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# *Financial Statistics Analysis of Microsoft, Apple, Pfizer and Merck*

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***Abstract:*** The COVID-19 pandemic has had far-reaching effects on global industries. The pandemic's impact on financial performance varied widely across sectors. This report aims to provide a preliminary understanding of the impact of the pandemic on companies in different industries and with different business models. This report selects four other companies, Microsoft, Apple, Pfizer, and Merck, from two different sectors, pharmaceuticals and technology. By comparing companies from these diverse industries, the report gains insights into the different business models reflected in their financial data. The financial statistics examined include annual stock returns, EBIT margin, and EPS. This analysis of technology and pharmaceutical companies' financial data highlights differences in performance and trends. The findings emphasize the significance of operating margin and EPS as key indicators of financial performance across industries. The differing financial performances of these four companies before and after the pandemic are primarily influenced by the characteristics of their respective industries, the nature of their business operations, and their financial strategies.

***Keywords:*** Financial Analysis, EBIT Margin, Pharmaceuticals

## 1. Introduction

The COVID-19 pandemic, which emerged in late 2019, has had far-reaching effects on global industries. Supply chains were disrupted, consumer behavior shifted, and healthcare systems strained. As companies adapted to these changing circumstances, the pandemic's impact on financial performance varied widely across sectors. This report aims to provide a preliminary understanding of the impact of the pandemic on companies in different industries and with different business models. This report discusses the key financial statistics of four companies from two industries. The four companies selected are Microsoft, Apple, Pfizer, and Merck. The first two companies are from the information technology industry while the latter two companies are from the pharmaceutical company. The three financial statistics evaluated are annual stock return, EBIT margin (EBIT / Total Revenue), and earnings per share (EPS).

The two technology companies are Microsoft and Apple. Microsoft was established in 1975 by Bill Gates and Paul Allen and is widely recognized for its Windows operating system and Office software suite. Over the years, Microsoft has been at the forefront of groundbreaking advancements in cloud computing, gaming, and AI revolutionizing both businesses and individuals leveraging technology. The other company, Apple, was founded in 1976 by Steve Jobs, Steve Wozniak, and

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Ronald Wayne. It is the largest technology company today by revenue, and many of its product lines have widespread global impacts. Notable products include iPhone, Mac, and iPad. It is the most famous technology company in the last few decades.

Meanwhile, the two pharmaceutical companies selected in the paper are Pfizer and Merck. Pfizer is a global leader in biopharmaceuticals. It has made advancements in healthcare by developing innovative medications across different areas of therapy. Through its dedication to research, Pfizer has successfully enhanced the quality of life for millions of people worldwide. The most famous product lately is its COVID-19 vaccine, which has a widespread impact around the world. Merck & Co is renowned globally for its contributions to healthcare and drug advancements. With its roots in the United States, Merck has earned a reputation as a leader in the field. Throughout the years, their research-driven approach has yielded lifesaving medications and vaccines that tackle critical health issues on a global scale. In addition to their endeavors, Merck also focuses on animal health, research tools, and performance technologies.

The rest of this report is organized as follows. The second section analyzes key financial data collected in this research. The last section concludes.

## 2. Financial Analysis

As mentioned in the previous section, this report collects financial statistics of annual stock returns, operating margin, and earnings per share. Table 1 shows all the statistics collected from 2019 to 2022.

Table 1: Summary of Financial Statistics, Data sources: 2019-2022 Annual Reports of Microsoft, Apple, Pfizer and Merck

| **Annual stock return** | **2019** | **2020** | **2021** | **2022** |
|---|---|---|---|---|
| Microsoft | 65.41% | 37.71% | 35.19% | -19.57% |
| Apple | 88.75% | 72.02% | 33.26% | -16.96% |
| Pfizer | -9.02% | 5.77% | 52.53% | -13.48% |
| Merck | 17.93% | -6.93% | 14.82% | 36.06% |
| **EBIT/Total Revenue** | **2019** | **2020** | **2021** | **2022** |
| Microsoft | 34.14% | 37.03% | 41.59% | 42.06% |
| Apple | 24.57% | 24.15% | 29.78% | 30.29% |
| Pfizer | 26.90% | 20.90% | 24.89% | 37.15% |
| Merck | 26.13% | 17.68% | 27.10% | 30.84% |
| **Earnings Per Share** | **2019** | **2020** | **2021** | **2022** |
| Microsoft | 5.06 | 5.76 | 8.05 | 9.65 |
| Apple | 2.97 | 3.28 | 5.61 | 6.11 |
| Pfizer | 2.82 | 1.63 | 3.85 | 5.47 |
| Merck | 3.81 | 2.78 | 5.14 | 5.71 |

The first financial statistics to be analyzed in the report is the annual stock returns, which measures the percentage shift, in the value of a stock over a year taking into account any dividends and gains or losses. It offers investors a view of how their investment is performing helping them assess the success of their portfolio choices and make comparisons, with benchmarks or other investments.

It is calculated by the annual change in adjusted close price collected from Yahoo Finance. Such measures considers both capital gain and dividends during the time period, which is thus more accurate measure of annual stock return than simply using closing prices. Figure 1 presents the graph depicting the change in annual returns of the four selected companies.

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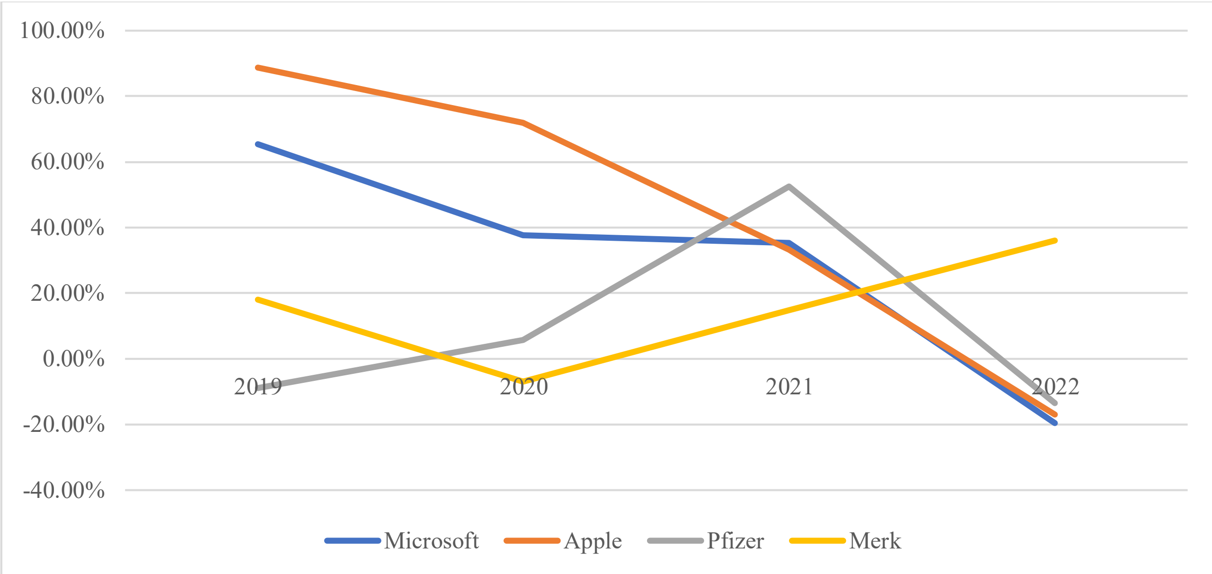


Figure 1: Trend of Annual Returns, Data sources: 2019-2022 Annual Reports of Microsoft, Apple, Pfizer and Merck

There is a clear difference in trends between tech companies and pharmaceutical companies. In general, tech companies have enjoyed fast growth before 2021 and suffered a considerable decline in 2021 and 2022. The overall trend is declining, though the previous annual return is astonishing. For instance, Microsoft and Apple had over 60% returns in 2019, decreasing gradually each year to a loss of 20% in 2022. Their trends of decline are similar.

Pharmaceutical companies start with quite low stock returns, with Pfizer having a negative return in 2019. However, their returns become higher and positive in 2020 and 2021, primarily due to the impacts of the COVID-19 pandemic, which tends to affect most businesses negatively. Kimball, in 2022, pointed out that the pandemic has driven Pfizer's revenue to a new height of $100 billion due to significantly increasing demand for vaccines and medicines [1]. However, their performance declined again as the pandemic era is phasing out. Both Pfizer and Merck's annual returns in 2022 become negative.

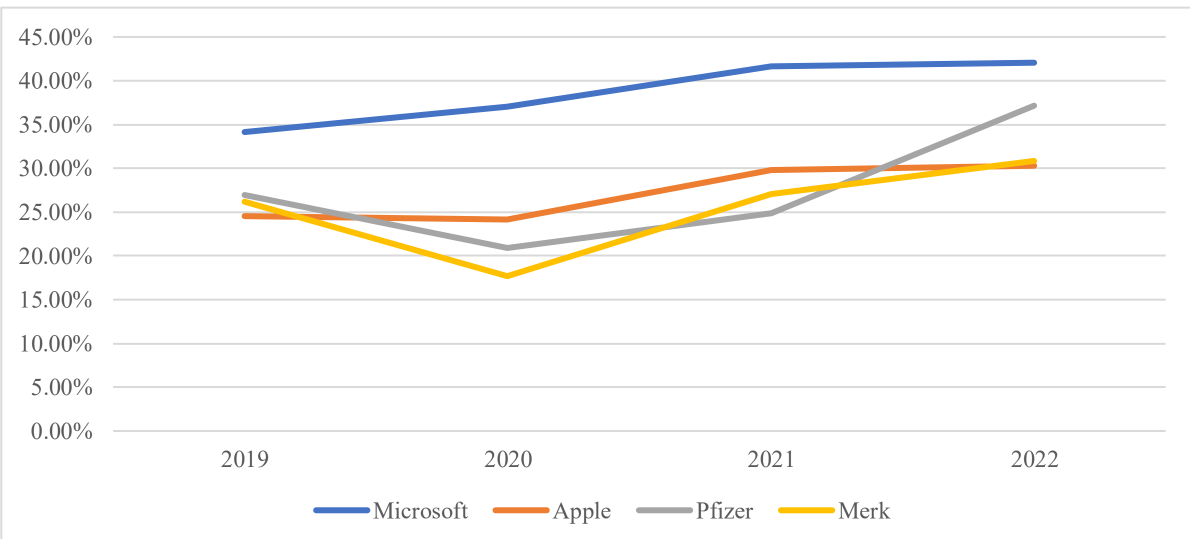


Figure 2: Trend of Operating Margin

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The following financial statistic to explore is the operating margin, shown in Figure 2, calculated by dividing EBIT by total revenue. Operating margin is a key profitability metric that indicates how efficiently a company manages its direct costs and operating overheads [2].

Generally, the trend is increasing from 2019 to 2022 for all four companies. Only Microsoft shows continued improvement during this time. The other three companies also offered considerable deterioration in operating margins in 2022 and then bounced back in 2021 and 2022. For instance, Pfizer's operating margin declined from 26.90% to 20.90% from 2019 to 2020 and then increased to 24.89% in 2021. In addition, tech companies generally have a smoother curve on operating margins than pharmaceutical companies [3].

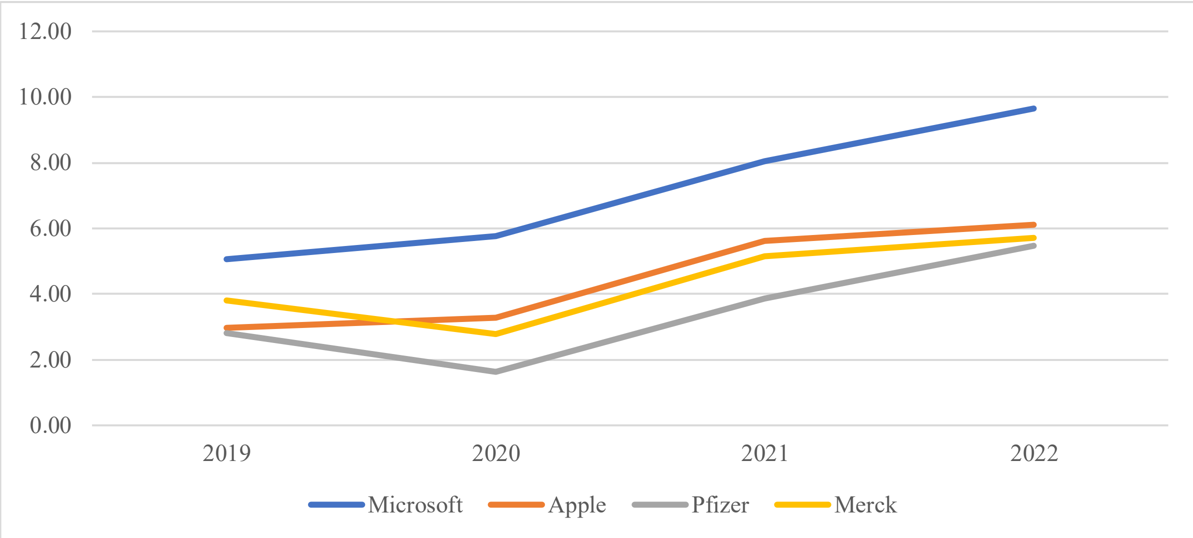


Figure 3: Trend of EPS

The third financial statistic explored in this report, shown in Figure 3, is the earnings per share (EPS), which is net income divided by total shares outstanding. It is a vital financial metric that indicates a company's profitability, with higher EPS values often being viewed favorably by investors and analysts in assessing stock value. Similar to the operating margin trend, higher EPS would indicate higher net income and, thus better financial performance [4]. pointed out that EPS generally has a significant and positive impact on stock returns, and the market perceives typically higher EPS than the previous period as a positive signal. Microsoft has continuously increased EPS, while the other three companies have a generally rising trend but suffered setbacks in 2020.

## 3. Analysis

From the data analysis above, it can be observed that before and after the pandemic outbreak, companies from different industries exhibited two completely contrasting trends in their financial indicators. To explain this phenomenon, there are several influencing factors:

Firstly, it is influenced by the characteristics of the companies' industries. For the pharmaceutical industry, despite being impacted by the outbreak of the pandemic in its early stages, disrupted business activities led to a decline in EBIT margins, and capital markets witnessed a sell-off of all stocks due to risk concerns, causing stock prices to fall. However, as time progressed, the market's demand for effective drugs to combat the pandemic grew more muscular, with hopes that major pharmaceutical companies could develop drugs capable of controlling the situation in a short time. This led to significant investments from governments and enterprises. Consequently, both Pfizer and Merck experienced substantial increases in stock prices, profit margins, and EPS in 2021 [5]. As for companies in the technology sector, including Microsoft and Apple, like other industries, panic in the capital markets resulted in a shift from high-speed growth in tech company stock prices before the pandemic to a rapid decline. However, from a business operations perspective, the pandemic affected tech companies less. Additionally, as life and production gradually returned to normal, the demand for remote work and cloud services surged globally, driving the development of tech companies once again and even opening up greater online business opportunities [6]. This trend also explains the rise in EBIT margin after the pandemic.

At the same time, the fluctuation in financial data is also influenced by company characteristics. Microsoft's EBIT margin showed an upward trend during the initial pandemic outbreak in 2020. The main reason for this difference lies in the impact of their revenue structures. Of Microsoft's total revenue of $198.3 billion in 2022, $67.3 billion came from its server products and cloud services, and Office software contributed $44.9 billion in revenue. The disruption in social production caused by the pandemic had a relatively small impact on the sales of software-type products. Furthermore, the rapid rise in demand for remote work and cloud services further contributed to Microsoft's performance. Therefore, despite the pandemic outbreak, Microsoft's gross profit margin has gradually increased in recent years. And Apple's gross profit margin has shown a similar trend [7].

As for pharmaceutical companies, despite significant research and development investments in 2020, the capital markets responded quickly. However, changes in the company's operating revenue had a certain lag. Pharmaceutical research and development have a particular cycle, and the contribution of COVID-19 antiviral drugs to pharmaceutical company revenue was only reflected in 2021-2022.

In addition, the choice of different financial strategies has also brought about various financial performances for these companies. Microsoft and Apple consistently operate under prudent financial strategy, focusing on shareholder returns. Their EPS has steadily increased over time. On the other hand, Pfizer and Merck focused more on research and innovation during the pandemic, which led to higher returns and introduced a certain level of volatility.

## 4. Conclusion

To sum up, this report collects financial statistics from four companies and analyzes these statistics' trends over time. Annual stock returns have declined gradually over the years for tech companies, and they suffered particularly heavily in 2022, where both Microsoft and Apple sustained a loss of around 20%. The pharmaceutical companies had improved performance in 2020 and 2021 due to increased sales associated with the COVID-19 pandemic (i.e., vaccines). The operating margins and earnings per share trends are raised over the four years for all four companies. Microsoft has smooth and continued improvement over the years, while other companies suffered setbacks in 2020 and subsequently bounced back.

The differing financial performances of these four companies before and after the pandemic are primarily influenced by the characteristics of their respective industries, the nature of their business operations, and their financial strategies. For technology companies like Apple and Microsoft, although the pandemic had short-term impacts on their operations, the new market demands generated by the pandemic presented long-term growth opportunities. These companies were able to adapt to changing circumstances and benefit from increased demand for remote work and cloud services. In contrast, pharmaceutical companies experienced more pronounced short-term disruptions due to the pandemic. However, the surge in demand for COVID-19 treatments and vaccines prompted increased investments in drug development. The annual stock return for pharmaceutical companies in the post-pandemic period was significantly influenced by market sentiment. The panic-driven market downturn in 2020 affected global capital markets, while positive expectations related to drug

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development led pharmaceutical firms to exhibit an upward trend in 2021, distinguishing them from the technology sector.

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