

# Analysis of the Impact of COVID-19 Outbreak in Shanghai in March 2022 on Its Economic Development and Potential Responsive Measures — Take the Catering and Logistics Industries as Examples

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**Abstract:** Since mid-March 2022, there has been an outbreak of COVID-19 in Shanghai and by April 13, there is still no sign of an inflection point. This paper mainly discusses the analysis of the impact of the surge of COVID-19 new cases in the past month on the catering and logistics industries in Shanghai. Then the paper provides some suggestions for the two industries such that they can take faster and more effective response if there is another pandemic or lockdown in the future.

**Keywords:** COVID-19 pandemic, economic impact analysis, service industry, Chinese economy

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## Introduction

Setting March 12 as a benchmark, in the past month, there has been a rapid rise in COVID-19 new cases in Shanghai. Compared to 2020 Q1, the number is much higher. The total of new cases from March 12, 2022, to Apr. 12, 2022, is 255,666 (including asymptomatic cases), while that from Jan.28 (i.e., the day of the first case reported), 2020 to Feb. 28, 2020, is only 220. In 2020 Q1, the GDP growth rate of Shanghai contracted by 6.7% from a year ago, which led to the extremely small increase in the annual GDP growth rate of Shanghai in 2020, that is, only 1.70%. In the 2022 situation where there is a continuous lockdown in Shanghai that did not happen in 2020 and many more residents were infected. The economic situation in Shanghai could only be worse than in 2020, especially in the catering and logistics industries, two of the most important industries in the service sector contributing to Shanghai's economy. This paper analyzes the main negative influence of the outbreak in March 2022 on these two industries and then proposes corresponding feasible measures to help to improve the coping capacity.

## 1. The catering industry

### 1.1 Impact of the outbreak in March 2022

#### 1.1.1 Almost extinction of eat-in and take-out service revenue

Since the outbreak in March 2022, many restaurants have stopped providing eat-in services and only been used for take-out orders, which could bring about a huge decrease in sales revenue. According to Deloitte's report (2020), in the 2020 pandemic, 32% of catering enterprises saw take-out orders drop by more than 80%, and 18% saw orders drop by 40-80%. After the lockdown in Pudong New District since March 28 and the continuous lockdown of the whole city till now (i.e., April 13), all the restaurants have been closed, only a small number of which are still trying to sell semi-finished dishes. Even worse, unlike the lockdown policy in Shenzhen this March, almost all the food delivery drivers in Shanghai are quarantined, the same as other residents. In other words, there will be an extremely small transport capacity for food delivery, limiting the number of orders. Additionally, due to the complicated approval procedures of food delivery in many neighborhoods, as for many residents, the food delivery services are unavailable. Thus, in the past month, the restaurants in Shanghai almost got no revenue.

#### 1.1.2 Increased expenses and losses

Unlike the 2020 February case, by April 13, there has been no official announcement of rent reductions, tax waivers, or subsidies from the government. Regarding the rent price in Shanghai, it is extremely high compared to other cities in China, so it is extremely hard for restaurant owners to pay the rent expense.

In the meantime, to avoid lawsuits, restaurants cannot dismiss their employees. Thus the wages that must be paid are another huge cost.

Also, there might be other expenses. To be specific, advertising contracts that have been signed before still need to be fulfilled. For instance, there might be some accounts payable these days, but the owners of restaurants might lack cash flows due to either lack of revenue or difficulties that upstream firms are facing.

There are enormous losses from the expiration of ingredients and inventory as well. For lack of orders, the ingredients and inventory in kitchens might be expired. Fresh ingredients, such as vegetables, fruit, and meat, can be easily rotten, which are reduced to sunk costs. Although many restaurants have prepared prefabricated food that has a longer shelf life, they originally can be served for an inflow of revenue but now only as unconsumable inventory. This might lead to a cash flow disruption for restaurant owners.

## **1.2 Potential responsive measures**

### **1.2.1 Establish a complete online sales system**

In order to suffer less from possible losses due to another lockdown or pandemic in the future, restaurant owners should increase the percentage and efficiency of online sales services, such as promoting frozen or semi-finished dishes. Especially after this March outbreak when many citizens in Shanghai are starving for lack of access to sufficient food, more people will cultivate the habit of storing food at home. This provides a golden opportunity for restaurants to expand their businesses to this field.

To achieve this, catering enterprises can resort to digital transformation by setting and upgrading the online supply chain system. In addition, establishing own distribution systems is crucial to avoid the uncertainty caused by food-delivery companies, such as sudden rise in delivery costs or an increasing number of unavailable deliverymen during a pandemic. Also, they should try to broaden their distribution channels by making more online advertisements through applications or websites and building relationships with local neighborhoods so that their customers can be more numerous, enabling a more reliable guarantee of sales.

### **1.2.2 Share inventory with other industries**

Sharing resources can be a helpful way to reduce waste, especially during the pandemic. Since the March outbreak in Shanghai, many residents are unable to buy enough food because the supermarkets are exhausted and run out of food while restaurants are just letting the ingredients go rotten. Therefore, restaurant owners can share the inventory with supermarkets to sell more goods and yield more sales.

From the perspective of preventing the ingredients from decaying, restaurants can consider sharing the warehouses with other companies in industries more than catering. To be specific, as the catering industry has high requirements for low-temperature storage, restaurant owners can cooperate with pharmaceutical companies. As the negative influence of pandemics on the medicine industry is relatively small, this method could be a highly beneficial one for catering enterprises as long as strict management measures are implemented.

## **2. The logistics industry**

### **2.1 Impact of the outbreak in March 2022**

#### **2.1.1 A sharp decline in demand for delivery services**

In Shanghai, there are four famous logistics companies, that is, ZTO Express, Yunda Express, YTO Express, and STO Express, respectively accounting for 20.64%, 17.17%, 14.79%, and 10.60% of the market share (Sina Finance, 2021). The combined share of the four Shanghai-based enterprises reaches 63.2%, over half of the total share, indicating that the logistics and express industry contributes an incredible part to Shanghai's economy.

However, in the 2020 pandemic, according to Kearney (2020), on Feb.16, 2020, the number of operating freight trucks in China was less than 30% of that in the same period last year. In the Shanghai 2022 case, as most of the deliverymen are quarantined, which is different from the situation in 2020, the demand would be even lower. Some residents in Shanghai are faced with delayed or canceled salaries. The decrease in income might lead them to reduce consumption and thus their demand for delivery services. Additionally, the regional restrictions render the logistics personnel unable to provide smooth transportation services, causing unstable delivery time and then customers' dissatisfaction and unwillingness to order. These integrated conditions can bring about a decreased demand for logistics services and thus a seriously negative influence on Shanghai's economy.

#### **2.1.2 Increased expenses**

As many express companies provide accommodation for their employees, the continuous housing fees with a decreasing number of orders impose a heavy financial burden on them. Besides, the disinfection and inspection procedures at the borders would increase the transit time and the transportation costs. And the limited number of places that the logistics personnel can move within according to the strict quarantine policies could also lower the labor productivity and increase marginal costs.

Another huge expense is the rent fees. Giant logistics companies like the four Shanghai-based ones tend to have their own bulk storage plants which they rent. These plants always cover a large area, causing a considerable cost of the rent.

Under the lockdown, the plant is now just empty, in other words, with no people or goods, which is a huge loss.

## **2.2 Potential responsive measures**

### **2.2.1 Accelerate digital transformation**

With concerns about the risk of infection, customers long for more unmanned delivery services. To meet such a new demand and to suffer less from the uncertain number of available personnel in a pandemic as well, logistics companies need to consistently increase their investment in digital development. To illustrate, they could purchase more intelligent equipment such as robots and UAVs to pick and pack cargo. The technology of AI and big data can also be applied to plan the optimal transition routes to save time. In the "last mile", more delivery lockers should be placed to provide non-contact services for customers. Another way is to increase the number of unmanned delivery vehicles that were used by JD in the Wuhan 2020 pandemic. The logistics industry in China today is still a labor-intensive one, which might lead to non-standard operation and difficulties with personnel scheduling, thus resulting in low efficiency. Such a systematized digital logistics system can highly improve the distribution efficiency and the utilization rate of the logistics parks, and reduce the operational costs.

### **2.2.2 Conduct effective crisis planning**

The logistics enterprises need to preset feasible plans in various fields to respond to a crisis. Before an emergency occurs, they can expand financing channels more actively by communicating with banks or other financial institutions for financial support. Government departments are also a good channel that they can resort to for request for lower tax rates or subsidies. In this way, they are able to enlarge their capital base, reduce expenses of taxation, and will not lose control of cash flow when a real crisis happens and some accounts receivable are unavailable in a short term.

The logistics companies should also regularly revise the emergency plans. To be specific, they are responsible for estimating the possible impact of a crisis and then formulating detailed responsive measures and standard procedures. To put the plans into effect, it is also critical to cultivate the professional skills of the employees so that they can respond better to a real crisis.

After the crisis, the enterprises could increase the sharing of resources across companies to maximize the efficiency. For instance, different companies can share the logistics parks to reduce the fixed costs or exchange information on truck rental to increase the operational flexibility of the whole industry. With all the measures above, the flexibility of the logistics industry to respond to emergencies might be increased.

## **3. Conclusion**

The COVID-19 outbreak in March 2022 in Shanghai has a seriously negative effect on its economy, especially in the catering and logistics industries. The pandemic would greatly reduce the demand and consumption, causing an enormous drop in the services sector. However, there could be precaution measures against such crises that can be implemented beforehand and help to respond better in emergencies.

From the lesson in the outbreak in Shanghai in March 2022, where many residents are starving, the catering industry is extremely essential for all human beings. Also, due to the temporary closure of stores, the logistics and express industry becomes increasingly important. It can be said that the epidemic highlights the indispensable role of these two industries. As a consequence, sufficient and effective measures must be taken to guarantee that the related enterprises can effectively play their role even in tough situations.

## **References**

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- [1] Deloitte China and China Cuisine Association. (2020). The financial and operational impact of COVID-19 Outbreak on the Chinese catering industry. Available from: <https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/consumer-business/deloitte-cn-cb-new-pattern-of-cartering-consumption-zh-200327.pdf>
- [2] Kearney China. (2020). How can logistics companies seize opportunities and begin again after COVID-19. Available from: <https://www.kenney.cn/article/?/a/-9-58>
- [3] Sina Finance. (2021). Two fates: SF Express VS. ZTO, YTO, STO, and Yunda Express. Available from: <https://finance.sina.com.cn/tech/csj/2021-02-05/doc-ikftpnny5041697.shtml>