Volkswagen's Growth Strategy in China - A Critical Analysis

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Abstract

Title: Volkswagen's Growth Strategy in China - A Critical Analysis

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This dissertation critically examines Volkswagen's growth strategy in the Chinese automotive market, focusing on its localization efforts and strategic alliances to regain competitiveness in the rapidly evolving electric vehicle and intelligent connected vehicle segments. Against the backdrop of intensified competition from domestic automakers and shifting regulatory landscapes, Volkswagen faces significant challenges due to technological lags and cultural rigidities.

The study aims to identify the critical factors for Volkswagen to regain market share and achieve sustainable growth in China. A qualitative methodology was adopted, leveraging expert interviews and secondary data, including industry reports and company publications. The findings reveal that Volkswagen's reliance on strategic partnerships, such as collaborations with XPENG and Horizon Robotics, provides essential short-term access to advanced technologies and facilitates adaptation to local market demands. However, the thesis underscores that these alliances must be complemented by internal capability building, cultural transformation, and focused product strategies for long-term sustainability.

The analysis highlights the importance of localized innovation, cost competitiveness, and rapid development cycles as key pillars of Volkswagen's strategy. The "In China, For China" initiative is a decisive step towards market alignment, but its success depends on empowering local operations and fostering a customer-centric culture. Ultimately, this dissertation concludes that while strategic alliances are instrumental for Volkswagen's immediate survival, long-term success hinges on integrating these efforts with broader organizational transformation.

Keywords: Volkswagen, strategic alliances, localization, electric vehicles, China, growth strategy, automotive industry, ICV, expert interviews

Abstrato

Título: Estratégia de Crescimento da Volkswagen na China - Uma Análise Crítica

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Esta dissertação analisa criticamente a estratégia de crescimento da Volkswagen no mercado automóvel chinês, focada em esforços de localização e alianças estratégicas para recuperar competitividade nos segmentos em rápida evolução de veículos elétricos e veículos conectados de forma inteligente. Diante da crescente concorrência de fabricantes domésticos e de mudanças regulatórias, enfrenta desafios significativos devido a atrasos tecnológicos e rigidez cultural.

O estudo tem como objetivo identificar os fatores críticos para recuperar quota de mercado e alcançar crescimento sustentável na China. Adotou-se uma metodologia qualitativa, com recurso a entrevistas a especialistas e dados secundários, incluindo relatórios da indústria e publicações da empresa. Os resultados revelam que a confiança em alianças estratégicas, como as colaborações com XPENG e Horizon Robotics, proporciona acesso a tecnologias avançadas no curto prazo e facilita a adaptação às exigências do mercado local. No entanto, a tese sublinha que essas alianças têm que ser complementadas por desenvolvimento interno de capacidades, transformação cultural e estratégias focadas de produtos para sustentabilidade a longo prazo.

A análise enfatiza a importância de inovação localizada, competitividade dos custos e ciclos rápidos de desenvolvimento como pilares fundamentais da estratégia. A iniciativa "In China, For China" é um passo decisivo para alinhamento com o mercado, mas o sucesso depende de dar autonomia às operações locais e promover uma cultura centrada no cliente. Em última análise, esta dissertação conclui que, embora as alianças sejam essenciais para a sobrevivência imediata, o sucesso a longo prazo exige a integração destes esforços com uma transformação organizacional mais ampla.

Palavras-chave: Volkswagen, alianças estratégicas, localização, veículos elétricos, China, estratégia de crescimento, indústria automóvel, ICV, entrevistas a especialistas

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Glossary

ADAS: Advanced Driver Assistance Systems

AI: Artificial Intelligence

BEV: Battery Electric Vehicle

CEA: China Electrical Architecture

CMP: China Main Platform

EV: Electric Vehicle

ICE: Internal Combustion Engine

ICV: Intelligent and Connected Vehicle

IP: Intellectual Property

IR: Integration-Responsiveness

M&A: Mergers and Acquisitions

MEB: Modular Electric Drive Toolkit

MIT: Massachusetts Institute of Technology

OEM: Original Equipment Manufacturer

OTA: Over-the-Air (updates)

R&D: Research and Development

UBS: Union Bank of Switzerland

VAT: Value-Added Tax

VCTC: Volkswagen China Technology Company

VW: Volkswagen

V2X: Vehicle-to-Everything

1 Introduction

Over the past decade, the world has seen significant shifts driven by rapid digitalization, the pressing challenge of climate change, and the emergence of new players from emerging markets, particularly in Asia. These changes are especially apparent in the automotive industry, where electric vehicles (EVs) have been rapidly gaining momentum, setting the stage for a transformative era in mobility that prioritizes digital innovation (Vendrell-Herrero et al., 2017). Beyond battery capacity and cycle life, the future of mobility increasingly depends on advances in autonomous driving, infotainment systems, and software integration, which have become central features of modern vehicles.

In recent years Chinese automakers have quickly risen to prominence, especially in the EV market—a shift that was almost unimaginable two decades ago. Companies like BYD, NIO, and XPENG, along with Tesla, are reshaping the automotive industry by offering battery electric vehicles (BEVs) featuring innovative designs, advanced infotainment systems and developing autonomous driving capabilities. This rapid shift to BEVs has created a significant challenge for legacy automakers like Volkswagen (VW), which has historically excelled in producing highly efficient internal combustion engine (ICE) vehicles.

1.1 Background and Context

VW, founded in 1937, now faces significant challenges as the automotive industry shifts towards electric mobility. To establish a presence in the Chinese market, VW was required by Chinese regulations to enter through joint ventures. As a result, VW has maintained long-standing partnerships with SAIC and FAW, both state-owned enterprises. However, despite this established foothold, VW is facing significant challenges in retaining its market share. The rapidly evolving market, led by innovative Chinese EV manufacturers, has exposed several weaknesses in VW's strategy and competitiveness.

In China, regulatory changes and political initiatives have had a significant impact on the automotive industry. Since the early 2009, the Chinese government has provided substantial subsidies to domestic EV manufacturers, ensuring that these companies had the necessary capital to continuously innovate in the EV sector (Yang, 2023). Additionally, the government has introduced several incentives to encourage the adoption of EVs. E.g., including the exemption from value-added tax (VAT) on EV purchases, a $2,550 subsidy for EV buyers, and restrictions on the registration of ICE vehicles in major cities like Beijing. In these cities, new ICE cars face strict limitations, with annual lotteries determining who receives a permit to

purchase an ICE vehicle (Zhuge, Wei, Shao, Shan, & Dong, 2020). These interventions have led to a different customer demand and exponential growth in EV sales. For example, in 2020, 93% of new car registrations in China were ICE vehicles. However, by the first half of 2024, that number had dropped to 59%, and in July 2024, for the first time in history, more EVs were registered than ICE vehicles (50.7%) (Spiegel, 2024).

The Chinese government has even accelerated its target for EV adoption—aiming for 50% of all new vehicle registrations to be either fully electric or plug-in hybrids by 2025, a goal originally set for 2035. This rapid market development over the past five years presents significant challenges for legacy automakers, whose market shares are shrinking. By 2023, Chinese brands held over 50% of the EV market share, while German manufacturers had just 21% (Endriss, 2024). As a result, VW's dominance in ICE vehicles, which was once its primary competitive advantage, is now insufficient to sustain its market position in China. With the rise of Chinese automakers and the government's regulatory drive, VW is struggling to adapt to the changing environment.

1.2 Problem Statement

In 2018, VW reported profits of €4.6 billion in China, holding a market share of 18.1% (Center of Automotive Management, 2019; Volkswagen Group, 2019). However, over the past five years, these numbers have dropped sharply, with profits in 2023 falling to €2.6 billion and market share shrinking to 14.5% (Volkswagen Group, 2023).

In response, VW has implemented a comprehensive growth strategy aimed at regaining its position as a leading international OEM in China. This thesis provides a critical analysis of VW's growth strategy in China, with a particular focus on its approach to product development, localisation, cost competitiveness and strategic partnerships. Emphasis is placed on the role of alliances with local technology companies. By evaluating the strengths, limitations and potential risks of VW's strategic choices, this thesis aims to assess the effectiveness of its current approach in navigating the complexities of the Chinese automotive market. Through this analysis, the thesis seeks to answer:

RQ1: What are the critical factors for Volkswagen to regain market share and achieve sustainable growth in China's dynamic automotive market?

RQ2: Are strategic alliances the most effective approach for Volkswagen to regain market share and drive growth in the Chinese automotive market?

1.3 Structure of the Thesis

The structure of this thesis will begin with an overview of the literature on corporate growth strategies. This will be followed by a focused review of strategic alliances in general, examining their role in enabling firms to access new markets, share resources, and drive innovation in competitive industries. The thesis will adopt a qualitative research approach, utilizing annual reports, industry reports, and publicly available interviews with board members and further interviews with industry experts. This qualitative research approach is suitable for exploring VW's strategic responses to regulatory changes and market competition. Through the analysis of corporate documents and expert interviews, the thesis identifies and explores key themes, with a particular focus on VW's strategic alliances as a central element of its growth strategy in China.

2 Literature Review

2.1 Corporate Growth Strategies

Corporate growth strategies are pivotal for organizations aiming to expand their market presence, enhance profitability, and sustain competitive advantage in dynamic environments (Ansoff, 1957; Hitt et al., 2020). Foundational frameworks such as Ansoff's Growth Matrix, vertical integration, and external growth methods—including mergers and acquisitions (M&A) and strategic alliances—provide diverse pathways for businesses to achieve their growth objectives (Harrigan, 1986). This chapter explores these key strategies, examining their theoretical foundations and practical applications in fostering organizational expansion and long-term success.

The Ansoff Growth Matrix presents a framework for corporate growth through four key approaches: market penetration, market development, product development, and diversification (Ansoff, 1957). Market penetration focuses on increasing sales of existing products within current markets, often through enhanced marketing, pricing adjustments, or improved distribution, and is generally considered a low-risk strategy for firms looking to solidify their market presence and grow market share. With market penetration the management tries to reach more customers or increase the amount of goods sold to existing customers and therefore enhance their business performance. Market development, on the other hand, targets new geographic or demographic segments, enabling companies to reach a broader customer base with their existing products. Product development involves the creation of new or improved products within current markets, requiring significant research and development (R&D)

investment to meet evolving consumer demands and capture additional market share (Ansoff, 1957).

Finally, diversification is the most risk-intensive approach, expanding a company's portfolio by entering new markets with new products. This strategy requires navigating unfamiliar industries and can require significant financial and strategic resources. In addition, as Ansoff (1957) notes, "[...] a simultaneous pursuit of market penetration, market development, and product development is usually a sign of a progressive, well-managed firm and may be essential to survival in the face of economic competition". The differentiation strategy, however, differs from the other three in that it typically requires "new skills, new techniques, and new facilities" (Ansoff, 1957).

While the Ansoff Matrix provides a clear and structured approach to evaluating growth strategies, critics argue that it oversimplifies the complexity of modern markets, particularly in the face of rapid technological change. Firms in such environments may require more adaptive and flexible strategies to remain competitive (Prahalad & Hamel, 1990). Despite these criticisms, the Ansoff Matrix continues to serve as a fundamental framework for exploring growth opportunities and aligning strategic objectives.

Vertical integration is a growth strategy that involves a firm's decision to produce a good or service in-house or outsource it to external suppliers, and the extent to which it integrates stages of the production process - either backwards (towards suppliers) or forwards (towards customers) along the vertical chain (Harrigan, 1986; Perry, 1989). While often pursued to gain control and reduce uncertainty, vertical integration also requires careful evaluation of synergies and potential diversification beyond core capabilities (Harrigan, 1985; Perry, 1989).

The benefits of vertical integration include economies of scale, cost reductions and improved coordination between stages of production (Harrigan, 1986). It can also enhance technological innovation by improving information sharing and streamlining the implementation of complex technologies (Armour & Teece, 1980). By integrating upstream or downstream processes, firms can achieve greater efficiency, better control over critical resources and improved competitive positioning (Harrigan, 1985; Rothaermel et al., 2006).

However, vertical integration has its limitations. Risks include loss of access to valuable external information, problems of overcapacity due to mismatched scales of production, reduced flexibility to adapt to changing market conditions, and potential antitrust concerns if it is used to restrict competitors (Harrigan, 1986; Rothaermel et al., 2006). Extensive vertical

integration can lead to diminishing returns due to increased managerial complexity, resource imbalances, technological obsolescence, strategic inflexibility, and reduced adaptability across the value chain (Rothaermel et al., 2006).

External growth strategies like mergers, acquisitions (M&A) and strategic alliances are widely used as "organizational instruments through which companies could increase their market power, enter into new markets or enhance their capabilities" (Hagedoorn & Duysters, 2002). The external growth strategies options will be discussed in more detail later in chapter 2.2.2.

2.2 Methods to Achieve Growth

Corporate growth can be pursued through organic growth or inorganic growth. These methods provide pathways to execute a firm's broader growth strategy, supporting aims like market expansion, innovation enhancement, and competitive positioning (Verbeke & Kano, 2016).

2.2.1 Organic Growth

Organic growth refers to the expansion of a company's operations through internal efforts, utilising existing resources and capabilities to increase sales, market share and overall business performance (Barney, 1991; Hitt et al., 2020). This approach to growth focuses on initiatives such as developing new products, improving marketing strategies, and improving operational efficiency, and is aligned with the company's core values and long-term goals. Organic growth enables firms to build on their existing strengths and capabilities, providing a controlled approach to expansion while fostering continuous improvement and innovation (Barney, 1991; Hitt et al., 2020).

There are several methods of achieving organic growth, each targeting different aspects of a business to drive expansion. Operational improvement involves increasing efficiency by streamlining processes, reducing costs, optimising supply chain management, and adopting new technologies to increase productivity and profitability (M. E. Porter, 1985). Product innovation allows firms to respond to changing customer needs by developing new or improved products, thereby gaining additional market share and driving sustainable growth (Barney, 1991; Hitt et al., 2020).

Although often seen as a sustainable and controlled approach, organic growth tends to be slower than inorganic strategies. This slower pace can be challenging for companies facing urgent market pressures, where speed is critical to seize opportunities or respond to competitors. In addition, in an environment of high uncertainty, organic growth requires companies to bear all associated risks independently, making shared risk approaches such as partnerships or joint

ventures more attractive. The feasibility of organic growth also depends on the availability of the firm's resources and capabilities. If these are insufficient, firms must either develop them internally - which may further delay progress - or acquire them externally, often blurring the distinction between organic and inorganic growth strategies (Barney, 1991; Hitt et al., 2020; M. E. Porter, 1985).

2.2.2 Inorganic Growth

Inorganic growth includes external approaches like strategic alliances and M&As, enabling firms to enter new markets, acquire advanced technologies, or gain additional resources more rapidly (Hitt et al., 2020).

A merger occurs when two companies agree to combine their operations on an equal basis. An acquisition, on the contrary, is when one company buys a controlling or entire interest in another company with the aim of making it a subsidiary within the portfolio of the acquiring company. After the acquisition, the management of the acquired company becomes subordinate to the management of the acquiring company. While most mergers are conducted on friendly terms, acquisitions can be either friendly or hostile. A takeover is a specific type of acquisition where the target company does not invite or welcome the acquiring company's offer, making it a hostile acquisition (Hitt et al., 2020; Johnson et al., 2010).

M&As are strategic tools used by companies to achieve objectives such as increasing market power, overcoming barriers to entry and accelerating entry into new markets. They offer a faster alternative to internal development, as companies can capitalise on existing assets and capabilities. M&As also facilitate diversification by allowing firms to expand into new industries or product lines, thereby reducing dependence on a single market (Hitt et al., 2020). In addition, they can create value through synergies, cost efficiencies and increased market leverage, strengthening competitive positions and driving growth (DePamphilis, 2016).

However, there are significant challenges and risks associated with M&As. The integration of acquired companies often proves complex, with cultural differences, operational redundancies and conflicting management styles leading to potential inefficiencies. Financial risks include overpaying for acquisitions, which can reduce shareholder value if expected synergies do not materialise. In addition, regulatory scrutiny and antitrust concerns can delay or block deals, adding to the uncertainty of outcomes. These challenges highlight that while M&As can offer significant strategic benefits, their success depends on careful planning, execution, and alignment with the firm's long-term goals (Hitt et al., 2020; Weber & Yedidia Tarba, 2012).

Strategic alliances offer an alternative pathway for expansion by partnering with other organizations. A strategic alliance is a cooperative arrangement between two or more firms that agree to work together in ways that go beyond typical business transactions but fall short of a merger or full acquisition (Elmuti & Kathawala, 2001). Such alliances can vary from informal arrangements to formal, contract-based partnerships that may involve exchanges of equity or capital contributions to create a joint venture. The partner firms maintain their legal independence while sharing benefits, management responsibilities and control over specific tasks. In addition, they make ongoing contributions in strategic areas such as technology or product development in support of common goals (Todeva & Knoke, 2005). These partnerships can accelerate growth, foster innovation, and provide competitive advantages that might be difficult to attain independently. The following chapters will delve deeper into strategic alliances, exploring the various types, how they contribute to growth, and the factors that determine their success.

2.3 Strategic Alliances

2.3.1 Types of Strategic Alliances

Strategic alliances are voluntary partnerships between organisations that enable firms to achieve common goals, such as accessing new markets, pooling resources, or accelerating technology development. These alliances are broadly categorised into equity and non-equity alliances, which differ in their level of ownership, integration, and governance mechanisms (Dacin et al., 2007; Kale & Singh, 2009). The most relevant alliances to this thesis are explained.

Equity alliances:

- Joint ventures: Involve the creation of a new, jointly owned entity. These alliances require significant integration of resources, allowing partners to pool expertise and capabilities to achieve common goals. Governance structures are formalised to ensure equitable decision-making and shared control over strategic outcomes (Das & Teng, 2000; Tacin et al., 2007).
- Minority shareholding: One firm acquires a partial ownership interest in another, fostering strategic interdependence while maintaining operational autonomy. This form of alliance allows firms to strengthen relationships with partners without fully merging operations, providing flexibility to adapt to changing circumstances (Das & Teng, 2000; Todeva & Knoke, 2005).

- Cross-shareholding arrangements: Partners exchange ownership stakes to align long-term interests, increase trust, and reduce risks associated with incomplete contracts. These arrangements help ensure mutual accountability and create incentives for sustained collaboration over time (Güth et al., 2007).

Non-equity alliances:

- Licensing agreements: Facilitate the sharing of proprietary technology or intellectual property through formal agreements without joint ownership. This approach allows companies to access valuable resources while maintaining independence and reducing the need for long-term financial commitments (Tacin et al., 2007).
- Franchising: Replication of business models, including branding and operational practices, under agreed contractual terms. These alliances provide a mechanism for partners to expand operations efficiently while adhering to defined standards and revenue-sharing arrangements (Todeva & Knoke, 2005).
- Other partnerships: Collaborative agreements that focus on specific areas such as R&D, manufacturing, or marketing, allowing firms to share expertise and resources while maintaining independence. These partnerships are flexible and can be tailored to meet specific objectives or timeframes (Das & Teng, 2000).

2.3.2 Strategic Alliances as a Pathway to Growth

The pursuit of strategic alliances by companies is motivated by several factors, many of which are linked to the achievement of growth objectives (Ireland et al., 2002). One significant motivation is the capacity to enter new markets in a more rapid and less risky manner (Elmuti & Kathawala, 2001). The establishment of a presence in a foreign or unfamiliar market requires a substantial investment of resources, a certain degree of knowledge, and frequently, the input of local expertise. By forming alliances with firms that have already established a presence in a target market, companies can leverage their partners' existing infrastructure, networks, and market insights, thereby facilitating a more rapid and cost-effective expansion (Hitt et al., 2020; Ireland et al., 2002). As Coopers and Lybrand (1997) observed, strategic alliances are a favoured strategy for growth and market entry, as they enable firms to avoid the time-consuming process of establishing operations from the outset (Elmuti & Kathawala, 2001).

A key reason for forming strategic alliances is to gain rapid access to technology, expertise and resources that would be costly and time-consuming to develop independently (Elmuti & Kathawala, 2001). In sectors where technology is subject to rapid change, the formation of

alliances enables companies to combine their resources and engage in collaborative R&D activities, thereby accelerating innovation (Elmuti & Kathawala, 2001; Inkpen, 2006). To illustrate, a considerable number of firms form alliances with the objective of sharing the financial burden of R&D, given that the costs associated with pioneering new technologies can be substantial for a single firm (Sampson, 2007). Strategic alliances also facilitate access to complementary assets and expertise, which can enhance product development and result in superior offerings for consumers (Hitt et al., 2020; Todeva & Knoke, 2005).

Strategic alliances provide firms with the flexibility to adapt to changing market conditions without the full commitment of a merger or acquisition. Unlike acquisitions, which require significant capital and can involve integration challenges, alliances provide a scalable framework for collaborative engagement that allows firms to share resources and costs while managing competition and market uncertainty (Elmuti & Kathawala, 2001; Inkpen, 2006; Todeva & Knoke, 2005).

Lastly, the formation of strategic alliances can lead to growth through the creation of economies of scale. The consolidation of production or R&D operations enables firms to attain economies of scale, thereby reducing costs and enhancing profitability. Furthermore, by exploiting the respective strengths of the alliance partners, operational efficiency can be enhanced, productivity increased, and the resulting benefits can be passed on to customers in the form of competitive pricing or superior products (Hitt et al., 2020).

2.3.3 Challenges in Strategic Alliances

While offering significant benefits, strategic alliances face numerous challenges that can undermine their success, with research suggesting that two-thirds experience problems within the first two years and 50% ultimately fail (Hitt et al., 2020). Key challenges include cultural and relational issues such as organisational culture clashes, divergent values, and trust deficits, all of which hinder effective collaboration and create friction between partners (Elmuti & Kathawala, 2001). Misalignment of strategic goals, lack of clear objectives and differences in strategic intent often destabilise alliances, leading to inefficiencies and reduced effectiveness (Das & Teng, 2000). Operational differences, such as incompatible management styles, misaligned procedures, and coordination complexity, exacerbate these problems and make it difficult to achieve seamless integration and collaboration. Relational risks, including uneven commitment or opportunistic behaviour by one party, as well as performance risks related to external market factors, economic changes, or inadequate partner capabilities, add further layers

of uncertainty to partnerships. In addition, alliances may inadvertently foster future competitors, especially if knowledge sharing is poorly managed, or face challenges in protecting intellectual property (IP), which is particularly critical in technology-driven sectors (Granstrand & Holgersson, 2020; Oxley, 1997). Addressing these challenges requires careful partner selection, clear goal alignment, robust governance structures and strong IP protection to ensure that partnerships are both sustainable and able to deliver strategic value.

In a complex and dynamic business landscape, companies that manage these challenges effectively can harness the full potential of strategic alliances as a pathway to growth and competitive advantage. While strategic alliances provide a powerful tool for achieving growth through collaboration and resource sharing, their role becomes even more pronounced when firms expand internationally. The following section explores how international strategies, including the balance of global integration and local responsiveness, enable firms to navigate the complexities of competing in global markets.

2.4 International Strategies

Firms pursue internationalisation as a growth strategy to overcome domestic market constraints, access larger and more diverse consumer bases and achieve economies of scale (Kyläheiko et al., 2011; Lu & Beamish, 2001). By entering global markets, firms can exploit opportunities that may be unprofitable domestically but offer significant growth potential on a global scale, thereby increasing sales and enhancing competitiveness. Internationalisation also allows firms to regain the high sunk costs associated with R&D, which are often spent before revenues are generated, and to spread these costs over a wider market (Kyläheiko et al., 2011). This is consistent with Ansoff's (1957) concept of market development, where firms grow by introducing existing products into new markets. In addition, international expansion facilitates organisational learning, resource accumulation and value creation, positioning firms for long-term success in dynamic global environments (Brock & Yaffe, 2008; Kyläheiko et al., 2011). However, navigating international markets is a major challenge for firms, as they must balance global integration with local responsiveness and adapt to different regional consumer preferences (Devinney et al., 2000; Kyläheiko et al., 2011; Roth & Morrison, 1990).

The integration-responsiveness (IR) framework, developed by Prahalad and Doz (1987) and extended by Bartlett and Ghoshal (1988), provides a theoretical lens for understanding how multinational corporation (MNCs) balance these conflicting pressures (Kyläheiko et al., 2011). This framework highlights the tension between global efficiency achieved through integration

and the adaptability required for local responsiveness and provides a basis for designing effective multinational strategies.

Global integration involves the standardisation and optimization of resources across borders to achieve efficiencies and cost reductions, driven by factors such as multinational customers, uniform product demand and the need for streamlined operations (Devinney et al., 2000; Roth & Morrison, 1990). In contrast, local responsiveness requires strategies tailored to regional market conditions, influenced by cultural differences, customer preferences, distribution channels, market structures and regulatory requirements (Devinney et al., 2000; Kyläheiko et al., 2011).

The IR framework emphasises that the pressures of global integration and local responsiveness vary significantly across industries, functions and even tasks within a company. For example, R&D may require a high degree of global integration, while marketing often requires local responsiveness. These conflicting pressures shape a firm's competitive positioning and influence the configuration of its internal structures (Devinney et al., 2000).

Bartlett and Ghoshal (1988) extended the IR framework by emphasising the importance of balancing global efficiency with local adaptability across different organisational levels - industry, business, function, or task. While achieving this balance can provide a competitive advantage, it also increases operational complexity and costs due to the need for market-specific research, supply chain adjustments, and decentralised management (Hennart, 2009).

To address these challenges, companies often adopt a selective approach, localising only critical aspects of their offering while maintaining global efficiencies - a strategy referred to as “glocalisation” (Myers & Tan, 2002; M. Porter, 1990). Strategic partnerships enhance this balance by providing access to resources, shared R&D risks, and localised expertise. This approach is particularly important in industries such as automotive, where companies face regulatory and cultural complexities in addition to the demands of electrification, digitalisation, and sustainability (Cavusgil & Knight, 2015; Cornet et al., 2023).

The literature highlights the diverse advantages of strategic partnerships in internationalization, from resource sharing and market adaptation to R&D risk mitigation and cost optimization. These alliances grant firms access to specialized capabilities, facilitate navigation through regulatory complexities, and enhance competitive positioning in global markets. Sustaining effective partnerships, however, requires a dedicated focus on key success factors, such as trust, strategic alignment, robust governance structures, and IP management. Each of these elements

plays a pivotal role in ensuring that partnerships meet immediate strategic objectives and foster lasting value. These partnerships, whether for technology-sharing, market adaptation, or cost efficiency, are critical for navigating the automotive sector's transformation driven by electrification, digitalization, and sustainability. In this context, the following methodology will examine how VW leverages both localization and strategic partnerships within its growth strategies in China, assessing how well these align with the theoretical frameworks discussed to sustain competitiveness.

3 Methodology

3.1 Research Design

To further investigate the research questions and gain a better understanding of the automotive industry in China, this thesis draws on two main types of data sources: (1) primary data**,** collected through semi-structured interviews with industry experts, and (2) secondary data**,** such as consultancy reports, industry analyses, and other publicly available sources that provide practical insights and contextual information relevant to this study.

To obtain expert insights and a deeper comprehension of the current situation, semi-structured interviews were conducted. This interview format is recognised for its flexibility and versatility, as described by Kallio et al. (2016). Open-ended questions allow interviewees to express their thoughts freely, encouraging deeper exploration of complex topics. This format also allows the interviewer to further probe responses and dynamically adapt questions to uncover nuanced insights, making it particularly suited to exploratory and qualitative research. As a result, semi-structured interviews are appropriate for exploring opinions and complex topics (Kallio et al., 2016).

Qualitative research was chosen because it provides a “deepe[r] understanding of a given problem” (Queirós et al., 2017). The advantage of qualitative research is that it offers in-depth information about various dimensions of a problem, aiming to understand reality comprehensively. It also brings the advantage that it allows follow up questions or probes to further delve into the topic and get a more detailed answer. Therefore, it is the most suitable method in this context.

3.2 Data Collection

As explained before, to collect primary data, semi-structured interviews were conducted. To this extend, 5 experts were interviewed.

To ensure the credibility and depth of the research findings, the research drew on the insights of high-level experts with extensive and diverse experience in the automotive industry, strategic management, technology trends or the Chinese market. The experts selected for the semi-structured interviews represent a broad range of expertise, making them uniquely qualified to provide nuanced perspectives on VW's growth strategy in China.

Table 1 gives an overview of the experts that were interviewed. These individuals bring a diverse range of expertise, from corporate strategy and innovation to local market dynamics and operational challenges in China. Their combined perspectives provide valuable insights into VW's strategic position and growth potential in the Chinese market. Detailed information about the interviewees is provided in Appendix 3.

Together, these experts bring complementary perspectives covering strategic, technological, cultural, and industry-specific dimensions. Their extensive professional experience, mainly at senior management level, underlines their ability to engage deeply with the research topic. This diverse and highly qualified panel ensures the validity and richness of the insights gathered, providing an invaluable foundation for the analysis and conclusions of the thesis.

The interviews were conducted from 01.11.2024 till 01.12.2024 via online-video calls. Most of the interviews were conducted in German, however one was conducted in English. The duration of the interviews was between 20-80min. All the interviewees agreed to be recorded as this allows the best analysis and therefore is of utmost importance.

#	Role	Industry	Knowledge of OEMs
A	Senior Vice President of Research and Chief Innovation Officer	Automotive	~30+ years
B	Futurologist and Technology Trend Researcher	Tech	~10 years
C	Consultant & China Expert	Automotive & Journalism	~12 years
D	Consultant & China Expert	Automotive	~10 years
E	Manager for a German OEM supplier in China	Automotive	~20 years

Table 1: Overview of Experts

Before starting the semi-structured interviews, an interview guide with open questions was conducted. The guide consists of 5 blocks of questions aimed at better understanding the problem. First the interview starts with an introduction of the participant and their experience. As semi-structured interviews are flexible, adaptation to each expert is relevant. Block 1 asks about VW's current market position in China to get a better understanding of why VW is struggling. Block 2 tries to ask about general growth strategies and in the expert's opinion which one VW should use. Block 3 asks about strategic partnerships in the automotive industry, but also in relation to China. As VW seems to have sales problems, customer centricity and preferences are also important to try and understand the problem better. Block 4 therefore deals with these issues. In block 5, participants will be asked about the regulatory environment in China and an outlook for the market and VW. Finally, there is room for any further remarks and the possibility for the participants to share any further contacts/expertise with experience on this topic.

However, secondary data will also be important in the analysis. VW has published a 177-page strategy paper on how they intend to regain market share and growth in China, which will be also an important document for answering research questions (Volkswagen Group, 2024a). In addition, publicly available interviews with VW board members will also be analysed. This complementary secondary data will help to understand VW's efforts in China.

3.3 Evaluation of the Interviews

To evaluate the interviews the thematic analysis will be used. Thematic analysis involves identifying recurring themes or ideas in a textual data set (Jason & Glenwick, 2016). The first part is to transcribe all the interviews. As most of the interviews were conducted in German, the transcripts were translated into English to have a clear understanding of the situation so that the analysis is clear. Researchers then familiarise themselves with the data and generate a list of codes, which can be data-driven or theory-driven, to organise the information into meaningful units. The codes are then grouped into broader themes, which may be hierarchical or interconnected, using visual tools to aid the process. The themes are then reviewed and refined to ensure coherence and relevance to the research question, involving a re-evaluation of both individual coded extracts and the dataset. Once finalised, themes are named and defined to capture their central ideas, often including sub-themes for more detailed dimensions. Finally, the findings are reported in a way that not only illustrates the themes with data extracts, but also provides an argument that addresses the meaning, assumptions, and implications of the themes to reveal the overall story of the research (Jason & Glenwick, 2016).

4 Findings

The following chapter systematically presents the findings of the expert interviews. As described in detail in the methodology chapter, the interviews were analysed using thematic analysis, following the approach outlined by Jason and Glenwick (2016). This process led to the identification of five main themes, which are further structured into subcategories (see Figure 1). These themes form the basis of the presentation of findings in the following subchapters.

However, to fully address the research questions and gain a clearer understanding of VW's current situation, it is essential to first examine the factors that contributed to the loss of its dominant market position in China. This analysis is fundamental to assessing VW's strategic approaches and their potential to regain market share, which will be explored in later sections. Based on the findings of the expert interviews, this chapter outlines the current challenges facing VW and provides a structured overview of the themes identified during the analysis.

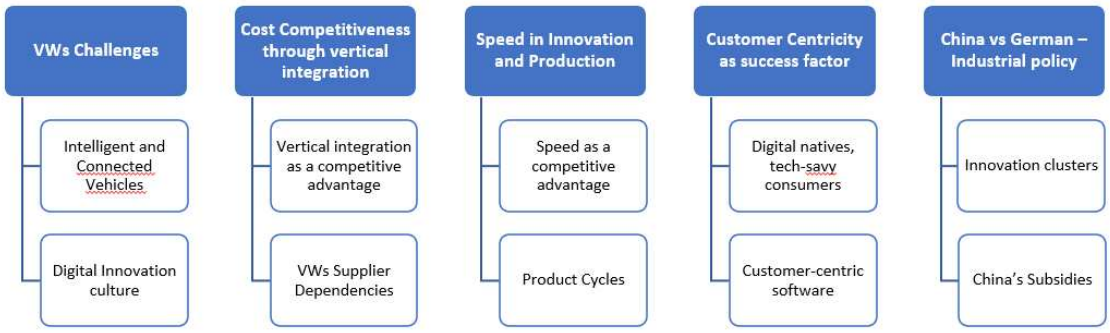

Figure 1: Overview of themes (own illustration)

4.1 VWs Challenges

4.1.1 Intelligent and Connected Vehicles

Expert A remarked that "The trueness of cars is being questioned" as vehicles are no longer just transportation tools with good engines, but must also include digital offerings, gadgets and infotainment features that enhance daily life. Experts B and C highlighted that the automotive industry has experienced significant technological leaps over the last 5-10 years. Two major leaps were identified: the transition from ICE to EVs and the integration of advanced software and connectivity into cars, Expert C described it also as the "intelligentification of cars". While Tesla and Chinese car manufacturers have emerged as leaders in these areas, VW has struggled to keep pace. The experts observed that VW not only missed the initial leap into EV development, falling behind its competitors, but is now also lagging in the second critical leap: advancing software architecture and connectivity, which have become pivotal to the competitiveness of modern vehicles. Software underpins advanced safety systems such as ADAS and autonomous driving capabilities, ensuring regulatory compliance and enhanced user safety. It drives connectivity features, enabling access to apps, over-the-air (OTA) updates and voice control, while enhancing in-car entertainment and user experience. In EVs, software is essential for battery management, optimising efficiency and addressing consumer concerns about range but also infotainment. Therefore, these cars are also called Intelligent and Connected Vehicles (ICV) (D. G. Yang et al., 2018).

This technology gap underlines the challenges VW faces in adapting to a rapidly evolving industry dominated by innovative competitors. Jochen Siebert, an automotive expert specialising in China, sees this as the biggest weakness:

"The car must be at least as good as the mobile phone. VW does not have that in this form, but neither does Mercedes" (Freyeisen, 2023).

In his opinion, the Germans have missed this trend. VW's attempt to catch up in software and technology through its subsidiary CARIAD has failed, with the system plagued by crashes and technical limitations. "Even the basic functions in the car of VW do not work" (Expert B). This fragmented approach puts VW at a significant disadvantage, unable to keep up with the agility and technological sophistication required in today's competitive automotive market. And Expert C even says that the next two technological leaps are on the horizon. The first one is AI:

"AI is being implemented at various levels, not just in the form of voice assistants like Siri, which are becoming increasingly personal, but also in production processes" (Expert C).

and will probably even speed up the development of "intelligentification". The next technological leap that is being developed in parallel is the V2X so "vehicle-to-everything". V2X enables vehicles to communicate with each other, with traffic lights, smart cities, and control centres. The Chinese government is driving this very strongly and is investing heavily in this area of the future.

"The car is seen more as part of a whole, which corresponds to the holistic thinking of the Chinese" (Expert C).

As Expert C mentioned, a lot is happening in China and Western companies need to adapt to an external environment that is very different from Western countries.

4.1.2 Digital Innovation culture

The Experts (except A and E) also highlighted the culture that can be seen at VW. Experts B and C emphasised that Chinese and US companies have a young, dynamic, forward-thinking culture like that of software companies, whereas VW faces significant challenges due to its traditional mindset as a car manufacturer. Zheng Han was interviewed for an article in the Manager Magazin. He fears that culture could become a problem for VW. He teaches innovation and entrepreneurship at Tongji University in Shanghai and has been following VW's development for decades. In particular, the state-owned joint venture partners FAW and SAIC "have a different culture from the young competitors when it comes to speed and innovation" (Tatje, 2023). In contrast, companies such as XPENG see themselves as "a technology company at heart" (XPENG, 2024).

Expert D, who is a change management and leadership development consultant in China with OEMs as his main clients, highlighted that VW's corporate culture, rooted in a belief in its technological superiority, has in the past hindered its ability to adapt to market disruption. Drawing parallels with the past, he referred to the late 1980s and early 1990s, when German car manufacturers underestimated Japanese manufacturers such as Toyota and Lexus. At the time, German engineers dismissed Japanese competitors as "copiers", failing to recognise their customer-centric approach to defining quality. Expert D explained:

"The German engineer believed that only he could define quality, whereas the Japanese invited customers to define what quality meant to them" (Expert D).

This attitude, according to Expert D, was not arrogance but a deeply ingrained cultural norm that prioritised internal definitions over customer needs. This cultural rigidity persists today, with VW slow to adapt to rapid advances in battery technology or software, and the rise of Chinese automakers. Expert D highlighted the unprecedented speed of China's market development, noting that:

"China doesn't progress gradually; when it comes, it comes like an avalanche" (Expert D).

He argued that VW had underestimated this rapid change and relied on traditional strategies that were proving increasingly inadequate. This challenge is further enhanced by the digital-first mindset prevalent among Chinese companies, where they see themselves as technology companies rather than traditional car manufacturers (Z. Yang, 2023). Expert C illustrated this contrast by saying "I haven't paid with cash in years", highlighting China's deeply rooted digital culture. In contrast, Germany lags significantly behind in digital adoption, with VW still operating within a traditional car manufacturing paradigm (Expert B). Experts B and C emphasised that this cultural and technological gap is a significant obstacle for VW, as digital capabilities are now critical to competing in the Chinese market.

In the wake of the "Dieselgate" scandal, VW initiated cultural reforms, such as the introduction of a "speak up culture" to promote transparency and entrepreneurial decision-making. However, Expert D stressed that such changes take time and deeper structural changes:

"Cultural change doesn't happen quickly, especially not through training programs." He noted that "they are undergoing a dramatic cultural transformation simply because of the pain they're experiencing" (Expert D).

This shift is challenging VW's traditional engineering-focused approach, which contrasts sharply with the rapid innovation and customer-centric strategies of Chinese automakers.

"What VW assumed was enough is being challenged, not by arrogance, but by deeply ingrained norms" (Expert D).

4.2 Leveraging Vertical Integration for Cost Competitiveness and Competitive Advantage

Chinese automakers are at the forefront of innovation, pushing the boundaries of technology, particularly in battery systems and software - two critical areas for the future of EVs. Experts B and C highlighted that Chinese carmaker, such as BYD, are almost a decade ahead of legacy carmakers in these areas. BYD, China's best-selling car brand, exemplifies this technological and operational superiority through its exceptional level of vertical integration, controlling key stages of the production process while driving innovation across multiple components. According to a UBS study, 75% of BYD's Seal sedan components are manufactured in-house - double the global industry average of 30% vertical integration - contributing to a 25% cost advantage over North American and European brands. BYD also manufactures its own batteries and semiconductors, further enhancing its competitive advantage. Expert E mentioned that the fact that BYD produces its own batteries is a positive factor for many Chinese when making a purchase decision, because if there are issues, the expertise is in one company. The Seal is manufactured entirely in China, with less than 10% of its parts sourced from foreign suppliers, giving it a 15% cost advantage over Tesla's Model 3 and an 35% advantage over VW's ID.3 compact EV (Gong, 2023; UBS, 2023). Unlike traditional OEMs that rely on joint ventures and fragmented supply chains, BYD's integrated approach not only reduces costs but also positions it as a disruptive force capable of challenging legacy automakers in global markets.

One example of why VW is struggling to catch up is given by Expert B. He says that VW faces significant hurdles due to its reliance on external suppliers such as Bosch and Continental for many critical car components, each of which contains embedded chips. These chips are not central controllers but are directly tied to specific parts of the car, such as braking systems or battery management. To update or adjust these parts, VW must navigate legal agreements and obtain permission from the suppliers who control the chips—a process that complicates and slows down OTA updates (Expert B).

4.3 Speed in Innovation and Production

The competitive advantage of BYD and other Chinese car manufacturers is further enhanced by the strong dynamics of the domestic market. Ralf Brandstätter highlighted that more than 100 new competitors have entered the Chinese automotive sector in the last years, reflecting the increased competition (Hägler & Widmann, 2024). While not all these companies will survive, their presence underlines the vibrancy of the market and the constant pressure to innovate. Experts D and E emphasised that speed is one of the main advantages of Chinese companies, which thrive in an environment where price wars are commonplace, and customer expectations evolve rapidly. Chinese carmakers excel at offering competitive prices and adapting quickly to new trends, a pace of innovation that resonates strongly with local consumers and challenges slower-moving global competitors such as VW. In China, new car models are launched every two to three years, compared to the four-to-five-year cycle typical in Germany (Expert B; Sebastian, 2022). This stark contrast highlights the highly efficient and fast-paced environment in which VW must compete.

4.4 Customer Centricity as success factor

All experts emphasised that VW faces significant challenges in adapting to the modern, software-driven automotive landscape and that software and connectivity is one of the key purchasing decisions for Chinese customers. Chinese customers, who are tech-savvy and digital natives, expect connectivity features to be seamlessly integrated into their cars. This focus on smartification and advanced features is a key reason why Chinese consumers prefer domestic brands to multinationals (Mingyu Guan et al., 2024).

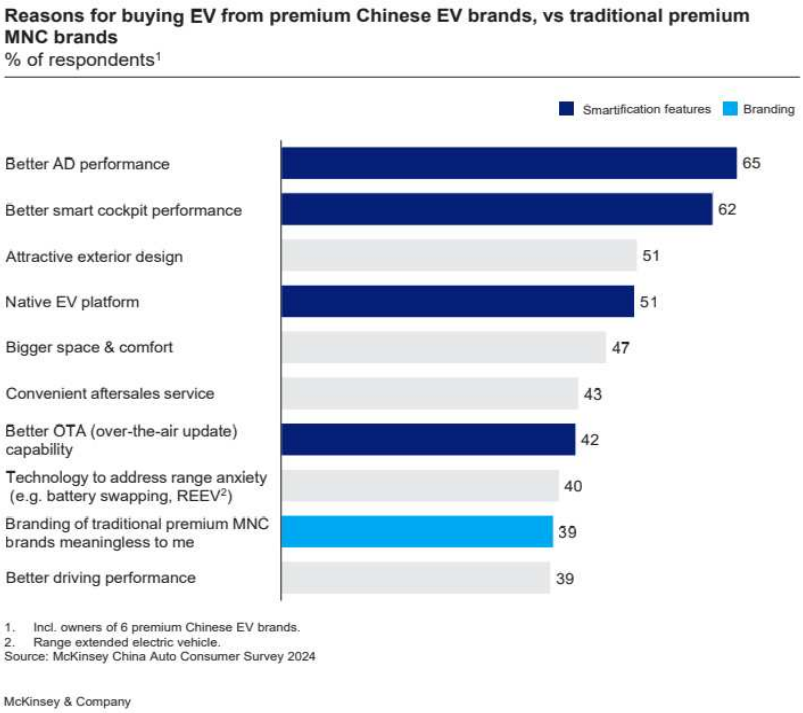

Figure 2: McKinsey China Auto Consumer Insights 2024

A McKinsey study (Figure 2) highlights that one of the key factors behind the success of Chinese car manufacturers is their superior capabilities in autonomous driving and advanced intelligent cockpit performance. Over the years, Chinese brands have demonstrated a deep understanding of their domestic market, continuously refining their vehicles to meet the preferences of local consumers. This market insight has allowed them to recognise and prioritise the importance of features such as infotainment systems and “smartification”, which play a pivotal role in influencing consumers' purchasing decisions (Mingyu Guan et al., 2024). According to Experts B and C, VW struggles to compete with Chinese brands in these areas as it does not offer the same level of functionality and innovation.

Expert E said that Chinese customers prefer other brands because the software is better. Xiaomi, a Chinese electronics manufacturer that develops all kinds of electronic products from mobile phones to fridges to toothbrushes, can best describe how Chinese customers see software in a car. Expert E said that almost all of Xiaomi's products can be controlled by one app and have a good reputation among the population. Xiaomi has decided to build cars in the future. And they have even sold 100,000 cars and have orders for over 200,000 cars. She said that people know that Xiaomi makes good software and that everything in their product world is connected. This shows that Chinese customers value the software more than the actual car.

As the chart shows, Chinese customers also value better OTA capability. As discussed in chapter 4.2 VW's dependence on external suppliers severely limits VW's ability to match the speed and efficiency of companies like Tesla. Expert B pointed out that Tesla delivers OTA updates on a weekly or monthly basis. In stark contrast, VW has only managed two updates in the last four years.

4.5 China vs German – Industrial policy

The experts (except for Expert A and E) highlighted significant differences in industrial policy and cultural approaches to technology and digital services between China and Germany. Expert C emphasised that China's industrial policy is growth-oriented with a clear vision, actively supporting car manufacturers and technology companies. Also, Ralf Brandstätter CEO of VW China said in an interview:

"In China, business, academia and government have been working hand in hand to create an electric drive ecosystem - and it is now here" (Hägler & Widmann, 2024).

This is evident in China's investment in innovation clusters (Expert C) - 26 of the world's top 100 science and technology clusters are in China, compared to only 8 in Germany (WIPO, 2024). These clusters, which focus on areas such as digital communications and semiconductors, give Chinese companies a competitive edge. According to Expert C, innovation in the automotive sector is mainly driven by Chinese companies operating within these innovation clusters. He emphasised that failure to participate in these clusters' risks losing competitiveness not only in China, but potentially on a global scale. Recognising this, VW and other German OEMs have begun to invest in these clusters to ensure they remain competitive in this critical area of innovation.

In addition, the Chinese government has heavily subsidised the local EV market and its manufacturers. A study by the Center for Strategic & International Studies found that between 2009 and 2023, China provided approximately $230 billion in subsidies to the sector - an average of $15 billion per year (Kennedy, 2024). This level of financial support far exceeds any subsidies offered by Western nations over the same period. These industrial policies contributed severely to the rise of the Chinese car manufacturers.

The experts have identified numerous causes for the crisis that VW is currently facing. In response to these challenges, VW has introduced a new strategy specifically tailored to the Chinese market, which is analysed in-depth in the following sections (Volkswagen Group, 2024a).

4.6 VWs Strategic Goals

This chapter outlines VW's strategic goals in China, developed as a response to the challenges faced in the market. These goals, aimed at returning to a growth trajectory, focus on three key areas:

1. ICV and customer-centricity: VW's strategic goal in China prioritizes technological innovation and customer-centricity to meet the unique expectations of Chinese consumers, who increasingly view vehicles as integrated digital and lifestyle platforms rather than mere modes of transport (Tatje, 2023). This approach reflects VW's effort to align its offerings with the preferences of tech-savvy customers in a rapidly evolving market.
2. Cost Competitiveness: VW aims to achieve cost parity with local competitors to compete effectively in China's highly price-sensitive market. Chinese competitors can offer BEVs at significantly lower prices, creating intense price competition that VW must address (Volkswagen Group, 2024a).
3. Development Speed: The third strategic goal is to improve the speed and flexibility of car development. In China, new car models are introduced every two to three years, compared to the four-to-five-year cycle typical in Germany. To stay competitive, VW is focusing on accelerating its development processes in China (Volkswagen Group, 2024a).

These goals collectively support VW's overarching ambition to reclaim its position as the leading international OEM in China. The strategic actions that VW is taking to achieve these goals are described in detail in the next chapter.

4.7 VWs Actions

4.7.1 Volkswagen's "In China, For China" Strategy

VW's overarching approach to regaining its market share and growth trajectory in China is encapsulated in its "In China, For China" strategy. This initiative emphasizes full localisation across all facets of its operations, including R&D, manufacturing, and product design. In the past, every car was developed in Wolfsburg, VW's headquarters, and slightly adapted to Chinese preferences. As Ralf Brandstätter, said:

"That is why we are becoming even more local. We have been building cars in China for a long time, and in the future, we will develop many models here from scratch. We are investing in a research centre in Hefei, west of Shanghai, where 2,000 engineers work" (Hägler & Widmann, 2024).

By embedding itself deeply within the local market, VW seeks to create products that align closely with Chinese consumer preferences and market conditions. The “In China, For China” approach is a new strategic approach for VW, and VW needs to adapt in many ways. The following describes how VW intends to do this.

4.7.1.1 VWs ICV and customer-centricity

VW's takes several actions to reach the goal to catch up in technology, software, and customer-centricity.

The establishment of Volkswagen China Technology Company (VCTC) underlines this commitment to move into the ICV segment. VCTC is tasked with developing advanced technologies, including the China Electronic Architecture (CEA), to streamline system integration and enhance the digital experience in VW’s vehicles. This new architecture aims to close gaps in efficiency and technological sophistication, areas where local competitors such as BYD and XPENG have outpaced international automakers (Volkswagen Group, 2024a).

VW recognises the growing importance of voice recognition systems tailored to the Chinese market. In an interview, Ralf Brandstätter, noted the essential role of intuitive voice commands:

“Our Chinese customers do everything by voice or gesture. The voice control system must work perfectly from any seat in the car. For example, if a customer sitting in the back right-hand seat says, 'open the window', the car must correctly identify and execute the request” (Hägler & Widmann, 2024).

Other key features include large, high-resolution displays, systems that integrate productivity and leisure functions, and adaptive climate control that responds dynamically to multimedia content to create immersive experiences. Entertainment options such as karaoke and interactive displays cater to cultural preferences for engaging in-car experiences, while personalisation extends to practical features such as a passenger seat adjustment system tailored to the user's needs. Reflecting Chinese consumers' view of cars as 'extended living spaces', features such as Nap Mode - reclining seats with soft music and soothing visuals - underscore VW's efforts to address cultural nuances and gain a competitive edge (Tatje, 2023).

VW also aims to integrate AI to provide a more personalised and intuitive user experience. As Brandstätter highlighted, innovations such as an AI avatar that learns from customer behaviour aim to anticipate drivers' needs, such as adjusting the climate control or recommending entertainment options. These advances align with the growing demand in China for vehicles to serve as personalised, adaptive spaces - features that are increasingly seen as necessities rather

than luxuries (Hägler & Widmann, 2024). These are the actions VW is taking to reach the goal of reaching parity in ICV with Chinese competitors.

4.7.1.2 Cost competitiveness

A cornerstone of VW's localisation strategy is the China Main Platform (CMP), a production framework specifically designed to meet the unique needs of the Chinese market. The CMP is central to VW's plan to reduce production costs by 40% compared to the existing MEB (modular electric drive toolkit) platform. This ambitious target is supported by key innovations like the CEA (Volkswagen Group, 2024a).

VW has partnered with XPENG to develop the CEA, a zonal electrical/electronic (E/E) architecture. This innovative system is designed to streamline the integration of electronic and digital functions while significantly reducing complexity. By reducing the number of control units by 30%, the CEA not only improves system efficiency but also reduces material costs, making it a key component of VW's strategy to improve cost competitiveness in the Chinese market. This architecture supports the rapid introduction of digital features, including advanced connectivity and next-generation automated driving capabilities, as well as regular OTA updates. With this focus on cost efficiency and digital functionality, VW aims to meet the competitive pressures of the Chinese market while aligning its products with local consumer expectations (Volkswagen Group, 2024a).

4.7.1.3 VWs "China Speed"

VW established the VCTC in Hefei to meet the urgent need for speed and agility in the highly competitive Chinese automotive market. By centralising R&D and decision making for China, the VCTC eliminates delays caused by coordination with German headquarters and enables a faster response to market changes. VW aims to reduce development cycles by 30%, reflecting its commitment to match the rapid pace at which Chinese competitors introduce new models and innovations (Volkswagen Group, 2024a).

This localised approach is designed to improve VW's flexibility and adaptability, allowing it to bring products to market faster and meet evolving consumer demands. By embedding decision-making closer to the market, the VCTC aims to align VW's operational speed with the fast-moving environment that defines China's automotive sector, positioning the company to compete more effectively against fast-moving domestic players.

4.7.2 Strategic Partnerships: Accelerating Progress Towards Goals

VW's strategic partnerships in China complement its internal localisation efforts and are strategically aligned to address critical gaps in technology, battery production and software development. These partnerships directly contribute to achieving the company's strategic goals.

1. XPENG: As a key partner in the development of mid-size BEVs, XPENG contributes its expertise in advanced E/E architectures, enhancing ADAS and connectivity features. This partnership strengthens VW's position in the ICV segment. XPENG benefits from the strategic partnership by leveraging VW's renowned vehicle development and engineering expertise to enhance its EV offering, while both companies create synergies through joint sourcing programmes for long-term growth potential. In 2026, VW and XPENG want to jointly launch two new models (Volkswagen Group, 2024b).
2. Gotion High-Tech: By partnering with Gotion, VW is localising battery production to achieve significant cost efficiencies. This collaboration supports VW's broader goal of reducing BEV costs by 40% by 2026, making its electrified vehicles more competitive. Through this partnership, VW secures access to critical EV components, while Gotion benefits from having an established and prominent customer in VW, with both companies working together to develop innovative battery technologies (Volkswagen Group, 2021).
3. Horizon Robotics: The partnership between VW's CARIAD and Horizon Robotics aims to accelerate the development of next-generation autonomous driving technologies by combining VW's automotive expertise with Horizon Robotics' advanced computing and AI capabilities. In addition to establishing a joint venture in which CARIAD will hold a 60% majority stake, the collaboration will enable VW to advance in-car intelligence and meet consumer expectations for sophisticated digital experiences, an area where it has lagged local competitors (Volkswagen Group, 2022).
4. ThunderSoft: CARIAD and ThunderSoft set up a joint venture in China, with ThunderSoft holding 51% and CARIAD 49%. The joint venture aims to develop and test localised infotainment and connectivity solutions, focusing on operating systems, human-machine interfaces, and cloud development. CARIAD will benefit from ThunderSoft's expertise in smart cockpits and localised software solutions, while ThunderSoft will gain access to the Volkswagen Group's platform synergies and strengthen its position in the automotive software market. Together, the partnership aims to meet Volkswagen Group's innovation priorities in China and deliver advanced digital experiences tailored to Chinese consumers (ThunderSoft, 2023).

These partnerships aim to address VW's challenges in software, digital technologies and batteries while enhancing its ability to compete in China's dynamic automotive market. As Ralf Brandstätter emphasised, partnerships with nimble local companies are essential to compete effectively in a landscape defined by rapid technological advances.

4.7.3 Expanding the Product Portfolio for Growth

As a result, of these actions the VW Group plans to launch more than 30 BEV models in China by 2030, targeting Tier 1-3 cities where BEV adoption is highest. By 2026, the VW brand plans to launch nine BEV models, including two developed with XPENG. This expansion will focus on compact BEVs, which are expected to account for more than 50% of the market (Volkswagen Group, 2024a). Complementing this strategy, VW will also update its ICE and hybrid models to serve customers transitioning to electrification. However, as highlighted by Expert D, the high cost of ICE approvals - often competing with vehicle prices - may limit demand. VW's dual approach aims to use ICE profits to fund investment in BEV and ICV technologies, bridging the gap between current demand and future growth. By 2030, VW aims to achieve a 15% (14,5% in 2023) market share in China, with annual sales of four million vehicles. Through localised innovation, strategic partnerships and a customer-centric approach, the company aims to remain a leading international OEM in China's competitive automotive market (Volkswagen Group, 2024a).

VW is striving to close the gap with Chinese competitors by focusing on customer-centric offerings and local production to align with Chinese consumer preferences and regain market competitiveness. The following chapter evaluates whether these initiatives align with effective growth strategies and their potential to achieve sustainable competitiveness in China.

5 Discussion

This chapter critically evaluates VW's growth strategies and assesses their effectiveness in addressing the challenges of the Chinese market, with a particular focus on whether strategic partnerships are the most effective solution. To guide this evaluation, Roger L. Martin's (2013) “Playing to Win” framework was chosen for its clear and structured approach to strategic decision-making. Its five fundamental questions provide a robust structure for analysing VW's strategic choices: What is the winning aspiration? Where should the company play? How will it win? What capabilities must be in place? And what management systems are needed?

Based on both theoretical rigour and practical applicability, the framework links high-level strategic objectives with actionable steps, ensuring a holistic analysis of market positioning,

resource allocation and partnerships. By systematically addressing these dimensions, “Playing to Win” provides a focused lens through which to assess whether VW's strategies are aligned with its aspirations and can drive meaningful growth in China's dynamic automotive market.

5.1 What is VW’s winning aspiration?

According to Martin & Lafley (2013), the winning aspiration provides the framework for all other strategic decisions. For VW in China, the winning aspiration is not directly published, but is formulated by the author as follows:

”To be the leading international OEM in China by achieving cost and technology parity while driving speed, innovation and localised excellence.”

This ambition sets a clear direction for where VW wants to position itself in the Chinese market. While it could place more emphasis on the consumer, it effectively highlights the company's overarching goals which are also outlined in chapter 4.6. The following chapters examine the strategic choices VW has made to pursue this aspiration.

5.2 Where to play?

VW has made strategic decisions to address the critical question of “where to play” to regain market share and growth in China. With its “In China, For China” approach, VW has fully committed to the Chinese market, recognising its unparalleled importance and competitive dynamics. This localisation strategy represents a shift from adapting global products to designing and producing vehicles specifically tailored to the needs of Chinese consumers.

In terms of product strategy, VW has chosen to play in two different segments: the ICE market and the BEV market. For ICE, the company aims to maintain relevance by integrating superior digital and connected features to meet evolving consumer expectations. At the same time, VW aims to strengthen its position in the BEV segment, recognising the rapid pace and intense competition driven by local players.

However, VW's ambitions go beyond these categories: the company also wants to play in value-driving areas such as batteries and software, particularly in the ICV segment, where future value creation will increasingly lie. As Expert C pointed out, the real competitive advantage will shift to batteries and software technologies, with traditional car manufacturing contributing only marginally to value creation. These three points outline VW's overarching “where to play” strategy.

The question remains whether VW's "where to play" approach will lead to long-term growth. By maintaining a dual focus on the ICE and BEV segments, VW is splitting resources between two areas, unlike its Chinese competitors who are fully committed to BEVs. While VW aims to use the profitability of its ICE segment to fund its BEV ambitions, this dual strategy creates inefficiencies and slows the pace of its transformation. Expert D also argued that VW needs to fully commit to an EV-focused strategy to remain competitive, even if this means accepting short-term financial losses. In his view, such bold investment and singular focus are essential to close the gap with competitors in a rapidly evolving EV market. Without such decisive action, VW risks falling further behind in both the BEV market and the overall competitive landscape in China.

Additionally, VW has also made market-specific decisions and has defined a targeted set of strategic choices for its market positioning, which is shown in Figure 3:

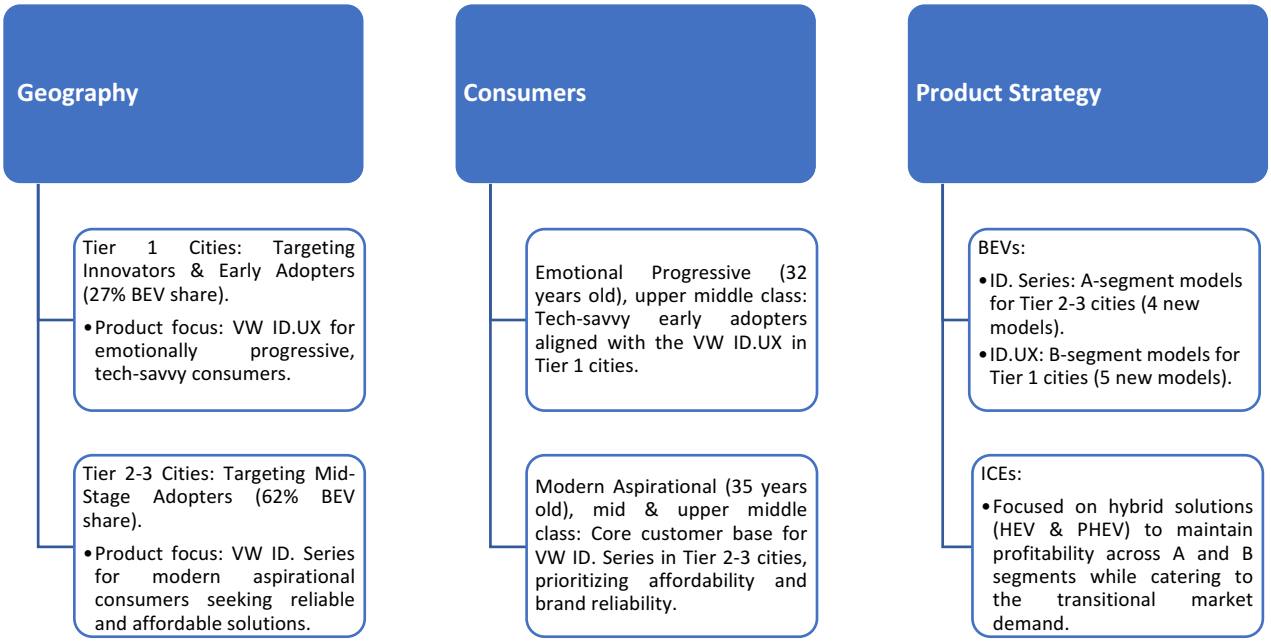

Figure 3: Where to play choices based on VWs China strategy (own illustration)

With the ID. series, VW intends to focus on the largest BEV market in tier 2-3 cities, where its core customer base is located. However, the future product rollout includes 4 new models for the ID. series targeted at tier 2-3 cities and 5 new models for the ID.UX series targeted at tier 1 cities. This reveals a mismatch between VW's current target customers and its product development strategy, as more models are being developed for tier 1 cities than for the core target group in tier 2-3 cities. This broad approach not only risks diluting VW's resources but

also makes it challenging to build a strong, distinctive brand identity in a market where clear positioning is essential for success. It seems that VW wants to play in every market, which makes sense given the size of the company, but this in turn leads to a noncommittal strategy, as Chinese competitors are very successful in positioning themselves as premium or volume brands. The choice of where to play is critical for any company, as “no company can be all things to all people and still win” (Martin & Lafley, 2013). It is essential to clearly define not only where to compete, but also where not to compete. Therefore, a more focused approach that prioritises tier 2-3 cities - where the largest market share resides - appears to be a more effective choice of where to play, allowing VW to concentrate its efforts on segments with the greatest growth potential.

5.3 How to win

5.3.1 In China, For China

VW's “In China, For China” strategy marks a decisive shift in its approach to winning in the Chinese market, addressing both the ICE and BEV segments. This localisation strategy demonstrates a clear strength: the ability to respond quickly to the unique demands of Chinese consumers. In the past, vehicles were developed in Germany and then slightly modified to meet the preferences of local markets. This approach was in line with the IR framework, emphasising global efficiency with minimal local adaptation. However, as consumer preferences in China evolve at a rapid pace, especially in terms of digitalisation, this method has become increasingly ineffective.

By opting for local development and production, VW can significantly improve its responsiveness to market demands. By introducing the VCTC in Hefei, VW can reduce development and production time of new models by 30%. This localisation streamlines the development process by eliminating the need for constant approval from headquarters in Wolfsburg, thereby reducing costs and enabling the creation of products that are fully tailored to the needs of Chinese consumers, which are very different from those of German consumers. As Expert D pointed out, while German engineers are highly skilled, their geographical and cultural distance from the Chinese market limits their ability to understand and anticipate local preferences.

While this approach is bold and necessary, its success depends on more than just structural changes; it requires a profound cultural change within VW. This change must go beyond the rhetoric of localisation and fundamentally reshape how decisions are made and how the

organisation operates in China. For the strategy to be effective, VW must fully empower its Chinese operations, giving them the autonomy to lead without constant interference from Wolfsburg. This means not only streamlining decision-making processes, but also embedding a deep understanding of Chinese consumer culture and market dynamics into the organisation's DNA. Headquarters must recognise that success in China requires a degree of decentralisation and trust in local leadership. If the influence of Wolfsburg undermines local decision-making or creates bottlenecks, the “In China, for China” strategy will struggle to achieve its intended impact.

This localised approach is a bold and necessary step towards market competitiveness. It not only addresses inefficiencies but also positions VW to fully commit to the Chinese market. As a fundamental strategic decision, it sets the stage for VW to win in China's competitive market.

5.3.2 ICV

VW's strategic focus on the ICV segment is a critical component of its plan to win in the Chinese market. By prioritising innovative and customer-centric features such as advanced voice recognition, AI-powered personalisation and seamless connectivity, VW aims to meet and exceed the high expectations of Chinese consumers who increasingly view vehicles as integrated digital platforms.

The CMP is the cornerstone of VW's efforts to localise production and improve cost competitiveness. Complementing this, the CEA addresses inefficiencies in digital integration by reducing the complexity of electronic systems, thereby accelerating development cycles. Both initiatives underscore VW's commitment to achieving cost parity with local BEV manufacturers, addressing a key challenge in a price-sensitive market. This approach is in line with Expert C's observation that achieving cost efficiency through localised innovation is essential for VW to remain competitive.

The expert’s findings emphasise that catching up in the ICV segment is not only advantageous but essential for VW's success in China. As Expert D pointed out, Chinese automakers have set high standards for ICV features, and failure to deliver comparable offerings risks alienating consumers and reducing VW's market relevance. The company's increased focus on ICVs is a direct response to these challenges, with the aim of meeting consumer expectations and restoring its competitive position.

However, while the CMP and CEA represent a major step forward, VW faces significant challenges in keeping pace with local competitors. Chinese automakers such as BYD and Geely

have set benchmarks in the integration of advanced digital features such as autonomous driving and sophisticated infotainment systems. The results show that VW's current offerings fall short of these standards, particularly in terms of software sophistication and pace of development. This highlights the critical role of VW's partnerships with companies such as XPENG, Horizon Robotics, and ThunderSoft in delivering the advanced AI and localised infotainment solutions required to compete effectively. These partnerships play a key role in VW's growth strategy, as it struggles to build these features with its own capabilities.

5.4 What capabilities must VW have?

In the past, VW tried to build its own capabilities through its software subsidiary CARIAD, recognising the critical importance of software in the automotive sector. However, this initiative failed, leading VW to adopt a new approach: strategic partnerships with Chinese companies. Expert C believes this is a sound strategy, noting that Chinese companies have the expertise that VW needs to remain competitive. In addition, VW needs to respond quickly to market conditions to prevent further erosion of its market share in China. As discussed in section 2.1, product development and capacity building are time-intensive processes - time that VW currently lacks. Partnering with Chinese companies is therefore the right approach.

However, this strategy is not without its challenges. First, as Expert C pointed out, the most significant value in the automotive value chain lies in batteries and software - areas that are expected to be the main profit drivers in the future. VW's heavy reliance on external partners for these critical components is a risky position as it reduces control over key growth areas. Chinese companies such as BYD maintain significant control over the value chain through extensive vertical integration, enabling them to respond quickly to market changes and drive innovation across different vehicle components. This approach allows BYD to view the car as a cohesive whole, leading to greater efficiency and reduced complexity in the development process. Its ability to focus on value-creating areas gives it a distinct competitive advantage and positions it for sustainable growth and profitability.

In contrast, VW relies on a network of strategic partnerships, as described in Chapter 4.7.2, with four key collaborations in critical areas of the value chain. While these partnerships are designed to fill specific technology gaps more quickly and improve competitiveness, they add layers of complexity to the development process. Coordinating these diverse partnerships requires a robust organisational and strategic alignment that contrasts sharply with BYD's streamlined, integrated approach. This complexity poses challenges for VW, potentially

slowing innovation and making it more difficult to execute a coherent product strategy. Further the question is whether VWs reliance on partners, is a short-term strategy to catch up with Chinese competitors more quickly or a considered move to build long-term partnerships. The sustainability of such long-term partnerships warrants close monitoring, as dependencies in value-creating areas could ultimately put additional pressure on VWs profitability.

Second, there is growing concern within the Chinese government about partnerships that result in the transfer of valuable knowledge and intellectual property to foreign companies. Historically, joint ventures in China have allowed local companies to learn from international OEMs, but now the dynamic has shifted. VW is trying to learn from Chinese companies through "reverse joint ventures". According to Expert C, there are growing voices within the Chinese government advocating closer monitoring of such partnerships to maintain control over domestic innovation. A MERICS paper also states that China is taking steps to keep innovation and knowledge in China (Arcesati et al., 2024).

Expert B is more cautious. He suggests that VW should prioritise survival strategies over ambitious growth plans to stabilise its current market position. While he recognises the need to adapt quickly to industry trends, he remains sceptical about the effectiveness of strategic partnerships. He cites cultural differences and the disparity in size between VW and its potential partners as significant obstacles. This concern is particularly evident in the joint venture between CARIAD and Horizon Robotics, in which VW holds a 60% stake. The question also remains as to whether these partnerships are truly collaborative ventures or simply arrangements for VW to access critical knowledge. VW's objectives in these partnerships are clear: to gain access to critical functions in which it is currently lagging. For its partners, however, the primary motivation seems to be to secure VW as a customer. Whether these collaborations enable the partners to innovate better or more effectively than they could on their own is a valid question. Furthermore, cultural challenges remain a critical factor in these partnerships. Successfully overcoming these differences is essential to the success of the partnerships. These cultural issues, among others, are explored in more detail in the next chapter.

5.5 What management system does VW need?

To address the last question, the focus is on the management systems required to support VW's strategic decisions and capabilities. These systems include performance measurement, resource allocation and other processes that are essential to ensure effective implementation of the

strategy (Martin & Lafley, 2013). However, this chapter takes a broader perspective and does not deal with performance measurement or resource allocation - both highly relevant issues, but outside the scope of the evaluation of VW's overall strategy.

VW needs to transform itself into a technology-driven organisation, a change that must extend throughout its Chinese operations to return to a growth trajectory. The company needs a culture that fosters entrepreneurship, innovation, and empowerment, where employees feel free to express ideas, take risks and learn from mistakes. This cultural evolution is essential to create an environment that encourages independent thinking and experimentation. If VW fully embraces its "In China, For China" strategy and embraces a culture of entrepreneurship and innovation, the challenge is to ensure that this localised approach does not clash with the broader corporate structure. Moreover, the culture within VW's Chinese operations must evolve to match the speed, innovation, and entrepreneurial spirit characteristic of local competitors. Employees must feel empowered to experiment, take calculated risks, and think independently to drive innovation. Without this cultural alignment, the localisation efforts risk being superficial and ineffective, limiting the potential for meaningful market impact. The question remains: how can VW ensure that this new direction in China and its global operations reinforce each other rather than hinder progress?

Equally important is the need for VW to build its own capabilities over the coming years. The establishment of the R&D centre in Hefei provides a critical opportunity to create an innovative and forward-looking environment that will enable the company to catch up with its Chinese competitors. VW must leverage its strategic partnerships in software and battery technology to acquire the knowledge and expertise needed to compete in the future. This requires fostering an environment of continuous learning and development.

Ultimately, the success of VW's strategy depends on its ability to win in areas where value is created - not just in the production of cars, but in software and batteries. Without this transformation, even the best-designed strategies will fail to deliver sustainable success and growth.

6 Conclusion & Limitations

6.1 Conclusion

VW is at a critical juncture in its strategic development in the Chinese automotive market. Years of technological lag, particularly in the areas of software, connectivity and ICVs, have eroded its market share and exposed its vulnerabilities in a market defined by rapid innovation and consumer-centric offerings. The critical factors to regain market share and achieve sustainable growth are the following:

First, localisation and speed are essential. The establishment of VW's R&D centre in Hefei is a promising step, enabling the company to align product development with the unique requirements of the Chinese market. However, to compete effectively, VW must significantly accelerate its product development cycles to match the agility of Chinese competitors. Localised products tailored to tier 2 and tier 3 cities, where VW's core customer base resides, will be key to rebuilding relevance and consumer loyalty.

Second, product development must prioritise advanced software capabilities, state-of-the-art infotainment systems and autonomous driving features, as these are critical success factors in the Chinese market. The ICV segment is a key battleground, with consumer preferences for smart, connected and feature-rich vehicles driving purchase decisions. Success in this segment requires not only technological excellence, but also a deep understanding of local consumer behaviour and expectations.

Third, a cultural change within VW is also crucial. The company must move beyond its traditional, engineering-driven mindset to a more dynamic, agile, and consumer-focused culture. This change is necessary to foster innovation, empower local decision-making and ensure that its global and regional strategies are aligned. Without this transformation, VW risks being overtaken not only in China but globally as both Chinese and US automakers redefine the automotive industry with their advanced capabilities.

Finally, VW's strategic direction must reflect a clear focus on EVs, and the core customer segments where it can create the most value. Trying to compete in every market and segment dilutes resources and undermines strategic clarity. A focused approach that prioritises tier 2 and tier 3 cities, together with a commitment to deliver cutting edge EVs, will enable VW to consolidate its efforts and maximise impact.

Strategic alliances are critical to VW's immediate efforts to fill capability gaps and stabilise its position in the Chinese market. Partnerships with companies such as XPENG and Horizon Robotics provide VW with access to advanced technologies, particularly in areas where it currently lags, such as software and battery innovation. These alliances provide a viable short-term survival strategy, allowing VW to consolidate its operations and address pressing competitive weaknesses during a period of crisis.

However, strategic alliances alone are not sufficient for long-term success. While they provide a foundation for immediate stability, VW must use these partnerships as a springboard to build its own internal capabilities in critical areas such as software and battery technology. A focus on internal innovation and capacity building will be essential to achieving sustainable growth and regaining market share in the future.

In conclusion, strategic alliances are an effective short-term tool for VW's survival in the highly competitive Chinese automotive market. However, their long-term success depends on VW's ability to complement these partnerships with rapid localisation, internal capability development, cultural change, and a clear strategic direction. Success in China will not only define VW's future in this critical market but also serve as a blueprint for its global competitiveness in an era of automotive transformation.

6.2 Limitations

This thesis provides a critical analysis of VW's growth strategy in China. However, certain limitations must be acknowledged. First, the research relies on qualitative methods, including expert interviews and publicly available documents, which may introduce subjective bias and exclude internal company data that could provide deeper insights. Second, the rapidly evolving nature of the Chinese automotive market poses a challenge to the longevity of the findings, as technological advances and regulatory changes may quickly render them outdated. Third, while the focus on strategic partnerships provides valuable insights, other important areas such as marketing or supply chain dynamics were not explored in depth. Finally, the analysis is limited to the Chinese market and the conclusions may not fully capture the implications of VW's strategy in a global context. Despite these limitations, the findings make a valuable contribution to understanding corporate growth strategies in dynamic and competitive markets.

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Appendices

Appendix 1: Interview Guide

Introduction
Could you briefly describe your role and experience?
Block 1: Volkswagen's Current Position in China

1. How would you describe Volkswagen's current position in the Chinese automotive market?
2. What are the main challenges and opportunities they are facing?
3. What factors have contributed to Volkswagen's recent performance in China?

Block 2: General Growth Strategies

1. What growth strategies should Volkswagen consider to regain market share and achieve sustainable growth in China?
2. Should they focus on organic growth, strategic partnerships, acquisitions, or a combination?
3. How important is innovation in EV technology and autonomous driving for Volkswagen's growth in China?

Block 3: Strategic Partnerships

1. In your opinion, what role do strategic partnerships play in Volkswagen's ability to overcome its current challenges in China?
2. How effective are Volkswagen's existing strategic partnerships in enhancing its competitive position in China?
3. What factors are critical for the success of strategic partnerships between Volkswagen and Chinese companies?

Block 4: Consumer Preferences and Market Trends

1. What are the current trends in consumer preferences in the Chinese automotive market, and how should Volkswagen adapt its products to meet these preferences?
2. How important are digital connectivity, infotainment systems, and other advanced features?
   How do Chinese consumers perceive foreign automotive brands like Volkswagen compared to domestic EV manufacturers?

Block 5: Regulatory Environment and Future Outlook

1. How do Chinese government policies and regulations impact Volkswagen's operations and growth strategies?
2. What do you foresee as the major changes in the Chinese automotive industry in the next 5-10 years, and how should Volkswagen prepare for these changes?

Closing

1. Is there anything else you would like to add about Volkswagen's strategies or the Chinese automotive market?
2. Do you have any contacts or experts you would recommend I speak with for further insights?

Appendix 2: Transcript of Expert Interviews

Due to the limited number of pages in the Appendix, the transcripts of the five expert interviews can be found in a Dropbox and viewed via the respective links. If the link does not work, please contact the author of this thesis at the following email address: s-theerwagen@ucp.pt

Expert A:

https://www.dropbox.com/scl/fi/9p6l2quin6okuixcpzi6j/Transcript-Expert-A.pdf?rlkey=mnv9pwst2v9sdx36jdoczbc20&st=10ix0ahg&dl=0

Expert B:

https://www.dropbox.com/scl/fi/fryc3jvmlnonhbjg5xhyd/Transcript-Expert-B.pdf?rlkey=7ru6hrjefvie2vqcjyty6regh&st=57zmfd45&dl=0

Expert C:

https://www.dropbox.com/scl/fi/v5q9v95fwj6apw81c41mq/Transcript-Expert-C.pdf?rlkey=q4z0gn2mek6388apcw9x0ohz9&st=mga88jy1&dl=0

Expert D:

https://www.dropbox.com/scl/fi/tr984tgm1mnyvkex8dxj0/Transcript-Expert-D.pdf?rlkey=w5km8hte077gk8g7sxo9c7h8e&st=ckn4vzjl&dl=0

Expert E:

https://www.dropbox.com/scl/fi/8gqxy6e1hpa6ep9zk0j7s/Transcript-Expert-E.pdf?rlkey=wq2u6t38x05zkdtt1027i8f60&st=zpxe3wuq&dl=0

Appendix 3: Detailed Overview Expert's

Interviewee	Current Role	Expertise	Key Contributions to Research	Relevant Experience
Interviewee A	Senior Vice President of R&D and Corporate Strategy at a Automotive Research Center	Strategic decision-making, corporate innovation, and R&D trends	Insights on industry strategy, R&D processes, and innovation trends	Leadership roles in R&D and innovation at a major American OEM; Research affiliate at MIT
Interviewee B	Futurologist and Technology Trend Researcher	Emerging automotive technologies, innovation in EVs and digitalization	Perspectives on future technological challenges and opportunities	Advisory focus on identifying and advising on emerging trends in the automotive industry
Interviewee C	Consultant and China Market Expert	Market dynamics, cultural insights, and regulatory frameworks in China	Analysis of Chinese consumer behavior and local automotive strategies	12+ years consulting for automotive firms in China; 25 years living in the region
Interviewee D	Consultant and Strategic Advisor for OEMs	Strategic partnerships, automotive supply chains, and Chinese market entry	Practical insights into partnership management and cultural alignment	10 years consulting in China; early career in OEM operations and strategy
Interviewee E	Manager at a German OEM supplier in China	OEM supply chain management, production, and market competitiveness	Operational knowledge of supplier-OEM dynamics in China	20+ years managing operations for German OEMs in the Chinese market

Appendix 4: Category System

Appendix 4.1: Main Category 1 – VWs Challenges

Main Theme	Sub-theme	Definition	Supporting Examples	Supporting Experts
VW's Challenges	Intelligent and Connected Vehicles	VW lags in integrating intelligent and connected vehicle technologies, such as advanced infotainment and OTA updates.	"VW missed two technological leaps… next is AI and V2X." (Expert C); "Basic functions in VW cars don't work." (Expert B)	Expert A, B, C,D, E
	Digital Innovation Culture	VW's traditional engineering mindset slows adaptation to digital-first approaches embraced by competitors.	Meanwhile, in Germany, both in terms of industrial structure and societal mindset, we're falling behind. The issue isn't just that Volkswagen missed the boat on electrification; it's that Germany as a whole is missing the boat on digitalization.(Expert C, 14)	Expert B, C, D

Appendix 4.2: Main Category 2 – Cost Competitiveness through Vertical Integration

Cost Competitiveness through Vertical Integration	Vertical Integration as a Competitive Advantage	Chinese competitors like BYD dominate with vertically integrated production (e.g., in-house battery manufacturing).	In China, for example, you have BYD, which is highly vertically integrated. They go as far as sourcing raw materials for battery production. They've scaled this by selling batteries to others, which makes their own cars cheaper and allows them to invest heavily in R&D. This concept convinces investors and gives them access to capital (Expert C, 10)	Expert A, B, C, E
	VW's Supplier Dependencies	Dependency on suppliers (e.g., Bosch, Continental) limits VW's flexibility in optimizing costs and updating software.	In contrast, Volkswagen must coordinate with dozens of suppliers, making a streamlined update virtually impossible. The entire software architecture and supplier structure of legacy automakers like Volkswagen simply don't allow for this kind of flexibility. (Expert B, 12)	Expert B, E

Appendix 4.3: Main Category 3 – Speed in Innovation and Production

Speed in Innovation and Production	Speed as a Competitive Advantage	Chinese manufacturers adapt faster to trends, leveraging shorter production cycles of 2–3 years versus VW's 4–5 years.	That's how it works in China—they're extremely quick. People in China expect this kind of speed. It's the standard. Anyone who takes too long simply has no chance of competing here. The Chinese are competitive and incredibly fast—I've seen it firsthand. (Expert E, 6)	Expert A,D, E
	Product Cycles	Rapid iterations in Chinese EV designs contrast VW's slow rollout of new models.	German manufacturers typically spend four to five years developing new model series, while American and Chinese manufacturers, in contrast, operate with much shorter cycles—often just two to three years. (Expert B,12)	Expert B,D

Appendix 4.4: Main Category 4 – Customer Centricity as Success Factor

Customer Centricity as Success Factor	Digital Natives, Tech-Savvy Consumers	Chinese customers value seamless digital experiences and prioritize advanced software features over traditional car metrics.	These little details add so much charm and playfulness to the experience. (Expert B, 4)	Expert A, B, C
	Customer-Centric Software	Companies like Xiaomi excel by integrating smart software across devices, aligning with consumer preferences.	This lack of user-friendliness and creativity is where they're losing ground. Meanwhile, companies like Tesla and Rivian are setting new standards by offering not just functionality, but an experience that surprises and delights the driver. (Expert B, 4)	Expert B, E

Appendix 4.5: Main Category 5 – China vs Germany - Industrial Policy

China vs Germany - Industrial Policy	Innovation Clusters	China's geographical innovation hubs foster advancements in EVs, semiconductors, and digital mobility solutions.	They currently have the largest number of technology clusters in the world. Over 100 of them. In comparison, Germany might have a dozen. (Expert C, 6)	Expert C
	China's Subsidies	Government policies provide substantial financial support, enhancing competitiveness of domestic manufacturers.	They're making massive strides, aided by substantial government subsidies. The Chinese government is heavily supporting sectors like EVs, solar, and autonomous driving technologies, including chips. (Expert D, 4)	Expert C, D

Appendix 5: Coded Segments by Category

Appendix 5.1: Main Category 1

Main Category: VWs Challenges – Sub-Category: Intelligent and Connected Vehicles		
Expert	**Statement**	**Block**
B	Let me put it this way: we're currently dealing with two major disruptions—one happening now and one just ahead. When I look at Silicon Valley, electromobility feels like a disruption that's already been largely resolved; it's no longer a question mark. That's something Volkswagen and others should have already mastered. The main drivetrain of this century is electric, just as oil-powered engines defined the last century. The debate in Germany about 'technological openness' is, in my view, just smoke and mirrors. It's rhetoric from German companies that doesn't reflect reality.	4
C	Chinese companies are a decade ahead in technology, especially in creating vehicles that are highly digital and resonate well with younger, tech-savvy audiences.	14
C	There are several disruptions in the automotive industry. First, there's electrification. The Germans are often accused of having missed the boat on this, and that's almost a consensus now. However, commercial car companies always have to think about whether they can sell this technology. Before there's a proper market and charging stations are in place, things move more slowly. But yes, the consensus is that Germany hasn't been fast enough compared to China when it comes to electrification. The second major trend is digitalization. This includes smart cars and smart cockpits, as well as autonomous driving functions and driver assistance systems. Another critical aspect is the electrical and electronic architecture in the car—everything is getting smarter. This trend, which I sometimes call intelligentification, is reshaping the industry.	4
D	VW has a massive problem with competition—especially from Chinese car manufacturers. Their models capable of competing with Tesla or BYD came to market too late.	2
E	Volkswagen isn't competitive enough to meet current market expectations. They aren't offering the right products at the right price, especially in the segments where affordability is key.	8
C	Then there's the second wave of disruptions, which involves the development of the software-defined car. And now we're moving into the next wave—artificial intelligence. AI is expected to change many things significantly, accelerating and reinforcing this trend of intelligentification. AI is being implemented at various levels, not just in the form of voice assistants like Siri, which are becoming increasingly personal, but also in production processes.	4

A	I think what VW has is the industrial history of fit and finish, and being, if you want to put it in air quotes, a 'true car company.' But the trueness of the car is being questioned by the market now.	8
C	Another parallel disruption is V2X—Vehicle-to-Everything. This technology enables cars to communicate with each other beyond the line of sight, which is a key difference.	4
B	Even basic functions like entering an address feel frustrating, making you question your competence as a user.	4
B	The big problem for Volkswagen is that they are struggling with digitalization and the software aspects of their vehicles. It seems like they're trying to address the issue, but it always feels like an afterthought, almost like a side project	4
C	The car is seen more as part of a whole, which corresponds to the holistic thinking of the Chinese. In China, the car is seen as part of a larger system, such as a smart city. They're still at the beginning stages of this technology, but I believe they'll push it forward.	4

Main Category: VWs Challenges – Sub-Category: Digital Innovation Culture		
Expert	**Statement**	**Block**
B	Volkswagen lacks the necessary experience in software development. They're still grappling with getting the basic functionality right, let alone delivering anything delightful for the end user.	4
B	In software development, you can't just throw more people at the problem and expect quicker results. Volkswagen's approach to digitalization reflects its inexperience.	4
C	The old mindset of "We Germans build better cars, and we can do everything better" is being replaced by an acknowledgment that the Chinese are doing impressive things, and we can learn from them. Volkswagen is adopting this mindset. On the one hand, Volkswagen is still a dinosaur in some respects. For instance, their major partners are still state-owned car manufacturers like SAIC and FAW, which aren't exactly leading the transformation. These state-owned companies are struggling to keep up with newer competitors like BYD.	12
D	The German engineer believed that only he could define quality, whereas the Japanese invited customers to define what quality meant to them. Now, we're facing another paradigm shift. The way success has been achieved in the past is being questioned—What VW assumed was enough is being challenged, not by arrogance, but by deeply ingrained norms. For instance, the rapid development of battery technology in China, supported by government strategies, was something people in Germany didn't believe was possible—or assumed would happen gradually.	8

B	The governance structure adds another layer of complexity. Decision-making is slow, with too many management levels and a focus on short-term indicators like shareholder value.	14
D	I do believe that VW can find its way forward, given the resources they have. Whether they can manage this turnaround in two years remains uncertain. But they are undergoing a dramatic cultural transformation simply because of the pain they're experiencing.	8
D	Let me flashback 30 years. When Japan entered the American market with Toyota in 1989-90, the Lexus and Toyota Camry were on the same quality level as Mercedes—but at half the price, or 45% of the price. They completely took over the American market, while engineers in Stuttgart were still saying, "The Japanese can only copy." This delayed learning curve—the hesitation to take new competition seriously—is a recurring issue. In my view, that's what's happening again now.	8
C	Everything in China is digital. I haven't used cash in years—everything is paid through WeChat Pay or Alipay, right down to the beggar on the street who has a QR code around his neck. Everything, from the greengrocer to fast food, is digital. And beyond that, the Chinese are leading in certain technologies—artificial intelligence, big data, and energy storage. AI is now optimizing energy storage solutions. They're everywhere. Meanwhile, in Germany, both in terms of industrial structure and societal mindset, we're falling behind. The issue isn't just that Volkswagen missed the boat on electrification; it's that Germany as a whole is missing the boat on digitalization.	14
D	Cultural change doesn't happen quickly, especially not through training programs. In my experience, cultural change often happens as a response to market pressures. And right now, the market is driving change for VW.	8
C	One major advantage the Chinese automotive industry has over the German one is how firmly digitalization is integrated into industry and society in China. In the U.S. and China, you have companies like Google, Baidu, Intel, Huawei, and SMIC working on these advancements. In Germany, however, we don't have much going on in areas like e-commerce, semiconductors, or software.	14
D	There were enough people in the VW Group who knew this was coming—even in the executive suites. They've been saying for years that the reaction came far too late. But the company culture didn't allow for radical thinking or acting quickly enough. It all came too late. The switches should have been flipped much more decisively many years ago.	8
D	China doesn't progress gradually; when it comes, it comes like an avalanche.	8

Appendix 5.2: Main Category 2

Main Category: Cost Competitiveness Through Vertical Integration – Sub-Category: Vertical Integration as a Competitive Advantage		
Expert	**Statement**	**Block**
B	This is particularly evident with software. Tesla's strong vertical integration allows them to move much faster.	12
C	In China, for example, you have BYD, which is highly vertically integrated. They go as far as sourcing raw materials for battery production. They've scaled this by selling batteries to others, which makes their own cars cheaper and allows them to invest heavily in R&D. This concept convinces investors and gives them access to capital	10
E	BYD has a strong advantage in developing their own batteries, giving them full control over the entire product, integrating everything within the company.	8
A	BYD has a completely different mindset. They think of themselves as a battery company that also happens to build cars. It's a very different way of thinking compared to VW. Meanwhile, VW is juggling two operating systems: one for internal combustion engines and another for EVs.	8
B	This is where the Chinese carmakers have a huge advantage and are about a decade ahead of the German companies in terms of technology. They're making remarkable progress in digitalization, creating vehicles that are highly digital and resonate well with younger audiences. German manufacturers, on the other hand, tend to focus on flashy gimmicks, but they're missing the mark on meaningful digital integration.	4

Main Category: Cost Competitiveness Through Vertical Integration – Sub-Category: VW's Supplier Dependencies		
Expert	**Statement**	**Block**
B	This ties into the issue of software updates. For example, a Volkswagen Golf has between 75 and 100 ECUs (electronic control units)—small computer chips that manage everything from window controls to windshield wipers to transmission settings. Each ECU is programmed by a different supplier, such as Bosch or others, and they all perform separate functions. When Tesla releases a software update, they can do so quickly because they control their central chips and their own software architecture. In contrast, Volkswagen must coordinate with dozens of suppliers, making a streamlined update virtually impossible. The entire software architecture and supplier structure of legacy automakers like Volkswagen simply don't allow for this kind of flexibility.	12

C	On the one hand, Volkswagen is still a dinosaur in some respects. For instance, their major partners are still state-owned car manufacturers like SAIC and FAW, which aren't exactly leading the transformation. These state-owned companies are struggling to keep up with newer competitors like BYD.	12

Appendix 5.3: Main Category 3

Main Category: Speed in Innovation and Production – Sub-Category: Speed as a Competitive Advantage		
Expert	**Statement**	**Block**
E	That's how it works in China—they're extremely quick. People in China expect this kind of speed. It's the standard. Anyone who takes too long simply has no chance of competing here. The Chinese are competitive and incredibly fast—I've seen it firsthand.	6
D	However, quality is constantly evolving. It doesn't stand still. China is pushing the boundaries of what's possible. And while German companies want to deliver super quality, or at least the level of quality that's in demand, they also need to do it at a pace to Chinese competitors and a price that consumers are willing to pay. This is where the price war comes into play. German products are excellent, but they're often too expensive for what many people are willing to pay, even if the quality is superior.	10
A	And they did that by not bothering with internal combustion engines, but by racing ahead to electric vehicles and they do it fast. They set off the race, a new kind of race, where Xpeng, and BYD, and a whole lot of others, NIO all took off.	6

Main Category: Speed in Innovation and Production – Sub-Category: Product Cycles		
Expert	**Statement**	**Block**
B	Additionally, traditional automakers are constrained by long development cycles. German manufacturers typically spend four to five years developing new model series, while American and Chinese manufacturers, in contrast, operate with much shorter cycles—often just two to three years. This enables them to respond quickly to changing trends and consumer demands, giving them a competitive edge in today's fast-paced market.	12

D	For instance, the rapid development of battery technology in China, supported by government strategies, was something people in Germany didn't believe was possible—or assumed would happen gradually. The Chinese also have much shorter product cycles than German companies.	8

Appendix 5.4: Main Category 4

Main Category: Customer Centricity as a Success Factor – Sub-Category: Digital Natives, Tech-Savvy Consumers		
Expert	**Statement**	**Block**
C	The second major trend is digitalization. This includes smart cars and smart cockpits, as well as autonomous driving functions and driver assistance systems. Another critical aspect is the electrical and electronic architecture in the car—everything is getting smarter. This trend, which I sometimes call intelligentification, is reshaping the industry. VW is here again lagging competencies.	4
B	Rivian created several fun modes, like light shows and themed displays inspired by pop culture—think Knight Rider or Back to the Future. Tesla, of course, takes this even further. They have over a dozen modes, ranging from entertaining features for kids to thoughtful conveniences. These little details add so much charm and playfulness to the experience. Now imagine something like this from Volkswagen or Mercedes. You can't, right? There's no sense of delight or playfulness in their vehicles.	4
A	Because two things have happened, technology, propulsion technologies have shifted, and consumers have also shifted. They're not looking for the smell of diesel, the smell of gas, as they accelerate on performance, or even, they're not looking for the lowest priced cars that are ICE vehicles that last a long time, you know, high quality. They're looking for reasonable quality, of course they want quality, so a good software, but they also don't mind buying a new car every few years, if the price points are really low.	6

Main Category: Customer Centricity as a Success Factor – Sub-Category: Customer-Centric Software		
Expert	**Statement**	**Block**
B	Now compare that to Tesla. I've never heard of a Tesla update causing widespread vehicle breakdowns. Tesla rolls out updates much faster—sometimes weekly—while Volkswagen's Cariad division has only managed two or three updates in the last few years. Customers often complain that they've been waiting years for an update to fix basic functions. And when Volkswagen finally releases one, you have to take your car to a workshop, where it's installed via USB stick.	12

	These outdated practices leave a negative impression and weaken the brand.	
B	This lack of user-friendliness and creativity is where they're losing ground. Meanwhile, companies like Tesla and Rivian are setting new standards by offering not just functionality, but an experience that surprises and delights the driver	4
E	Let me explain it with Xiaomi. Xiaomi is primarily an electronics company. They make everything from kettles and toasters to a wide variety of household appliances. Their products are diverse and integrate seamlessly into a single app, allowing users to control all their electronic devices remotely. In the Chinese market, they are widely recognized as a quality brand, known for their competitive pricing.	14
B	This is where the Chinese carmakers have a huge advantage and are about a decade ahead of the German companies in terms of technology. They're making remarkable progress in digitalization, creating vehicles that are highly digital and resonate well with younger audiences. German manufacturers, on the other hand, tend to focus on flashy gimmicks, but they're missing the mark on meaningful digital integration.	4

Appendix 5.5: Main Category 5

Main Category: China vs. German – Industrial Policy – Sub-Category: Innovation Clusters		
Expert	**Statement**	**Block**
C	The second is innovation. For a long time, this was seen as a shortcoming in China—they had this "copycat" image. But that's really outdated now. They currently have the largest number of technology clusters in the world. Over 100 of them. In comparison, Germany might have a dozen—or is it 20? I forgot. There are also quite a few in America. But in these Chinese clusters, academics, companies, research institutes, and all relevant players come together. Ideas, some of which may have originated in America or Europe, are implemented in these clusters and turned into real innovations—applications and technologies. And the Chinese are now very strong in this area.	8
C	A huge cluster, a megacluster that's currently being built, is the Greater Bay Area. I don't think it's well known in Germany yet, but I think it's going to be incredibly significant because the Chinese are determined to emulate something like Silicon Valley. This cluster integrates eleven cities with great strategic planning—specific industries are located in specific cities, and these cities enrich each other.	10

Main Category: China vs. German – Industrial Policy – Sub-Category: China's Subsidies		
Expert	**Statement**	**Block**
C	Yes, the issue of subsidies and unfair market advantages in China is, of course, highly political and important in some ways. I don't know how far you want to go into that. I have my own opinions and observations on this. But very generally and briefly, I'd just say that I think the importance of subsidies in China for the rapid boom in e-mobility is overestimated. Firstly, we also have similar subsidies worth billions here, but they haven't led to a boom for us or to us being technologically ahead. So, there must be other factors. That's all I'm saying.	8
C	There are other factors. I'll name just a couple: good industrial policies. They think strategically and ahead, and that's incredibly impressive. Take "Made in China 2025," for example. Yes, it's a red flag when viewed through the lens of rivalry, but you have to admit, when you look at what they put on paper in 2015 and how much of it they've already implemented—it's madness. It's long-term, strategically smart industrial policy. That's one factor.	8
D	BYD, in particular, has dominated the market and even overtaken Tesla recently. They're making massive strides, aided by substantial government subsidies. The Chinese government is heavily supporting sectors like EVs, solar, and autonomous driving technologies, including chips	4