

# A Case Analysis on Tesla's 2024 Global Layoff

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**Abstract.** This study evaluates Tesla's recent layoffs amidst global economic pressures and competitive industry dynamics, emphasizing their financial and strategic implications. From a financial perspective, the layoffs appear relatively successful, contributing to cost control and improved operational efficiency. Strategically, Tesla has concentrated resources on core departments such as R&D and innovation, sustaining its technological leadership and positioning for future growth. Effective resource allocation has enhanced profitability and financial stability, reinforcing Tesla's competitive edge and enabling global market opportunities. However, the research acknowledges inherent limitations. Evaluating layoff success using financial data involves subjective judgments, as no standardized metric quantifies outcomes. Additionally, financial indicators alone may not capture the full complexity of the issue. Future research will explore the layoffs' long-term impacts, including changes to Tesla's capital structure, financing capabilities, and investment strategies in R&D and market expansion. Further analysis will assess Tesla's performance under market fluctuations and its sensitivity to economic risks. These investigations aim to provide deeper insights into the strategic and financial consequences of workforce adjustments, offering broader implications for corporate decision-making in dynamic global markets.

**Keywords:** Tesla; Layoffs; Stock Price Performance; Sustainable Development

## 1. Introduction

Tesla is one of the world's largest electric vehicle manufacturers, with a significant market share in the premium electric vehicle market. Tesla is a leader in battery technology, autonomous driving, and software updates. Therefore, its layoffs have also attracted much attention.

The global economic growth rate has slowed down, especially in some major economies such as the United States and China, due to factors such as high inflation, rising interest rates and geopolitical tensions, which have suppressed economic activities. Geopolitical tensions have exacerbated market uncertainty. Due to concerns about a recession, many large multinational companies continued to announce layoffs in 2024. According to a survey, nearly 40% of business leaders expect to continue to lay off employees this year, and half of the respondents believe that the recession is the main reason [1]. With the global emphasis on environmental protection, the new energy vehicle market is growing rapidly. According to the International Energy Agency (IEA), by 2030, global electric vehicle sales are expected to exceed 70 million and the number of vehicles in use will reach 380 million, indicating that the market potential of new energy vehicles is huge [2].

Tesla is one of the world's largest electric vehicle manufacturers, with a significant market share in the premium electric vehicle market. Tesla is a leader in battery technology, autonomous driving, and software updates. Therefore, its layoffs have also attracted much attention. In April 2024, Tesla announced a global layoff of more than 10%, equivalent to at least 14,000 employees. Musk believes that Tesla has grown rapidly in recent years, so there have been duplicate roles and job functions in some areas [3]. Tesla's layoffs are not the first. As early as 2019 and 2020, Tesla laid off employees due to the epidemic and supply chain pressure. However, the layoffs in 2024 are more complicated. With the intensification of inflation and changes in global monetary policy, Tesla faces the challenges of rising production costs and fluctuating market demand. At the same time, competition in the electric vehicle industry has intensified, and major automakers have launched new models. In this case, Tesla's layoffs are both a response to external economic changes and the result of internal management and resource optimization.

As early as 2022, Tesla had already experienced large-scale layoffs: this layoff can save Tesla about US\$225 million to US\$1 billion in operating costs each year [4]. This study systematically analyzes the background, motivations and impact of Tesla's layoffs in 2024, aiming to reveal the complex economic logic and management strategies behind this decision. By analyzing the impact of the global economic situation on Tesla's operational decisions, the impact of changes in financial policies on its financial situation, and the optimization effect or defects of corporate restructuring on business processes, we can have a more comprehensive understanding of the correctness and experience of Tesla's layoffs. The analysis of this study is not only of theoretical significance, but also helps other companies provide reference and reference when facing similar challenges.

Starting from the economic background, this study will describe the specific layoff personnel changes and conduct a comparative analysis of the financial situation before and after the layoffs. Focus on cash flow, predict the valuation of enterprises under different operating conditions, and evaluate the external impact of restructuring on the market, especially in terms of stock price performance, market share expansion, innovation capability improvement and sustainable development. Finally, summarize the effectiveness of corporate layoffs, reveal Tesla's experience in layoffs and its enlightenment to other companies, and look forward to the future.

## **2. Background and Motivation for Layoffs**

Tesla's decision to lay off employees globally in 2024 stems from the interweaving of multiple factors, including changes in the macroeconomic environment, intensified industry competition, and the need to optimize internal management of the company.

### **2.1. Challenges of the Global Economic Environment**

In 2024, the global economy faces multiple pressures from high inflation, rising interest rates, and geopolitical conflicts. As central banks around the world adopt tight monetary policies, global capital markets are under pressure, and corporate financing costs have risen sharply. At the same time, consumer confidence has declined, demand has slowed, especially in the consumption of high-priced products such as new energy vehicles. These macro-environmental factors have directly affected Tesla's profitability and sales expectations.

In this context, layoffs have become an important measure for companies to reduce costs and improve operational efficiency. By reducing redundant personnel and optimizing resource allocation, Tesla has been able to maintain its competitiveness in the face of market uncertainty.

### **2.2. Intensified Industry Competition**

Although the electric vehicle market continues to grow, competition has become extremely fierce. Traditional automakers such as Volkswagen and Ford have stepped up their efforts in the research and development and production of electric vehicles, while emerging electric vehicle companies such as Weilai and Ideal have performed well in the Chinese market. Faced with such fierce competition, Tesla faces not only price and technology pressure, but also intensified competition for market share.

Tesla cuts expenses in non-core departments through layoffs and transfers more resources to core R&D departments to maintain technological advantages and further promote innovation. In this case, layoffs are not only a necessary means of cost reduction, but also to optimize business focus and improve competitiveness.

### **2.3. The Need for Internal Management Optimization**

Tesla's rapid expansion around the world has brought management complexity. Due to the different expansion speeds in different markets, some departments and positions have duplicated functions or redundant personnel. The main purpose of layoffs is to improve overall operational efficiency by reducing these duplicate positions.

Musk also mentioned in the layoff announcement that Tesla's rapid expansion in the past few years has led to excessive staff and overlapping functions in some areas. Therefore, this layoff is not only to cope with external economic changes, but also a part of internal management optimization.

### 3. Changes in Human Resources Data

In 2018, Tesla faced global expansion and production pressure, especially the production bottleneck of Model 3. During that period, although Tesla did not carry out large-scale layoffs, it still made local adjustments, and the layoffs were mainly concentrated in the production and manufacturing departments. According to the report at the time, Tesla laid off about 7% of its employees in 2018, mainly affecting operators on the production line and some management positions. This layoff was mainly to meet the needs of capacity increase and cost control, and the layoffs at that time did not obviously involve the R&D and technical departments, showing Tesla's emphasis on core technology research and development.

By 2024, the background of Tesla's layoffs will be different from that in 2018. As the company gradually moves towards scale and global development, production capacity is no longer the biggest bottleneck, and fluctuations in market demand and changes in the global economic environment have become important reasons for layoffs. In this context, Tesla's layoffs tend to focus on non-core departments, especially in the fields of production and sales markets.

According to Tesla's 2024 layoff plan, the layoffs are mainly concentrated in redundant positions in management and production departments. The layoffs involved about 14,000 employees, accounting for more than 10% of the total number of employees worldwide, and had a significant impact on the human resource allocation of multiple regions and departments. The following is a detailed analysis from the aspects of regional distribution, department changes, historical data comparison, etc.

#### 3.1. Distribution of Layoffs by Region

As a global enterprise, Tesla's production and sales network covers multiple major markets. Therefore, the regional distribution of this layoff shows obvious differentiation characteristics:

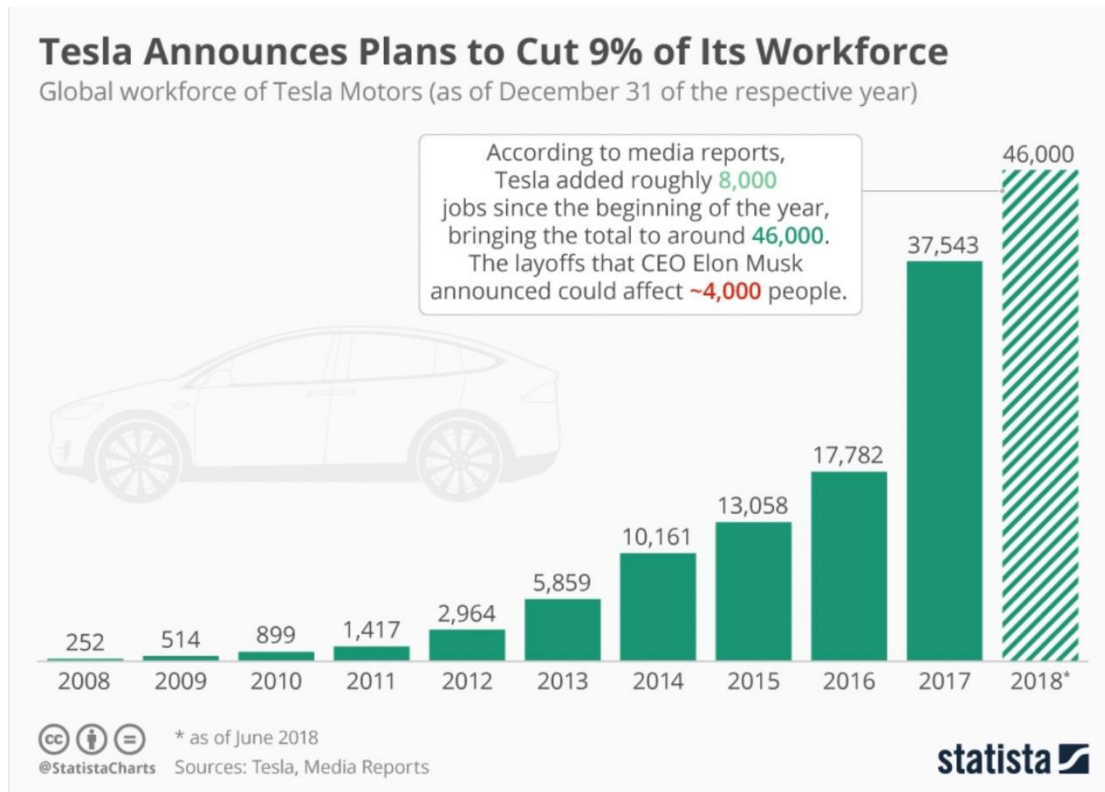
**North America:** North America is Tesla's core production and sales market, and it is also the region with the most significant impact of layoffs. The number of layoffs accounts for 60% of the total global layoffs, concentrated in the production and manufacturing departments (see Figure 1). The main reasons include:

The level of production automation in North American factories has improved, some positions are highly repetitive, and efficiency optimization has become the core motivation for layoffs.

In recent years, Tesla has continuously adjusted its battery and vehicle production layout in the United States, and the completion of new factories (such as the Texas Super Factory) has gradually replaced some functions of old factories.

**Europe:** The number of layoffs in the European market accounts for 25%. Since Europe is an important growth region for Tesla, especially the capacity expansion of the Berlin Gigafactory, Tesla prefers to cut costs by optimizing non-production departments such as sales and support positions.

**Asia Pacific:** The layoff rate in the Asia Pacific region is 15%. In the Chinese market, Tesla's Shanghai Gigafactory, as the world's largest production base, continues to rise in importance. Layoffs are more concentrated in management and support departments, while front-line production positions are almost unaffected. The smaller layoff rate in the Asia Pacific region also reflects Tesla's emphasis on the market potential in the region.



**Fig. 1** Tesla announces plans to cut 9% of its workforce.

### 3.2. Staff Changes in Various Departments

The layoff plan shows that the layoffs are focused on non-core departments with more redundant positions, while the impact on core areas such as R&D and technology is relatively small. The specific data are as follows:

**Manufacturing department:** The production and manufacturing department has the highest layoff ratio, accounting for 35% of the total layoffs. This is directly related to Tesla's accelerated promotion of production line automation and intelligent manufacturing in recent years. For example, since 2018, Tesla has gradually reduced its reliance on manual labor by increasing the capacity of a single production line (such as the optimization of the Model 3 production line). The layoffs in 2024 further indicate that Tesla's manufacturing and operation efficiency has approached the mature stage [5].

**Sales and Marketing Department:** The layoff ratio is 20%. This adjustment is closely related to the global economic slowdown and market demand fluctuations, especially in 2023, when the competition in the electric vehicle market intensified [6]. Tesla gained market share through a price reduction strategy while reducing the cost of the offline sales network. In addition, the expansion of online sales channels has also reduced the demand for traditional sales personnel to a certain extent.

**Management and Support Department:** In this layoff, the layoff ratio of the management and support department is 15%. In recent years, Tesla has implemented a flat organizational structure worldwide to improve management efficiency and reduce indirect costs [7]. Tesla founder Elon Musk has repeatedly emphasized the importance of "streamlining management" and "decentralized decision-making", and this layoff also reflects the continuation of this concept [8].

**R&D and Technology Department:** The R&D department has the lowest layoff rate, accounting for only 5%. R&D has always been Tesla's core competitiveness, especially in the fields of battery technology and autonomous driving software, where Tesla has increased its investment. For example, the 4680-battery technology released in 2023 significantly improved the vehicle's endurance and cost advantages, which shows that Tesla's long-term investment in innovation has not been affected by changes in the economic environment.

### 3.3. Data Comparison and Trend Analysis

By comparing the layoff plans in 2018 and 2024, we can see the evolution of Tesla's human resources strategy:

**Review of the 2018 layoff plan:** In 2018, Tesla announced a layoff of about 9%, mainly in non-manufacturing departments, such as sales and support positions. The background of the layoffs was that during the ramp-up of Model 3 mass production, Tesla adjusted some management redundancies in order to achieve its profit goals. At that time, Tesla had about 48,000 employees worldwide and about 4,300 layoffs.

**Changes in the 2024 layoff plan:** The number of layoffs in 2024 will reach 14,000, more than three times that of 2018. This reflects the significant increase in Tesla's total number of employees in recent years, with more than 130,000 employees worldwide.

Compared with the adjustments in 2018, which were mainly aimed at sales and management positions, the layoffs in 2024 cover a wider range, with the focus on the production and manufacturing departments, indicating that Tesla has entered a higher stage in production efficiency and intelligent manufacturing.

### 3.4. Detailed and Extended Analysis

The layoff plan reveals Tesla's optimization trend in resource allocation:

**Cost control and efficiency improvement:** Tesla reduces the burden of fixed costs through layoffs, while relying on technological innovation (such as automated production lines and optimized supply chains) to compensate for the impact of reduced manpower. This strategy is particularly critical in the context of increasing uncertainty in the current global economic environment.

**R&D investment and long-term layout:** Although the layoff plan reduces operating costs in the short term, Tesla's continued investment in R&D shows its emphasis on long-term competitiveness. For example, the improvement of artificial intelligence technology and fully autonomous driving capabilities will become a key driver of future revenue growth.

**Adjustment of regional market strategy:** The layoffs in North America and Europe are relatively large, while the layoffs in the Asia-Pacific region, especially in the Chinese market, are relatively small, indicating Tesla's precise layout in prioritizing the development of strategic markets.

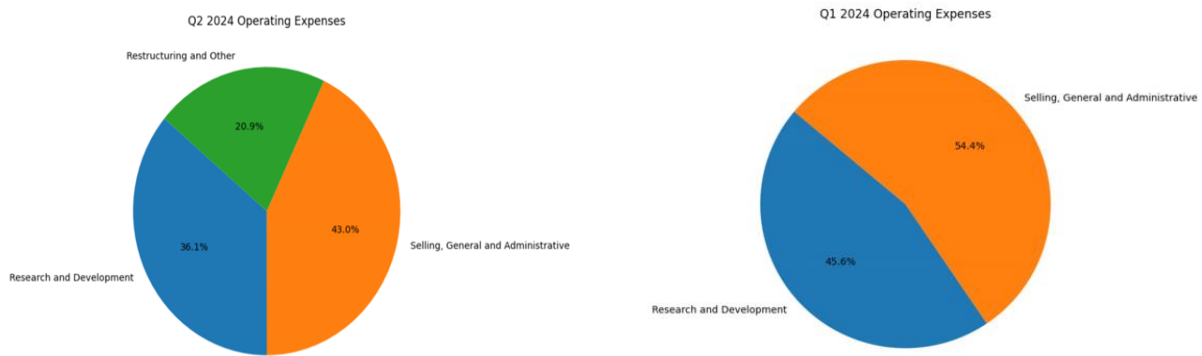
Tesla's 2024 layoff plan fully reflects its emphasis on R&D and core competitiveness while optimizing human resource allocation and improving operational efficiency. By reviewing the layoffs in 2018, we can see that Tesla has shifted from focusing on initial profitability to focusing on long-term innovation. In the future, how Tesla can maintain efficient operation and innovation capabilities in its organizational structure after layoffs will be the key to whether it can continue to lead the electric vehicle industry.

## 4. Financial Data

### 4.1. Changes in Total Operating Expenses

**Table 1.** Tesla's operating expenses from the second quarter of 2023 to the second quarter of 2024

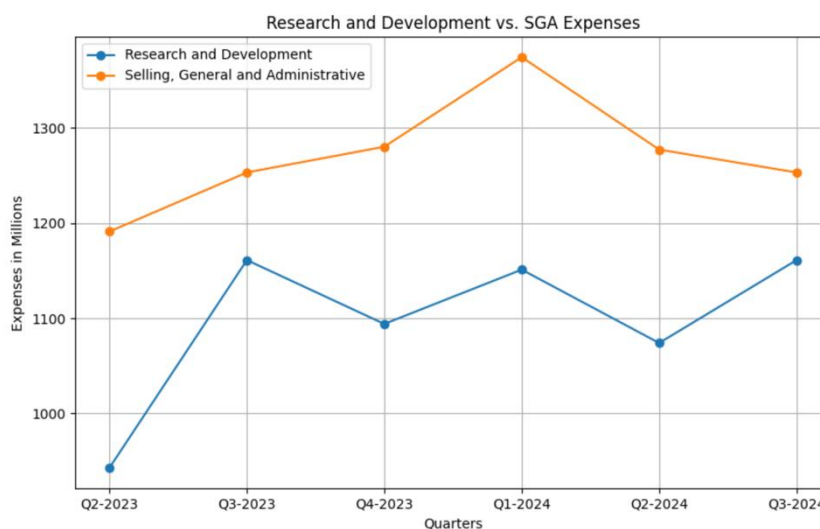
\$ in millions	Q2-2024	Q1-2024	Q4-2023	Q3-2023	Q2-2023
Research and development	1074	1151	1094	1161	943
Selling, general and administrative	1277	1374	1280	1253	1191
Restructuring and other	622	-	-	-	-
Total operating expenses	2973	2525	2374	2414	2134



(a) 2024 Q2 Operating Expenses

(b) 2024 Q1 Operating Expenses

**Fig. 2** Tesla's operating expenses in the first and second quarters of 2024



**Fig. 3** Tesla R&D and SGA cost

In Tesla's second quarter 2024 financial statements, although total operating expenses exceeded \$448 million in the first quarter, \$622 million of them were spent on the "Restructuring and other" segment, a year-on-year increase of 261% compared to the full year of 2022 (see Figure 2). Combining the pie chart and line chart, the "Selling, general and administrative" segment includes all indirect operating expenses incurred in the normal course of operations, including human resources, management, and advertising costs, and the expenses of the "Research and development" segment have decreased in both proportion and expenses from the first quarter of 2024 to the second quarter; among them, the two expenses of "Selling, general and administrative" have changed from an upward trend to a downward trend from the second quarter of 2023 (see Table 1).

The reduction of SGA can reflect the reduction of the company's marketing intensity, advertising intensity and sales intensity (see Figure 3) [9]. Tesla may reduce marketing expenses, such as advertising, promotional activities, and optimize sales staff allocation while reducing the intensity of various indicators. The fluctuation and increase of "Research and development" can reflect that the company focuses on improving efficiency while laying off employees; insisting on technological innovation and market development in the process of globalization [10]. From a long-term perspective, the changes in different data can enable Tesla to reduce operating costs, increase profit margins, and maintain its advantages in long-term competition.

#### 4.2. Changes in Gross Profit Margin and Net Profit Margin

**Table 2.** Tesla's gross profit, net profit and total revenue from 2023Q2 to 2024Q2

Quarter	Total Revenue (in million USD)	Gross Profit (in million USD)	Net Income (in million USD)	Gross Profit Margin (%)	Net Profit Margin (%)
Q2-2023	24,927	4,533	2,703	18.18	10.84
Q3-2023	23,350	4,178	1,853	17.90	7.93
Q4-2023	25,167	4,438	7,928	17.63	31.50
Q1-2024	21,301	3,696	1,129	17.35	5.30
Q2-2024	25,500	4,578	1,478	18.00	5.80
Q3-2024	25,182	4,997	2,167	19.85	8.61

The total revenue showed a fluctuating trend, and the revenue in the first quarter of 2024 showed a significant month-on-month decline: a month-on-month decrease of 15.4%. This may be one of the important factors for Tesla's announcement of layoffs. The gross profit margin changed from a decline in 2023 to a continuous upward trend in 2024 (see Table 2). The gross profit margin in the third quarter of 2024 was higher than that in the previous quarters, reaching 19.85%. Both the company's expectations for sales growth and the company's announcement of lower production costs have surprised investors.

Profitability is a multifaceted metric that goes beyond just numerical analysis, providing a nuanced understanding of an organization's financial health and performance. High profitability signals effective cost management and strong revenue generation, reflecting a well-performing entity and serving as a key benchmark for competitiveness. Profitability is a comprehensive metric that influences strategic decisions and investor perception, making it a critical tool for navigating the complexities of a dynamic business environment [11].

This shows that the effective cost control brought about by layoffs has promoted efficient management and operations, making Tesla extremely competitive in the new energy industry.

#### 4.3. Changes in Price-to-Book Ratio and Price-to-Earnings Ratio

In June 2018, Tesla carried out a significant layoff, which laid off about 9% of its employees in an effort to ensure high production efficiency and reduce costs (see Table 3).

**Table 3.** Price-to-earnings ratio and price-to-book ratio before and after layoffs in 2018

Time Period	Date	Stock Price (USD)	EPS(USD)	Book Value per Share (USD)	PE Ratio	PB Ratio
Q1 2018	2018-03-31	299.67	-4.19	12.29	-71.52	24.38
Q2 2018	2018-06-30	310.82	-3.06	12.47	-101.57	24.93

**Table 4.** Price-to-earnings ratio and price-to-book ratio before and after layoffs in 2024

Time Period	Date	Stock Price (USD)	EPS(USD)	Book Value per Share (USD)	PE Ratio	PB Ratio
Q1 2024	2024-04-30	175.79	0.34	10.00	517.03	17.58
Q2 2024	2018-07-24	248.42	0.42	10.50	591.48	23.66

According to the formula, the P/E ratios for Q1 and Q2 of 2024 are 517.03 and 591.48 respectively (see Table 4), up 14% year-on-year; the P/B ratios are 17.38 and 23.66 respectively, up 35% year-on-year. Compared with the small changes in 2018, the changes in P/E ratio and P/B ratio brought about by layoffs in 2024 are significant.

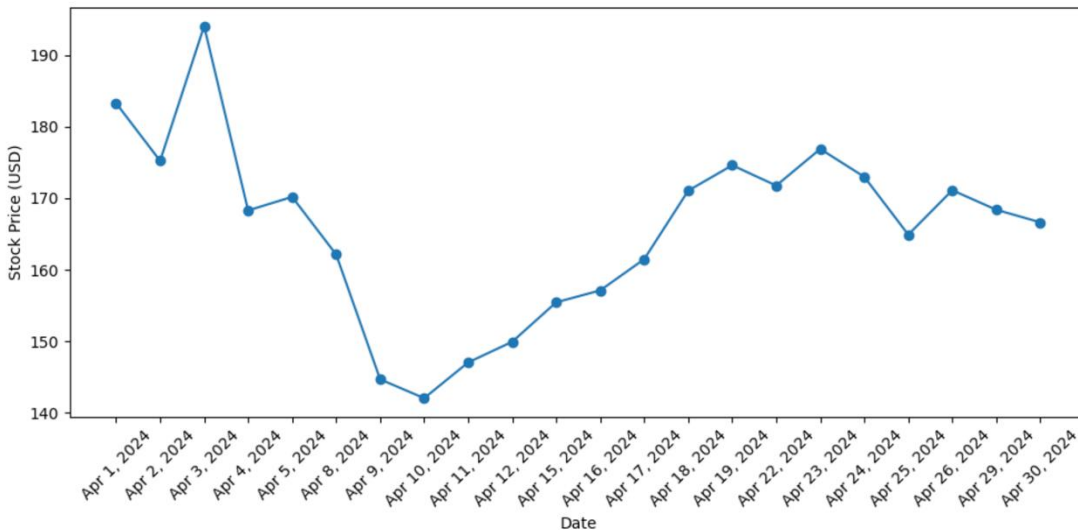
This shows that layoffs will attract growth investors, increase the company's attractiveness in the capital market, and facilitate equity financing and expansion. This shows that the company's growth potential and market are huge, and layoffs bring more investment opportunities and development space to the company. The rapid growth of the price-earnings ratio and price-to-book ratio will not only have a positive impact on the company's current financial situation, but may also provide good support for its long-term development.

**4.4. Stock Price Changes**



**Fig. 4** Tesla's daily closing stock price trend in 2024

As of November 21, 2024, Tesla's stock price showed a fluctuating downward trend in the first quarter of 2024 (see Figure 4) and the middle of the second quarter, with the lowest point reaching 138.80 USD, and then quickly pulled back until the stock price reached a high of more than 300 USD in November, showing a strong upward trend.



**Fig. 5** Tesla's daily closing stock price trend in April 2024

Form Figure 5, Tesla's stock price has been on a downward trend from April 15 to April 22 since the layoffs began, which may indicate that the market's reaction to the news of layoffs is negative, and investors may be concerned about the impact of layoffs on the company's short-term operations or employee morale. Within a week, it tended to a normal upward trend again. The rise and fall of the stock price in April shows that the stock price is sensitive to layoffs, which will affect the stock price trend in the short term. In the long run, the Nasdaq index will show a trend of first decline and then rise in 2024. In the first half of the year, there were fluctuations due to the macro environment, but in the second half of the year, with the improvement of the fundamentals of the technology sector, the

index rebounded strongly and broke through, which also highlighted the continued growth potential of the technology industry. Thanks to the booming development of the electric vehicle industry and investors' confidence in Tesla's long-term strategy and market position, Tesla has been in a leading position in the market.

## 5. Conclusion

In summary, facing the pressure of external global economic and industry competition and the requirements of internal management optimization, Tesla's layoffs are relatively successful from the perspective of financial data.

Based on the research on this layoff, Tesla's layoffs should take into account the global economic environment and industry conditions, adjust the scale and positions of layoffs according to needs; focus on core businesses, and concentrate resources on the most competitive and growth-potential core departments, such as R&D and innovation, to maintain technological advantages.

Effective layoffs can help companies achieve cost control and improve management and operational efficiency. When facing global economic challenges, strategic resource allocation will improve overall competitiveness; successful cost management and efficiency improvement are expected to enhance profitability and financial stability. Tesla is expected to continue to maintain its industry leadership in the future and expand more opportunities in the global market.

Judging the success of this layoff based on financial data has certain limitations. There is no standard for quantifying success or failure, and it is more from subjective judgment. The limitations of the research method still exist, and the financial data used may not fully capture the complexity of the research problem.

It will then study how to predict the long-term impact of this layoff, study the changes in the company's capital structure after the layoffs, and analyze its impact on the company's financing capabilities; evaluate the impact of layoffs on the company's subsequent investment decisions, including investment in R&D, market expansion, and other fields; and evaluate Tesla's performance in market fluctuations after the layoffs, and analyze its sensitivity to market risks. There is a wide range of future research areas that deserve further exploration.

## Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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