



# The Impact of Covid-19 Pandemic on the Pharmaceutical Industry Evidence From Fosun Pharmaceutical

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**Abstract.** On March 11, 2020, the World Health Organization declared the 2019 novel coronavirus disease (COVID-19) a global pandemic. This pandemic is bound to have a significant impact on the health market, and pharmaceutical industry, which may bring huge business opportunities or threats to pharmaceutical manufacturing companies; This study use SWOT analysis to provide implication for individuals or organizations identify business competition or project planning related issues Strengths, Weaknesses, Opportunities, and Threats in order to investigate the impact of pandemic bring to the China pharmaceutical industry.

**Keywords:** pharmaceutical · industry · SWOT analysis · FOSUN · COVID-19 pandemic · economic impact

## 1 Introduction

In December 2019, the coronavirus disease (COVID-19) was detected and identified in Wuhan, China. On March 11, the COVID-19 outbreak was characterized as a global pandemic by the World Health Organization (WHO). In the following months, COVID-19 spread rapidly around the world, infecting about 534 million people by June 10, 2020 according to Our World in Data website [1]. The COVID-19 pandemic has affected day-to-day life and is slowing down the global economy, including the pharmaceutical industry. Analysis of the industry's situation in developing countries with pharmaceutical markets is likely to highlight more impacts due to diversification. Evaluating China as a developing country severely affected by the COVID-19 disease could be a good example.

### 1.1 General Background

To the best of our knowledge, this is a large Chinese pharmaceutical company with a pharmaceutical market that is working closely with the world to fight the epidemic.

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Shanghai Fosun Pharmaceutical, as a leading medical and health industry group in China, has a global pharmaceutical market which they finalized the cooperation with the German company BioNTech in just six weeks and obtained the exclusive rights to develop and commercialize its mRNA COVID-19 vaccine in mainland China, Hong Kong, Macao and Taiwan. Fosun's COVID-19 test has been sold in more than a dozen countries due established marketing platforms in the United States, Africa and Europe and has realized direct sales of preparations to the United States market [2].

## 1.2 Research Question

In order to better analyze and evaluate the impact of the epidemic on the pharmaceutical industry, we will discuss the strengths, weaknesses, opportunities, and threats of Fosun Pharma amid the pandemic by using SWOT analysis as evidence.

## 1.3 Reminder of the Paper

Current brief exchange study assesses the pharmaceutical market crisis during the COVID-19 era and selects Chinese pharmaceutical company Fosun Pharma as a specific case study; discusses the multi-faceted impact of the pandemic on Fosun Pharma, and uses SWOT analysis to identify these impacts on decision-making. It is critical that practitioners guide more evidence-based planning to overcome the accompanying challenges.

# 2 Business Analysis

## 2.1 Strengths

All the time, Fosun Pharma dares to innovate new items to aid the citizens. When facing the epidemic, Fosun Pharma actively took the initiative to accelerate the development of COVID-19 testing reagents. For example, its subsidiary, Fosun Diagnostics, independently developed the COVID-19 detection reagent and obtained the medical device registration certificate issued by the State Drug Administration, as well as the EU CE certification and FDA Emergency Use Authorization (EUA). It has been exported to more than 10 countries overseas to fight against the epidemic globally. This enables the firm to increase its potential for making more profit while taking a further step in the field. It not only helps the world to reduce the problem of the epidemic but also strengthens Fosun Pharma's reputation for gaining positive feedback.

Moreover, Fosun Pharma is good at using existing resources to make reliable investments to enlarge the scale of benefits to the company. On March 13, 2020, Fosun Pharma received a license from BioNTech to exclusively develop and commercialize a new crown vaccine product in China while Fosun Pharma agreed to pay BioNTech a license fee of \$85 million and purchased \$50 million of BioNTech shares. This development is based on the use of proprietary mRNA technology, which is named Pfizer–BioNTech COVID-19 vaccine. It only took 6 weeks for the determination to cooperate. Therefore, this early decision gets Fosun Pharma to increase its market value a lot for the less competition

in the same area. It acts as a leader in the pharmaceutical field in the perspective of the COVID-19 on the national scale, in which Also, in January of this year, Fosun Pharma obtained the generic qualification of Molnupiravi, a new oral crown drug from Merck Sharp & Dohme; two months later, it obtained the generic qualification of Paxlovid, a new oral crown drug from Pfizer. This allows the firm to open more doors to various audiences in the market, therefore generating more profit in the long run once the products are stabilized.

Besides the medical investment, Fosun Pharma also possesses a high-quality faculty. Fosun Pharmaceutical Group has nearly 2,300 R&D staff, of which about 1,200 have master's degrees or above. Honesty is the core element in this firm, in which the employees must follow the regulations strictly for providing a professional service to the people. They are also being encouraged to develop their ideas. Ultimately, the cultural value of this firm inspires it to continuously advance its products.

## 2.2 Weaknesses

Nevertheless, an array of investments also has negative impacts on the firm. In 2021, Fosun Pharma's net profit was 4.735 billion yuan, while net investment income was 4.624 billion yuan, a year-on-year increase of 102.45%. It is known that investment is risky, and Fosun's investment strategy has brought it huge profits but also high liabilities. There exists uncertainty for the investment program, which means it has the possibility to either earn or lose a lot. This also indicates the firm lacks independent research and development capabilities and it needs to rely on other companies' products.

Next, compared to other firms, the expense rate of Fosun Pharma is relatively high. From 2016 to 2020, the expense ratio remains between 43.86%-53.68%, and the ratio of expense ratio to gross profit margin is between 81.12%-90.04%. Gross profit is encroached by expense proportion is large, and the company's cost control ability is poor. This is higher than its competitors, such as Hengrui Medicine, whose number is about 70%. Ultimately, this demonstrates that Fosun Pharma has excessive internal friction and it should reduce the expenditure rate.

## 2.3 Opportunities

Since Fosun Pharma doesn't focus on one specific product, plenty of products could reduce the enterprise risk as the firm's market share spreads out over a larger area from a general perspective. It also reduces the fluctuation of the deficit because other goods could fill the loss to a certain degree, which brings a more stable profit-making process for the company. Selling various products means more opportunities in the market because it could fulfill and correspond with more preferences of different consumers. This increases the possibility of making profits as people with different demands purchase these products.

Along with the COVID-19, it changes the preferences and the trend of the consumers. Fosun Pharma could work with the companies that are collaborating with it to search the habit of the consumers. Once master the knowledge of this aspect, Fosun Pharma can have a more matchable business model for making the profits. It should consider the digital services as the fast development of the internet. This not only eases the

requirement for human labor for reducing the expenditure but also extends the business to a wider range to grab more consumers.

In addition, there is a growing trend of the aging population. This illustrates that Fosun Pharma could shift some of its attention to the medicine that targets this future population, such as the products that relate to the immune system and health products. Taking the initiative in the market can get people's attention and strengthen the firm's status as the products become more mature.

## 2.4 Threats

It is common knowledge that the pharmaceutical industry highly relies on the regulations of the government, such as the Central Purchase. Therefore, a sudden policy might affect the cost of the firm a lot, which has an effect on its revenue.

There are also other risks within the firm, too. To begin with, as Fosun Pharma loves to purchase corporations, a number of companies create a burden for managing such a complex system. If there is no solid management, the firm might face corruption in the long run. When talking to a larger scale, as the more and more pharmaceutical industry appears in the market, it would increase the competition for earning the profit. There would yield new technology for a new invention, thus taking the consumers away from the firm. The firm could be domestic scale or even the international scale, which has more funds to support its industry.

## 3 Financial Analysis

### 3.1 Horizontal Comparison

From the horizontal perspective, we analyze from the income statement, cash flow statement and balance sheet.

#### 3.1.1 Company Performance

##### **In the short term, the company's performance is adversely affected by the Covid-19.**

As a comprehensive company, Fosun Pharmaceutical covers multiple fields of pharmaceuticals, equipment and medical services. In the early days of the outbreak of Covid-19, the number of patient visits was lower than in previous years, and the company's medical services and pharmaceutical manufacturing sectors were significantly negatively affected. In 2020, the revenue growth rate of Fosun Pharmaceutical is only 6%, which is at the lowest level in the past five years. And Among this, the year-on-year growth rates of the pharmaceutical manufacturing and R&D industry and the medical service industry are both at low levels. Besides, the growth rate of net profit attributable to the parent in 2020 was 10%, which was lower than 23% in 2019. **In the long run, the epidemic benefits Fosun Pharmaceutical.** Taking into account the rigid medical demand and the growth contribution of core products such as Fubitai (mRNA new crown vaccine), Fosun Pharmaceutical's performance increased in 2021, with a revenue growth rate of 28.7%. Besides, the growth rate of net profit attributable to the parent in 2021 was 29%, reaching the highest level in the past five years.

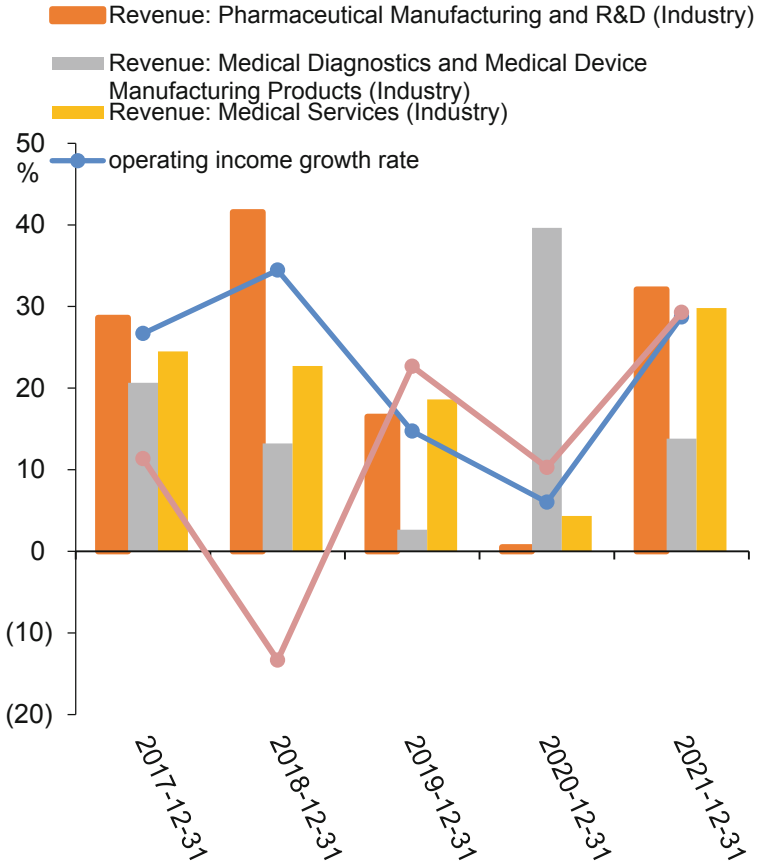


Fig. 1. Revenue growth of enterprises by industry and profit growth.

### 3.1.2 Cash Flow

The cash flow generated by corporate operating activities was positive, and the cash flow generated by investment activities was negative from 2017 to 2020. This showed that **Fosun Pharmaceutical was in a growth stage**, it operated well, and made additional investments to capture the market. Under the influence of the epidemic, the cash flow generated by corporate operating activities in 2020 dropped slightly, and returned to normal levels in 2021.

### 3.1.3 Solvency

From the perspective of solvency, the asset-liability ratio was basically below 50%. The current ratio was basically above 100%, and there was little short-term debt repayment pressure. In 2020, the interest coverage ratio was 2.87, which was below the safety limit of 3. It showed that the epidemic had a certain negative impact on the long-term solvency

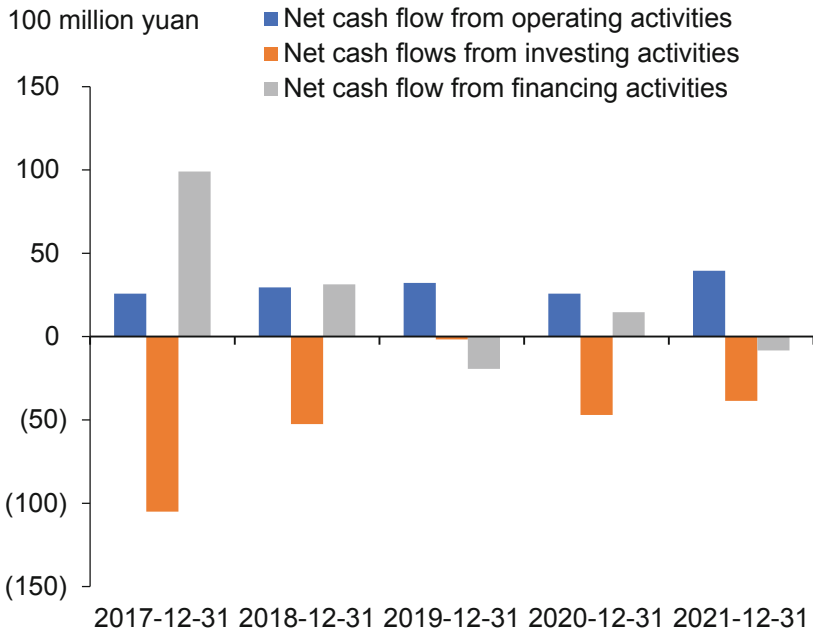


Fig. 2. Cash flow

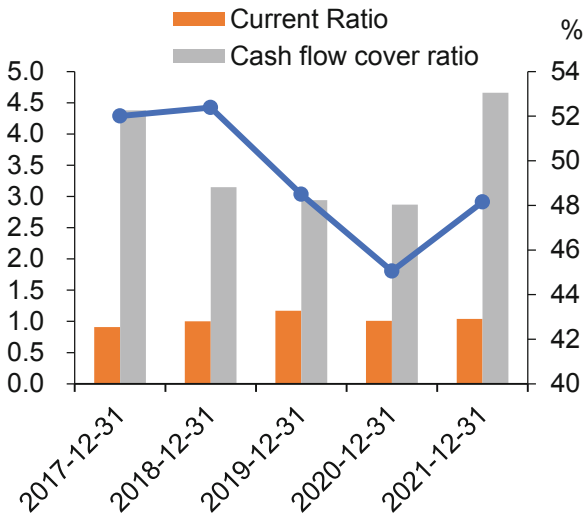


Fig. 3. Corporate solvency.

of enterprises. **In general, Fosun Pharmaceutical's debt level was basically healthy, and it was very good at using leverage to build a huge pharmaceutical empire.**

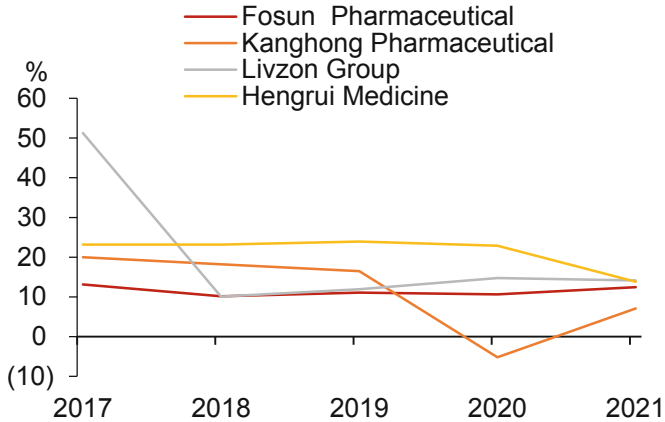


Fig. 4. ROE in 2017–2020.

### 3.2 Vertical Comparison

In terms of vertical comparison, we have selected three companies as comparable companies, namely Kanghong Pharmaceutical, Livzon Group, and Hengrui Medicine. In terms of performance, **Fosun Pharmaceutical's ROE performance was relatively stable, but it lagged significantly behind Hengrui Medicine.** In the five years from 2017 to 2021, the ROE level of Fosun Pharmaceutical was between 10% and 14%, while the average ROE of Hengrui Medical in the past five years was 21%. Specifically, the three factors that determine ROE are equity multiplier, asset turnover ratio, and net sales profit margin. Through DuPont Analysis, it is found that:

#### 3.2.1 The Equity Multiplier

The equity multiplier reflects the size of the company's financial leverage. From 2017 to 2021, Fosun Pharmaceutical maintained above 2.2, while the remaining three comparable companies were around 1.3.

#### 3.2.2 The Net Profit Margin of Sales

The net profit margin of sales expresses the profitability of the enterprise. In 2021, Fosun Pharmaceutical's sales net profit margin was 12%, lower than Livzon Group (16%) and Hengrui Medicine (17%).

#### 3.2.3 The Asset Turnover Ratio

The asset turnover ratio examines the efficiency of the enterprise's asset use. The asset turnover rate of Fosun Pharmaceutical had steadily increased from 0.35 times in 2017 to 0.44 times in 2021, but the asset turnover rates of the other three comparable companies were all above 0.5. Therefore, **Fosun Pharmaceutical used higher financial leverage to achieve operating results, but its profitability and operational efficiency lagged behind comparable companies.**

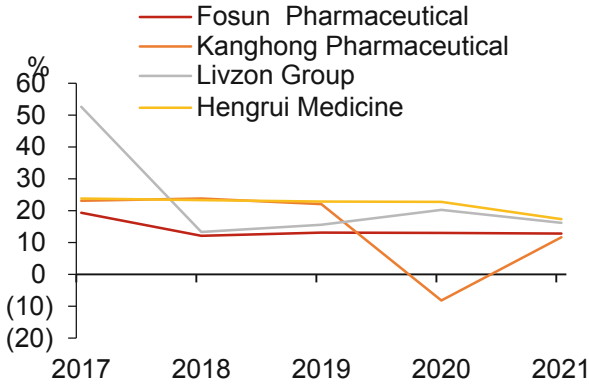


Fig. 5. Equity multipliers in 2017–2020.

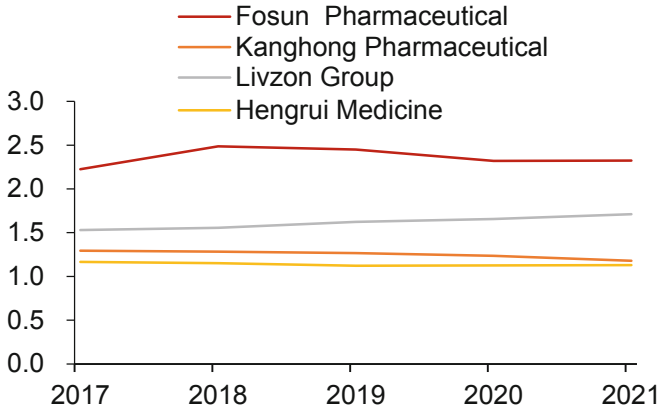


Fig. 6. Net sales margin in 2017–2020.

## 4 Discussion

### 4.1 High Cost and Expense

Fosun Pharmaceutical has a high annual operating income, but its net interest rate is much lower than that of similar enterprises, because the medicine cost of Fosun Pharmaceutical is too high. Besides, the annual growth rate was higher than revenue growth, which means that instead of bringing more profits, the increase of the cost severely compressed the profits and reduced the profitability and growth ability of Fosun Pharmaceutical. The main reason is that the enterprise management policy is strict. And Fosun Pharmaceutical didn't effectively controlled the costs and didn't establish a practical and reasonable internal control system, resulting in a lot of unnecessary costs. If Fosun can't improve its cost control as soon as possible, it would be a big hidden danger for its future development.



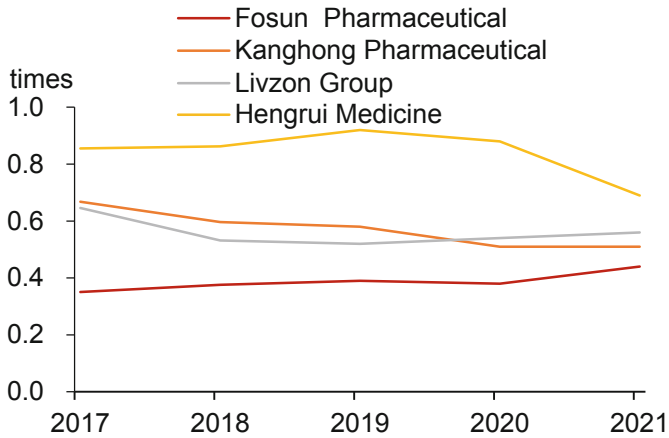


Fig. 7. Asset turnover ratio in 2017–2020.

## 4.2 Difficulties in Transforming

Fosun Pharmaceutical dabbles in pharmaceutical, equipment and medical services, including generic drugs, innovative drugs, vaccines, introduced drugs and many other businesses. Never hesitate to invest in anything that is currently popular. During the COVID-19 pandemic, Fosun acquired the rights to the mRNA of BioTech; Now that the COVID-19 drugs concept appeared, Fosun gained the qualification of generic specific drugs from two international giants as rapidly as possible.

But as a pharmaceutical enterprise, only the one that has strong innovation ability can go further. Fosun's biggest criticism in the capital market is that it has a large r&d pipeline, but generics are still the majority. In 2021, the number of generic drugs of Fosun is 105, while that of innovative drugs is 64. In addition, Fosun is keen on expanding through investment. Acquisition and business introduction are the businesses fosun is quite good at, which gives the market the impression that its independent innovation ability is not strong enough.

The COVID-19 vaccines and specific drugs Fosun invested in may be able to mitigate the negative impact brought by the collective acquisition of generic drugs. However, as a biopharma company whose pharmaceutical industry is still the main source of revenue, whether Fosun can truly transform and successfully embark on the path of independent innovation research and development remains to be seen.

## 5 Conclusion

### 5.1 Current Situation and Future Trend

Based on the business and financial analysis, Fosun Pharma is a company with both merits and shortages: Against the backdrop of the COVID-19 pandemic, Fosun Pharma accelerated the development of COVID-19 testing reagents and invested in lots of promising companies, which gave Fosun more opportunities to improve its business. It can also be

figured out through the income statement, cash flow statement and balance sheet that Fosun was in a stable growth stage, but there is still a certain distance from leading enterprises. Fosun may face the problems of purchasing corporations or the regulations of the government.

According to these, it can be predicted that Fosun Pharma will continue to promote innovation, transformation and full capacity building of globalization in the future, and achieve steady growth in performance and continuous optimization of revenue structure in 2022. Based on the epidemic prevention and control needs, Fosun Pharma will accelerate scientific and technological innovation of anti-epidemic products and guarantee the supply of anti-epidemic materials and strategic products.

Facing the future, Fosun Pharma will continue to adhere to the 4IN (innovation, internationalization, integration and intelligence) strategy, actively layout new technologies and products around the unmet needs of the treatment field, and promote the development and implementation of innovative technologies and products. At the same time, based on the existing advantages of medical resources and Internet platform, Fosun will actively explore online and offline integrated service mode, and promote the transformation of medical Internet.

## **5.2 Limitation**

### **5.2.1 Limitations of Financial Analysis**

Therefore, since the establishment of the company, the company's financial statement analysis system has some limitations. Data cannot directly reflect the social and economic nature of a company in a true and unbiased way. At the same time, due to the enterprise market economic environment changes and the social economic condition of his industry, the relevant data from different periods is likely to be appropriately compared, due to differences in market economic environment change and its industry characteristics. The existence of some special or different industries will lead to the consequence that related data in the market cannot completely have a unified standard. We only analyze the overall financial situation of the whole enterprise in the current year through the main financial information at the date of the balance sheet, which is one-sided and inadequate. The conclusions of index evaluation and analysis may not fully reflect the actual profitability level and development prospects of the enterprise.

### **5.2.2 Influence of Off-Balance Sheet Factors**

The factors that influence the profitability of an enterprise are often complex and multi-faceted, including not only the financial factors on the table, but also the non-financial factors off the table, such as enterprise performance, employee satisfaction, customer satisfaction, etc. In this paper, the in-depth analysis of fosun Pharmaceutical's profitability is mainly based on the data of financial statements and market analysis, there are certain limitations.

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