



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Module: International Business Concepts (LCMB7034)

Lecturer: Akshay Narayanan

Assignment Title: International Business Analysis of the German
Automobile Industry: A Case Study of Tesla's Operations

Student Name: Gokul Krishnan KG

Student ID: 2433834

Word Count: 5459

Submission Deadline: 20/03/2026

Table of Contents

1	Introduction	3
2	Industry and Country Overview	4
2.1	Overview of Germany's Automobile Industry	4
2.2	Size, Scope and Economic Contribution of the Industry	5
2.3	Major Firms Operating in the German Automobile Industry	6
3	Global Competitiveness Analysis: Porter's Diamond Model.....	8
4	Evaluation of a Foreign Multinational Company in Germany	12
4.1	Overview of Tesla's Operations in Germany.....	12
4.2	PESTLE Analysis of Germany as a Market for Tesla.....	13
4.3	SWOT Analysis of Tesla in Germany.....	17
4.4	Strategic Evaluation of the Company's Success in Germany	20
5	Conclusion	21
6	Reflection: Gibbs Reflective Cycle	22
7	References.....	25

1 Introduction

This report analyses the automobile industry in Germany with the aim of finding out its national and international competitiveness, and also looking at the performance of a leading foreign multinational corporation in the industry operating in the market. The aim of the report is to examine the scale, range, and economic significance of the automotive industry in Germany, its competitiveness internationally based on the Diamond Model given by Porter, and Tesla's business in Germany in terms of applicable strategic models. The report has four major sections. It begins by giving a general overview of the German automobile business and its major companies. It then uses the Diamond Model by Porter to evaluate competitive advantage. The next part of the report assesses the Tesla location in Germany with the help of PESTLE and SWOT analysis, and finally concludes by summarising the main results and overall strategic implications.

2 Industry and Country Overview

2.1 Overview of Germany's Automobile Industry

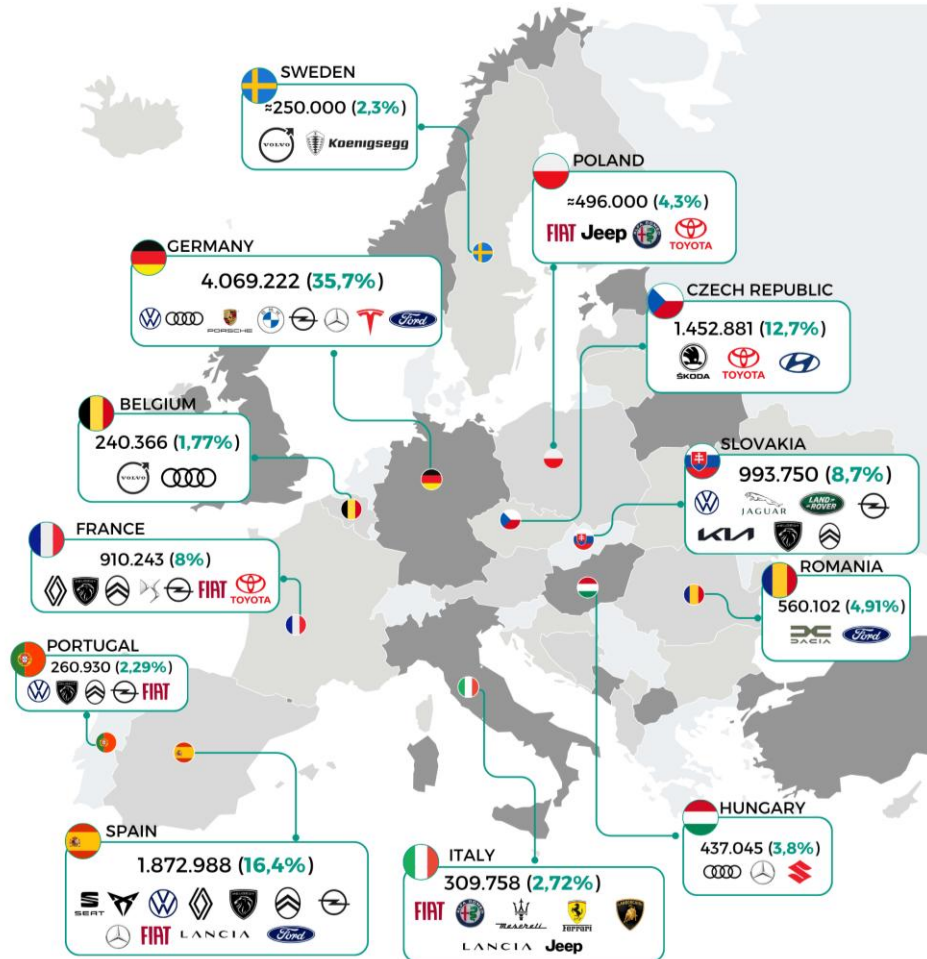


Figure 1: Germany's Dominating Role in the European Automobile Industry (ACEA, 2024)

The automobile sector is one of the most strategically significant manufacturing industries in Germany and is still at the heart of the export-led growth strategy in the country. It is the largest European automotive market in terms of production and sales and contributes over 32 per cent of all passenger cars produced in Europe and nearly 22 per cent of new registrations on the continent in 2024 (GTAI, 2025). The industry is founded on a long-running foundation of engineering capacity, high brand reputation, and thick supplier chains, which, combined, promote the impression of German high-quality and technologically advanced automobiles (Koelmel, 2024).

The industry includes passenger automobiles, commercial automobiles, parts, mobility solutions and more electric vehicles (EVs). By the end of 2024, there were 51 automobile assembly and manufacturing facilities in Germany, which shows the size and the geographical depth of the industry (GTAI, 2025). German manufacturers particularly dominate in the high-quality and high-performance segment, where companies like BMW, Mercedes-Benz and Audi have gained brand equity worldwide. Nonetheless, the industry is simultaneously undergoing change, experiencing pressure due to electrification, digitalisation, high domestic production cost and increasing competition between Chinese EV makers, especially in export markets, like China (Reuters, 2024; Ramos and Ruiz-Galvez, 2024).

2.2 Size, Scope and Economic Contribution of the Industry

The German automotive industry is still among the largest in the world, both in terms of production and economic worth. German factories have a manufacturing capacity of about 4.1 million passenger cars and nearly 351,000 commercial vehicles in 2024, becoming the biggest automotive manufacturer in Europe (GTAI, 2025). The industry has achieved a high export orientation as it earned EUR536.1 billion in total revenue, with 70 per cent (EUR372.2 billion) of revenue derived in foreign markets (GTAI, 2025; Yun *et al.*, 2025). The largest export group in Germany was automotive products, and vehicles comprised 23.8% of all exports of the country (Yun *et al.*, 2025).

Innovation is also significantly driven by the industry. In 2023, German automotive firms spent EUR30.3 billion in internal research and development, almost a third of the total industrial research and development expenditure in Germany, and around 157,741 employees were employed in the automotive R&D (Statista, 2025). Such investment will help technological development in batteries, autonomous driving, software integration and sophisticated manufacturing, which will further strengthen Germany in high-end vehicles and intricate systems of suppliers (Koelmel, 2024; Hertenstein and Williamson, 2018).

The industry, however, has new challenges. In the EU, the number of new car registrations grew only by 0.8 in 2024 to 10.6 million in total, with Germany experiencing a 1pp drop. EU battery-electric vehicle registrations declined by 5.9%, and Germany by

38.6% in December 2024, showing demand instability in the electrification process (ACEA, 2025). We also see a tougher Chinese demand and cost of production within the country on top of industry margins (Reuters, 2024; Waldersee, 2025).

2.3 Major Firms Operating in the German Automobile Industry



Figure 2: Major German Automobile Companies (Roser, 2024)

Large local manufacturers control the German automotive industry, most of them being Volkswagen Group, BMW Group and Mercedes-Benz Group, although foreign multinationals like Tesla and Ford also have a significant presence in the country (Keil and Steinberger, 2023). The biggest company in terms of size is Volkswagen; it serves various segments under such brands as Volkswagen, Audi, Porsche, Skoda and SEAT/CUPRA (Waldersee, 2025). The portfolio approach allows the company to compete at the same time in mass-market, premium and luxury. Volkswagen reported EUR324 billion in revenue, EUR19.1 billion operating profit and an operating margin of 5.9 in 2024, although the company experienced lower demand in Europe and China and pressure to

cut its costs in Germany (O'Carroll, 2026). Its competitive advantage is thus mostly scale-based, which depends on platform sharing, globalisation, and volume of production.

BMW and Mercedes-Benz are more oriented towards the high-end segment. In 2024, BMW retained the top position in the global premium brand, but its automotive EBIT margin decreased to 6.3 per cent because of the declining demand in China and due to disruptions in deliveries (BMW, 2024). The BMW approach is a blend of high-end brand positioning and technological development, including the Neue Klasse platform, and significant investment efforts in electrification and digital production (BMW, 2024). Mercedes-Benz is still better positioned towards luxury. Cost control and up-market models become more important to the company as market conditions deteriorate, and they can be seen as evidence of the strategy that emphasises profit margins over the expansion of volume (Chopping, 2026).

The difference in competitive positioning thus varies within the industry. The advantage of Volkswagen is the scale and brand variety, yet the demands on margins in the shift to electric cars. BMW is between these two, having a relatively large product range but setting prices above those of other manufacturers. Mercedes-Benz specialises in luxury, exclusiveness and luxurious cars. Tesla has solidified the EV industry in Germany, with its Grunheide gigafactory near Berlin, which employs approximately 11,500 people by the end of 2025 and is part of the Tesla production strategy in Europe (Reuters, 2025). Ford is still applicable in commercial vehicles and has long-established production processes in Germany.

3 Global Competitiveness Analysis: Porter's Diamond Model

Factors	Critical analysis of Germany's automobile industry
Factor Conditions in Germany	Germany possesses strong advanced factor conditions, which Porter's model considers more important than basic resources. By the end of 2024, the country had 51 automobile assembly and production sites and produced about 4.1 million passenger cars and 351,000 commercial vehicles, making Germany Europe's largest vehicle manufacturing base (VDA, 2025). German automotive firms invested around €30.3 billion in internal R&D in 2023, while sectoral R&D employment reached 157,741 people, indicating that competitiveness relies on engineering expertise, specialised research and industrial know-how rather than cheap labour or raw materials. In addition, German automotive companies invested €58.4 billion in global R&D in 2023, reinforcing their technological leadership in electrification, software and advanced manufacturing (GTAI, 2025). The strength of Germany, hence, is a high concentration of highly competent engineers, research facilities and high-quality production. Studies also indicate that the German auto competitiveness has traditionally relied on complicated mechanisms of innovation and technological updating through suppliers, instead of basic price-savings (Beier <i>et al.</i>, 2020). But weaknesses are springing up. Domestic competitiveness is being cut by high labour costs, electricity prices, taxation and regulation. The labour expenses of Volkswagen in relation to sales are higher than those of key competitors, and the VDA cautions that as many as 186,000 jobs might vanish by 2035 in case of EV transition pressures (Katanich, 2024).

**Demand
Conditions in the
German
Automotive
Market**

Porter explains that advanced domestic demand stimulates innovation among firms. This is the state of Germany since the customers are very quality-conscious and regard engineering reliability, safety, performance and more and more sustainability (Felser and Wynn, 2023). Germany is a major European automotive market, which also recorded a 1-percent fall in registrations in 2024, whereas the broader EU market expanded 0.8 percent to approximately 10.6 million units (ACEA, 2025).

The German demand is thus not just big but also advanced. Consumers have always been loyal to high quality and design brands like BMW, Mercedes-Benz and Audi, pushing companies to compete in terms of quality, design, efficiency and innovation (Ramos and Ruiz-Galvez, 2024). Such a demand structure has enabled German manufacturers to retain high positions in the world in the high-end auto industry.

But the electrification process has been confusing. Germany was the largest EV market in the EU, but the demand decreased due to subsidy cuts. In May 2024, Reuters reported a 30 percent decrease in battery-electric registrations, and in August 2024, ACEA statistics indicated a 68.8 percent decrease in August 2024, compared to the same month of the prior year (Parodi and Fondahn, 2024).

This poses a paradox to the Porters framework. Still, the demanding consumers stimulate the technical advancement, yet unstable EV demand diminishes predictability in the market, which can decelerate the technology scaled domestically. The conditions of demand in Germany are therefore, still relevant to competitiveness but they are less stable than in the internal-combustion era (Eddy, 2025).

**Related and
Supporting
Industries**

The automotive industry of Germany enjoys one of the best networks of related and supportive industries, which is a powerful source of competitive advantage in the Diamond of Porter. According to Germany Trade and Invest, 18 out of the top 100 automotive suppliers in the world are located in Germany, and the nation has a very dense bundle of component manufacturers, precision engineering firms, chemicals manufacturers, logistics companies, and industrial software experts (GTAI, 2025). This grouping formation enhances creativity and manufacturing power. Studies indicate that suppliers are very instrumental in enforcing differentiated innovation strategies especially in complex fields like advanced powertrains, electronics and safety systems. In Germany, companies like Bosch, Continental and ZF partners with vehicle makers to develop advanced systems together instead of just providing generic parts (Masud, 2025).

These cluster effects are proponents of export performance. In 2024, Germany exported an approximate of 3.4 million new cars valued at EUR135.0 billion, of which 13.1 percent of the units exported were sold to the United States (Destatis, 2025).

Nonetheless, the network of suppliers is strained. Restructuring is being imposed by weak European demand, slower EV adoption and rising Chinese competition. In 2024, Bosch declared cost-cutting, and ZF said it lost EUR1 billion and aims to cut up to 14,000 people by 2028 (Taylor, 2025). In this way, the supplier cluster of Germany is still a strength that needs to adjust to the electrification, software-defined vehicles and battery supply chains.

**Firm Strategy,
Structure and
Rivalry**

Germany is one that greatly supports the argument put forward by Porter that stiff rivalry at home promotes competitiveness in the global arena. The auto industry is characterised by strong local companies that have their unique strategies: Volkswagen Group is competing on the basis of scale and brands diversity, BMW is competing on basis of premium performance and technology, and Mercedes-Benz competes on the basis of luxury positioning and high margins (VDA, 2025). Volkswagen in 2024 reported its revenue and operating profit of EUR324 billion and EUR19.1 billion respectively, and BMW reported an automotive EBIT margin of 6.3, demonstrating the scale effects and pressure on profitability (GTAI, 2025). This competition has traditionally promoted innovation, good branding and international competitiveness in various segments.

In Germany, competition is not only determined by price but also by engineering quality, export performance, platform efficiency and technological leadership. Foreign competitors like Tesla also contribute to domestic rivalry because their Grunheide plant in Berlin has added competition to the production of electric vehicles (VDA, 2025).

Competitive pressures are on the rise though. German manufacturers are exposed to an increasing rivalry of Chinese companies, more stringent emissions regulations and lower profitability in the process of EV transition. According to industry reports, investment is slowly drifting to other countries; a 2026 VDA survey revealed that three out of four companies were looking to invest less in Germany (More, 2026). As a result, domestic high costs and policy issues can undermine long-term competitiveness, although rivalry is a major advantage.

4 Evaluation of a Foreign Multinational Company in Germany

4.1 Overview of Tesla's Operations in Germany



Figure 3: Tesla's Giga Factory in Berlin, Germany (Thierauf, 2024).

Tesla operates in Germany with its base in Gigafactory Berlin-Brandenburg in Grunheide near Berlin, which started commercial production in 2022 and is the primary manufacturing location of the company in Europe (Thierauf, 2024). The Tesla factory has significant strategic significance as it is a key production hub in the global network of Tesla vehicles, and it is the only gigafactory in Europe, which would fulfil the demand in the EU to minimise the logistics expenses and reliance on China or the US (Tesla, 2025; The Business Times, 2024). The facility is the primary producer of the Model Y, one of the major products in the world made by Tesla, and later in late 2025 the company indicated that the factory had made its 100,000th remodelled Model Y and began the production of the Model Y Performance, which showed that Tesla continued to upgrade its models and localise its production (Evert, 2026).

Germany is a low-entry point location to Tesla due to both a large automotive market and access to European customers and integration into a dense industrial ecosystem of engineering expertise, supplier network and logistics. According to Reuters, the plant is currently staffed by approximately 11,500 people, and as previously reported in 2024, the

plant employed over 12,000 people earlier, before certain workforce restructuring and the decreased use of temporary workers (The Business Times, 2024; Raymunt, 2025). Tesla has also kept on increasing the site. German officials granted the initial phase of a plant expansion in 2024, in connection with Tesla's goal to increase the annual capacity to 1 million vehicles, a figure that would make Grunheide one of the largest car plants in Germany (Butler, 2024). Also, Tesla said it would invest more in battery cells there, and the battery cell facility investment would reach, possibly, EUR1 billion and a battery-cell factory capacity of up to 8 gigawatt hours per year by 2027 (Raymunt, 2025).

4.2 PESTLE Analysis of Germany as a Market for Tesla

Factor	Evaluation of Germany's market attractiveness for Tesla
Political	Germany remains politically attractive for Tesla due to institutional stability, strong property-rights protection and policies supporting industrial decarbonisation. Its position within the EU single market allows Tesla's Berlin-Brandenburg (Grünheide) plant to serve customers across Europe from a single production base (Tesla, 2025; GTAI, 2025). Public policy has also supported EV adoption through infrastructure expansion, including a €2 billion programme to expand Germany's fast-charging network, improving EV usability and indirectly supporting Tesla demand (VDA, 2025). Nevertheless, political conditions are also problematic. The Grünheide expansion of Tesla encountered local opposition, with a citizens vote to clear forests in February 2024 and protests in 2024, a demonstration of the ability of local politics to postpone industrial development despite a national protectionist policy in its favor (Kolodny, 2024; Braucher and Mazziere, 2024). The trade policy is not without its consequences either: EU tariffs on EVs made in China could up to 45.3 percent in 2024, yet Tesla got a

	reduced tariff of 7.8 percent in a company-specific tariff (Jolly, 2025).
Economic	Tesla is interested in Germany as it is the biggest automotive economy of Europe and the entrance to a huge regional market. In 2024, the volume of passenger cars in Germany amounted to approximately 4.1 million vehicles, and the share of automotive products includes 23.8 of the total German exports, which indicates the size of the industrial ecosystem into which Tesla has entered (GTAI, 2025). The EV demand has also started to improve. In April 2025, registration of battery-electric vehicles increased 53.5 per cent year-on-year, and occupied 18.8 per cent of the market (European Commission, 2025). Economic risks however exist. The government of Germany lowered its growth projections to 0.3 in 2025, after a 0.3 and 0.2 growth in 2023 and 2024, respectively (AP News, 2025). Labour costs are high, with the minimum wage rising to €12.82 per hour in January 2025 and expected to increase to €13.90 in 2026 and €14.60 in 2027 (Destatis, 2025). Energy prices, despite falling 8.1% in May 2025, remain structurally high (Destatis, 2025).
Social	Germany has both opportunities and limitations to Tesla socially. The German consumer is historically product-focused, demanding and more eco-conscious, which corresponds to the emphasis of Tesla on high-quality electric mobility and technological advances. In 2025, the EV market has revived, and battery-electric vehicles comprised 19.1 per cent of the new registrations, which is a sign of increasing social acceptance of e-mobility (Clean Energy Wire, 2026). Germany has also been a source of a high level of engineering labour force that would help

	Tesla in its automation-intensive manufacturing system (GTAI, 2025). Nonetheless, there are still social issues. During 2024, Tesla was subject to criticism by local residents and environmentalist groups over land use, water usage and labour procedures in its Grunheide factory, which were the target of protests (Braucher and Mazzieri, 2024). Moreover, the coordinated market economy in Germany is associated with high labour representation (unions and works councils) that may pose further management constraints to Tesla, a company that has traditionally been more willing to grant its managers flexibility.
Technological	Germany is a hugely appealing Tesla technologically. In 2023, internal automotive R&D spending is approximately EUR30.3 billion and it has approximately 157,741 employees working in automotive R&D and the automotive industry provides nearly 35% of the total industrial R&D expenditure in Germany (VDA, 2025). Tesla also has a high density of globally competitive suppliers and engineering companies based in Germany, such as Bosch, Continental and ZF, which enhances the access of this company to elements, process expertise and sophisticated production know-how (Butler, 2024). The infrastructure of charging is also becoming better, with the help of public investment and fast network development (GTAI, 2025). In the case of Tesla, these conditions contribute to localisation, accelerated process innovation and problem-solving. However, technological appeal is becoming disputed. German car makers like BMW, Mercedes-Benz and Volkswagen are increasing the pace of EV and software investment, and Chinese EV producers are gaining ground in Europe. In 2025, Reuters reported that BYD was considering establishing a third plant in Europe in Germany amidst fears over

	home-country costs, meaning Tesla is no longer in a more or less open market (Destatis, 2025).
Legal	The legal environment in Germany is predictable and rule-oriented, which, in general, is appealing to a foreign investor. Tesla enjoys good contract enforcement, regulatory transparency and access to EU single market. The legal framework is, however, also challenging. The EU fleet-wide target of 93.6 g CO₂/km on cars between 2025 and 2029 will ensure automotive companies adhere to their new CO₂ targets, which will bolster the argument of EV manufacturers like Tesla (European Commission, 2024). The German Supply Chain Due Diligence Act that is to be implemented on companies with over 1,000 employees since 2024 involves firms managing and reporting on risks to human rights and environmental standards in the supply chains and is particularly applicable to the battery-intensive manufacturers such as Tesla (German Government, 2025). On the EU level, the Batteries Regulation presents more stringent due diligence requirements and recycling and digital traceability, which makes the compliance more complex (Lesa <i>et al.</i>, 2025). Besides that, the GDPR and the European data-protection regulations also impose legal requirements on connected and software-defined vehicles, besides the traditional vehicle safety and emissions regulation.
Environmental	Germany can be a desirable choice in terms of the environment since the policy orientation is evidently oriented towards decarbonisation, electrification and cleaner transportation. This is the main business approach of Tesla and enhances the long-term strategic logic of local production. Nevertheless, the environmental aspect is also among the biggest operational

	threats of Tesla in Germany. Grunheide has also been accused on several occasions of using water, clearing of forests and biodiversity. According to Reuters, the expansion plans of Tesla faced criticism in part due to the local groups and water associations stating that the local water resources were already strained, and demonstrations became severe in connexion with forest lands associated with the planned expansion (Kolodny, 2024; More, 2026). The significance of these problems lies in the fact that environmental legitimacy influences the authorization of speed and local approval. Moreover, the environmental regulation to come will not only favour EVs but will further subject the entire chain of supply, including battery sourcing, recycling and lifecycle transparency to more critical examination (Lasa <i>et al.</i>, 2025; European Commission, 2024).
--	---

4.3 SWOT Analysis of Tesla in Germany

Factor	Tesla's market attractiveness in Germany
Strengths	European manufacturing hub: This Grunheide facility is Tesla's sole gigafactory in Europe, which helps the company have a strategic location within the single market of the EU, cutting its reliance on US or Chinese imports (Reuters, 2025).
	Established manufacturing footprint: The facility has approximately 11,500 employees, indicating that Tesla has already reached a sizeable level of operation in Germany (Roessler <i>et al.</i>, 2024).
	Expansion potential: The long-term vision of Tesla is that the capacity will increase to 1 million vehicles per year instead of 500,000

	that will make the facility one of the largest automobile plants in Germany (Butler, 2024).
	Access to advanced automotive ecosystem: The automotive industry of Germany produced a revenue of EUR536.1 billion in 2024 and also employs 773,000 individuals providing Tesla with vast supplier and engineering and logistics links (GTAI, 2025).
Weaknesses	Weak recent sales performance: In Germany, where the total EV registrations increased 43.2 per cent in 2025, Tesla dropped 48.4 per cent to 19,390, only to show poor results in comparison to the total (Trudell, 2026).
	Labour-relations pressure: In 2025, approximately 3,086 employees petitioned union officials seeking greater breaks and increased staff to work, which revealed the operational pressure in the Model Y ramp-up process (Juricic, 2025).
	High-cost operating environment: Germany has highly skilled labour, but structural high labour costs and compliance costs also undercut the cost advantage of Tesla when compared to manufacturing in China or the US (Raymunt, 2025).
	Narrow product concentration: Grünheide is heavily centred on the Model Y, which increases dependence on the success of a limited product mix in a more competitive EV market (Juricic, 2025).
Opportunities	Expanding EV market: In Germany, the number of battery-electric registrations increased to 545,142 in 2025, an indication of a resurgence in growth following the 2024 slump (Eddy, 2025).
	Battery vertical integration: Tesla is spending nearly EUR1 billion on battery-cell manufacture at Grunheide, with an annual capacity of

Threats	up to 8 GWh by 2027, which it claims can enhance supply resilience and localisation (Raymunt, 2025).
	Trade protection relative to rivals: The EU levied up to 45.3% of tariffs on China-made EVs, with Tesla getting a company tariff of 7.8, a better position in which to compete with some Chinese brands (Jolly, 2025).
	Germany's innovation base: In 2023, the country invested EUR30.3 billion in automotive R&D and employed approximately 158,000 automotive R&D employees, which presents Tesla with a chance to form partnerships, innovate its processes and recruitment (Statista, 2025).
	Rising competition: In 2025, BYD outsold Tesla in Germany, 23,306 vehicles against 19,390, which demonstrates the rate at which the Chinese competitors are catching up. Local opposition to expansion: Local residents expressed their opposition to Tesla expansion through a vote to stop the clearing of trees in February 2024, which shows that the local population continues to oppose Tesla-related environmental and community impacts (Kolodny, 2024). Protest and reputational risk: In May 2024, more than 800 anti-expansion demonstrators came to protest at Grunheide, pointing to ongoing environmental conflict (Braucher and Mazzieri, 2024). Regulatory and political uncertainty: Tesla itself challenged the EU's tariff regime in court, showing that the policy environment remains contested even when it can create short-term advantages (Jolly, 2025).

4.4 Strategic Evaluation of the Company's Success in Germany

The performance of Tesla in Germany can be evaluated as strategically important and commercially ambivalent. On the one hand, it has provided Tesla with a robust production presence within the EU single market with its Grunheide plant, and it is the only European gigafactory, which is a strategic advantage to serve local demand and decrease its reliance on imports (Roessler *et al.*, 2024). Tesla also stated that in 2025 Gifafactory Berlin manufactured its 100 thousandth refreshed Model Y and started to produce the Model Y Performance, which implies further product and process development (Tesla, 2025). Besides this, Tesla declared additional investment in the site in battery cells, bringing the total local cell-factory investment to about EUR1 billion and capacity of up to 8 GWh/year by 2027.

Nevertheless, operational success has failed to translate into clear market dominance. Tesla sales in Germany dropped by 48.4 per cent in 2025 to 19,390 vehicles, although overall German battery-electric registration increased 43.2 per cent to 545,142, reflecting that Tesla was not keeping up with a rising market (Schepkov, 2026). Also reported were ongoing labour disputes at Grunheide, although IG Metall was defeated in the control of the works council once more in March 2026, indicating that Tesla continues to have the managerial control of industrial relations at the plant level (Juricic, 2025). Comprehensively, Tesla has strategic presence and industrial size in Germany, but its long-term success will rely on regaining the sales traction and competitive placement against the German incumbents and Chinese EV competitors.

5 Conclusion

The automobile industry of Germany is among the most competitive automotive industries in the world due to its high engineering background, high level of manufacturing capability, complex domestic market, combined with high level of linking and support industries. The Diamond Model of Porter reveals that the competitive advantage of Germany can be specifically attributed to dominance in developed factor conditions, international competition among suppliers, and fierce competition among companies at the national level, including Volkswagen, BMW and Mercedes-Benz. Nonetheless, electrification, high cost of production and increase in the international competition, particularly the Chinese electric vehicle manufacturers, are also mounting pressure on the industry.

The Tesla case shows that Germany is a high-potential market for foreign multinational firms due to its huge automotive environment, strategic location in Europe and good technological infrastructure. Tesla has invested in Gigafactory Berlin-Brandenburg, and this demonstrates the strategic long-term value of being in Germany. However, the analysis also reveals that success in the market is not a certainty. The legal hurdles, local ecological backlash, labour pressures and poor sales performance in a more competitive EV market have posed a great challenge. Altogether, Germany suggests significant strategic opportunities, and a company should integrate innovation, cost efficiency and stakeholder management to be successful in the long run.

6 Reflection: Gibbs Reflective Cycle

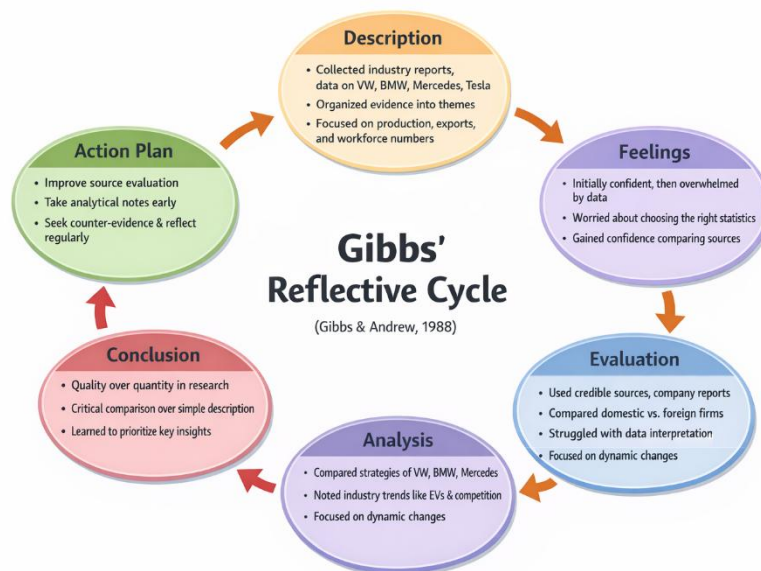


Figure 4: Gibbs' Reflective Cycle of the Assessment Making Experience (Author)

During the description stage, I started working by outlining the principal requirements of the assignment. I had to describe the German automobile industry, evaluate its size and economic significance, and compare the key domestic and multinational companies based on evidence. The first thing that I had to do was to find good and up-to-date sources. I located industry reports, annual reports of the company, government data, and news reports of reputable sources. I paid special attention to the volumes of production, the values of exports, the revenues, the number of people who work at all these companies (VW, BMW, Mercedes-Benz, Tesla), and the strategic location of these companies. I have sorted out the sources after gathering them and then created subsections and divided the evidence into themes, including industry overview, economic contribution, and competitive positioning. This exercise assisted me in converting a general area of focus to an ordered section of academia (Gibbs and Andrew, 1988).

During the feelings stage, I was confident, as at first, the automotive industry in Germany is a familiar one, and the amount of information accessible to the population is vast. Nevertheless, I was soon confused due to the amount of information that needed to be handled. I also learnt that not every source was useful in academic writing. Other articles

were offering descriptive commentary but not good numerical data, whereas others only provided data without sufficient analytical information. I even experienced a certain level of pressure in the choice of making the most appropriate figures, as too many statistics used may harm the discussion flow (Langer, 2002). Simultaneously, I felt more confident when I began comparing the sources and finding patterns. This was what the literature indicates about reflection: it can assist learners to realise the state of uncertainty, and they can subsequently build quality judgement progressively by way of organised thinking (Kayapinar and Alkhaldi, 2023).

During the evaluation phase, I believe that I had a number of strengths in my approach. Among the good things was the fact that I focused on the recent and reputable evidence, which enhanced the credibility of the section. I used company reports, official industry data and good quality journalism more than unfounded websites. The second strength was that I have not merely explained the firms that are in operation in Germany, but I have also compared them based on the market segment, size, and strategy positioning. This rendered this section more analytical and in line with the assignment brief. I also believe that I managed to connect numerical data with interpretation. As an example, I referred to revenue, production and export data, not only as a fact, but as an indicator of the economic reliance of Germany on the manufacture of automotive goods and its competitiveness in the world market. Nonetheless, there were weaknesses as well. Initially, I wasted a lot of time in data collection and insufficient time in interpreting it. I also found myself feeling more comfortable when speaking about domestic firms as compared to foreign entrants, and this could have made the section unbalanced. This made me realise that acquiring evidence is not the final stage in academic work, but it is also vital to choose and combine it critically (Kayapinar and Alkhaldi, 2023).

In the analysis stage, I learned that this section had to be prepared more than the sources had to be summarised. It made me consider the relevance, compare outlooks and find out which evidence would have been the most appropriate in answering the question posed in the assignment. This relates to the fact that research has indicated that reflective writing may enhance critical thinking among students since it prompts students to defend their choices and analyse their thoughts instead of reporting information only (Yeh *et al.*,

2023). I discovered that my most analytical improvement was being able to compare the strategies of companies rather than viewing firms as one-off cases. Volkswagen was a scale-oriented, portfolio-driven manufacturer; BMW was a high-technology, orientation manufacturer; and Mercedes-Benz was a luxury-based competitor. The relative analysis of firms would allow me to describe the industry structure better. I also got to know that the present-day industry analysis should be able to acknowledge transition and uncertainty. The automotive industry of Germany is not stagnant, but electrification, high costs of production, and competition from Chinese EVs are transforming it. The reflection allowed me to appreciate that a good academic section must attract this dynamic context instead of portraying the industry as an inert and constant environment.

During the conclusion phase, I understood that my research process became more productive when I switched to information selection to its critical stage. The primary lesson that I learnt is that quality is more important than quantity in academic research. I was not required to use all the statistics available to me; I was only required to have those statistics that were most pertinent to the argument. I also concluded that a critical comparison proves more valuable in contrast to a simple description (Harvey *et al.*, 2025). My best writing was where I provided reasons as to why firms varied in strategy and positioning, rather than just describing facts. This is part of a broader literature that structured reflection helps students enhance deep learning by helping them make sense of experience and fine-tune their thinking process (Chan and Lee, 2021).

During the action plan stage, I would enhance my future work in various areas. To start with, I would develop a more distinct source-evaluation model at the outset, in order to be able to categorise evidence in terms of relevance, authority and recency during the drafting. Second, I would begin taking analytical notes sooner, rather than at the end of the data collection. Third, I would devote additional time to finding counter-evidence and risk in the industry, as it would enhance critical balance. Lastly, I would still engage in organised reflection when doing future assignments, as literature demonstrates that reflective practise facilitates more robust judgement, critical involvement and contextual transfer of learning (Chan and Lee, 2021).

7 References

ACEA (2024) *Top Car Manufacturing Countries in Europe*, *Worldwidemobility.io*.

Available at: <https://worldwidemobility.io/blog/top-car-manufacturing-countries-in-europe>.

ACEA (2025) 'New car registrations: +0.8% in 2024; battery-electric 13.6% market share', *Acea.auto*. Available at: <https://www.acea.auto/pc-registrations/new-car-registrations-0-8-in-2024-battery-electric-13-6-market-share/> (Accessed: 09 March 2026).

AP News (2025) 'Germany's government slashes its economic growth forecast for this year to 0.3%', *AP News*. Available at: <https://apnews.com/article/germany-economy-2025-government-forecast-election-4c1397953441394ddb1aa057c6ffecfd> (Accessed: 09 March 2026).

Beier, G., Kiefer, J. and Knopf, J. (2020) 'Potentials of big data for corporate environmental management: A case study from the German automotive industry', *Journal of Industrial Ecology*, 26(1), pp. 336–349. Available at: <https://doi.org/10.1111/jiec.13062>.

BMW (2024) *BMW Group Report 2024*. Available at: <https://www.bmwgroup.com/en/report/2024/index.html> (Accessed: 09 March 2026).

Braucher, C. and Mazzieri, A. (2024) 'The desperate last stand to save a forest from Tesla', *Al Jazeera*. Available at: <https://www.aljazeera.com/features/longform/2024/12/21/the-desperate-last-stand-to-save-a-forest-from-tesla> (Accessed: 09 March 2026).

Butler, E. (2024) 'Tesla gets green light to expand German plant after revision to plans', *Euronews*. Available at: <https://www.euronews.com/business/2024/05/17/tesla-gets-green-light-to-expand-german-plant-after-protests-bring-revision-to-plans> (Accessed: 09 March 2026).

Chan, C. and Lee, K. (2021) 'Reflection literacy: A multilevel perspective on the challenges of using reflections in higher education through a comprehensive literature

review', *Educational Research Review*, 32, p. 100376. Available at:

<https://doi.org/10.1016/j.edurev.2020.100376>.

Chopping, D. (2026) 'Mercedes-Benz forecasts stronger earnings on new model launches', *The Wall Street Journal*. Available at:

<https://www.wsj.com/business/earnings/mercedes-benz-expects-new-models-and-cost-cuts-to-drive-earnings-higher-this-year-39b56f28> (Accessed: 09 March 2026).

Clean Energy Wire (2026) 'Electric car registrations in Germany rise by 43% in 2025, following an earlier dip', *Clean Energy Wire*. Available at:

<https://www.cleanenergywire.org/news/electric-car-registrations-germany-rise-43-2025-following-earlier-dip> (Accessed: 9 March 2026).

Destatis (2025) '3.4 million new cars were exported from Germany in 2024', *Federal Statistical Office*. Available at:

https://www.destatis.de/EN/Press/2025/03/PE25_110_51.html (Accessed: 09 March 2026).

Eddy, M. (2025) 'Germans are buying more electric cars, but not Teslas', *The New York Times*, 4 June. Available at: <https://www.nytimes.com/2025/06/04/business/tesla-elon-musk-germany-europe-sales.html> (Accessed: 09 March 2026).

European Commission (2025) 'Germany: BEV registrations surge by 54% in April 2025', *European Alternative Fuels Observatory*. Available at: <https://alternative-fuels-observatory.ec.europa.eu/general-information/news/germany-bev-registrations-surge-54-april-2025> (Accessed: 09 March 2026).

Evert, H. (2026) 'Tesla's German factory faces a capacity challenge due to slow Model Y sales; Elon Musk teases possible new products', *Automotive News Europe*. Available at: <https://www.autonews.com/manufacturing/automakers/ane-tesla-germany-plant-capacity-crisis-0302/> (Accessed: 9 March 2026).

Felser, K. and Wynn, M. (2023) 'Managing the knowledge deficit in the German automotive industry', *Knowledge*, 3(2), pp. 180–195. Available at:

<https://doi.org/10.3390/knowledge3020013>.

German Government (2025) 'CSR - German Supply Chain Act (LkSG)', *Csr-in-deutschland.de*. Available at: <https://www.csr-in-deutschland.de/EN/Legislation/German-Supply-Chain-Act/german-supply-chain-act.html> (Accessed: 09 March 2026).

Gibbs, G. and Andrew, C. (1988) *Learning by doing: A guide to teaching and learning methods*. Oxford: Further Education Unit, Oxford Polytechnic.

GTAI (2025) 'The automotive industry in Germany', *Germany Trade & Invest*. Available at: <https://www.gtai.de/en/invest/service/publications/the-automotive-industry-in-germany-64580> (Accessed: 09 March 2026).

Harvey, M., Walkerden, G., Semple, A., McLachlan, K., Lloyd, K. and Bosanquet, A. (2025) 'Reflecting on reflective practice: issues, possibilities and guidance principles', *Higher Education Research & Development*, 44(7), pp. 1849–1857. Available at: <https://doi.org/10.1080/07294360.2025.2463517>.

Hertenstein, P. and Williamson, P.J. (2018) 'The role of suppliers in enabling differing innovation strategies of competing multinationals from emerging and advanced economies: German and Chinese automotive firms compared', *Technovation*, 70–71, pp. 46–58. Available at: <https://doi.org/10.1016/j.technovation.2018.02.008>.

Jolly, J. (2025) 'Tesla takes EU to court over tariffs on EVs made in China', *The Guardian*. Available at: <https://www.theguardian.com/technology/2025/jan/27/tesla-takes-eu-to-court-over-tariffs-on-evs-made-in-china-elon-musk> (Accessed: 09 March 2026).

Juricic, L. (2025) 'Tesla's German plant workers sign union petition for more breaks and staff', *Investing.com*. Available at: <https://www.investing.com/news/stock-market-news/teslas-german-plant-workers-sign-union-petition-for-more-breaks-and-staff-93CH-3939455> (Accessed: 9 March 2026).

Katanich, D. (2024) 'Switching to EVs could cost German car industry 186,000 jobs by 2035', *Euronews*. Available at: <https://www.euronews.com/business/2024/10/30/switching-to-evs-could-cost-german-car-industry-186000-jobs-by-2035> (Accessed: 09 March 2026).

Kayapinar, U. and Alkhaldi, A.A. (2023) 'Reflective thinking in higher education: examining practices of higher education faculty', *Reflective Practice*, 24(5), pp. 575–590. Available at: <https://doi.org/10.1080/14623943.2023.2211525>.

Keil, A.K. and Steinberger, J.K. (2023) 'Cars, capitalism and ecological crises: understanding systemic barriers to a sustainability transition in the German car industry', *New Political Economy*, 29(1), pp. 90–110. Available at: <https://doi.org/10.1080/13563467.2023.2223132>.

Koelmel, B., Haug, T., Klein, L., Schwab, L., Bulander, R., Hinderer, H., Weyer, M., Brugger, T., Kuehn, A. and Brysch, T. (2024) 'Are German automotive suppliers in the commodity trap? Risks and potentials of the Taiwanese platform MIH EV open', *Commodities*, 3(4), pp. 389–420. Available at: <https://doi.org/10.3390/commodities3040022>.

Kolodny, L. (2024) 'Tesla faces a hurdle in Germany as locals vote to oppose factory expansion', *CNBC*. Available at: <https://www.cnbc.com/2024/02/21/tesla-faces-hurdle-in-germany-as-locals-vote-against-factory-expansion.html> (Accessed: 09 March 2026).

Langer, A.M. (2002) 'Reflecting on practice: using learning journals in higher and continuing education', *Teaching in Higher Education*, 7(3), pp. 337–351. Available at: <https://doi.org/10.1080/13562510220144824>.

Losa, R. and Torjesen, S. (2025) 'The quest for more circular battery value chains: implementing the EU digital battery passport and remaining challenges', *Cleaner Production Letters*, 9, p. 100118. Available at: <https://doi.org/10.1016/j.clpl.2025.100118>.

Masud, F. (2025) 'Bosch to cut 13,000 jobs in Germany to save billions in costs', *BBC News*, 25 September. Available at: <https://www.bbc.com/news/articles/cx275251xzro> (Accessed: 09 March 2026).

More, R. (2026) 'German auto industry in “crisis” as investments, jobs move abroad, lobby says', *Reuters*, 10 February. Available at: <https://www.reuters.com/business/german-auto-industry-crisis-investments-jobs-move-abroad-lobby-says-2026-02-10/> (Accessed: 09 March 2026).

O'Carroll, L. (2026) 'Volkswagen aims to cut costs by 20% by 2028 in restructuring plan, report says', *The Guardian*. Available at:

<https://www.theguardian.com/business/2026/feb/16/volkswagen-vw-plan-cut-costs-restructuring-china-competition> (Accessed: 09 March 2026).

Parodi, A. and Fondahn, G. (2024) 'EU electric car sales drop in May as German demand slumps, industry says', *Reuters*. Available at:

<https://www.reuters.com/business/autos-transportation/eu-electric-car-sales-drop-may-german-demand-slumps-industry-says-2024-06-20/> (Accessed: 09 March 2026).

Ramos, M.R. and Ruiz-Gálvez, M.E. (2024) 'The transformation of the automotive industry toward electrification and its impact on global value chains: inter-plant competition, employment, and supply chains', *European Research on Management and Business Economics*, 30(1), p. 100242. Available at:

<https://doi.org/10.1016/j.iedeen.2024.100242>.

Raymunt, M. (2025) 'Tesla eyes battery-cell production in Germany from '27, DPA says', *Bloomberg*. Available at: <https://www.bloomberg.com/news/articles/2025-12-16/tesla-eyes-battery-cell-production-in-germany-from-27-dpa-says> (Accessed: 09 March 2026).

Reuters (2024) 'Volkswagen's deliveries drop, highlighting Europe's car industry challenges', *Reuters*. Available at: <https://www.reuters.com/business/autos-transportation/volkswagen-q3-deliveries-down-confirming-challenges-european-auto-sector-2024-10-11/> (Accessed: 09 March 2026).

Reuters (2025) 'Tesla ramps up battery cell investments at German gigafactory', *Reuters*, 16 December. Available at: <https://www.reuters.com/business/autos-transportation/tesla-ramps-up-battery-cell-investments-german-gigafactory-2025-12-16/> (Accessed: 09 March 2026).

Roessler, M., Prenzel, P. and Schiller, D. (2024) 'Symbolic value and embeddedness of an industrial megaproject: Tesla's Gigafactory Berlin-Brandenburg', *Cambridge Journal of Regions, Economy and Society*, 18(2), pp. 309–323. Available at: <https://doi.org/10.1093/cjres/rsae045>.

Roser, C. (2024) *Grand Tour of German Automotive Map* | *AllAboutLean.com*, *AllAboutLean.com*. Available at: <https://www.allaboutlean.com/grand-tour-german-automotive-overview/grand-tour-of-german-automotive-map/>.

Schepkov, V. (2026) 'Tesla's sales in Germany plummet nearly 50% in December', *Investing.com*. Available at: <https://www.investing.com/news/stock-market-news/tesla-sales-in-germany-plummet-nearly-50-in-december-93CH-4431902> (Accessed: 9 March 2026).

Statista (2025) 'Automotive industry in Germany - statistics & facts', *Statista*. Available at: <https://www.statista.com/topics/3202/automobile-industry-in-germany/> (Accessed: 9 March 2026).

Taylor, M. (2025) 'ZF joins Bosch in layoffs as Europe's EV pushback bites in Germany', *Forbes*. Available at: <https://www.forbes.com/sites/michaeltaylor/2025/10/02/zf-joins-bosch-in-layoffs-as-europes-ev-pushback-bites-in-germany/> (Accessed: 09 March 2026).

Tesla (2025) *Tesla investor relations*. Available at: <https://ir.tesla.com/#quarterly-disclosure> (Accessed: 09 March 2026).

The Business Times (2024) 'Tesla to cut 400 jobs in Germany via voluntary programme', *The Business Times*. Available at: <https://www.businesstimes.com.sg/companies-markets/transport-logistics/tesla-cut-400-jobs-germany-voluntary-programme> (Accessed: 9 March 2026).

Thierauf, T.M. (2024) 'Fixing the future? The controversy surrounding Tesla's "Gigafactory Berlin-Brandenburg" as a site of contested future-making in times of climate change', *Time & Society*, 34(2). Available at: <https://doi.org/10.1177/0961463x241273786>.

Trudell, C. (2026) 'Tesla closes out brutal year in Europe with steep sales declines', *Bloomberg*. Available at: <https://www.bloomberg.com/news/articles/2026-01-02/tesla-closes-out-brutal-year-in-europe-with-steep-sales-declines> (Accessed: 9 March 2026).

VDA (2025) 'Automotive industry is the investment leader', VDA. Available at: <https://www.vda.de/en/news/articles/2023/research-and-development> (Accessed: 09 March 2026).

Waldersee, V. (2025) 'BMW expects 1 billion euro hit to earnings from escalating tariffs', *Reuters*, 14 March. Available at: <https://www.reuters.com/business/autos-transportation/bmw-net-profit-slumps-weak-china-sales-brake-problems-plague-earnings-2025-03-14/> (Accessed: 09 March 2026).

Yeh, H.-C., Yang, S., Fu, J.S. and Shih, Y.-C. (2022) 'Developing college students' critical thinking through reflective writing', *Higher Education Research & Development*, 42(1), pp. 244–259. Available at: <https://doi.org/10.1080/07294360.2022.2043247>.

Yun, J.J., Zhao, X., Koo, I., Sadoi, Y. and Pyka, A. (2025) 'Open innovation and digital transformation in the automotive industry: a comparative analysis of South Korea, Japan and Germany', *European Journal of Innovation Management*, 28(9), pp. 4284–4304. Available at: <https://doi.org/10.1108/ejim-08-2024-0948>.