Forecast on Lenovo Futures by Analyzing its Internal Operations as Well as the Current Environment

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Abstract. During the difficult time of COVID-19, many businesses in different industries have experienced an economic downturn, causing their future development uncertain to foreseen. The research on the future trend of the IT industry is important because the technologic companies are dependent on customers that either the companies' internal features and external environment can influence people's buying powers. This paper chose Lenovo, a Chinese technologic company that dominates the global market, from the IT industry to analyze its strengths and weakness, as well as the impact of the current situation. This paper looked at Lenovo's financial data and stock price, along with Lenovo's strategies and operating process, to identify Lenovo's present-day situation. Although Lenovo holds a strong position in the global market right now, with the ongoing unfavorable environment such as the trade war between U.S. and China and the rampant of counterfeits, Lenovo is facing threats of losing its stock price. This paper contains a detailed analysis of Lenovo's strengths and weaknesses and the environment it has to deal with. The paper provides evidence to predict Lenovo's future development and suggestions to expand the existing market.

Keywords: Covid-19; IT industry; Trade war; Counterfeits.

1. Introduction

The burst of COVID-19 triggers the global economy's downturn and decreases people's overall buying power [1]. Among all the industries, retail, transportation, and travel are hit the most by the pandemic: their business stagnates, and some small businesses are even dropped out of the industry [2]. However, the development of the IT industry during this difficult period is uncertain with the current research and news.

Besides, the tensions of the trade war between US and China are persisting. According to BBC News, the US has imposed tariffs on more than $360bn of Chinese goods, and China has retaliated with tariffs on more than $110bn of US products [3]. These policies negatively affect the businesses of both countries by restricting the transaction between them.

In addition, software piracy is still a widespread problem, and it is hard to eradicate all of them, especially in China. A study shows that “software piracy in China has been difficult to eradicate is because those purchasing illegal licenses are operating under a different set of cultural perceptions” [4]. How the common of software piracy impacts Chinese technology companies that mainly rely on software systems in their products has become a major question in this paper.

Therefore, with the current environment under the explosion of Covid-19, trade war, and software piracy, this paper researches the prospects of IT industry and would like to focus on Chinese companies. Since Lenovo is a Chinese technology company that dominates in the global market, this paper is going to deeply analyze Lenovo's situation during the present day and predict its future development.

Since Lenovo holds one of the strongest positions in the global IT market, it will have some unique strengths and opportunities from the environment that enable it to maintain the place. However, based on Lenovo’s stock price and valuation measures, Lenovo is fluctuating down a little bit comparing to its stock price three months ago. Lenovo now has a strategy known as “protect and attack,” combining defensive and offensive elements. Defensively, Lenovo seeks to build on its success in China. While offensively, Lenovo seeks to grow internationally by leveraging acquired assets and expanding sales to emerging markets [5].
The decrease of its stock price convinces that Lenovo's strategies have some limitations that they need to improve. Lenovo might still have some weakness that threatens its high position along with the dissatisfied environment. Therefore, this paper’s research question would be: what abilities Lenovo does have to dominate in the IT industry and how the current environment provides opportunities and threats to its business?

To analyze the question, I visited Lenovo’s official site to acknowledge its main business and products, read articles on the current events of Lenovo, and looked up to Lenovo’s financial data such as cash flow, income statement, and stock prices. After this research, I gathered all the information and make a SWOT analysis for Lenovo. Then I researched the current environment that might positively or negatively affect Lenovo. I deeply looked through the trade war between US and China and the tariff policies between the two countries, the COVID-19's impact on people's economic and social lives, as well as the trends of technology in the future.

To organize my paper, I put all the financial data in the second part of my paper. I compared Lenovo's present-day data to Lenovo previous years’ data and analyze what causes these differences. In the third part of my paper, I created SWOT analysis. I listed out the unique advantage Lenovo has, the opportunities around the current society that can help Lenovo boost their business, and the weakness along with the threats that might hurt Lenovo's position. As for the fourth part, I suggested some opportunities and harms that Lenovo might need to face. I provided some advice for Lenovo's future development at the end of the paper.

Along with its unique strongness such as Lenovo has innovative design in the industry, great marketing strategies among customers, and strong decisions toward acquisition and merging, Lenovo plays a leading role in the global market. As the global demand for PC is increasing in the current market and the Chinese Government is spending more on IT, Lenovo gains the opportunities to expand its presence. However, Lenovo might experience stagnation or even retreat due to Lenovo's main competitors begins to occupy the market and the market comes up with fake products and imitation of PC, which will affect Lenovo's own sales. Besides, the trade war between the US and China can cost Lenovo on its fiscal report.

2. Firm Description

Lenovo Group Limited (Lenovo), a Chinese multinational technology company, designs and sells multiple electronic products such as PC, IT management software, and ThinkPad [6]. Lenovo is founded in Beijing in 1984. At the start point of Lenovo’s foundation, each of the founders was a member of the Institute of Computing Technology of the Chinese Academy of Sciences (CAS) [7]. It now has global headquarters in Beijing, China, and is incorporated in Hongkong. As a global technology company, Lenovo has operational headquarters in Morrisville, North Carolina, US, and an operational center in Singapore [8]. Based on Lenovo's website, Lenovo is a US$47 billion personal technology company with more than 57,000 employees. Lenovo is also a global company that serves more than 160 countries. On September 24, 2004, Lenovo purchased the personal computer business and the brand "ThinkPad". Recently, the ThinkPad has gained widespread popularity and has become a popular choice for schools and businesses because of its security, performance, and durability [9]. The success of ThinkPad is one of the reasons to enable Lenovo to take a leading role in the IT industry.

Below is this paper’s analysis toward Lenovo’s cash flow, income statement, and stock price.

2.1 Cash Flow

Table 1 is Lenovo’s cash flow for the year ended March 31. This paper compared the data in 2020 and 2021. The net cash generated from operating activities in 2021 is 3,652,773, while in 2020 is 2,209,923, showing that Lenovo is increasing its cash-generating abilities from the operations. However, the Cash and cash equivalents at the end of the year in 2021 is 3,068,385, while the Cash
and cash equivalents at the end of the year in 2020 is 3,550,990. Such a significant amount of decrease in cash and cash equivalents reveals that it is harder for Lenovo to convert its items to cash.

Table 1. cash flow of Lenovo

<table>
<thead>
<tr>
<th>Cash flows from operating activities</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net cash Generated from operations</td>
<td>4,585,995</td>
<td>3,006,556</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(309,361)</td>
<td>(404,691)</td>
</tr>
<tr>
<td>Tax paid</td>
<td>(623,861)</td>
<td>(391,942)</td>
</tr>
<tr>
<td><strong>Net cash Generated from operating activities</strong></td>
<td><strong>3,652,773</strong></td>
<td><strong>2,209,923</strong></td>
</tr>
<tr>
<td><strong>Cash and cash equivalents</strong></td>
<td><strong>3,068</strong></td>
<td><strong>3,550</strong></td>
</tr>
<tr>
<td>at the end of the year</td>
<td>385</td>
<td>990</td>
</tr>
</tbody>
</table>

2.2 Valuation Measures

This paper analyzed Lenovo's valuation measures on Yahoo Finance (Table 2). Lenovo has a current Market Cap of 13.06B, which is a large-cap, meaning that Lenovo is worth enough to be determined by the stock market. Lenovo also has a high Enterprise value/EBITDA value, which is 4.02. All of the data below indicates that Lenovo is a healthy firm. However, comparing to the data from the last fiscal year (3/31/2021), each of the current measures decreases, convincing that Lenovo is stepping back in the market.

Table 2. Valuation Measures of Lenovo

<table>
<thead>
<tr>
<th>Market Cap (intraday)</th>
<th>13.06B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Value</td>
<td>14.35B</td>
</tr>
<tr>
<td>Trailing P/E</td>
<td>10.09</td>
</tr>
<tr>
<td>Forward P/E</td>
<td>N/A</td>
</tr>
<tr>
<td>PEG Ratio (5 yr expected)</td>
<td>N/A</td>
</tr>
<tr>
<td>Price/Sales (ttm)</td>
<td>0.2</td>
</tr>
<tr>
<td>Price/Book (mrq)</td>
<td>3.94</td>
</tr>
<tr>
<td>Enterprise Value/Revenue</td>
<td>0.22</td>
</tr>
<tr>
<td>Enterprise Value/EBITDA</td>
<td>4.02</td>
</tr>
</tbody>
</table>

2.3 Stock Price

In addition, this paper looked at Lenovo’s stock price this year (figure 1). Lenovo has a highest stock price from March to May that the stock price is over 22.5 dollars every day. However, the stock price begins to decrease after May and it has a little fluctuation from May to September. Although most of the stock still have valuable price, it is significant for us to do SWOT and PEST analysis to figure out what cause these movements of the stock price.

Figure 1. Lenovo’s stock price
3. Swot Analysis

3.1 Strength

(1) As a leader to provide commercial technology in global market, Lenovo has abilities to manage its cost effectively, which in turn achieves high effectiveness to make innovative product.

According to the company's worldwide business activities, Lenovo is committed to driving reductions in greenhouse gas and reporting on its efforts annually. The article Lenovo is Cutting Emissions While Creating Cost Savings said that by 2020, Lenovo is achieving its emission reduction target of 40 percent combined Scope 1 and 2 emissions comparing to 2009, along with the requirement for at least 75 percent of its direct suppliers by spending to have climate change reduction targets [10]. After the reduction of cost, Lenovo is able to put more budget on innovation, thus creating more innovative products to increase its competitiveness.

In his article Lenovo: Driving Business Success Through Innovation in WIPO Magazine, Fred Gao talked that Lenovo never stops creating new categories of products that increase the consumers' experience, and in turn, making itself stand out from the competition. The article also shows the company's innovative process: "All employees are encouraged to share their ideas. A mechanism is in place to foster and screen innovative ideas for further development. The department in charge of innovation regularly pushes the latest science and technology news to R&D teams and organizes brainstorming sessions with employees.” [11] Therefore, Lenovo’s innovative process comes that after the senior managers met up to analyze these innovative ideas and strategies, they will communicate with all employees to ensure everyone is familiar with and can work their best to support the company’s innovation objectives.

In the same article, one of Lenovo's innovative successful products is Yoga Tablet which was launched in 2014. Coming up from the idea of bamboo slips, the Yoga Tablet integrates traditional cultural elements with cutting-edge technology. The Yoga Tablet has a unique feature from those traditional commercial tablets that "Its rotatable stand offers users multiple operating modes – stand, tilt and hold – allowing them to adapt to different operating contexts." The innovative design of Yoga Tablet enables Lenovo to increase its sales with nearly 2 million units sold since its launch, won several awards such as the WIPO-SIPO Award for Outstanding Chinese Patented Invention and Industrial Design and the China Patent Golden Award for Industrial Design [11]. All these sales and awards help Lenovo occupies a significant position in the market.

(2) Lenovo’s good marketing and positioning strategies toward the consumers help Lenovo make a lead.

Lenovo has a clear and proper target market choice currently. In the Paper Marketing Strategy of Lenovo Laptops, the authors showed Lenovo's considerations when choosing the target market. The first group is city customers who have a high level of education, higher on admission, and are aged below 45. Lenovo thinks that such a group of customers makes up the most of the buying power. The second group is the developed rural market. Lenovo thinks that this group has strong brand awareness so choosing such group people can help Lenovo enter the rural market more quickly [12]. Such suitable aiming on certain groups enables Lenovo to gain more profits from those who are more likely to purchase its products.

As for the segmentation, the paper argues that Lenovo focuses on "small and medium-size enterprises, Public Sector Divisions, students and home makers who need systems for their daily work." [12] This segmentation is well-suited for Lenovo’s strategies since these people are those who are most eager to use PCs. With the understanding of its segmentation, Lenovo is able to know what customers they should aim at, thus establishes the certain products that are more proper for each segmentation groups.

(3) Lenovo has a strong relationship with the customers through its rewarding policies and technical support centers.

According to the Customer Relationship Management Technique of Lenovo, Lenovo manages its level of relationship commitment in two ways. Lenovo has different rewarding programs toward
premium business associates and small business associates. That is, Lenovo provides "additional discounts, sales benefits in term of the zone preferences and training for their staff for the marketing of their product' to its premium business associate, while provides "facility of discount on rebate payments" to small business associates [13]. Both of the rewards help Lenovo maintain the relationship with its customers.

In addition, Lenovo is very quick at responsiveness to its customers. Based on its official website, Lenovo has 24*7 technical support centers. The website of the service page has a clear category: Q&A, experts relating to placing an order, and experts relating to customer service. If a customer faces a technical problem, he or she can also get support in different areas such as PC, Mobile, Smart device, and so on. Lenovo's quick and specific services enable it to establish a satisfying relationship with its customers and hold its brand awareness.

(4) Lenovo has a strong R&D to allocate resources towards innovating new products and technology.

Based on the graph Lenovo's expenditure on research and development from 2009/10 to 2020/21(in million U.S. dollars), it is clear to see that in the fiscal year of 09/10, Lenovo had a research and development expenditure of 214.34 million U.S. dollars. It began to increase its expense year by year and retained the highest level between the fiscal year of 14/15 to the fiscal year of 20/21. In the fiscal year of 2020/21, Lenovo had remained its high expense of research and development expenditure of 1.43 billion U.S. dollars. The high R&D allows Lenovo to innovate new products to improve its existing technologies. Therefore, Lenovo can stay ahead of its competition.

(5) Lenovo is competent in acquisition.

With the successful strategy of acquiring IBM's PC business 10 years ago, Lenovo increases its market power and expands globally to become an important leader in the current industry. In Chuanzhi Liu and Neng Liang's paper Execution is the Strategy: The Key to Lenovo's success in IBM PC Division Acquisition, there's data showing that before Lenovo acquired IBM, its global market share was less than 2.5%, with virtually no sales outside China. By the second quarter of 2013, Lenovo had become the world's largest PC producer with a global market share of more than 20%, and with more than 60% of its sales outside China [14]. The data convinces Lenovo has ability to make acquisition strategies and decisions. With such ability, Lenovo’s acquisition turnout to be a successful transition, laying a foundation for them to dominate the market.

3.2 Weakness

(1) Comparing to its competitors in the industry, Lenovo has a lower inventory turnover ratio, which is not a good indicator because the inventory turnover ratio means a company's ability to sell its goods quickly.

A relatively lower inventory turnover shows the company cannot sell goods as quick as its competitors. Based on AlphaQuery, Lenovo had inventory turnover of 7.99 for the most recently reported fiscal year, ending 2021-03-31. In contrast, GuruFocus indicates that Apple's Inventory Turnover for the quarter that ended in Jun. 2021 was 8.88. The data clearly shows that Lenovo might store more inventories, making it necessary for the company to raise more capital to maintain them. Therefore, having a lower inventory turnover ratio might take away a certain amount of Lenovo's finances and affect its long-term growth.

(2) Lenovo does not have enough ability to fight against the fake products and imitations under its brand in the market, which will negatively affect its brand reputation and thus decrease sales.

Counterfeits and imitations have been invading the technological market. Based on an official release from NEWS18, thousands of fake products under the brand of Lenovo, including laptop batteries and adapters, had been found at three retail shops [15]. However, as for me, Lenovo does not have too much policy to come out to face the fake product. It seems that Lenovo continuing operating its own products without spending time and money fighting the fakes, which might lead to negative impacts on its brand reputation. Too much counterfeiting can damage Lenovo's reputation since the quality of the fake cannot match with the real product, so the consumers might feel being
treat by the real Lenovo. Counterfeits can also steal Lenovo sales with the same-looking products but at a cheaper price. Later, these fakes will harm the trust between Lenovo with its long-term business partners.

3.3 Opportunities

(1) Increasing global demand for PC creates an opportunity for Lenovo to boost its sales and shipments.

According to a data result by Gartner, Inc, worldwide PC shipments totaled 71.6 million units in the second quarter of 2021, an increase of 4.6% from the second quarter of 2020. Gartner, Inc presents a preliminary graph to convince that Lenovo has 17,278 in 2Q21 shipments which is an increase of 3.6% from 2Q20, and 24.1% in the 2Q21 market share [16]. It is the Top 1 among all of its competitors. Therefore, it is clear to see that the demand for PC is increasing globally, making consumers to seek more PC from technology companies. Since Lenovo occupies a major position in the global market, it is easy for it to gain a huge advantage from people's demanding for PC. Therefore, Lenovo uses this opportunity to increase its shipments and sales.

(2) Governments organizations around the world are increasing their spending on IT, providing Lenovo more budgets to invest and operate.

Based on Gartner’s forecast, Governments around the world are expected to increase their IT budgets by 6.5% in 2022, and 64% of overall spending will go toward "IT services and software to improve responsiveness and resilience of public services," during the pandemic [17]. With the Governments’ allocation, it is realistic to predict that Lenovo will have more funds to spend on creating the products, managing the company, and investing. Therefore, Governments’ increasing spending on IT provides an opportunity for Lenovo to improve its internal strength and reduce weakness.

(3) Strong potential in IoT business enables Lenovo to monitor its business process, improve its overall customer processes, and generate more revenue.

Based on a forecast on Mordor Intelligence, the global IoT market is expected to enlarging by reaching a value of USD 1,386.06 billion by 2026 from USD 761.4 billion in 2020 at a CAGR of 10.53% [18]. Since IoT plays a significant role in connecting smart devices together, the increasing of IoT creates opportunities for the technology company such as Lenovo to operate more easily and gain capabilities in supply chain and inventory chain optimization. With all the improvement IoT brings, Lenovo will enhance the efficiency of customer processes and in turn generate more revenues.

3.4 Threats

(1) Competitors are becoming stronger and small businesses are coming out these days, threatening Lenovo to lose their positions in the market.

Lenovo is always remaining in a market that has many competitors. Nowadays some of these competitors are growing in different fields, creating a lot of threats in the industry. For example, Apple's, the most valuable brand in the global market, has a unique dedication in its product designs. Based on Apple's official website and Apple's swot analysis on Business Strategy Hub, Apple's initiates further research on customers' needs and requirements. Besides, Apple's has sustainability objectives through Liam, an iPhone's recycling robot, helps break down the discarded iPhone, recategorizes the reusable parts and safely stored them to be used for new manufacturing. Apple's innovative product designs and sustainability objectives might threaten Lenovo's position, since customers are more willing to pay for the designs that are creative and new, and they have more tendencies to focus on environmental-friendly companies.

Take HP as another example. Comparing with Lenovo, HP holds the largest share in the US market. According to Abhijeet Pratap’s HP Swot Analysis 2021, HP held around 33% share in the US PC market [19]. Therefore, HP has a relatively lower risk of return and more stable than Lenovo. Based on Statista, the US market is among “the largest markets for PCs, notebooks, and related products,”
HP’s leadership in the market shares here might be a future indication to make Lenovo lose their position.

Besides those large competitors, Lenovo is also facing the threats from emergences of small business. Although small business might not establish enough threats to large business, the small business is transforming to medium-sized enterprises in China at a high speed. Based on Statista, there are about five million SMEs more in China each year, representing at least a ten percent year-over-year growth rate. The growth of these medium-sized companies might kick Lenovo out of its current position with its fast-developed management and products.

(2) The trade war between US and China will negatively impact on Chinese business by erasing Chinese GDP and increasing levels of leverage.

Although trade war between US and China costs both of the countries, it impacts more negatively to the Chinese economy and embroils Chinese businesses. According to Erik Norland's Trade War Costs to Consumers, Companies and Nations, China has a $12 trillion economy at the current exchange rate. A 10% U.S. tariff on $200 billion worth of Chinese goods will probably erase about 0.1-0.2% from GDP. A 25% tariff could widen that to 0.3-0.4% of GDP [20]. Since China has a higher debt level and slower growth rate than US, Chinese businesses will be a more unfortunate victim during the trade war. Some of the businesses might experience a certain failures and defaults due to the decrease of Chinese GDP and increase of levels of leverage. Therefore, it is realistic to suspect that Lenovo might be negatively implicated by the trade war.

(3) Software piracy increases the risks for the software to malfunction or fail, making Lenovo lose trusts from customers and therefore decreasing their sales.

Software piracy is becoming a widespread problem, bringing threats not only to users but also to the technologic businesses relying on software. According to the 2018 Global Software Survey, 37% of software installed on personal computers is unlicensed software [21]. The Panda Security shows in the article that software has too many dangers such as it can slow down PC and increase the opportunity for the software to fail [22]. The rampant of software piracy can ruin Lenovo’s brand name since Lenovo relies heavily on software. After the users experience software piracy lose trust to Lenovo, they will turn to other systems such as IOS. Therefore, Lenovo might face a huge loses of users, which become another threat for Lenovo to fail maintaining its position in the market.

4. Pest Analysis

4.1 Political

(1) The impact of US-China trade war

As mentioned above, the policy between the US and Chinese tariffs under the trade war negatively impacts on Lenovo’s sales due to the high tariffs. Since customers will be unwilling to pay on foreign goods with high tariff, Chinese products might face obstacles to sell their goods. Therefore, Lenovo could look toward to the decrease of their sales in the U.S.

(2) Chinese Government’s financial assistance to local businesses

During the Covid-19, Chinese Government has issued several packages of financial measures to help Chinese enterprises get over the possible step back. According to the article Covid-19: Chinese Government Financial Assistance Measures, Chinese Governments support their business with bonds and loans. For example, the government encourages enterprises with good credit to issue credit enhancement collective bonds for small and micro-sized enterprises ("SMEs") and provide liquidity support for SMEs affected by the COVID-19 outbreak [23]. The governments’ assistance makes the current environment more smoothly for Lenovo to operate.

4.2 Economic

Covid-19 has different impacts on people’s buying power, which can affect Lenovo’s sales in various ways.

(1) Global economy falls
As for global economy overall, the global economy shrinks due to the pandemic. Based on a graph in the blog 2020 Year in Review: The impact of COVID-19 in 12 charts, it is clear to see that the global economy has been downgraded in a huge degree. With the accelerated economic downturn, people's buying power can also decrease, which in turn shrinks their willingness to buy expensive products such as PC. Therefore, Lenovo's global sales might be negatively affected.

(2) Chinese economy rises

Despite the overall economic recession globally, China is experiencing an economic boost with its well-controlled pandemic. The National Bureau of Statistics (NBS) announced that China's economy grew 7.9 percent from April to June [24]. With the strong growth of the Chinese economy, it is likely that Chinese people's buying power remains high as before. As long as Lenovo mainly focuses on their Chinese market, Lenovo's sales and market share might still boost with such an economic environment.

4.3 Social

The social factors to Lenovo are satisfied with the increasing of literary rate. The sales of Lenovo are proportional to the literary rate since the more people becoming literate, the more they will need to buy technic products which Lenovo can provide. Literary also connects to income, enabling those who take high education have more buying power to afford Lenovo. Based on the data from Xinhua Net, the number of people in 2020 who have received or are receiving college-level education rose to 15,467 per 100,000 from the previous 8,930 per 100,000 in 2010 [25]. The increase of the literary rate in China can lead Lenovo’s sales to a positive prospect.

4.4 Technological

Technological factors have positive impacts on Lenovo along with their investment strategies. In the current digital market, technological changes keep happening along with innovation. The change of technologies has several impacts on technological businesses. It can foster a company to innovate and consequently improve its products. However, it can also provide stress to some companies due to the enhancement of competition. Lenovo is investing to deal with these problems. Reuters reports that Lenovo has decided to invest 1.2 billion on R&D into AI, big data and IoT over the next four years, showing that Lenovo is trying to improve their products for the competition [26]. Therefore, it is clear to see that the change of technologies has positive impacts of Lenovo.

5. Suggestions

To remain their dominant position in the global market and their brand awareness among customers, I would like to suggest Lenovo to do the following steps:

5.1 Acquire small business

Since small businesses are emerging these days, they might take away part of Lenovo's market share. Based on Lenovo's financial report, Lenovo has enough budgets in their company. Therefore, Lenovo can acquire some small businesses to reduce their own risk of losing the position. To acquire a small business, Lenovo can do a deeply research on the emerging small business within the same industry, and find out those who are operating healthily and have the same objectives as Lenovo. Then Lenovo can reach out to these companies and talk about the acquiring.

5.2 Partner with competitors

Since partnering with competition could bring mutual benefits such as gaining wider resources and reputation awareness, Lenovo could partner with their local competitors in China. Lenovo could look for partners who also have complementary skills and share the same values, and thus create a win-win situation in the market and maintain their position.
5.3 Fight against the fake products

Counterfeits can seriously hurt Lenovo's brand reputation among customers. Therefore, it is necessary and urgent for Lenovo to fight back and renew its trust among customers. One of the reasons for the rise of counterfeits is that customers buy them from illegal channels for lower prices and could not recognize the fake products [27]. Therefore, Lenovo can invest in educating these customers to identify the differences between fake and real products. Lenovo could also track where these fake products are selling, and spending some money and time to eliminate them.

5.4 Continue developing innovation

Innovation is one of Lenovo’s unique strengths for dominating the current market. Therefore, Lenovo should continue developing innovation to make themselves more stand out. Lenovo could continue educating their employees to build a stronger group, and continue putting funds in the innovative process.

6. Conclusion

This paper analyzed the impacts of the current environment on the business' operation and found out that during COVID-19, most of the global businesses are experiencing a downturn due to people’s decrease of buying power. I then turned to focus on the IT industry and analyzed Lenovo, a typical IT company. I read the trends of Lenovo's financial data from their official website and Yahoo Finance, and I researched their situations from the current news articles.

Along with all these materials, I found out that Lenovo has now playing a leading role in a global market with their large distribution network, their ability to make investments and acquirements, and their innovation on products. Lenovo do not experience the same downturn due to the pandemic as the most of businesses within the same industry. However, due to the growing competitors, the rise of fake products, and the tension of trade war between US and China, Lenovo is also experiencing a certain stress and stagnation which might affect its cash and profits. If Lenovo does not spend any time or money to take action, it might lose its current dominating position in the market with the losing of capital and customers. By improving their business with the acquirement and partnership, Lenovo could become a great example in the IT industry to fight against the stagnation of the economy during the pandemic and the tension of competition relating to business and politics.

This paper at the current period has included a certain amount of data from the website and news articles. However, I do not have lots of calculations to get my own data, leading me to insufficient enough models and graphs. The lack of self-data can limit the scope of my analysis and found a trend for Lenovo's next-level development. A future refinement could be gathering more raw data and focusing on predicting the quantitative numbers. Getting my own data can enable me to make more reliable predictions and refine my research. I can then provide more pertinent and useful suggestions to Lenovo.

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