Comparison of Financial and Operating Conditions of Companies in The Biomedical Industry Before and after COVID-19

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Abstract. The outbreak of COVID-19 has brought various influences to the Biological Medicine industries. any biomedical companies have been fighting on the front lines from beginning to end. This essay uses Mingde Biotechnology Company as the classical case to analyze and compare the Biological Medicine industry's corporate finance and state of operation before and after COVID-19. Through research, Mingde Biotechnology Company experienced a dramatic profit. Therefore, the conclusion is that COVID-19 gives additional benefits to Biological Medicine industries due to the increasing demand for Nucleic acid tests and some other medical supplies. Nevertheless, because of the wane of the pandemic, the demand for the Nucleic acid test which is also the main business of the Biological Medicine industry, so the meaning of the research is to give more ways for this enterprise to continue to gain profits in the post-pandemic era. Companies benefiting from the epidemic should take advantage of this opportunity to develop more cutting-edge medical products, realize domestic substitution, and better serve the people.

Keywords: Corporate finance; State of Operation; Biological Medicine industries; COVID-19.

1. Introduction

The outbreak of the COVID-19 pandemic is so sudden and inevitable that it struck a huge number of industries in the world. However, it is also the cause of the development of many Biology-technology corporations. Without the outbreak of the pandemic, biotech companies cannot thrive because the pandemic provided them the opportunity to create products, which, the most common one is, the nucleic test. Due to the mass production of nucleic tests, both the stock price, revenue, and profit of biotech companies increased rapidly. Therefore, our group wants to investigate deeper into the reasons behind this phenomenon.

The remainder of the article is organized as follows. Section 2 presents the data on the economic condition. In Section 3, the article shows the Counter-Analysis. The last Section presents the conclusion.

2. Data

2.1 Background Information

Wuhan Mingde Biotechnology Co., Ltd. was established in 2008 and is located in Wuhan Optics Valley Biological City, a national biological industry base. It is a professional provider of in vitro diagnostic reagents and supporting instruments (POCT/molecular diagnosis/chemiluminescence/blood gas analysis, etc.) products, as well as the integration of emergency and critical care (chest pain center/stroke center/trauma center), PCR laboratory, intelligent fever clinic, national high-tech enterprise for medical services, Hubei Enterprise Technology Center, and Wuhan Enterprise Research and Development Center. At present, the company's main business has covered nearly 5,000 medical institutions in 30 provinces, municipalities, and autonomous regions across the country, and has achieved sales in Asia, the European Union, South America, and other regions. The company was listed on the Shenzhen Stock Exchange on July 10, 2018, with the stock code 002932.

2.2 Company Analysis

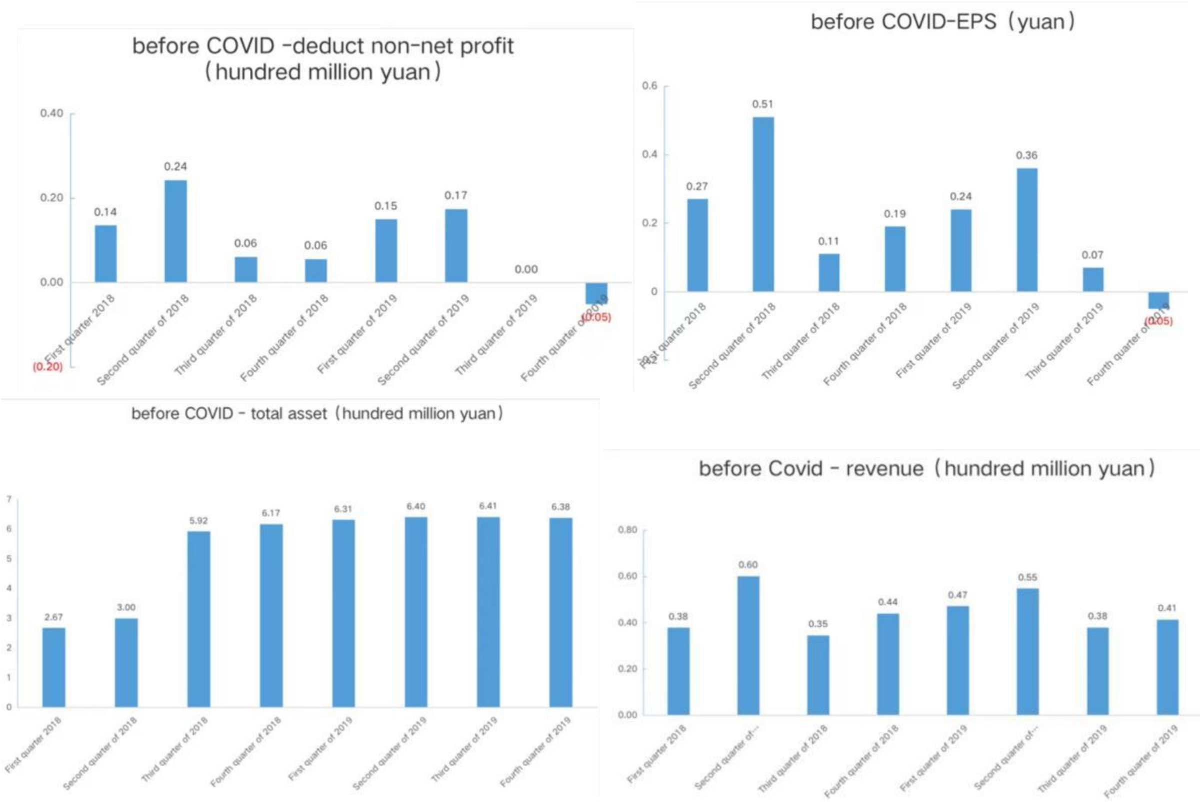

Fig 1. Economic condition before Covid-19

In order to fight against the COVID-19 epidemic, Mingde Bio has urgently developed a new crown nucleic acid detection kit and obtained a registration certificate, becoming a representative IVD enterprise in the epidemic area. At the same time, Mingde's new crown nucleic acid reagents, antibody detection reagents, and blood gas analyzers have also obtained EU CE access, and have obtained the qualifications for sales abroad. The percentage of the reagents used in all laboratories for the new crown nucleic acid detection reagents produced by its company was 19.2% (Fig 1).

Mingde Bio has passed the EU CE certification and ISO13485 quality management system certification successively. It has more than 30 POCT rapid diagnostic reagent products registered with CFDA, and its main business is the independent research and development, production, and sales of POCT rapid diagnostic reagents and rapid detection instruments. Realize the rapid detection of PCT procalcitonin and S100-β protein in whole blood at the bedside. The project covers cardiovascular and cerebrovascular diseases, infectious diseases, kidney diseases, diabetes, health examinations, obstetrics and gynecology, and other fields, and has become one of the domestic companies with rich POCT product lines.

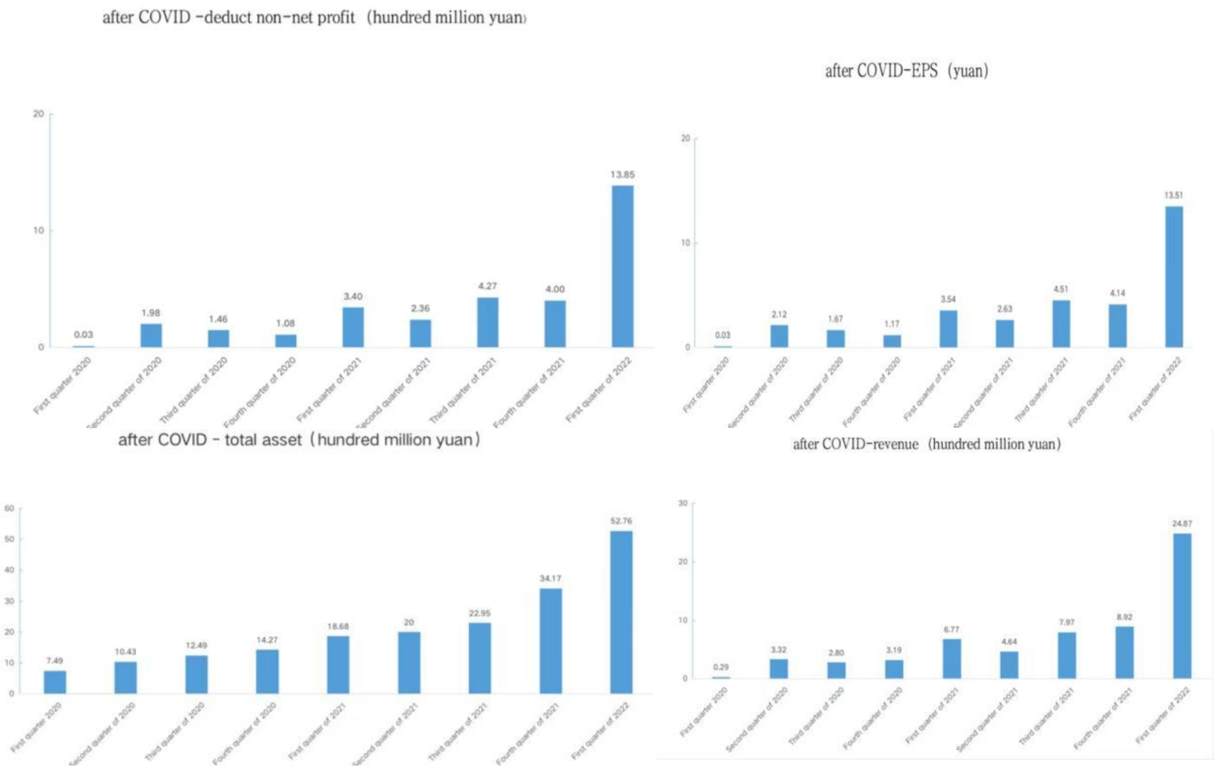

Fig 2. Economic condition after Covid-19

Since 2017, Mingde Bio has successively launched quantitative immunoassay analyzer, dry fluorescence immunoassay analyzer, 12-lead mobile electrocardiograph (remote electrocardiographic network construction), HB1000 glycosylation analyzer, POCT chemiluminescence platform CF10/CP800, Dozens of chemiluminescence reagents, blood gas analysis platform PT1000, new coronavirus nucleic acid detection reagents, and other molecular diagnostic reagents, launched PCR laboratory construction, intelligent construction of fever clinics and overall solutions for nucleic acid detection (Fig 2). The product types of Mingde Biological Company are rapid diagnostic reagents, rapid detection instruments, inspection services, agency products, software products, and technical services

The business scope is the production, development, sales and leasing of Class I, Class II and Class III medical devices (operating with valid licenses); sales of common laboratory reagents (excluding hazardous chemicals and precursor chemicals); medical devices Technical consultation, installation, testing and maintenance; sales and after-sales service of enterprise management software; technology development, technical consultation, technology promotion, and technology transfer of diagnostic technology and medical technology; production and wholesale of analytical instruments and reagents in the fields of agriculture, environment, and food and retail; development, production, wholesale and retail of antigen-antibody products, calibrators and quality control products; manufacturing, wholesale and retail of instrumentation components; development, installation, wholesale and retail of computer software and hardware, and mechatronics products; computer Software technology development, technology transfer, technical consultation and technical services; health consultation (excluding diagnosis and treatment); import and export of goods, technology import and export, agency import and export (excluding goods or technologies whose import and export are prohibited or restricted by the state).

The layout of Mingde Bio in the field of rapid diagnosis fully meets the detection needs of medical institutions for acute and critical illness, and has achieved the coverage of multiple scenarios such as in-hospital, central and primary hospitals, and pre-hospital first aid, and has established a complete, scientific and standardized system. Quality control system. In order to respond to and implement the requirements and standards of the National Health and Family Planning Commission on the construction of chest pain centers, Mingde Bio also focuses on creating an integrated solution for chest pain centers to help medical institutions shorten the treatment time of patients with acute chest pain in the region and improve the treatment of patients with acute myocardial infarction.

2.3 Before COVID-19

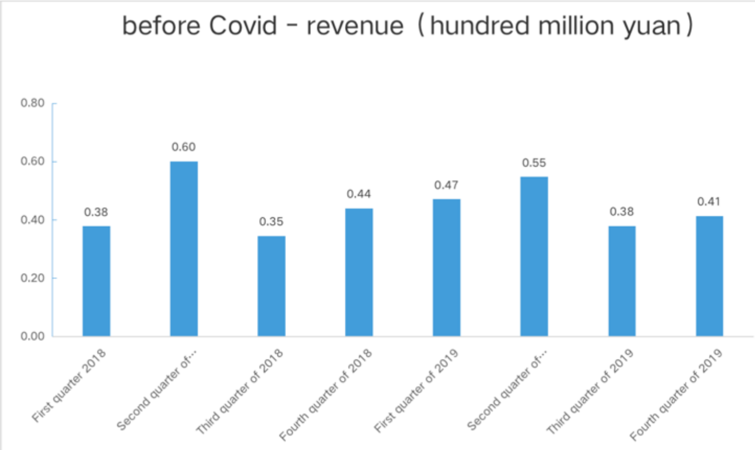

Fig 3. Revenue before Covid-19

It can be seen from the quarterly gross revenue chart of Wuhan Easy Diagnosis Biomedicine Co., Ltd, that from the first quarter of 2018 to the fourth quarter of 2019, the highest quarterly revenue is about 0.6 million yuan, and the lowest is about 35 million yuan. In 2018, there was a total of 176.4 million yuan of revenue, and in 2019, the total was 181.2 million yuan, a year-on-year increase of 2.71% (Fig 3).

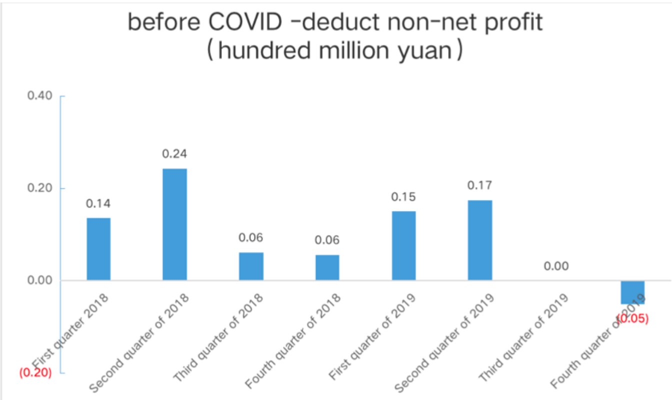

Fig 4. Non-net profit deduction before Covid-19

As can be seen from the chart of quarterly non-net profit deduction from 2018 to 2019, the company's non-net profit deduction declined in the third and fourth quarters of 2019, especially the negative growth in the fourth quarter, resulting in a year-on-year decrease of 39.73% in 2019 (Fig 4).

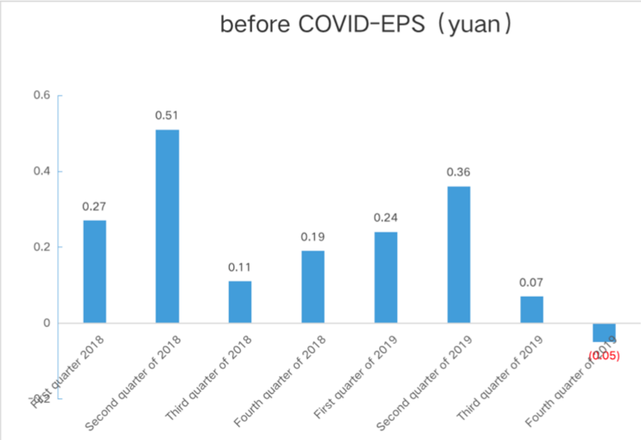

Fig 5. EPS before Covid-19

According to the chart of the company's EPS, in 2019, the EPS decreased by 42.59% year-on-year, especially in the second half of 2019, the EPS was only 0.02 yuan, which was a serious month-on-month decline (Fig 5).

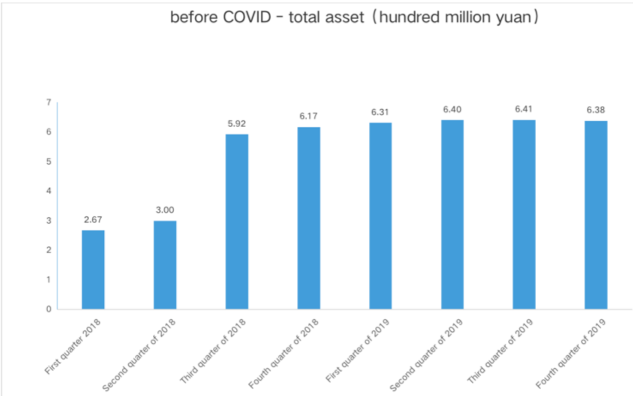

Fig 6. Total assets before Covid-19

The total assets of Wuhan Easy Diagnosis Biomedicine Co., Ltd were 267 million yuan and 300 million yuan in the first and second quarters of 2018 respectively. From the third quarter of 2018 to the fourth quarter of 2019, it basically maintained between 592 million yuan and 641 million yuan. The increase in total assets in the third quarter of 2018 was due to the 340.4 million yuan raised from the IPO on July 10, 2018 (Fig 6).

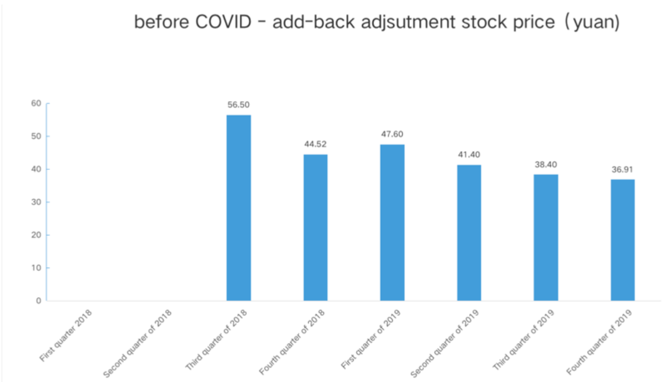

Fig 7. The stock price before Covid-19

According to the analysis of the chart data, the stock price did not perform well in 2018 and 2019 before the COVID pandemic. The stock price showed a gradual downward trend from the beginning of the listing on July 10, 2018 to the fourth quarter of 2019, decreasing from 56.30 yuan per share at the end of the first quarter of the listing to 36.91 yuan per share at the end of the fourth quarter of 2019 (the stock price is the price of add-back adjustment). The stock price fell 34.44%, which has a similar overall performance and performance trends (Fig 7).

2.4 After the COVID-19 pandemic

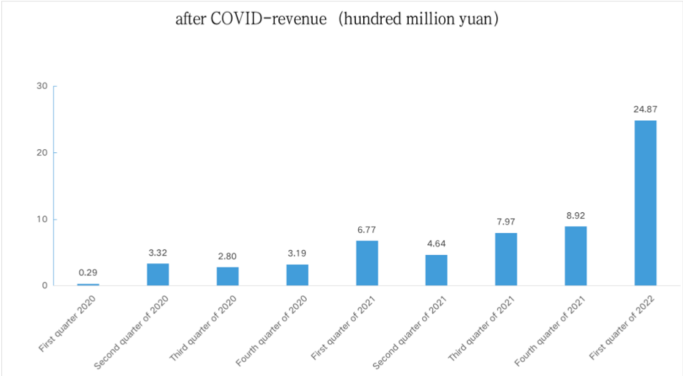

Fig 8. Revenue after Covid-19

It can be seen from the above quarterly operating revenue chart of Wuhan Easy Diagnosis Biomedicine Co., Ltd, that the operating revenue increased significantly after the epidemic. In the second quarter of 2020, the revenue reached 332 million yuan, which is close to the revenue of 2018 and 2019 combined. Revenue was 959.1 million yuan in 2020 and 2.83 billion yuan in 2021, increasing 195 percent year-on-year. Year-over-year revenue growth reached 267.41% in the first quarter of 2022 (Fig 8).

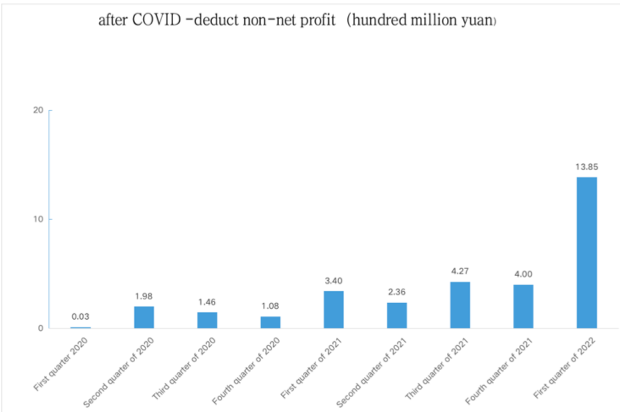

Fig 9. Non-net profit deduction after Covid-19

From the chart of quarterly non-net profit deductions from 2020 to 2022, it can be seen that the company's non-net profit deduction in the second quarter of 2020 soared year-on-year and quarter-on-quarter. In the first quarter of 2022, it reached 1.385 billion yuan, an increased of 307.04% year on year (Fig 9).

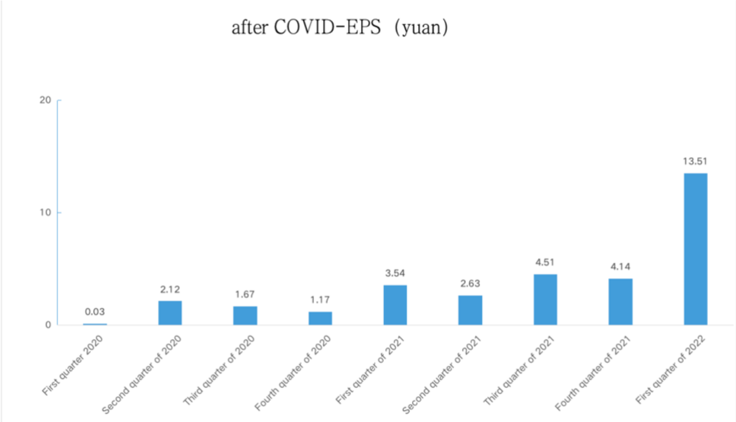

Fig 10. EPS after Covid-19

After the pandemic from the company's EPS chart, the EPS of 2021 rose by 196.99% year on year, it is worth mentioning that the first quarter of 2022 EPS reached 13.51 yuan, close to the total of 2021 EPS (Fig 10).

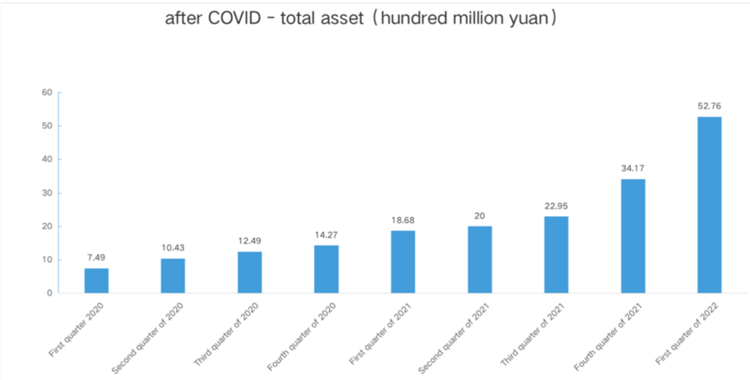

Fig 11. Total asset after Covid-19

The total assets of Wuhan Easy Diagnosis Biomedicine Co., Ltd showed a leap-forward growth from the first quarter of 2020, from 749 million yuan in the first quarter of 2020 to 5.276 billion yuan in the first quarter of 2022, an increase of 604% in two years. The rapid increase in total assets was due to the soaring performance (Fig 11).

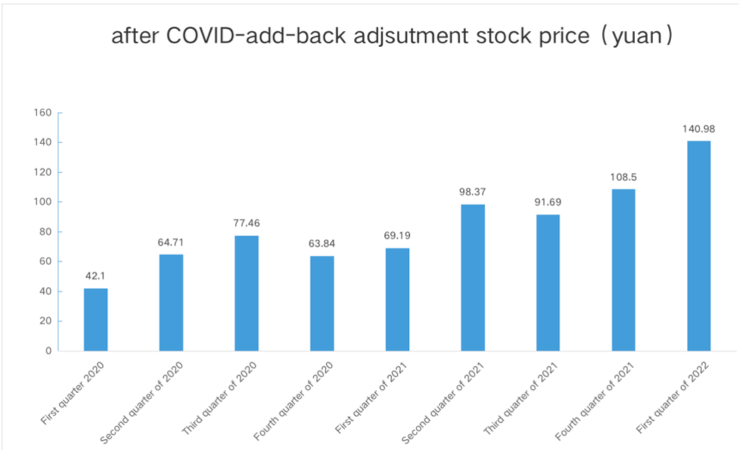

Fig 12. Stock price after Covid-19

Let's analyze the performance of the stock price from 2020 to the first quarter of 2022 after the pandemic. The stock price showed a gradual rise from 42.1 yuan per share to 140.98 yuan per share (the price is the price after the add-back adjustment). The stock price increased by 234.77% in two years. The overall performance is quite impressive (Fig 12).

3. Counter-Analysis

While other industries, such as the luxury-goods industry and car-sale industry had experienced a 70-90% decrease of sales and a plummet in stock price, the Wuhan Mingde Biotechnology Co., Ltd had experienced a 234.9% increase in stock price within 2 years. Apparently, the reason behind this phenomenon is the COVID-19 pandemic. During the pandemic, the demand for the Nucleic acid test has risen at an extremely fast rate, and Wuhan Mingde Biotechnology had seize the business opportunity to heavily produce the COVID-19 test kits. With increasing demand and increasing supply, the equilibrium price of COVID-19 test kits has also risen drastically, bring a large amount of profit to the corporation, and in turn, increasing the stock price. The suggestion of the enterprise is that as the pandemic wanes, they should focus more on developing other medical tools and medicines since the demand for COVID-19 test kits will be gradually decreasing.

4. Conclusion

Since the outbreak of COVID-19 in Wuhan, China in early 2020, all parts of the country have been greatly affected by the epidemic. China's general policy on epidemic prevention is to adhere to the "dynamic zero elimination" policy and protect people's lives and health to the maximum extent.

Due to the epidemic prevention and control over the past two years, China's medical system has made great progress, especially in COVID-19 vaccine, testing and treatment. We analyzed the financial data and announcements of Wuhan Easy Diagnosis Biomedicine Co.,Ltd. before and after the epidemic. In the early stage of the epidemic, Wuhan Easy Diagnosis Biomedicine Co.,Ltd. rapidly developed COVID-19 nucleic acid detection reagents. At the beginning of the product market, nucleic acid testing costs more than 200 yuan per person. As a result, the company's performance has also achieved leap-forward growth, with its total operating revenue soaring from 181.2 million yuan in 2019 to 5.253 billion yuan in the first half of 2022. From the data, we can see that the epidemic is developing rapidly in China and around the world. The number of nucleic acid tests has increased considerably, although the price of our country's mixed nucleic acid test is reduced to 3 to 5 Yuan per person. But because of the high number of tests, the cost of the epidemic has risen, as evidenced by the growth in Wuhan Easy Diagnosis Biomedicine Co. Ltd.’s revenue. There are also many listed companies whose products are related to the epidemic that have also achieved considerable development. The epidemic will eventually come to an end. Companies benefiting from the epidemic should take advantage of this opportunity to develop more cutting-edge medical products, realize domestic substitution, and better serve the people.

This paper mainly analyzes the development of Wuhan Easy Diagnosis Biomedicine Co.,Ltd. in the past two years from the data before and after the epidemic, so as to provide a reference for other enterprises to create opportunities in emergencies. The perspective of this paper is relatively single, and it only obtains data from the financial statements and social news of Wuhan Easy Diagnosis Biomedicine Co.,Ltd. In the future, it is necessary to add a large number of enterprise and social surveys, analyze more detailed problems and solutions, and make contributions to the development of Chinese enterprises.

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