was 41.74%, compared with 35.64% in the first half of 2021; The expense ratio was 34.47% in the first half of 2020 and 25.05% in the first half of 2021.

Due to the different impact of the epidemic, the comparison between the first half of 2021 and the first half of 2020 is easy to mislead. From the data of the same period in the first half of 2019, the staff cost in the same period was 3.07 million yuan, the revenue was 1237.32 million yuan, and the staff cost rate was 25.87%. The first half of 2021 was essentially unchanged from the first half of 2019; During the same period, the employee cost of Haidilao was 3,651.92 million yuan, the revenue was 1,169.463 million yuan, and the employee cost rate was 31.23%, which was higher in the first half of 2021 than in the same period of 2019.

The staff cost rate of Jiumaojiu in the first half of 2021 is 10.59% lower than that of Haidilao. It is not only possible that the output efficiency of Jiumaojiu of the employees is higher than that of Haidilao, but also that Haidilao provides its employees with higher remuneration and welfare benefits, which requires a comparative analysis of the internal management data of the two companies.

4. Conclusion

By looking into the financials of both businesses. At present, Haidilao's financial situation was investigated compared with Jiumaojiu's, and some effective measures were not taken reasonably. It is also necessary for Haidilao to control costs by closing stores substantially. For the two enterprises, the common problem is low revenue efficiency. For the catering industry, the low turnover rate is also a major problem. Through Porter's five forces model, which made by Wang, it analyzes the problems faced by enterprises in the industry, whether it is necessary for competitors to increase the unit price, and the impact.

By comparing the operation indicators of the two enterprises, most of the stores of Haidilao are distributed in second-tier cities, followed by first-tier cities and second-tier cities, showing a spindle distribution. For Taier Pickled Cabbage, Jiumaojiu's subsidiary, most of its stores are clustered in first-tier cities, followed by second-and third-tier ones. It's an inverted pyramid. Compared with Haidilao, Taier pays more attention to the income and development situation of first-tier cities. Compared with Haidilao, Taier is still in the development stage. For the future development mode, Taier occupies a higher proportion of first-tier cities in the initial expansion stage, while Haidilao pays more attention to the second and third-tier cities. This may be because Taier sauerkraut represents the high end of all Jiumaojiu's businesses, while Haidilao is more comprehensive. Compared with Haidilao, Taier Pickled cabbage Fish's main competitiveness is taste and operation ability. It can also ensure the meal delivery rate after the epidemic and attract more customers to eat through the incremental mode without price increase. The store also launched the public number of irregular release of comics, from the comics to promote products, which is more able to attract customers. Therefore, Taier pickled cabbage fish can recover quickly after the epidemic compared with Haidilao.

There are the problems of outsourcing. Catering outsourcing refers to enterprises, institutions or organizations such as factories, hotels, and so on, that outsource the canteen for their employees to a professional catering company for operation and management. Although this way of operation can achieve the simplification of consumers, reduce operation coats and save more management work, it is easy to encounter problems such as low-quality products or poor service quality. In order to solve the problem of catering outsourcing, the factory or hotel should find suitable outsourcers and sign detailed and perfect contracts with them to realize the concept of win-win cooperation.

In the paper, there is also something that is not counted, related to the stock prices of the two companies. In the follow-up improvement, the development prospects and conditions of the two companies before and after the epidemic can be better understood by connecting financial statements and stock prices.

References

- [1] Liang, P. and Xing, L. X., "Study on the impact of COVID-19 epidemic on catering industry and countermeasures," Times Economy and Trade, (2020).

- [2] Jiang, M., "The report on the Development Status and Trend of China's catering Industry under the COVID-19 epidemic was released," Food Industry, 4: 2, (2020).
- [3] Xiong, X, and Yao, R., "Strategic Analysis of the Catering Industry under Covid-19: A Case Study in China," 2021 International Conference on Environmental and Engineering Management, EEM 2021. EDP Sciences, (2021).
- [4] Zhang, L., Wang, L., Luo, J., et al., "Impact of COVID-19 Outbreak Risk Perception on Willingness to Consume Products from Restaurants," Mediation Effect of Risk Attitude. (2022).
- [5] Zhao, F., "The future trend of domestic catering industry from big data," Business Review, 20: 54, (2021).
- [6] Zhao, H., "How Will COVID-19 affect the catering industry in China," Ceibs, (2020).
- [7] Zheng, N. and Len, S. Y., "Analysis on the impact of COVID-19 on the catering industry in Hangzhou," Journal of Chuxiong Normal University, 5: 147-155, (2021).
- [8] Zhou, Y. X. and Liu, C. Y., "Discussion on the development Strategy of chain catering enterprises in the post-epidemic era -- Taking Haidilao as an example," Accounting of Chinese Township Enterprises, 1: 4, (2022).
- [9] Li, S., "Typical performance, internal reasons and policy suggestions of slow consumption recovery after the epidemic," China Economic and Trade guide, (2021).
- [10] Zhu, X. N., Zhu, M. H. and Liu, Z. W., "Impact of COVID-19 epidemic on catering industry and countermeasures: Based on 534 online questionnaires," Market Modernization, 14: 4, (2020).