Automotive Management

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Preface

What is the current state of the automotive location Germany today, 125 years after the automobile was invented here and three years after the major crisis of 2009? What are the perspectives for German companies in a globalized world, characterized by high volatility, technological breakthroughs and the increasing scarcity of resources?

In a global comparison, the current positioning of the German automotive industry is as strong as it has rarely been before. Especially the past crisis has clearly demonstrated that the local companies are global leaders with regard to innovative power and flexibility – this is true both for products and processes. Quality and innovative strength, coupled with the force of strong and globally present brands (see Chapter 2); that is the current meaning of "Made in Germany." And apparently it is once again the premium segment which holds the key to sustainable success in the German automotive industry. Germany, respectively "Made in Germany" in itself can already be considered a premium brand. And experience shows that the buyers of automobiles all over the world are willing to pay appropriate prices for premium products (see Chapter 10).

But the enjoyment that comes with the exceptionally favorable business development witnessed by the German automotive industry in the years 2010 and 2011 should not mask the fact that the industry is facing major, if not monumental challenges in the years ahead – this is true for technological developments as well as for the self-image and business model of the industry.

For one thing, there is a clear trend towards electromobility, which is analyzed in detail in Chapter 4 of this book. This trend poses enormous technological challenges and is nothing less than an invitation to partially reinvent the automobile. Significant investments will become necessary and nobody can tell for certain where the journey will take us – whether and when these investments will be amortized. And even if the German automotive manufacturers have turned their full attention to the topic of electronic mobility with a slight delay, they are the global leaders when it comes to the development of alternative mobility concepts (see Chapter 7).

Closely linked to this topic is the transformation of the business model, away from the pure manufacturer of automobiles and towards a provider of mobility services more broadly. Here the companies suddenly compete with powerful companies from other industries – telecommunications, utilities or information technology – and at the same time are required to enter into new types of partnerships and strategic alliances (see Chapter 3). "Networked mobility" challenges the companies to newly define their role, without losing sight of their core competencies in the field of automotive technology. Establishing these new business fields and models could decisively change the face of the industry in the medium term. Particularly the automotive location Germany is characterized by a unique network of manufacturers, suppliers and researchers. When moving from the position of globally leading premium manufacturer towards supplier of premium mobility services, new forms of cooperation – including an open exchange of knowledge – are absolutely necessary.

Decisive for the changes is also the transformation of the needs of young consumers and their changed attitude towards the automobile: they want to remain mobile and will continue to use a vehicle. But that does not mean they also want to own it – they can also lease, rent or share it. What does that mean for the future of the automobile manufacturers? Will they lose their (brand-)loyal customers? Who "owns" the automobile customer of the future? Will the automobile manufacturers continue to dominate or will service and technology companies from other industries conquer some of that territory?

On balance, the financial and economic crisis has strengthened the automotive location Germany like no other location in this world. The topic of "finance" increasingly requires attention and the German automotive industry is well positioned in this regard. Be it in the field of financial services for the automobile (see Chapter 6), strategic currency management (see Chapter 8) or concerning a meaningful interpretation of the overarching goal of shareholder value (see Chapter 9).

What will be the positioning of the automotive location Germany in the year 2020 (see Chapter 10)? The perspectives appear bright, but only if we do not rest on past laurels, but instead continue to work on our strengths – a unique network and excellently trained minds – and are willing to increasingly leave the isolation of separate industries, and instead cooperate and innovate in the spirit of true partnership.

We hope you will enjoy this book,
Yours truly,

Claus-Peter Wagner
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Member of the Board of Directors Ernst & Young GmbH

and

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Senior Advisory Partner Automotive
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Ernst & Young

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1 The Automotive Value Chain

The Volkswagen Golf is the most popular automobile in Germany. According to a sales ranking which was published by the Handelsblatt, 258,000 customers have purchased the VW Golf in the year 2011. In second to last place in this ranking is the Lexus LS with 33 new registrations. It became clear that neither the extensive features, the outstanding manufacturing and reliability nor the innovative hybrid engine of the Japanese luxury car were able to support sales.

The poor performance of the Lexus clearly demonstrates that we are currently witnessing a paradigm change with regard to the use of passenger cars. Efficiency and brand image increasingly dominate. Product quality continues to be important, but users modify their decision criteria.

In the first edition of the book, we have laid out the value chain in the automotive industry. It starts with research & development. In the following, the activities of the automotive suppliers, integrated logistics of distribution and production management dominate. Once the vehicle is completely assembled, it is sold. Now the three milestones in the finance area follow: financing and leasing, insurance and services as well as mobility services. The next step focuses on after sales, repairs and maintenance as well as on remarketing. The value chain is completed with the disposal of the vehicle.

At current numerous challenges are present in the automotive industry. We have dealt with four important and current changes in the automotive value chain.[1]

In the area of research & development, the automobile manufacturers are faced with interesting strategic development opportunities. Electric vehicles in particular deserve to be mentioned here. Furthermore, very interesting opportunities to increase sales are presented in the BRIC countries. Third, the financial service providers in the automotive industry are required to significantly modify their service range if they want to continue with their sizeable contributions to the automotive manufacturers. Finally – and we consider this to be a central consideration – both the demand for mobility and mobility concepts are undergoing dramatic change.[2]

In addition to changes in the value chain, new strategic challenges must be met at the company level. Against this backdrop, the value chain in Figure 1 is superseded by a pyramid which addresses company leadership (strategy). At the third strategic level, financial strategy, globally active automotive companies must optimize their currency management. While activities such as natural hedging are in the domain of the company leadership, the finance area will focus on elements of currency management such as financial hedging. The question of which alliances to establish is of primary importance and needs to be answered along the entire automotive value chain. At the second level of the company management pyramid,

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[1] We would like to thank the company Ernst & Young for the numerous research activities and for funding the book. In particular, Christopher Ley and Michelle Lo deserve to be mentioned in this regard. We also want to stress the role of Nikolaj de Lousanoff, whose analytical way of thinking decisively shaped the structure of this book. We also thank the publisher Oldenbourg Verlag and its staff, especially Miss Engel-Haas, for their cooperation which was always pleasant, competent and constructive.

[2] On page 169 of the first edition, a detailed breakdown of the value chain by value contributions is presented.

management needs to anticipate future trends in the automotive sector and to position the brand accordingly. The primary goal is the optimization of shareholder value. Efficient operations along the automotive value chain must be assured at the level of the COO and the CTO in particular. The levels 1 through 3 of the company management pyramid are primarily in the domain of the CEO and CFO.

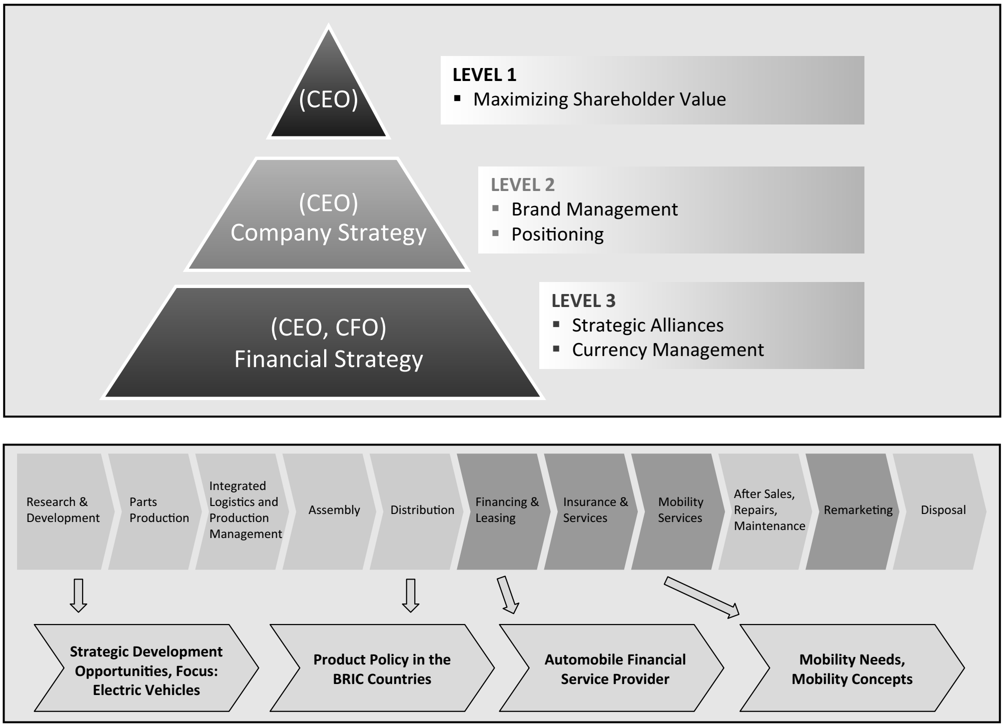

Figure 1: The automotive value chain and company leadership pyramid
Source: Authors' presentation

From Figure 1 follows the structure of the book:

Chapter 1: The Automotive Value Chain

Chapter 2: The Brand as Central Value Component in the Automotive Industry

Chapter 3: Strategic Alliances in the Automotive Sector

Chapter 4: Strategic Development Potential of the Automotive Industry – The Example of Electric Vehicles

Chapter 5: Product Policies in the BRIC Countries

Chapter 6: The Changing Business Field of the Automotive Financial Service Providers

Chapter 7: Mobility Needs and Mobility Concepts

Chapter 8: Strategic Currency Management for Automotive Manufacturers

Chapter 9: Maximizing Shareholder Value in the Automotive Sector

Chapter 10: Automotive Industry or Mobility Industry in the Year 2020

With these extensions, our book “Automotive Management” becomes a textbook which simultaneously maintains its high practical relevance. Why an additional book or textbook about the automotive industry? All the books we scrutinized so far are very good at analyzing individual economic aspects of the automotive value chain. But all aspects, including a strategy for leading a company, have not yet been presented in their totality. In our opinion, the current global challenges faced by the automotive industry necessitate a unified perspective.

Additionally, the recent turbulences on the global capital and currency markets with their massive ramifications for the real economy have made it clear that the topic of “finance” plays an increasingly larger role also and especially in the automotive industry. The financial crisis has led to fundamental change in the entire automotive industry and has made it clear that the demands on automobile manufacturers have undergone noticeable change not only with regard to technology. Obviously, technology remains dominant in the automotive value chain. The implementation of technological innovation in the vehicle in order to successfully satisfy client preferences in the market place continues to be paramount. And quite apparently it is also important to successfully position the brand (see Chapter 2) and to satisfy new mobility needs with the help of appropriate mobility concepts (see Chapter 7). At the end of the day, automobile manufacturers are companies that must compete for the patronage of their shareholders against numerous companies from many different sectors. They need to create shareholder value; otherwise the share price will suffer.

Especially the crisis in the banking sector in the year 2008, which turned into a global financial and economic crisis, highlighted the real economic risks to which the automotive industry is exposed. This is true for production (for example layoffs, short-time work and so forth), for marketing (for example budget cuts) as well as for quality management (cost pressures versus quality standards). Meanwhile, the recent example of the VW group shows the strategic opportunities provided by an increase in shareholder value. The concept of “shareholder value,” which at present appears almost almighty is the subject of a critical assessment in Chapter 9. Regardless of the conclusions reached in the shareholder value discussion, it is quite apparent that in recent years the global economy and global politics have moved in the direction of “finance.” While 20 years ago the process chain was defined as “purchasing – production – sales” and financing was merely mentioned as a lubricant, today the lubricant dominates the process. This tendency is reflected in the setup of the book as displayed in Figure 1.

We have made an effort to write the book in a way that is accessible to readers who have a general interest in business, economics and politics. At the same time, it also addresses experts in the field. This includes managers in finance departments of companies, controlling and strategy departments, auditors, financial service providers and management consultants. Academic research and business practice are merged in this volume. With this publication in the English language, we look forward to the global reception – and hopefully use – of our “holistic view of automotive management” at the leading automobile manufacturers, automotive suppliers and automotive financial service providers. Following the leitmotiv of the German Institute of Corporate Finance “to combine academic research and business practice,” we are happy to make a contribution to the still young academic field of “automotive business,” “automotive” or “automotive management” (see: www.dicf.de).

2 The Brand as a Central Value Component in the Automotive Industry

2.1 Executive Summary

This chapter demonstrates how the financial valuation of brands can be accomplished and points out the link between brand value of a company and its market capitalization.[3]

<u>Main chapter insights</u>:

1. A **comparison** of **brand value** and **market capitalization** of the companies included in the study shows that the brand value across industries of the 30 most valuable global brands according to Interbrand makes up a share of about 25% of market capitalization.

2. In contrast to other industries, the **average percentage** of the brand value **in the market capitalization of the automobile manufacturers** (here: Toyota, Mercedes Benz, BMW and Honda**)**, which are among the most valuable brands stands at approximately **40%.**

3. Mercedes Benz, BMW, Honda, Porsche, Audi and Hyundai have experienced a **positive development** of their **brand values** over the last ten years. In contrast, the image of **Toyota** and **Ford** suffered strongly. This was reflected in **declining brand values.**

4. New engine types result in an increasing similarity of the technical product specifications of individual models. As a consequence, the customers' purchase decisions will depend more and more on the brand image.

5. An **efficient brand management** and **increasing investments in the brand** are of high importance, especially for automotive manufacturers. Examples include **sponsorship** activities or the opening of **automotive museums**.

3 We thank Nathalie Dirian and Corina Schwarz for their support in the topic area of "brand and brand valuation." Their work has made the success of this book possible.

2.2 Definition of Terms and Framework

2.2.1 Definition of Terms: Brand and Brand Value

The term "brand" can be looked at from different perspectives and defined in various ways. There are also differing valuation methods that can be used to assess the brand value. In the context of this chapter and particularly against the background of the central importance for the entire automotive value chain, the following definition of "brand," which is provided by Pepels is most suitable:

> "In general, a **brand** is the formal labeling of products and services or companies, which signifies to interested buyers the origin in order to achieve an identification or profile and to differentiate from products that have a different origin/come from a different company. A brand at the same time constitutes the personality ('the face') of a product/company and possibly reflects the values of their users."[4]

This definition includes all aspects which characterize a brand, respectively the term brand, in the context of competition, competitors and product recognition of a company, particularly also with regard to the automotive sector. Accordingly, the brand to a large degree determines how a product or service is perceived and even more, whether or not the product is bought or the service is used.

How does a brand create value? To answer this question, the term "brand value" must be defined first.

The term **brand value** is frequently replaced by the term brand equity and it defines the monetary value of a brand. In order to determine the strength or value of a brand, different quantitative as well as qualitative methods are employed. But the methods to measure brand value are subject to severe criticism. Oftentimes important factors, which are used for the calculations cannot be determined with precision. Examples are expenses that are directly linked to sales or other mostly subjective values.[5]

Automobile manufacturers, which are also referred to as **Original Equipment Manufacturers** (OEM), receive some of their components from different suppliers and integrate these into their own products. Marketing and sales is also done by the OEM.

A **premium manufacturer** is an OEM that is active in the upper price segment and differentiates itself from its competitors by technology and quality of its vehicles as well as by its customer service. The cars produced by the premium manufacturers are mostly positioned in the upper middle segment all the way to the luxury segment.

The counterparts are the **volume manufacturers**, which tend to be positioned in the lower price segment. Since their margins are low, they require high volumes of deliveries or sales. The automobiles which are produced by volume manufacturers are usually found in the segment of small and medium sized cars.

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4 See Pepels, W. (2008), p. 136.

5 See Pepels, W. (2008), pp. 136ff.

2.2.2 Aim of the Chapter

The aim of the chapter follows from the above stated problem of providing a precise determination of the brand value. How can the brand be considered a central value component in the automotive sector if it is not possible to give a precise definition, calculation or determination of the strength or value of the brand? This chapter aims at answering this question, at least as far as this is possible. The calculation of a brand value in general and for the automotive sector in particular is explained using different methods. Furthermore, the importance of a brand and the brand value is discussed in detail. In closing, the brand value is compared to the market value of equity, in other words the market capitalization.

2.2.3 Structure and Approach

The outcome of this chapter is the ability to calculate or determine the value of a brand, which is needed to demonstrate the relevance of the brand, specifically in the automotive sector. In addition to the calculation of the brand value, the value of a brand in the automotive sector is also determined by other factors, which are analyzed as well. These factors are subsumed under the term brand perception. They include the brand architecture in the automotive sector, the client perspective and the perspective of the employees (employer branding) concerning the brand. In the following Section 2.3, the functions and uses of a brand will be defined broadly in order to set the scene. But the key element of the chapter is the explanation of two methods for calculating the brand value. A comparison of the values from the Interbrand method with the corresponding market capitalizations and the presentation of the development of brand values in the automotive sector conclude this chapter.

2.3 Functions and Uses of a Brand

2.3.1 Functions of a Brand in the Automotive Sector

Considering the wide range of products and services available in the twenty first century, a strong brand increasingly plays an important role for a company. Particularly in the automotive sector, the brand is a key consideration. Since the automobile is considered a status symbol in many countries, particularly the ability to **differentiate** is of enormous importance.[6] A major concern of many buyers is the differentiation from others with the help of their automobile. Thus the brand constitutes a status symbol.[7] Due to similar technology and equipment in the automotive sector, the brand in addition to design is one of the last possibilities for the manufacturers to achieve differentiation from the competition.[8]

In this context, the brand also serves to facilitate buying decisions of the customers. With the purchase of an automobile, the buyer aligns himself with a specific social category. Put differently, the brand provides orientation during the purchasing process. This is also called the

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6 See Göttgens, O., Böhme, T. (2005), p. 44 and p. 49.
7 See Göttgens, O., Böhme, T. (2005), p. 49.
8 See Häusler, J., Stucky, N. (2003), p. 13.

lighthouse function of a brand. The brand informs the customer what to expect from a specific automobile.[9] Especially since the automobile is among the highly priced goods, a customer must feel trust in order to make a purchase. He must be sure that he can rely on the attributes which are promised by the brand.[10]

Such a state of trust can particularly be established if the customer has personally experienced the brand. A strong tie to a brand is frequently associated with a specific product experience. This arouses emotions in the conscience of the customer, which in the future will be associated with the brand. But due to the large amount of impressions that consumers are exposed to on a daily basis, it is increasingly difficult to create a specific event which catches the attention of a (potential) customer. For that reason, the automobile manufacturers face the challenge of presenting their products to customers in new and innovative ways. Automobile manufacturers accomplish this primarily through the interaction of the (potential) customer with the brand. In the auto city of VW or the BMW world, for example, the brand is showcased and a lasting customer impression is created. The interaction of brand and products creates **customer loyalty**.

Studies demonstrate that consumers unconsciously forge a bond with a brand already during childhood. If the parents or other reference persons have used products of a specific brand, the consumer feels an emotional attachment to that brand. He is trusting and more willing to rely on that brand compared to brands that he became aware of only recently. This is demonstrated by Figure 2.

IMPORTANCE OF BRAND LOYALTY

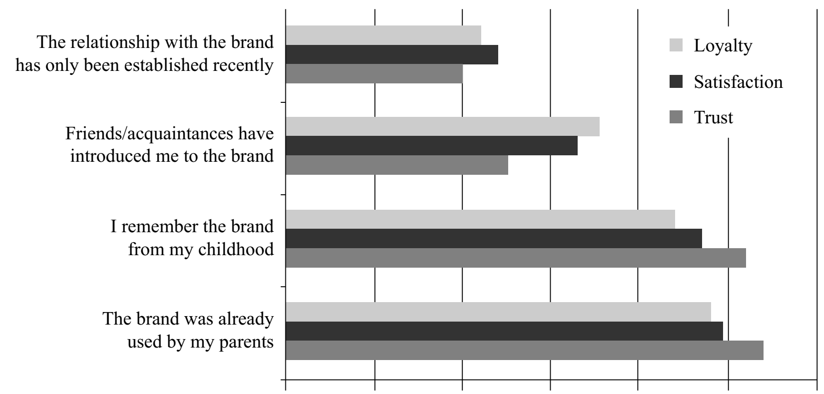

Figure 2: Importance of brand loyalty
Source: Diehl et al., (2009), p. 40

Furthermore, these customers show heightened loyalty as well as increased satisfaction. Thus customer loyalty plays a large role for companies.[11] In order to utilize the effects of customer loyalty, automobile manufacturers must assure that children, as potential future customers,

9 See Esch, F.-R., Knörle, C. (2008), p. 96.

10 See Göttgens, O., Böhme, T. (2005), p. 49.

11 See Diehl, S., et al. (2009), p. 40.

are already in contact with the automotive brand. This requirement is met by the automobile manufacturers, such as BMW or Audi among others in the form of toy cars.[12]

Strong brand loyalty ultimately results in the identification of customer with the company brand. This **identification function** is particularly important in a poor economic environment. In such a situation, customers especially rely on known quality and look for safety in a brand. Thus a strong brand is not as vulnerable during times of crisis as a company with no-name-products, thanks to its customers' need for identification.[13]

2.3.2 Importance of a Brand in the Automotive Sector

The functions of a brand already give a first indication of the enormous benefits of a fully established company brand. The loyalty of the customers to the brand and therefore the products of the company establish barriers to entry for potential rivals. If customers are already tied to a specific brand, it is very difficult for new providers to get a foothold in the market. This is particularly true for the automotive sector, where status and prestige play a dominant role and are symbolized largely by the brand. But not only potential rivals are held back. A strong brand management also gives a company a **competitive advantage** over existing competitors. An overview of the advantages of a brand from the company perspective is provided in Figure 3.

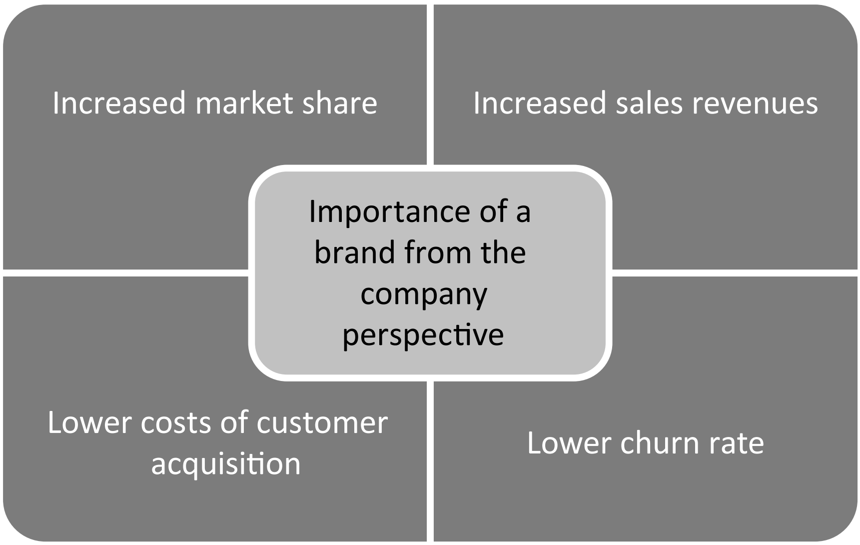

Figure 3: Importance of a brand from the company perspective
Source: Authors' presentation

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[12] See Diehl, S., et al. (2009), p. 41.

[13] See Häusler, J., Stucky, N. (2003), p. 13.

Since customers have usually committed to a specific brand ahead of time when purchasing a vehicle, the probability to lose clients to a competitor goes down for automobile manufacturers.[14] The churn rate is thus reduced.

The low churn rate and the high probability of further purchases contribute to the fact that a brand manufacturer in the automotive sector can achieve a higher **market share** than a supplier with a weak brand. Furthermore, the market share can be increased even more by winning over new customers. Since a strong brand helps to establish trust among potential buyers, the acquisition of new customers is facilitated.[15]

Additionally, a strong brand management also has a positive influence on the **sales** of a company. Automobiles that are associated with a positive brand image can be sold at a premium.[16] Customers accept a higher price because of the brand. Furthermore, the automobile manufacturer can offer additional products from the same brand which allows efficient cross-selling.[17] BMW for example secures additional business by offering financing and leasing products through BMW Bank for the automobiles sold.[18] Financing and leasing products also provide an opportunity to realize up-selling potential. In the automotive sector, the term up-selling refers to the sale of a more valuable vehicle or equipment version as the result of targeted sales support employing financial products.[19] As examples, the automobile manufacturer in addition to the product in question can sell high-quality supplementary equipment or a stronger engine system. On top of that, BMW can also utilize the advantage that longtime customers switch from a less expensive model to a higher priced model within the company, for example from the BMW 1 Series to the BMW 3 Series.

While it initially requires significant amounts of time and financial resources to develop and introduce a brand, it can actually lead to **cost reductions** in the long run. As an example, it is easier, and thus less expensive, for a company with a strong brand to acquire new customers or to maintain its competitive position.[20]

2.4 Brand Perception

2.4.1 Brand Perception in the Automotive Sector

Important for the brand architecture in the automotive sector is the choice of an appropriate brand strategy, which must accommodate a growth process that provides both breadth and depth. The aim must be to address specific customer preferences with the brand strategy.

One possibility for structuring the brand architecture is the multi brand strategy. In that case, the automotive company or the automobile group consists of an umbrella brand and several sub-brands. An advantage of that strategy lies in the fact that it provides the potential customer with a broad choice among different sub-brands which are united under the umbrella brand. He is

14 See Häusler, J., Stucky, N. (2003), p. 13.
15 See Göttgens, O., Böhme, T. (2005), p. 44.
16 See Bamert, T. (2004), p. 51.
17 See Göttgens, O. Böhme, T. (2005), p. 44.
18 See BMW Bank (2011).
19 See Ueno, S. (2006), p. 5.
20 See Göttgens, O., Böhme, T. (2005), p. 44.

thus not forced to choose a vehicle or product from a competing brand. Customers who are unable to find a suitable product within one sub-brand are not forced to switch to the competition, but can move to another sub-brand under the umbrella brand to find a model of their choice.[21]

The globally leading example for such a multi brand strategy is the VW Group. In Figure 4 the setup of the VW Group with its sub-brands is displayed. The commercial vehicles operation of VW is also part of the group, but will not be considered here. Within the various sub-brands, there are different classes of vehicles.

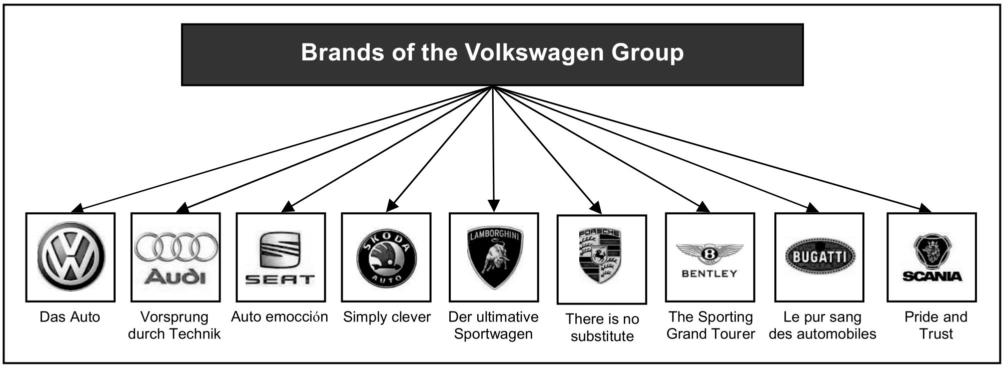

Figure 4: Multi brand strategy of the VW Group
Source: Volkswagen AG, (2009)

It is the aim of the Volkswagen Group to offer products for all consumer groups. This approach, in addition to being a multi brand strategy is also called a full range strategy. This means that the Volkswagen Group covers all product categories from small car (for example VW Vox) via SUV (Sport Utility Vehicle) and class (for example Audi Q 7) all the way to sports cars (for example Porsche, Bugatti Veyron) or heavy trucks.

A differentiated form of the multi brand strategy is utilized for example by the BMW AG, where the company itself constitutes the umbrella brand. Next to the brands Mini and Rolls-Royce as well as the BMW motorcycle brand, the BMW brand with its sub-brands takes center stage. Sub-brands are the individual types of automobiles such as the BMW 3 Series or BMW 5 Series.

The setup of this multi brand strategy is illustrated in Figure 5.

This strategy is different from the one used by VW, since BMW considers the different types of vehicles as sub-brands and consequently marketing is conducted individually and differently for each type. Establishing a new sub-brand also serves the purpose of targeting a new circle of customers for BMW. This allows the future establishment of independent "brands" such as the BMW 1 Series as youth car or the X Class such as the BMW X1 to X6 Series as SUV.

21 See Esch, F.-R. (2010), p. 12.