

Comparative Analysis of Tesla and Ford: Investment Recommendations Based on the 7Ps Marketing Portfolio and Porter's Five Forces Model

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Abstract. Investors increasingly focus on identifying favourable investment opportunities in the rapidly developing automotive industry. This study aims to analyse Tesla and Ford comprehensively, focusing on their financial performance, strategic positioning, and product strategies. This study evaluated the investment potential of these two significant companies using financial ratio analysis, Porter's Five Forces Analysis, and the 7Ps framework. The analysis results show that although Tesla has demonstrated significant growth and innovation capabilities, its investments in autonomous driving, battery, and sustainable energy solutions have placed it in a favourable position in the future market. However, with its long history and extensive market coverage, Ford has demonstrated robustness and adaptability in the traditional automotive market. The research conclusion is an investment recommendation based on the comparative advantages and disadvantages of the two companies. Tesla's advantage lies in its forward-looking technology and market leadership, while Ford's lies in its stable financial performance and market adaptability. This analysis provides valuable insights for investors and lays the foundation for future investors' choices and investments.

Keywords: Financial performance; strategy analysis; financial ratio analysis; investment analysis; car manufacturer.

1. Introduction

The automotive industry has become increasingly popular recently, attracting many investors' attention [1]. With the rise of electric vehicles and intelligent driving technology, the market's demand for innovation and sustainable development constantly increases. However, this industry also has significant risks that may prevent investors from investing in the field to make a profit [2]. These risks include uncertainty in the speed of technological development, intense market competition, fluctuations in raw material prices, and strict environmental regulations. Faced with these challenges, investors need to conduct detailed analysis to evaluate each company's performance and prospects in the market. This study aims to comprehensively analyse Tesla and Ford, two companies with essential automotive industry positions, to provide clear investment advice for potential investors. By comparing the two companies' financial performance, strategic positioning, and product strategies, this study will help investors identify companies with more significant investment potential [3, 4]. To achieve this goal, this study will use multiple analytical methods, including the 7Ps marketing framework, Porter's Five Forces analysis, and financial ratio analysis. The 7Ps marketing framework model helps companies comprehensively review their marketing strategies to ensure compelling customer attraction and retention in all key aspects. The model helps companies comprehensively examine their marketing strategies to ensure compelling attraction and retention of customers in all key aspects. Porter's Five Forces Analysis will be used to analyse the competitive situation in the industry. Financial ratio analysis will compare the financial health of two companies through key financial indicators. These methods combined will provide a comprehensive perspective to help investors make informed decisions.

2. Company Introduction

2.1. Tesla

Tesla, Inc. was founded in 2003 by Elon Musk, Martin Eberhard, Marc Tarpenning, and others, with its headquarters in Palo Alto, California. Tesla is committed to reducing global dependence on fossil fuels by producing electric vehicles and clean energy products. Tesla's electric vehicle product line includes the high-performance Model S, the affordable Model 3, the luxury SUV Model X, and the compact SUV Model Y. In addition, Tesla also produces the Cybertruck electric truck and the Roadster electric sports car.

Tesla is leading in electric vehicles and has made significant progress in energy storage and solar products. Its Powerwall, Powerpack, and Megapack battery systems provide reliable energy storage solutions for homes and businesses [5], while its Solar Roof combines solar panels with building materials to achieve a unity of aesthetics and functionality. Tesla's Supercharger Network is also one of its important competitive advantages, providing fast charging services to Tesla owners worldwide and supporting long-distance travel. Tesla's mission is to accelerate the global transition towards sustainable energy, leading the development of electric vehicles and clean energy industries through continuous innovation and technological progress.

2.2. Ford

Ford Motor Company was founded in 1903 by Henry Ford and is headquartered in Dearborn, Michigan [6]. Ford, one of the world's oldest and most influential automobile manufacturers, is renowned for its reliable, durable, and diverse product lines. Ford's products include sedans, SUVs, trucks, and electric vehicles, with classic models including the Ford F-series pickup truck, Ford Explorer, Ford Mustang, and Ford Taurus.

In recent years, Ford has actively promoted the transformation towards electrification and intelligence, launching multiple electric and hybrid models such as the all-electric Mustang Mach-E, F-150 Lightning, and Ford E-Transit. Ford is also investing heavily in autonomous driving technology and is committed to developing and promoting autonomous driving technology and smart city solutions through its Ford Smart Mobility division. In addition, Ford has a vast production and sales network worldwide, covering regions such as North America, Europe, Asia, and South America, continuously enhancing product competitiveness and market share through innovation and technological upgrades.

Ford adheres to the founding philosophy of "making cars an affordable luxury for everyone", insists on providing high-quality travel solutions for global consumers through technological innovation, quality improvement, and service improvement, and is committed to becoming a leader in the intelligent and sustainable development of the automotive industry.

3. Methodology

3.1. Porter's Five Forces

Porter's Five Forces model is a tool proposed by Michael E. Porter in 1979 to analyse the competitive environment of an industry. This model helps understand various dynamics affecting the market's potential profitability and competitive intensity [7]. The Porter's Five Forces model identifies five forces that affect industry competition:

3.1.1. The Threat Of New Entrants.

New entrants will increase market competition, which may trigger price wars, increase cost inputs, and reduce the market share of existing enterprises. The higher the barriers to entry in an industry, the lower the threat of new entrants that companies face.

3.1.2. The Threat Of Substitutes.

Substitutes refer to different products or services that can meet the exact needs. If there are many easily accessible alternatives, consumers may turn to them, weakening existing products' market position.

3.1.3. Bargaining Power Of Suppliers.

Suppliers can affect the industry's production costs. If the number of suppliers is small, alternative suppliers are difficult to find, or supplier products are crucial to the industry, suppliers will have more substantial bargaining power.

3.1.4. Bargaining Power Of Buyers.

When the number of buyers is small or the purchased quantity is large, buyers will have strong bargaining power and can lower prices or demand higher product quality or service levels. The buyer's bargaining power will also be enhanced if many substitute products exist.

3.1.5. Competition Among Existing Competitors.

This is direct competition among competitors within the industry. If there are numerous companies in the industry, low product differentiation, and high barriers to exit, then competition within the industry will be even more intense.

3.2. 7Ps Marketing Framework

The 7Ps marketing mix model is an extension of the traditional 4Ps (product, price, channel, promotion) for analysing marketing strategies in the service industry. This model covers seven critical elements in marketing and helps businesses develop comprehensive marketing strategies in highly competitive markets [8].

3.2.1. Product.

A product is a commodity or service provided by a company to the market, meeting the needs of consumers. Enterprises need to consider factors such as product quality, design, brand, functionality, and lifecycle.

3.2.2. Price.

Price is the amount paid by consumers to obtain a product or service. Enterprises need to consider pricing strategies to ensure that prices reflect the product's value and its competitiveness in the market.

3.2.3. Place.

Channel refers to the process of how products reach consumers from producers. Enterprises must choose appropriate distribution channels to ensure their products can effectively cover the target market.

3.2.4. Promotion.

Promotion is a means enterprises use to promote products and services, including advertising, public relations, promotional activities, and sales personnel promotion. The purpose is to increase brand awareness and stimulate purchasing behaviour.

3.2.5. People.

Personnel refer to employees of a company and those who interact with customers, including salesman and customer service representatives. The service industry specialises in personnel's role as they directly impact customer experience and satisfaction.

3.2.6. Process.

Process refers to the delivery method of a product or service. Enterprises need to ensure the efficiency and consistency of service processes to provide a stable customer experience.

3.2.7. Physical Evidence.

Tangible display refers to the material environment or physical clues during the service process, such as the layout of the service venue, employee attire, facilities and equipment. These elements help enhance customers' trust in service quality.

4. Analysis

4.1. Analysis with Porter's Five Forces

4.1.1. Tesla's Porter's Five Forces Analysis.

(1) Rivalry Among Existing Competitors (Highly competitive)

The electric vehicle market is growing rapidly; however, Tesla is facing competitive pressure from multiple parties. Traditional car manufacturers such as Volkswagen and General Motors are increasing their investment in electric vehicles, while companies such as Rivian and Lucid are also emerging. In addition, other technology companies are also trying to enter this market. These factors have led to further intensification of market competition.

(2) Threat of New Entrants (Medium threat)

The entry barriers to the electric vehicle industry are high, including the need for significant capital investment, technological accumulation, and strong brand building. However, with the rapid development of the market, some non-traditional car manufacturers, such as Apple and Sony, are also actively exploring the possibility of entering this field. These companies may impact the existing market landscape with their technological and brand advantages.

(3) Threat of Substitutes (Moderate threat)

Although electric vehicles are gradually replacing traditional fuel vehicles, in some regions, fuel vehicles still have a strong market position due to inadequate charging infrastructure. In addition, the popularity of shared mobility services such as Uber and Lyft and public transportation systems pose a certain substitution threat to the demand for private cars.

(4) Bargaining Power of Suppliers (Medium bargaining power)

Tesla relies on a few suppliers for key components, such as batteries and semiconductors, so these suppliers have strong bargaining power. However, Tesla is gradually reducing this dependence and enhancing its control over the supply chain through vertical integration strategies, such as building its Gigafactory battery factory.

(5) Bargaining Power of Buyers (Low to moderate bargaining power)

Tesla's brand influence and technological advantages have somewhat reduced consumers' bargaining power. Consumers are willing to pay a premium for Tesla's technology and brand. However, with the intensification of competition in the electric vehicle market, consumers' sensitivity to price and performance is also increasing, which may affect Tesla's pricing strategy.

4.1.2. Ford's Porter's Five Forces Analysis.

(1) Rivalry Among Existing Competitors (High)

The traditional automobile market is highly competitive, especially in the fuel vehicle market, while facing challenges from emerging car companies like Tesla in the electric vehicle field.

(2) Threat of New Entrants (Low to Medium)

The traditional automotive industry has high barriers to entry, including significant capital investment and brand building, but in the electric vehicle field, the threat of new entrants is more significant.

(3) Threat of Substitutes (Medium)

Electric vehicles pose a direct substitution threat to traditional fuel vehicles, especially driven by environmental policies and technological advancements. Meanwhile, public transportation and shared mobility services also have a substitution effect on the automotive market.

(4) Bargaining Power of Suppliers (Medium)

Ford has an extensive global supply chain network but faces bargaining pressure from crucial component suppliers, especially in the electric vehicle field, where the complexity of supply chain management increases.

(5) Bargaining Power of Buyers (Medium)

Consumers are more sensitive to price and functionality, especially in the gasoline car market. Electric vehicle consumers pay more attention to technology and brand, which reduces their bargaining power.

4.2. Analysis With 7Ps Marketing Framework

4.2.1. Tesla's 7Ps marketing framework.

(1) Product

Tesla's main products include electric vehicles (Model S, Model 3, Model X, Model Y) and energy products (Powerwall, Solar Roof). Its core selling points are high performance, innovative technology, and environmental protection concepts.

(2) Price

Tesla adopts a high-end pricing strategy, targeting middle and high-income consumers, and gradually reduces prices through economies of scale to launch more cost-effective models (such as Model 3).

(3) Place

Tesla mainly sells through direct stores and online sales channels while building a global network of supercharging stations to support its electric vehicle customers.

(4) Promotion

Tesla uses social media and digital platforms for marketing, emphasising its products' technological advantages and environmental features. Its press conference and exhibition activities have also attracted widespread public attention.

(5) People

Tesla attaches great importance to employee training, ensuring high-level customer service while encouraging employee innovation through a good working environment and incentive mechanisms.

(6) Process

Tesla has highly automated production processes to ensure product quality and efficiency and provides convenient online purchasing and appointment services to enhance customer experience.

(7) Physical Evidence

Tesla's modern showrooms and service centres provide a comfortable environment and strengthen the brand image through high-quality product design and packaging. Its online platform provides detailed product information and usage guidelines.

4.2.2. Ford's 7Ps marketing framework.

(1) Product

Ford has a wide product line covering traditional fuel and electric vehicles, including sedans, SUVs, trucks, and commercial vehicles. Its products are characterised by durability, performance, and diverse choices.

(2) Price

Ford adopts a diversified pricing strategy, covering consumers of different income levels, and attracts customers by providing flexible financial services and promotional activities.

(3) Place

Ford has an extensive dealer network and service centres, utilising online platforms and physical stores for sales and ensuring global market coverage.

(4) Promotion

Ford uses a combination of advertising, promotion, public relations, and digital marketing to promote its products, emphasising brand history and product reliability. At the same time, participate in social welfare activities to enhance brand image.

(5) People

Ford invests in employee training and development to improve service quality while emphasising a corporate culture of teamwork and customer orientation.

(6) Process

Ford has standardised production processes and quality control systems and provides convenient after-sales service and customer support, continuously optimising operational processes to improve efficiency.

(7) Physical Evidence

Ford's modern showrooms and service facilities have strengthened the brand identity and visual design, enhancing the customer experience while attracting consumers through high-quality product displays and marketing materials.

4.3.Ratio analysis

Table 1. Financial Comparison between Ford and Tesla from 2020 to 2023

(in millions)	2020		2021		2022		2023	
	ford	tesla	ford	tesla	ford	tesla	ford	tesla
Total Assets	267,261	52,148	257,035	62,131	255,884	82,338	273,310	106,618
Current Assets	116,744	26,717	108,996	27,100	116,476	40,917	121,481	49,616
Total Liabilities	236,450	28,418	208,413	30,548	212,717	36,440	230,512	43,009
Current Liabilities	97,192	14,248	90,727	19,705	96,866	26,709	101,531	43,009
Shareholders' Equity	30,690	22,225	48,519	30,189	43,242	44,704	42,773	62,634
Total Revenue	127,144	31,536	136,341	53,823	158,057	81,462	176,191	96,773
Cost of Goods Sold, COGS	112,752	7,070	114,651	11,085	134,397	15,785	150,550	17,498
Operating Revenue	(4,408)	1,994	4,523	6,496	6,276	13,832	5,458	8,891
Gross Profit	5,785	6,630	16,438	13,606	17,164	20,853	16,160	17,660
Net Profit	(1,279)	721	17,937	5,524	(1,981)	12,583	4,347	14,999
EBIT	535	1,902	19,583	6,714	-1,734	13,910	5,285	10,129

According to financial data presented in Table 1 and Table 2 [9-12], Tesla has shown significant growth momentum in recent years, exceptionally outperforming Ford in profitability and operational efficiency. Tesla's total assets increased from \$52.148 billion to \$106.618 billion between 2020 and 2023, total liabilities increased from \$28.418 billion to \$43.009 billion, and shareholder equity increased from \$22.225 billion to \$62.634 billion, demonstrating strong growth. In contrast, Ford's assets have remained above \$250 billion during the same period, with total liabilities exceeding \$200 billion. Shareholders' equity has slightly decreased after reaching a peak of \$48.519 billion in 2021 will remain at \$42.773 billion in 2023.

Table 2. Comparison of Key Financial Ratios between Ford and Tesla from 2020 to 2023

	2020		2021		2022		2023	
(in millions)	ford	tesla	ford	tesla	ford	tesla	ford	tesla
Current Ratio	1.2	1.87	1.2	1.37	1.2	1.53	1.2	1.15
Net Profit Margin	-1.01%	2.29%	13.17%	10.26%	-1.26%	15.42%	2.47%	15.50%
Gross Profit Margin	4.55%	21.03%	12.04%	25.30%	10.85%	25.58%	9.17%	18.24%
Return on Assets, ROA	-0.48%	1.38%	6.98%	8.89%	-0.78%	15.29%	1.59%	14.07%
Return on Equity, ROE	-4.17%	3.24%	37.02%	18.30%	-4.59%	28.16%	10.16%	23.95%
Total Asset Turnover Ratio	0.48	0.6	0.53	0.87	0.62	0.99	0.64	0.91
Debt to Assets Ratio	88.33%	54.56%	81.04%	49.18%	83.18%	44.27%	84.35%	40.35%
Debt to Equity Ratio	7.7	1.28	4.3	1.01	4.92	0.81	5.39	0.69

In terms of profitability, Tesla's performance is particularly outstanding. Tesla's total revenue increased from \$31.536 billion in 2020 to \$96.773 billion in 2023, and its net profit increased from \$72.1 million to \$14.999 billion, significantly surpassing Ford's. Although Ford's total revenue increased from \$127.144 billion in 2020 to \$176.191 billion in 2023, it incurred net losses in 2020 and 2022. Tesla's gross profit margin will reach 18.24% in 2023, far higher than Ford's 9.17%, indicating Tesla's outstanding performance in controlling production costs and enhancing product-added value.

In terms of operational efficiency, Tesla is also leading. Tesla's total asset turnover rate is 0.91 in 2023, while Ford's is 0.64, indicating that Tesla is more efficient in asset utilisation. Tesla's return on equity (ROE) will reach 23.95% in 2023, while Ford's will be 10.16%, with a return on assets (ROA) of 14.07% and 1.59%, respectively. These indicators indicate that Tesla has a greater advantage than Ford in utilising its assets to create profits.

Regarding debt-paying ability, the two companies have similar current ratios, with Tesla at 1.15 and Ford at around 1.2 in 2023. However, Tesla's debt-to-asset ratio decreased from 54.56% in 2020 to 40.35% in 2023, while Ford maintained above 80% during the same period, indicating Tesla's lower financial leverage and more robust financial condition. In addition, Tesla's shareholder equity liability ratio is 0.69 in 2023, while Ford's is 5.39, indicating that Tesla's financial structure is much healthier.

Tesla has demonstrated more substantial growth potential and robust financial performance, outperforming Ford regarding profitability, operational efficiency, and financial health. Tesla has achieved significant financial growth and steady development in recent years, laying a solid foundation for future growth.

4.4. Summarise

With the rise of electric vehicles and intelligent driving technology, the market's demand for innovation and sustainable development continues to increase. However, this industry also has significant risks that may prevent investors from investing in the field to gain profits. These risks include uncertainty in the speed of technological development, intense market competition, fluctuations in raw material prices, and strict environmental regulations. Faced with these challenges, investors need to conduct detailed analyses to evaluate the performance and prospects of various companies in the market.

This study used the 7Ps marketing mix analysis and Porter's Five Forces model to comprehensively analyse Tesla and Ford's financial performance, strategic positioning, and product strategies. The 7Ps analysis covers seven aspects: product, price, location, promotion, personnel, process, and tangible display, while Porter's Five Forces model evaluates the competitive situation of the industry. These methods combined provide investors with a multidimensional analytical framework, helping them make wiser investment decisions.

Despite Tesla's significant growth and innovation capabilities, Ford has demonstrated its resilience and stability in a fiercely competitive market. Based on a comparison of the strengths and weaknesses

of the two companies, this study has developed an investment recommendation. This analysis provides valuable insights for investors and lays the foundation for future investors' choices and investments.

This study provides clear investment recommendations for potential investors by comparing Tesla and Ford's financial performance, strategic positioning, and product strategies. This will help investors identify companies with more significant investment potential. In addition, the results of this study provide a foundation for future investment choices and decisions.

Although this study used the 7Ps and Porter's Five Forces model, some limitations remain. For example, these analytical methods rely on historical data, which may not fully reflect future market changes and uncertainties. In addition, this study did not cover all factors that may affect the performance of the two companies, such as corporate governance, corporate culture, and the management team's ability.

5. Conclusion

The research results indicate that although Tesla has performed well in technological innovation and market growth, its unique electric vehicle technology and rapid expansion capabilities have put it in a leading position. Ford has demonstrated stronger resilience and stability in fierce market competition. Ford's traditional automotive business and robust financial performance support it in an uncertain market environment. Based on a comprehensive comparison of the strengths and weaknesses of the two companies, this study proposes investment recommendations to help investors identify companies with more significant investment potential and provide valuable references for future investment choices and decisions.

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