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Strategic Marketing Responses to Macro-Environmental Forces in the Global Electric
Vehicle Industry: A Comparative Analysis of Tesla and Volkswagen

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1 Introduction

This report is aimed at critically analysing the role of external macro-environmental factors in influencing strategic marketing decisions in the global electric vehicle (EV) market. It concentrates on two macro-marketing agents, technological change and environmental and regulatory forces and examines the way pioneer and follower firms are strategically responding to these forces in different ways. Systematic environmental scanning is an essential ability for remaining competitive in the long term in the high-innovation industry, like EVs (Akbalik and Citilci, 2019).

The EV market has been transformed into mainstream in a very short time. In 2023, electric car sales in the world reached nearly 14 million vehicles, which is approximately 18 per cent of all cars sold in the world, and is expected to rise to approximately 17 million in 2024, which is more than a quarter of all cars sold in the world and a growth rate of over 25 per cent (IEA, 2024). This growth is enabled by battery and digital development and stricter climate and emissions policies, which, combined, reorganise costs, consumer preferences and competition (IEA, 2024; European Parliament, 2023).

These forces generate varied opportunities and threats to innovative firms, including Tesla, and imitator firms, including Volkswagen, in the same industry. It is on this background that the report analyses the macro marketing environment by applying PESTEL and subsequently evaluates the strategic reactions of pioneers and followers based on the Growth Matrix put forward by Ansoff and the Generic Strategies put forward by Porter, with reference to their strategic importance of adaptive and evidence-based decisions regarding the marketing environment.

2 Task 1: Critical Analysis of the Macro Marketing Environment

2.1 Overview of the Macro Marketing Environment

The macro marketing environment comprises external forces that shape organisational strategy but remain largely outside managerial control. For strategic marketing management, consistent environmental scanning is essential because firms must align long-term decisions with changing market conditions (Kotler, Keller and Chernev, 2021). The PESTEL framework supports such analysis by categorising

external forces into political, economic, sociocultural, technological, environmental and legal dimensions (Akbalik and Çitilci, 2019).

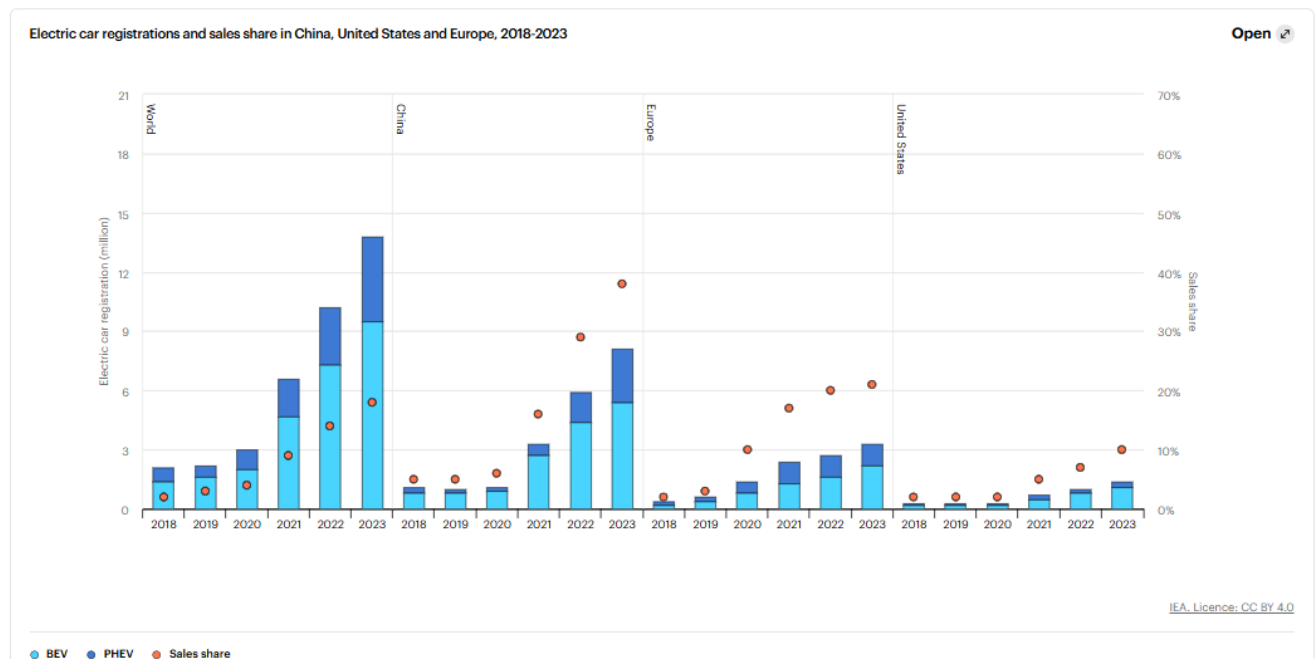


Figure 1: Global electric car sales 2018–2023

Source: <https://www.iea.org/reports/global-ev-outlook-2024/trends-in-electric-cars?>

As shown in Figure 1, global electric car sales have increased sharply over the past decade, reaching nearly 14 million units in 2023 and continuing to grow in 2024 (IEA, 2024). In fast-evolving industries such as electric vehicles (EVs), PESTEL analysis is particularly critical. Technological disruptions, including advances in battery density, autonomous driving and digital ecosystems, interact with environmental and regulatory pressures linked to decarbonisation and emission reduction (IEA, 2024).

These forces are different in pioneering and follower firms. Technological leaders and early standard-setters like Tesla have an advantage but are pressured by long-term innovation. The scale benefits of followers like Volkswagen and brand credibility, but have to cross structural inertia and capability gaps.

2.2 Selection and Justification of Two Macro Marketing Actors

Two macro-environmental actors, technological factors and environmental/regulatory factors, exert the strongest strategic influence in the EV industry.

2.2.1 Technological Factors

Technological advancement defines the competitive landscape of EV manufacturing. Battery innovation, charging efficiency, advanced driver-assistance systems (ADAS) and over-the-air (OTA) software architecture determine performance and consumer acceptance (Li, Fan, and Dong, 2023). Battery pack prices have declined by over 90 per cent since 2010, making EVs increasingly affordable and accelerating mass adoption (IEA, 2024).

Figure 1: Volume-weighted average lithium-ion battery pack and cell price split, 2013-2023



Source: BloombergNEF. Historical prices have been updated to reflect real 2023 dollars. Weighted average survey value includes 303 data points from passenger cars, buses, commercial vehicles, and stationary storage.

Figure 2: Global average lithium-ion battery pack prices (USD/kWh) over time

Source: <https://about.bnef.com/insights/clean-energy/lithium-ion-battery-pack-prices-hit-record-low-of-139-kwh/>

In Figure 2, it can be seen that there is a consistent decline in lithium-ion battery prices globally to USD 115/kWh in 2024 from USD 1,000/kWh in 2010 (Bloomberg, 2024). Technology is significant for brand positioning for pioneers. Tesla markets itself as a technology-led company, using innovation to command premium prices and build customer loyalty. Technology factors are important for the transition from

internal combustion engine (ICE) to electric vehicles. Therefore, brands such as Volkswagen (VW) have to have strong competencies, reorganise production processes and have good relations with battery suppliers to consider technology a core marketing strategy.

2.2.2 Environmental and Regulatory Factors

The importance of environmental and regulatory factors is also significant, as the adoption of EVs is highly policy-oriented. The world has seen the introduction of tighter CO₂ regulations, EV subsidies and charging infrastructure ambitions by the governments. The introduction of the ZEV mandate in China and the U.S., coupled with the European Union requirements that all new cars sold after 2035 must have zero emissions, is a boost to the electrification of the industry (European Parliament, 2023; IEA, 2024).

Such laws redefine the competition in the market, shape the pricing policies and determine the sustainability position of firms. The regulatory pressure is compelling old car manufacturers to speed up the electrification process, but innovators enjoy the advantage of early compliance and high sustainability ratings. Therefore, competitive logic and marketing strategies in the EV industry are characterised by the joint influence of technological and environmental/regulatory forces.

2.3 Critical Analysis of Technological Factors

2.3.1 Opportunities for Pioneers (Tesla)

First-mover advantage is enhanced by technological innovation. The engineering of batteries, autonomous driving and integration of software is a key differentiation strategy as Tesla is leading in these areas. OTA updates expand the capabilities of the vehicle following the sale, lifting the ratings of customer satisfaction and product longevity (Frontiers, 2022). The advantages that are the platform, including a system of Supercharger of Tesla Superchargers and vertically integrated production, build imitation barriers and strengthen the brand identity of a premium.

2.3.2 Threats for Pioneers

There are threats of technology diffusion and competitive leapfrogging. The Chinese companies, BYD and NIO, are bridging the innovation gap with blistering

investment into battery and digital technologies (Sang et al., 2024). Tesla has been spending a lot of money on R&D, which exposes Tesla to fluctuations in the market, and new technologies, including solid-state batteries, could invalidate existing benefits. Creating technological leadership, thus, involves a continuous reinvestment and taking of risks.

2.3.3 Opportunities for Followers (Volkswagen)

Technology change brings about catch-up. The modular electric drive matrix (MEB) of Volkswagen allows the company to produce EVs at a lower unit cost and speed up the penetration of the market. Adherents enjoy using established technologies, eliminating the sense of uncertainty and enabling effective imitation (Karadzhov and Patarchanova, 2025). The development of capabilities is faster with strategic partnerships with battery suppliers. Reliability and heritage can be emphasised in the marketing strategies in an attempt to attract mainstream consumers.

2.3.4 Threats for Followers

When the process of adaptation is not fast, the followers will fall behind. The legacy ICE infrastructure and organisational inertia make responsiveness less urgent. Lack of alignment of consumer expectations in terms of range, charging speed or software capabilities undermines competitiveness (Barney, 2022). The growing technological convergence can also mean more intense price competition and less opportunity to do anything significant in differentiation.

2.4 Critical Analysis of Environmental and Regulatory Factors

2.4.1 Opportunities for Pioneers (Tesla)

The environmental policies are favourable to manufacturers of fully electric vehicles. Tesla has the advantages of government subsidies, favourable taxes and good relations with sustainability. Such policies grant it a stronger brand image and marketing campaigns to environmentally conscious consumers (European Parliament, 2023). Regulation fit also contributes to expansion into areas that are focused on low-carbon mobility.

2.4.2 Threats for Pioneers

Difference in regulations between markets makes it more complex to operate. Tesla has to adhere to various recycling regulations, safety laws and battery localisation regulations. The uncertainty in the policy, e.g. ICE bans delays, can decrease consumer urgency to switch to EVs.

2.4.3 Opportunities for Followers (Volkswagen)

Regulatory pressure enhances industry-wide electrification, which makes opportunities to expand the production of EVs at a rapid pace available to the followers. Volkswagen enjoys subsidies, credits for CO2 compliance and government-paid charging networks. Such circumstances facilitate the rebranding strategy to make the company look responsible towards the environment.

2.4.4 Threats for Followers

Meeting strict emission regulations is not only expensive, but supply chains should be reorganised, and substantial investments in the EV platform should be undertaken. Lack of achieving the regulatory targets may result in fines and damage to reputation, undermining competitive positioning (IEA, 2024).

3 Task 2: Strategic Responses of Pioneering and Follower Organisations

3.1 Pioneering Organisations' Strategic Responses (Tesla)

First-mover advantage in high-innovation industries is maintained by pioneering organisations adopting proactive innovation-led strategies to influence new market norms. Tesla's responses are strategic in the sense that it has a dedication to constant innovation, market growth, and adaptation to the tightening global emission frameworks (IEA, 2024).

3.1.1 Application of Ansoff's Growth Matrix

3.1.1.1 Market Penetration

The targeted price changes, scaling of production and the increase of the charging infrastructure make Tesla stronger in the current markets. The decreases in its prices in key markets, such as the United States, Europe and China in 2024, depict competitive entry strategies to help it counter the ever-increasing competition

(Li, Fan, and Dong, 2023). Being the most extensive fast-charging network in the world, the Supercharger system improves customer convenience, loyalty, and lowers the switching costs, which are the major principles of the market penetration strategy of Ansoff (Ansoff, 1957).

3.1.1.2 Product Development

The strategy of Tesla is focused on product development. Ongoing advances in Full Self-Driving (FSD) functionality, energy-dense batteries, and energy-efficiency architecture add value to products and differentiate the technology. OTA updates also provide a wider range of functionality across the vehicle lifecycle, a feature that more legacy automakers can hardly keep up with (Frontiers, 2022).

3.1.1.3 Market Development

The international growth of Tesla helps in the development of the market. The Shanghai Gigafactory will allow reaching the largest EV market globally cost-effectively, whereas the Berlin Gigafactory will enhance the localisation and adaptation to the regulations of the region (IEA, 2024). This geographic growth follows the principle of reaching new customer segments of Ansoff by diversifying regionally.

3.1.1.4 Diversification

Tesla has entered into the solar energy and large-scale battery storage systems with its Powerwall and Megapack. This will enhance its sustainability story and will take advantage of regulation incentives favouring integrated low-carbon technologies (European Parliament, 2023). It also lessens the reliance of the automotive markets as it also gets into the energy infrastructure.

Tesla – Ansoff Growth Matrix

Illustrating Tesla's growth responses to technological and regulatory forces

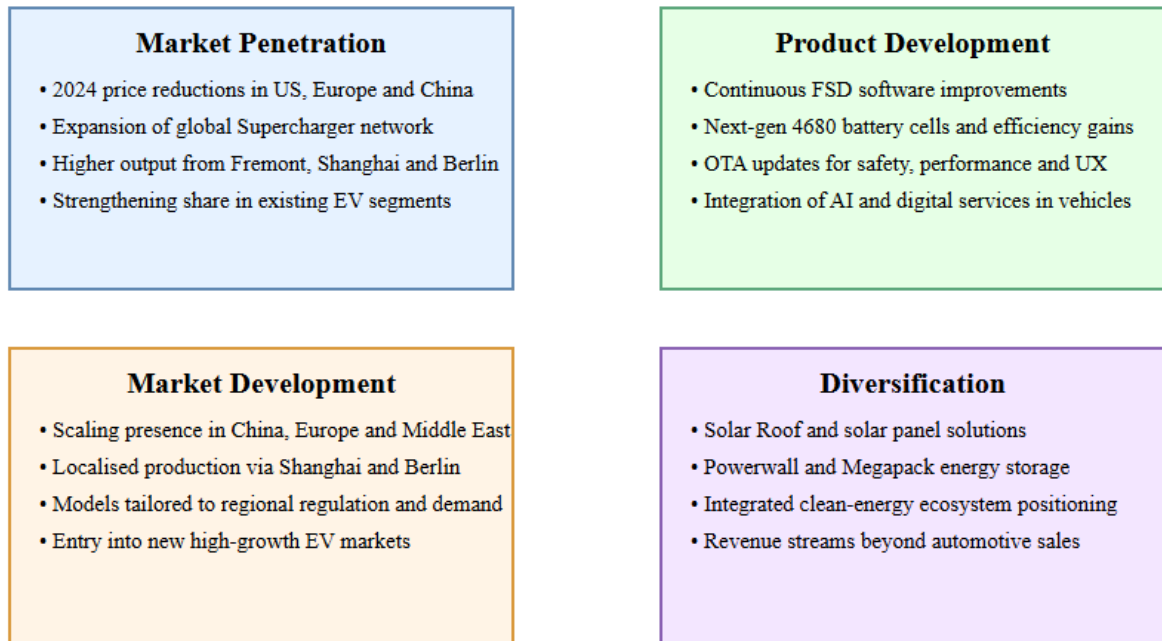


Figure 3: Tesla's Ansoff Growth Matrix

3.1.2 Porter's Generic Strategy: Differentiation

The competitive strategy adopted by Tesla is based on differentiation. The company also has a better range, software independence and hardware-software architecture (Porter, 2008). Vertical integration, battery manufacturing up to proprietary software, gives quality control, cost reduction and innovation speed, which supplements the premium positioning of Tesla (Barney, 2022).

3.1.3 Integration of Environmental and Technological Forces

The strategic direction of Tesla is co-created by the technological and environmental factors. Policies such as the 2035 zero-emission target by the EU benefit companies that have an all-electric fleet (European Parliament, 2023). The regulated credit trading is also profitable to Tesla, which earns the company large revenues through selling the surplus credits to non-compliant car manufacturers (IEA, 2024).

Further, by strategising the product development process in accordance with the possible future environmental changes of stricter regulations and the technological

trends, Tesla can mitigate its risk, capitalise on the existing opportunities, and consolidate its role as an innovation-oriented pioneer. Tesla's strategic responses can therefore be seen to be how first movers use growth strategies and differentiation to maintain a competitive edge in an ever-changing international market.

3.2 Follower Organisations' Strategic Responses (Volkswagen)

VW and other follower firms have the twin task of not only being technologically up-to-date but also changing their legacy operations premised on internal combustion engines. Strategic responses of VW indicate the development of capability, the maximisation of efficiency and compliance. These plans enable VW be able to compete successfully with innovators even though it entered the EV market late (IEA, 2024).

3.2.1 Application of Ansoff's Growth Matrix

3.2.1.1 Product Development

VW is electrifying through product development. The modular electric drive matrix (MEB) is the basis of various EVs in VW Group brands that allows standardised manufacturing, minimised R&D risk and economies of scale (Sang et al., 2024). The use of proven technologies developed by Tesla and Asian producers would help VW expedite time-to-market with the minimum innovation risk.

3.2.1.2 Market Development

VW has increased its EV sales in Europe, China and North America. Europe has great regulatory incentives, whereas China, which constitutes more than 60 per cent of the world's EV demand, has great growth potential. The partnerships of VW with SAIC and FAW help to allow local production and adherence to the Chinese industrial policy (Frontiers, 2022). This regional adjustment is necessary in order to compete with local giants like BYD that take up the market of EVs in China.

3.2.1.3 Diversification

VW is not only diversified in battery production, software development and charging infrastructure. The 2023-2027 EUR180 billion investment is focused on electrification and digitalisation, with the growth of the software subsidiary of VW,

Cariad (Barney, 2022). Diversification helps in maintaining competitiveness over a long period of time and minimising dependence on outside technology sources.

3.2.2 Porter's Generic Strategy: Hybrid Approach

In contrast to the pure differentiation of Tesla, VW is a hybrid player that applies the strategy of cost leadership with selective differentiation.

Porter's Generic Strategies – Tesla vs Volkswagen

Comparison of differentiation (Tesla) and hybrid strategy (Volkswagen)

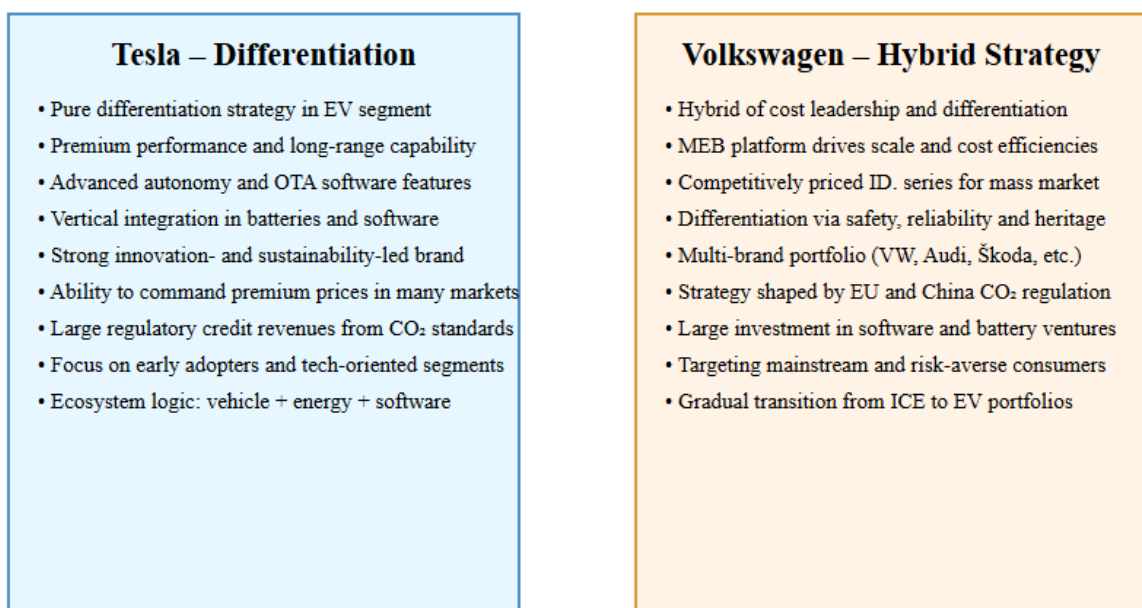


Figure 4: Comparison of differentiation (Tesla) and hybrid strategy (Volkswagen)

3.2.2.1 Cost Leadership

VW exploits the power of mass production, standardisation of platforms and international supply chains to produce medium-priced EVs that target mass consumers. The MEB platform lowers the costs associated with production, as well as the objectives of VW to compete with cheaper Chinese EVs without losing margins.

3.2.2.2 Differentiation

Brand legacy, reliability, and safety form part of the differentiators that VW has created to appeal to risk-averse consumers who are shifting to ICE vehicles (Barney,

2022). Its multi-brand business (Volkswagen, Audi, Skoda, Cupra) offers diversified value propositions in the market segments.

3.2.3 Integration of Environmental and Technological Forces

The transition strategy in VW is highly influenced by the policies on environmental regulations. History-based fines on non-compliance with emissions indicated the necessity to electrify and invest more in EV capabilities within the shortest time (European Parliament, 2023). These are subsidies, carbon credits and national infrastructure programmes that also determine the market priorities of VW.

VW enjoys the benefit of applying proven innovations of competitors technologically, and is vulnerable to rapid changes within the industry. Software stalling, battery supply shortage, and scaling problems portray the problem the follower firms will have to experience when transitioning to the electrified systems (IEA, 2024).

Lastly, the accelerated technological usage and restructuring of operations in a follower is an endeavour to reconcile the strategy of VW. The ability of VW to close the gap with pioneers and remain in tandem with trends in the global regulatory scene through hybrid competitive positioning is made possible by platform efficiency and strategic diversification.

EV Industry Strategic Forces Radar

Illustrating relative pressure from key macro-environmental drivers

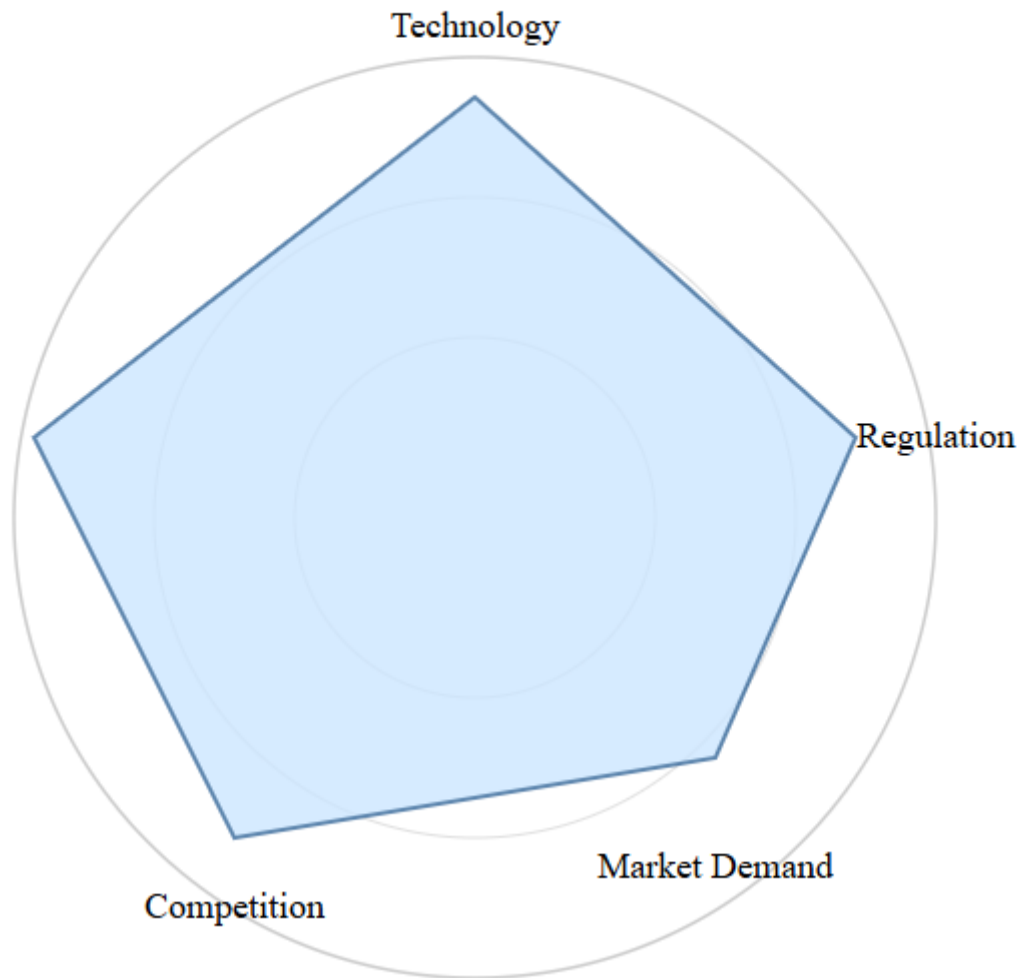


Figure 5: Strategic Forces Shaping EV Competitiveness

4 Conclusion

To sum up, it has been observed that strategic decision-making in the electric vehicle (EV) industry depends more on the macro environmental factors, especially the technological changes, as well as the environmental/ regulatory forces. These forces impact all the consumer expectations, the competitive forces and also the long-term strategic priorities of the firms.

The technological forces, like the development of battery chemistry, digital integration and autopilot development, bring forth immense opportunities to innovative companies like Tesla to remain differentiated by relentless innovation.

Follower firms like Volkswagen, on the other hand, can enjoy the benefits of the implementation of proven technologies, but still suffer the risk of organisational inertia and a sluggish innovation cycle. The strategic pressures are further heightened by environmental and regulatory forces, with the future of the market being determined by the emissions standards, zero-emission requirements and government incentives influencing strategic entry decisions, product line and marketing strategies of both first movers and followers.

The strategic reactions discussed in this report show that pioneers are based on proactive innovation, diversification and global market development as noted in the Growth Matrix of Ansoff and the differentiation strategy of Porter. Instead, followers use hybrid tactics, which combine cost effectiveness, technological catch-up and regulatory alignment in an attempt to gain competitive positions.

Therefore, the review shows that the success of the long-term competitiveness of the EV sector depends on whether a firm can foresee the effects of the external environment, adjust its marketing strategies in accordance with them, and incorporate sustainability into the strategic decision-making process.

References

- Akbalik, M. and Çitilci, T. (2019) 'The Importance of PESTEL Analysis for Environmental Scanning Process', in *Handbook of Research on Decision-Making Techniques in Financial Marketing*, IGI Global, pp. 336–357.
- Ansoff, H.I. (1957) *Strategies for Diversification*. Harvard Business Review, 35(5), pp. 113–124.
- Barney, J. (2022) *Gaining and Sustaining Competitive Advantage*, 6th edn. Pearson.
- Bloomberg (2024). *Lithium-Ion Battery Pack Prices Hit Record Low of \$139/kWh | BloombergNEF*. [online] BloombergNEF. Available at: <https://about.bnef.com/insights/clean-energy/lithium-ion-battery-pack-prices-hit-record-low-of-139-kwh/>.
- European Parliament (2023) *CO₂ emission standards for cars and vans: EU policy update*. Available at: <https://www.europarl.europa.eu/legislative-train/package-eu-mobility-package/file-jd-co2-emissions-standards-for-cars-and-vans> (Accessed: 20 November 2024).
- Frontiers (2022) 'The relationship between environmental scanning and organizational resilience: Roles of process innovation and environmental uncertainty', *Frontiers in Environmental Science*. Available at: <https://www.frontiersin.org/articles/10.3389/fenvs.2022.966474/full> (Accessed: 19 November 2025).
- IEA (2024) *Global EV Outlook 2024: Trends and Projections*. International Energy Agency. Available at: <https://www.iea.org/reports/global-ev-outlook-2024> (Accessed: 20 November 2024).
- IONOS (2025) 'PESTEL | Analyzing the macro-environment of your company', IONOS. Available at: <https://www.ionos.com/startupguide/grow-your-business/pestel-analysis/> (Accessed: 19 November 2025).
- Karadzhov, V. and Patarchanova, E., 2025. How to Create the Best PESTEL Analysis. *DIGITAL RESEARCH*, 1(3), p.8.
- Kotler, P., Keller, K. and Chernev, A. (2021) *Marketing Management*. Pearson.
- Li, Z., Fan, H. and Dong, S. (2023) 'Electric Vehicle Sales Forecasting Model Considering Green Premium: A Chinese Market-based Perspective', *arXiv*. Available at: <https://arxiv.org/abs/2302.13893> (Accessed: 19 November 2025).
- OpenStax / Rice University (2025) 'A Firm's External Macro Environment: PESTEL', in *Global Marketing in a Digital World*. Available at:

<https://ecampusontario.pressbooks.pub/globalmarketing/chapter/5-3-a-firms-external-macro-environment-pestel/> (Accessed: 19 November 2025).

Porter, M.E., 2008. *Competitive advantage: Creating and sustaining superior performance*. Simon and Schuster.

Sang, V.T.D., Duong, Q.H., Zhou, L. and Arranz, C.F., 2024. Electric vehicle battery technologies and capacity prediction: a comprehensive literature review of trends and influencing factors. *Batteries*, 10(12), p.451.

SMstudy (2021) 'PESTEL Analysis: A Strategic Marketing Tool Overview'. Available at: <https://www.smstudy.com/article/pestel-analysis> (Accessed: 19 November 2025).

The Strategy Institute (2024) 'Understanding External Business Environments with PEST and PESTLE Analysis'. Available at: <https://www.thestrategyinstitute.org/insights/understanding-external-business-environments-with-pest-and-pestle-analysis> (Accessed: 19 November 2025).