

Auto Companies Affected by the COVID-19 Pandemic and the Russia-Ukraine War

Xuncheng Liang*

Department of Management, University College Dublin, Dublin, Ireland

*Corresponding author: 16011010209@stu.suse.edu.cn

Abstract. This paper mainly focuses on the impact of traditional gasoline vehicle brands and new energy vehicle brands respectively on major global events. Different companies may use different management methods to reduce the level of impact. Because different car brands have different problems. This paper mainly analyzes the problems existing in Mercedes-Benz and Tesla. This paper mainly uses the previous literature to analyze the problem. In recent years, both brands have made different adjustments to their business strategies due to the epidemic situation and the Russia-Ukraine war. It is found that both companies are researching new energy vehicles when the global economic and political environment is unstable. Tesla hopes to be a leader in the field of new energy vehicles, while Mercedes hopes to quickly transition to new energy vehicles. This paper finds out the advantages and disadvantages of different car brands. Managers are important to every company and different strategies have different effects. It can greatly help the company to develop if the manager has the right strategy. Managers formulating the correct strategy will become the company's advantage when facing difficulties. Mercedes made the wrong strategy and the company's profits were reduced. Mercedes-Benz needs to develop the right strategy to make up for the mistakes of managers. On the other hand, although Tesla's new energy vehicle sales are on the rise, it needs to develop strategies to retain talent. Tesla needs to build core strengths in order to keep their competitiveness in the industry.

Keywords: crisis event; automobile industry; business strategy.

1. Introduction

The COVID-19 outbreak has dealt an unprecedented blow to the global economy. It led to one of the worst recessions in the global economy and it caused a lot of economic activity to be canceled. People did not expect the virus to have a huge impact on the global economy when the virus emerged in several countries around the world. However, as the epidemic spread to most countries, it caused a large number of workers to lose their jobs which also signals the beginning of a recession. According to the report, the combined global GDP in 2020 and 2021 is expected to fall by \$9 trillion and this figure is equivalent to the combined economic aggregates of Japan and Germany [1]. The economic crisis caused by the virus has also affected the entire auto industry. The virus has forced many factories to shut down, which has also disrupted parts supply chains for many car brands. Many carmakers have even announced a halt in production while car sales are falling in many countries [2].

The Russia-Ukraine war greatly affected the oil market and it led to a dramatic increase in the price of gasoline. Although the price of gasoline has not risen again, it has remained at a high level compared with the previous period. For brands that mainly sell gasoline vehicles, rising gasoline prices will lead to fewer buyers of fuel vehicles and the profit of the company will also be reduced. However, the brand that sells new energy vehicles will have an advantage. New energy vehicles are cheaper than fuel vehicles to use. Therefore, people are more willing to choose to buy new energy vehicles after the Russia-Ukraine war.

2. The Impact of crisis events on Tesla and Mercedes

2.1 The Impact of COVID-19 on Tesla and Mercedes Car Sales

2.1.1 The Impact of COVID-19 on Tesla Sales

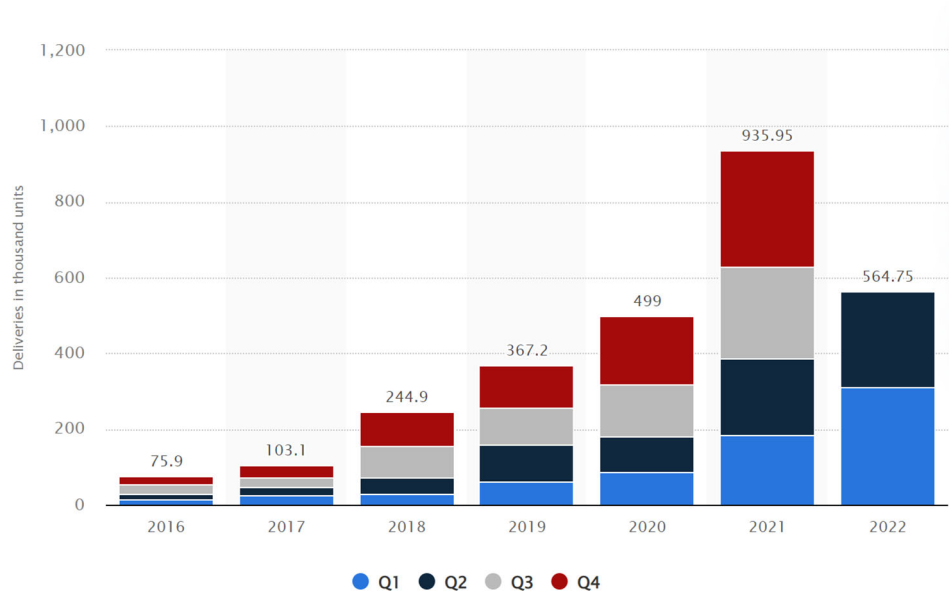


Figure 1. Number of Tesla vehicles delivered worldwide from 1st quarter 2016 to 2nd quarter 2022 (in 1,000 units) [3]

Figure 1 shows Tesla's car sales from 2016 to the second quarter of 2022. Since 2016, Tesla's annual sales have been increasing. Tesla's sales have risen even faster since the COVID-19 outbreak and sales in 2021 are nearly double those of 2020. Although there are only two-quarters of data in 2022, it is expected that Tesla's sales will have reached an all-time high by comparing the data for the two quarters of 2021.

The global economy has become very unstable with the impact of the COVID-19 pandemic and the advantages of new energy vehicles are becoming more and more obvious. Elon Musk, Tesla's CEO, wants to sell 20 million cars a year by 2030 while remaining the global leader in electric vehicles [4]. Musk is more committed to that goal because of the current state of the car market. This goal is hopeful if Tesla's sales remain high. However, the disadvantages of new energy vehicles have also been exposed to the long-term existence of the virus. Global economic instability leads to reduced battery supply and rising battery prices. This not only causes the price of new energy vehicles to rise, but also enterprises need to face the risk of breaking the battery supply chain [5]. In order to avoid this risk, Tesla decided to change the strategy of battery supply by suppliers. In April 2020, Tesla announced that it would develop its batteries while reducing its dependence on suppliers. Musk eventually decided to work with CATL to develop the battery. He hopes to develop batteries with better performance and longer range [6]. This strategy not only reduces the impact of battery prices on car prices but also remains competitive in the industry.

2.1.2 The Impact of COVID-19 on Mercedes Car Sales

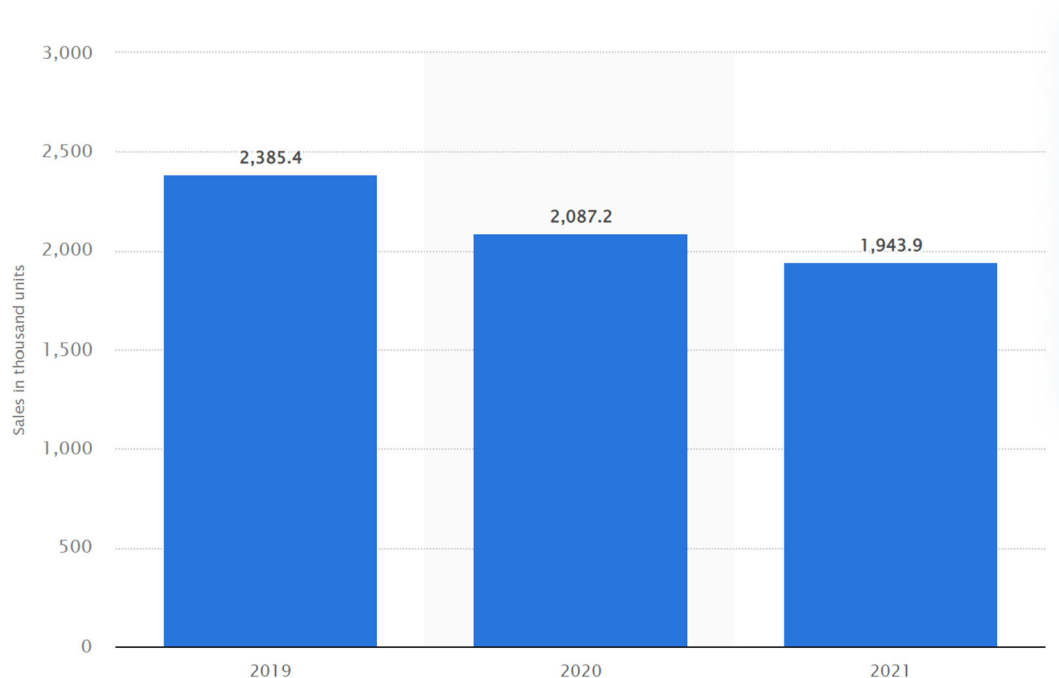


Figure 2. Mercedes-Benz Cars' unit sales between 2019 and 2021 (in 1,000 units) [7]

Figure 2 shows the sales of Mercedes-Benz in recent three years. From 2019 to 2021, Mercedes-Benz's sales are falling. In 2021, Mercedes-Benz sales even dropped below 2 million and it was the lowest sales in recent three years.

The global emerging wave of new energy vehicles has caused a serious impact on the Mercedes-Benz brand. Because Mercedes still mainly sells gasoline vehicles. The huge impact of the virus on Mercedes-Benz sales and corporate profits. After the outbreak of COVID-19, Mercedes-Benz realized that traditional gasoline vehicles would have fewer advantages in the future. At the same time, the management of Mercedes-Benz proposed to speed up the transformation of the enterprise to respond to the concept of zero carbon emission advocated by the world. By 2025, Mercedes expects its new energy vehicles to account for 50% of its sales [8]. While sales of Mercedes-Benz's traditional gasoline vehicles are declining, sales of Mercedes-Benz's new energy cars are rising. Compared with Tesla, the biggest disadvantage of Mercedes-Benz is that the technology for new energy vehicles is not mature. At the beginning of the COVID-19 outbreak, Mercedes realized that they need to transition to new energy vehicles. Mercedes-Benz's initial strategy was to transform traditional gasoline vehicles into new energy vehicles. It also means that Mercedes-Benz just replaced the engine of the traditional gasoline car with a battery and they did not develop a new energy vehicle. After some time, Mercedes-Benz realized that the manager's strategy was wrong and its new energy vehicle sales were low. Mercedes-Benz immediately changed its strategy and will build a team to develop new energy vehicles. According to the report, Mercedes has spent a lot of money on researching new energy vehicles and it has successfully developed several models. However, Mercedes sales still lag behind Tesla and even BMW. At the same time, many buyers found that Benz's original new energy vehicles break down frequently. Therefore, even if Mercedes-Benz launches new products, buyers will doubt the quality of its new energy vehicles [9]. Mercedes-Benz needs to make consumers believe in Mercedes-Benz products again.

2.2 The Impact of the Russia-Ukraine War on Tesla and Mercedes Sales

The outbreak of COVID-19 has greatly affected the car market and the outbreak of the Russian-Ukrainian war has brought more uncertainties to car companies. According to a report by Mercedes-Benz, 98,835 vehicles were sold in the second quarter of 2022 which is a four percent decrease from 2021 [10]. According to Tesla's report, Tesla factories delivered 254,000 new energy vehicles in the

second quarter of 2022 [11]. This figure exceeds the sales volume of Mercedes-Benz in the same quarter. The Russian-Ukrainian war has led to rising prices of various energy sources. For those who own traditional gasoline vehicles, the price of gasoline has greatly exceeded their expectations [12]. People need to spend more money if they use traditional gasoline vehicles. Therefore, more people are willing to choose new energy vehicles and their use cost is lower. After the outbreak of the Russian-Ukrainian war, Tesla sold several times more than Mercedes-Benz in a quarter. This also means that buyers are more willing to use new energy vehicles in the current economic environment.

2.3 Measures from the Perspective of Human Resource Management

Tesla has a large number of experts voluntarily resign, which is the biggest problem for Tesla. The departure of experts makes it difficult to build teams to develop batteries on their own. Recently, Victor, the battery expert of Tesla, and other experts of Tesla have chosen to leave Tesla which is a huge loss for Tesla. The expert often chooses to join other car brands when they leave Tesla. It means that these experts may be able to upgrade the technology of other car brands to compete with Tesla in the industry. Tesla should develop strategies to retain experts to achieve the company's goals. However, Tesla needs to take steps to recruit new talent if the expert has left the company. Tesla has carried out many campus recruitment activities recently, which can also show the advantages of Tesla. For young people, Tesla is the leader of new energy and a fashion icon. If young people receive job offers from Tesla and traditional car brands, they will almost choose to apply for Tesla. Because young people like to pursue fashion. Campus recruiting is an important way to recruit talent and Tesla needs to seize this opportunity. If Tesla has more applicants than other car brands, which will be a huge advantage for future talent selection. Tesla was affected by the COVID-19 pandemic and the Russia-Ukraine war and it is not easy for Tesla to retain talent and build a top battery research and development team. On the other hand, Tesla needs to develop a stable compensation system. The competition in the new energy market is too figure and many car brands need to deal with many uncertainties. Therefore, providing talent with a relatively stable salary will increase their sense of security in the company. Meanwhile, Tesla managers need to regularly communicate with the talent and listen to their suggestions. This approach allows talent to feel valued and recognized by the company. Talent will have a sense of belonging to the company and will continue to work for Tesla [13]. Although Tesla is a top company in the world, it still needs to improve in many aspects.

The continuous loss of Mercedes-Benz forced them to reduce labor costs and a large number of employees were dismissed by the company [14]. Benz's low sales and loss of personnel had a huge impact on its development. Although Mercedes-Benz has spent a lot of money on researching new energy vehicles, its sales volume and profit have not increased significantly. On the other hand, Mercedes-Benz's layoff plan will reduce employee motivation. Management needs to immediately formulate an effective plan to mobilize employees' enthusiasm for work. As a loss-making company, although it needs to save all unnecessary expenses, it still needs to ensure that employees' wages will not be drastically reduced. Many employees may choose to resign from Mercedes if it significantly reduces their salary of employees. The company culture is an important way to motivate employees in a most established business. Mercedes-Benz needs to create a good working environment and a positive working atmosphere. Managers need to tell employees clear work objectives and inspire employees' sense of purpose. Mercedes needs to reward outstanding employees and avoid negative emotions among employees [15]. On the other hand, Mercedes-Benz needs to recruit more talents in order to make the company's transformation more smoothly and rapidly. As a leading company, brand influence is the biggest advantage of Mercedes-Benz. Mercedes-Benz can use brand power to help companies attract talent. However, Mercedes-Benz also needs to offer reasonable salaries and a good working environment for the talent. Mercedes-Benz needs to make people realize that it is helpful for their career development if they work at Mercedes. Some talents have not been hired by Tesla, but it does not mean that their ability is poor and they just do not get a chance to prove their ability. Mercedes can provide these people with a chance to prove themselves which will motivate them to work. The immaturity of new energy vehicle technology is the greatest weakness of

Mercedes-Benz. However, it also means that talent will have a better chance of developing at Mercedes.

2.4 Recommendations for Tesla and Mercedes

Although the COVID-19 pandemic has made Mercedes-Benz encounter great difficulties, it can also help Mercedes-Benz develop better. Through the COVID-19 pandemic, Mercedes-Benz should have found out the problems that were exposed when the company was confronted with a major global event. COVID-19 has posed a huge challenge for Mercedes, but it has also accelerated its transition to new energy vehicles. It is likely that the gap between Mercedes and Tesla's new energy vehicle technology will continue to widen if there is no outbreak of the epidemic. At present, Mercedes-Benz should narrow the technology gap in new energy vehicles. If Benz's new energy technology is still immature, many loyal customers may choose other brands of new energy vehicles. This will cause Mercedes-Benz to lose a large number of loyal customers and corporate profits will be reduced.

Meanwhile, Tesla also needs to upgrade its products. Although Tesla has increased sales and popularity in recent years, the company still needs to have a core advantage. After a few years, almost brands have transformed. Tesla will not have any advantage if it only sells ordinary new energy vehicles. Tesla has been founded for a short time, but Mercedes-Benz has a history of hundreds of years. Although Mercedes-Benz sales continue to decline every year, the total sales are still higher than Tesla. It means that Tesla's brand history and brand influence cannot be compared with Mercedes-Benz. Mercedes-Benz still has a large number of loyal users because its traditional gasoline cars are competitive in the industry. As the world's top company, Mercedes-Benz will spend a lot of money to develop new energy vehicles. If Tesla does not upgrade its corporate technology, it may be surpassed by Mercedes-Benz in a short time. If Tesla wants to remain competitive in the industry, it must continue to develop new technologies and build its core strengths. Because core technologies can lay a solid foundation for future competition.

3. Conclusion

In the past, every car brand wanted to develop the best traditional gasoline car. Nowadays, almost companies have begun to transition to new energy vehicles. If a car company wants to develop continuously, it must face the impact of the market environment. In recent years, the global sales of new energy vehicles are rising rapidly while the sales of traditional gasoline vehicles are declining sharply. Many car brands affected by COVID-19 and the Russian-Ukrainian war, various brands have accelerated the transformation of new energy vehicles. According to the research, the proportion of traditional gasoline vehicles will still be 70% in 2023, but the profit share of global traditional automakers will be reduced from 85% to 50%. The scale of new energy vehicles is likely to surpass traditional gasoline vehicles. Although new energy vehicles are becoming more and more popular, the technology of most brands is not mature. If consumers want to experience new energy vehicles with fully mature technology, they still need to wait a long time. The development of new energy vehicles is not just a car and other supporting facilities for new energy vehicles also need to develop. For example, the refueling time of traditional gasoline vehicles is shorter than the charging time of new energy vehicles at present. Many elderly people will choose traditional gasoline cars because they think new energy waste a lot of time in charging. This problem also causes new energy vehicles to lose some customers. Low emission and low pollution will become the future direction of the automobile industry, but at the same time, the comfort of user experience and the technology of the car will be higher. For example, many car companies are keen to develop self-driving technology. If the technology matures, cars could be used without a driver. On the other hand, the development of new energy vehicles will be very difficult if the research on those technologies is not supported by the government. In the future, the car industry will not only compete between brands and it also mean competition between countries. When the technology of cars reaches a high level, these technologies

will even be used in military equipment. Therefore, the government will support the technological development of local car brands in the future. This will be manifested in policy support and financial support. In other words, the development of the country needs the automobile industry. The government hopes that the auto industry will become a major force and industrial pillar for national economic growth.

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