Alexander Fraß

Achieving Brand Loyalty in China through After-Sales Services

With a Particular Focus on the Influences of Cultural Determinants

RESEARCH

Springer Gabler

Business Analytics

Herausgegeben von
K.-P. Schoeneberg, Hamburg, Deutschland

The interdisciplinary approach of the series "Business Analytics" synergises the scientific disciplines of Ecommerce, business informatics, economics and mathematics. Based on the latest scientific methods, models and algorithms, the series integrates two juxtapositioned fields of research: scientific methodology and practically derived data in the discipline of strategic and operative business oriented questions. Within these disciplines, the series presents results of current research questions about data- and future-oriented themes as strategies, analytics and prediction. The findings of this series are highly relevant to all scientific fields in this area of research, academic institutions and companies that have an awareness of how data can drive business outcomes but want to better leverage data as a corporate asset for competitive advantage.

Alexander Fraß

Achieving Brand Loyalty in China through After-Sales Services

With a Particular Focus on the Influences of Cultural Determinants

With prefaces by
Prof. Dr. Klaus-Peter Schoeneberg
Prof. Dr. José Albors Garrigós

Springer Gabler

Alexander Fraß
Henstedt-Ulzburg, Deutschland

Preface by the Editor

The Chinese automotive market is – according to both scale and scope – the most important market for German car manufacturers. Additionally, brand loyalty, for example influenced by aftersales service and workshop loyalty, has become increasingly important in China, as many first-time car buyers are about to choose their second or third car now. Experiences made during the aftersales period with authorised workshops play an increasingly important role in car purchasing decision making. Finally, the aftersales network is in many aspects still in development. Therefore, the scientific results of this dissertation are best suited to help both researchers and practitioners to increase aftersales performance, service satisfaction and sales loyalty.

Additionally Chinese culture is completely different to European culture, which is challenging for car manufacturers originating from Germany. The cultural influence is elaborated on a comprehensive basis of general culture theoretical explanations. The author presents highly detailed how and why to operationalize values with the approach of Schwartz. He focuses on the individual level value theory, which enables to modulate the value constructs as causal influence factors. This application impressively demonstrates his interdisciplinary approach in economic and cultural research.

In the cultural part of the research, the author summarizes, that universalism and self-direction are the two values, which actually affect the endogenous quality and loyalty variables. Furthermore, he also analyses mediating and moderating effects of the variables, which is very valuable for the study. He shows that when it comes to culture, moderating influences must be considered, because various other values become then significant.

In summary it can be stated that the thesis represents an original and significant contribution to scientific work in the field of automotive aftersales. It will help both researchers and practitioners to improve their understanding of aftersales success, service satisfaction, and loyalty in the automotive industry in China. The work gives new and highly valuable insights relevant for the success of car manufacturers in the key market China. German car manufacturers following the recommendations of the author derived from his findings are most likely to be more successful in the Chinese market in the future.

Professor Dr. Klaus-Peter Schoeneberg   Hamburg, Germany March 2016
Hamburg University of Applied Sciences

Preface

Global sales of passenger cars reached 73.9 million vehicles during 2015. Since Ford introduced assembly line car production in the early 1900s to mass-manufacture its Model T automotive production has spread globally following similar efficiency patterns. Along with China with 21.1 millions car sold, the United States with 8.5 are among the largest automobile markets worldwide, both in terms of production and sales and in both countries car consumers approach is quite different. However, car sales and marketing have to be managed in accordance with local customers demands and needs. Consequently, the industry constitutes today a global value chain where the last steps of the chain, sales and post sales services must be then adapted to their local context. But is it possible to accommodate local customized demands versus global designs and production?. The research thesis of Alexander Frass aims and answering, successfully, to some of the factors related with this general question.

Cultural values and cross cultural differences have been utilized to analyze International Management. The seminal study of Geert Hofstede's with IBM employees in many countries has been a classical and later Fons Trompenaars carried out a study of cultural differences which was completed later by Zeynep Aycan's socio-cultural dimensions approach.

Alexander Frass utilises the approach of another known academic, Shalom Schwartz, its dimensional cultural approach to research on the last step of automotive value chain, After-sales services, in China, which is the largest global car market. And he made a wise decision: to study the premium segment of German manufacturers who have a leading role, as dominating this market segment. If it comes to services, one point is remarkably important in China, culture.

Additionally, he addresses a significant gap research since culture has been a neglected issue in this market. The research methodology has been quite ambitious carrying out a survey among 400 Chinese workshop customers of the brands Audi, BMW and Mercedes-Benz. Furthermore his statistical approach, Partial Least Squares structural equation modelling has been critical in order to assess the critical success factors in the models developed.

This thesis provides very useful guidelines of how the complete process value chain of after-sales services develops in an emerging economy such as in China. And proves how cultural values must clearly be taken into account when considering the management of after sales services if we want to achieve brand loyalty leadership.

Professor Dr. José Albors Garrigós,   Valencia, Spain March 2016
Universitat Politècnica de València

Thanksgiving

Dedicated to my beloved wife Denise.

Content Overview

Table of Contents

Table of Figures

Table of Tables

Abbreviations

ABS	Anti-skid breaking system	INC	Income
ACH	Achievement	IPMA	Importance-performance matrix analysis
AMOS	Analysis of Moment Structures	IT	Information technology
ASSS	After-sales service satisfaction	Km	Kilometre
AVE	Average variance extracted	Mn	Million
AWD	Acceptable workshop distance	N. a.	No author given
BEN	Benevolence	N/a	Not applicable
BI	Brand image	N. p.	No place given
BL	Brand loyalty	NPS	Net Promoter Score
Bn.	Billion	OEM	Original Equipment Manufacturer
BRT	Bus Rapid Transit	PLS	Partial Least Square
B2B	Business to Business	POW	Power
B2C	Business to Consumer	PPP	Purchasing Power Parity
CB	Covariance based	PRC	People´s Republic of China
CCP	Chinese Communist Party	PSQ	Perceived service quality
CCT	Consumer Culture Theory	PVQ	Portrait Values Questionnaire
C/D-	Confirmation/Disconfirmation-Paradigm	PWSC	Perceived workshop switching costs
Cf.	Confer (compare)	Ref.	Referring to
CNY	Renminbi	R&D	Research and Development
COA	Country of Assembly	S.	See
COD	Country of Design	SEC	Security
COM	Country of Manufacture	SE-D	Self-direction
CON	Conformity	S-D	Service-dominant (logic)
COO	Country of Origin	SEM	Structural Equation Modelling
CPI	Consumer price index	SERVPERF	Service Performance Model
CR	Composite Reliability	SERVQUAL	Service Quality Model
DNA	Deoxyribonucleic acid (colloquial: genetic disposition)	SPSS	Statistical Product and Service Solutions
DSG	Direct-shift gearbox	SSVS	Short Schwartz´s Value Survey
EC	European Commission	STI	Stimulation
Em.	Emeritus	SVS	Schwartz Value Survey
GBI	General Brand Image	TRA	Tradition
GEN	Gender	UNI	Universalism
GDP	Gross Domestic Product	VAF	Variance accounted for
GIGA	German Institute of Global and Area Studies	VIF	Variance inflation factor
GM	General Motors	Vol.	Volume
HED	Hedonism	WL	Workshop loyalty
HNWI	High-net-worth-individual	WTO	World Trade Organisation

1 Introduction

1.1 Status Quo and Problem Statement

With a total revenue share of 20%, the *automotive sector* has been a core industry in Germany for a long time. However, the success of German automobile manufacturers is only partially based on the domestic market. In fact, the German automotive industry association 'Verband der Automobilindustrie' (VDA) recently reported an export ratio of 77%.[1] Aside from the saturated German market, which is too small to realise the necessary economies of scale,[2] the rest of Europe used to be an important export market for German manufacturers. Today, however, it only offers moderate growth opportunities. When considering the total global sales of the German automobile brands Audi, BMW, Daimler, VW and Porsche, the European share decreased from around 60% in 2002 to around 47% in 2010.[3] Furthermore, the lingering European debt crisis continues to be a restraint for sales in this market area.[4] Thus, in 2012 Germany's car export quota dropped by around 10% compared to the previous year.[5] Within this long-term trend only 2014 was considered as an exception, because sales to Great Britain were strong.[6]

These developments were offset by steadily increasing sales in the emerging markets. In particular, China, which has experienced average market growth of over 25% within the decade since 2000, has proved to be a drawing card.[7] For manufacturers of German automobile brands, this means that the local share of worldwide car sales increased by over 14% to almost 20%.[8] In the process, the *Chinese market* has become the biggest and most important sales market globally.[9] So far, it would seem that Daimler, VW, BMW and Audi have done everything right. However, taking an

---

[1] Cf. VDA (n. a.) (2015a), p. 31; VDA (n. a.) (2012), p. 14; Sopha (2012), p. 97; Barthel et al. (2010), p. 6; VDA (n. a.) (2013a), Export.
[2] Cf. Diez (2012), p. 112.
[3] Own calculations based on Diez (2012), p. 116.
[4] Cf. VDA (n. a.) (2012), pp. 24 ff.
[5] Cf. VDA (n. a.) (2013a), Export.
[6] Cf. VDA (n. a.) (2015a), p. 31.
[7] Cf. VDA (n. a.) (2012), p. 20; Diez (2012), p. 22.
[8] Own calculations based on Diez (2012), p. 116.
[9] Cf. VDA (n. a.) (2015a), pp. 20 f.; n. a. (2013a), China ist wichtigster Markt für deutsche Autobauer; Wang (2011), p. 100.

one-dimensional view of sales is dangerous because important profit drivers could be ignored. Primarily this means *services of the post purchase phase* the *after-sales services*. Though, the sales potential and earning power of these services are regarded as well researched and scientifically proven.[10]

Therefore, in many industrial sectors great emphasis is placed on the potential of after-sales services because of the promise of financial gain.[11] In addition, they contribute to soft factors, such as improved customer relations, increased customer satisfaction, customer retention and customer loyalty.[12] Consequently, since the early nineties, industrial countries have shifted their focus from predominate product sales to value or utility generating services. Besides other factors, like the change from a seller's to buyer's market, as well as the increasing homogeneity of products,[13] this development has occurred in penetrated markets and can be seen across various sectors, including IT, the white goods industry, mechanical engineering and the automotive industry. As a result, so many products were sold over time that the *service market* had grown to a size that has become four to five times bigger than the new goods market.[14] Likewise, Figure 1 below illustrates a very strong service-oriented share ratio based on selected life-cycle costs.

Share of Life-Cycle Costs

Machinery and Plant Engineering	12%	88%
Lorry	11%	89%
Aircraft	8%	92%

■ Product
■ Service
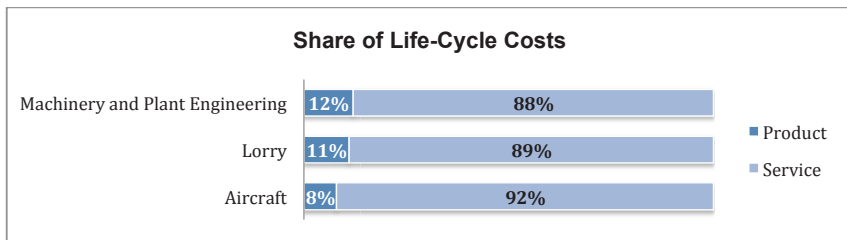
Figure 1: Share of Life-Cycle Costs

Reference: Sass (2012), p. 2; Kaerner et al. (2004), p. 164.

---

[10] Cf. Sass (2012), pp. 1 ff.; Bundschuh/Dezvane (2003), pp. 1 ff.; Cohen et al. (2000), pp. 1 ff.; Goffin (1999), pp. 1 ff.; Wise/Baumgartner (1999), pp. 1 ff.; Hull/Cox (1994), pp. 1 ff.

[11] Cf. Sass (2012), p. 2; Saccani et al. (2007), p. 52; Cohen et al. (2006), p. 130; Baader et al. (2006), p. 3; Gaiardelli et al. (2007), pp. 702/705; Cavalieri et al. (2007), p. 449; Goffin (1999), p. 390.

[12] Cf. Hättich (2009), p. 6; Hünecke (2012), p. 1; Reichhuber (2010), p. 31; Sass (2012), p. 3; Huber/Herrmann (2001), p. 100; Zollikofer-Schwarz (1999), p. 3.

[13] Cf. Zerres/Zerres (2006), p. 3; Meffert/Bruhn (2009), p. 7; Simon (1993), pp. 5 ff.

[14] Cf. Saccani et al. (2007), p. 52; Cohen et al. (2006), p. 129; Wise/Baumgartner (1999), p. 134.

Along with these considerable market and life-cycle volumes, the *profit margins in after-sales* are highly attractive for the manufacturing industries as BAADER ET AL. (2006) points out. For example, the after-sales business represents a 20% to 30% share of turnover and 40% of overall profit.[15]

After-sales in the Automotive Industry

Currently, services in traditional sales-oriented *automotive marketing* area have become increasingly important.[16] Contrary to their previous sales support function, the sum of value added services[17] is viewed as an independent, and moreover, profitable market performance of OEMs. These services, which are able to increase the value or utility of a core product, are increasingly realised in value added steps after the sale. While being a part of such downstream management, all automotive manufacturers are trying to increase their influence.[18] In this context, after-sales plays an outstanding role, even though it is not consistently defined. In the English and German literature the term is variously described as 'after-sales service', 'automotive aftermarket', 'customer support', 'product support', 'Kundendienst' and 'Technischer Service'.[19] An example of the very important role that after-sales plays can be observed in the German spare part and service business, where the contract bound car dealers and workshops earn over 60% of their profit with only 20% turnover share.[20]

In addition, the after-sales business is considered to be relatively independent of economic trends,[21] thus in the automotive industry it is seen as a critical success factor.[22] The high relevance is also well represented by the following *studies.*

- Increasing customer satisfaction and brand loyalty [23]
- Achieving competitive advantage and differentiation [24]

---

[15] Cf. Baader et al. (2006), p. 3. Confirmed by other authors such as Goffin (1999), p. 390; Wise/ Baumgartner (1999), p. 134; Cavalieri et al. (2007), p. 437.

[16] Cf. Diez (2009), p. 109; assessment of Chapter 2.1, Automotive Marketing.

[17] Hereafter referred to as Laakmann (1995), pp. 1 ff.

[18] Cf. Diez (2009), pp. 19 f./162/177; Reichhuber (2010), pp. 89/103; Saccani et al. (2006), p. 262; Becker (2007), pp. 87/123 ff.

[19] Cf. Hättich (2009), p. 1; Goffin (1999), p. 374.

[20] Cf. Diez (2009), p. 176; Hättich (2009), pp. 2 f.; n. a. (2013b), Finanzkennzahlen 2012.

[21] Cf. Zollikofer-Schwarz (1999), p. 31; Diez (2009), pp. 22 f.; Loukmidis/Luczak (2006), p. 251; Hättich (2009), pp. 44 f.; Baader et al. (2006), p. 4.

[22] Cf. Hättich (2009), pp. 2 f.

[23] Cf. ibidem, pp. 1 ff.; Hünecke (2012), pp. 1 ff.; Saccani et al. (2006), pp. 1 ff.; Huber/Herrman (2001), p. 118.

- Feedback function for product improvement and development [25]
- Supporting optimisation processes [26]
- Promoting sales of the core product and general marketing support [27]
- Increasing brand image[28]
- As a useful customer contact point

The points mentioned above with regard to the *automotive market in China* and *after-sales business* are very important for corporate success. However, considering the two together is virtually non-existent in automotive after-sales marketing, despite the indicated need for research in this area to gain a better scientific understanding.

The Significance of Culturally Adapted After-sales Marketing in China

It is undisputed that China holds a promising future for German car sales. Nevertheless, there are increasing indications that the existing foundation needs to be expanded to gain a deeper understanding of after-sales activities in China and to optimise them using scientific methods. As in China, the government supports the domestic car industry with public buying restraints and 'buy local' policies.[29] The potential effectiveness of such activities becomes apparent as follows. According to estimates from 2010 the government bought 4.5% of all new cars (measured by expenditures).[30] Furthermore, most of the cars sold by German manufacturers are mainly in the metropolitan areas of Eastern China. The rural areas remain poorly penetrated due to the low income levels there. Contrary to the past, market expansion in Central and Western China could be rather difficult for the German OEMs, also because of their premium orientation.[31] Sometimes, the government intervenes heavily in the market in order to take measures against environmental pollution and traffic congestion. For instance, car permits in Beijing, Shanghai and Canton have

---

[24] Cf. Asugman et al. (1997), pp. 1 ff.; Gallagher et al. (2005), pp. 1 ff.; Goffin (2001, 1999), pp. 1 ff.; Hull/Cox (1994), pp. 1 ff.

[25] Cf. Cohen/Whang (1997), pp. 1 ff.; Saccani et al. (2006), pp. 1 ff.; Taifi/Passiante (2012), pp. 1 ff.

[26] Cf. Saccani et al. (2006), pp. 1 ff.

[27] Cf. Gallager et al. (2005), pp. 1 ff.; Wise/Baumgartner (1999), pp. 1 ff.

[28] Cf. Saccani et al. (2006), pp. 1 ff.; Cavalieri et al. (2007), p. 437 ff.; Gallagher et al. (2005), pp. 1 ff.

[29] Cf. n. a. (2012b), Foreign cars may be shut out of govt fleet; Sopha (2012), p. 98; Wang (2011), p. 103.

[30] Cf. n. a. (2013c), Chinese officials favor Audis despite government's buy-local policy.

[31] Cf. Doll et al. (2013), Chinas Autos auf dem Weg nach Westen; Reichhuber (2010), pp. 54 ff.

been restricted.[32] In 2011, the China Daily reported that car sales in Beijing had decreased by more than 50% as a result of these governmental measures. Dealerships therefore had to adjust their business strategies inevitably.[33] One year later, with a 92% share of profit, car dealers are still extremely dependent on new sales. Compared to the US, where this share is about 15%, this illustrates possible changes.[34] Bill Underrinner, Chairman of the National Automobile Dealers Association, said that 'The [Chinese] dealers have to come up with after-sales services. (...) They need to learn how to sell the other parts of the dealership they are not selling today.'[35]

If the German OEMs still want to use the potential of the entire market successfully, they will probably have to change their primary sales orientation. In addition, they will need to take into account the aforementioned developments through appropriate after-sales marketing. First, this should be done to secure their global position, and second to achieve a leading role in what will very likely be a strongly growing[36] Chinese after-sales market.

To do this however, scientific findings can only be used to a limited extent since the after-sales success factors with respect to German car manufacturers in China have not been researched sufficiently.[37] Nevertheless, branch specialist DIEZ (2012) has revealed the obvious need 'An important reason for the success of their globalisation strategies has been the increased willingness of German manufacturers to suit their products to the specific needs of the markets in each country. For many years, a lack of flexibility in this area has reduced opportunities for expansion'.[38] This mistake must not be made again in the area of after-sales. However, the status quo is exactly the cause of concern; so workshops are regarded as less qualified and repair standards are highly in need of improvement. For example, a common criticism often made by

---

[32] Cf. Doll et al. (2013), Chinas Autos auf dem Weg nach Westen; Jen-Kai (2011), pp. 5 f.; n. a. (2012g), Mercedes strauchelt auf Chinas Automarkt; Barthel et al. (2010), p. 10; Arthur D. Little (n. a.) (2011), p. 2.

[33] Cf. n. a. (2011a), Bejing dealers shift focus from new car sales.

[34] Cf. n. a. (2012a), Dealerships too dependent on new car sales for profits, study says.

[35] Underrinner cited in: n. a. (2012a), Dealerships too dependent on new car sales, study says.

[36] Cf. Wise/Baumgartner (1999), p. 134; Cohen et al. (2006), p. 129; Shuqin/Gang (2012), p. 175; Mohr et al. (2013), p. 9.

[37] Cf. Wang (2011), p. 100; Chapter 1.3, Identification of a Research Gap.

[38] Diez (2012), p. 116.

Chinese drivers is the poor workshop service.[39] Likewise, in the automotive sector, the Customer Service Index (CSI) shows that the after-sales performance of Japanese and French OEM´s ranked higher than that of German companies.[40]

To make things worse, in both science and practice, it is argued that the cultural factors in China have not been sufficiently considered,[41] a situation that could result in prohibition if it is not treated with the necessary respect. One example of this is a global ad campaign for Nike that was not culturally adapted.[42] Thus, it could be assumed that the principles of *intercultural marketing* are often neglected in market cultivation. This is a factor that should receive special attention with regard to services because they cannot be provided without the involvement of the customer.[43]

In addition, if, for example, a repair is to be made on a vehicle, it is usually assumed that the driver will bring it to the workshop and explain the problem. THALHOFER (2003) describes this kind of interaction as a stress situation between staff and customer, which has a strong influence on *customer satisfaction*.[44] Furthermore, it is known that different buyers have very different (service) needs even if they use the same exact product or service. Therefore, the person becomes part of the service creation process.[45] This is why it is important for an organisation to be customer oriented[46] and for the after-sales marketing of the global players to be properly established. This also means that it has to be culturally adapted, because culture influences the service perception as ZHANG ET AL. (2008) determine.[47]

However, it should be noted that both from a scientific and practical point of view, the high relevance of after-sales service and the Chinese automobile market is generally recognised. But, both of these areas together, especially with regard to intercultural adaptation considerations apparently still continue to be ignored. A scientific problem

---

[39] Cf. Joas (2009), p. 157.
[40] Cf. n. a. (2012d), After-Sales Dealer Service Satisfaction in China Plateaus After Six Consecutive Years of Increases; Sopha (2012), pp. 108 ff.
[41] Cf. Doctoroff (2005), p. 2; Hoffmeister (2011), p. 140; Moser et al. (2011), pp. 102 f.
[42] Cf. Köll (2009), p. 9.
[43] Cf. Mann (1998), p. 43; Meffert/Bruhn (2009), p. 42; Corsten/Gössinger (2007), p. 27.
[44] Cf. Thalhofer (2003), p. 61.
[45] Cf. Cohen et al. (2006), p. 132; Edvardsson et al. (2011), p. 328
[46] Cf. Meffert/Bruhn (2009), p. 42.
[47] Cf. Zhang et al. (2008), pp. 211 ff.

statement can be formulated from this because the effect of cultural differences on service demand has not been researched sufficiently. Consequently, the actual success factors are also unknown. Another aspect to bear in mind is that the management decisions made by OEMs are too often aligned with internal criteria. An accurate knowledge of Chinese customer structures and behavioural patterns could be helpful in this regard to actively shape the development of the after-sales market in China in the most advantageous way. Similarly, this could help to increase the manufacturer's value added share of the entire product life cycle. This decreases rapidly over time, as seen with a OEM in the German market where the proportion of value added (exclusively financing and leasing) decreases from 90% to 5% in ten years.[48]

Since the availability of statistical data is limited in rural China and therefore not sufficient for the purposes of this work, this research shall be referred to the *urban China* for the following reasons: First, German manufacturers mainly sell there. Second, it is only there that enough households own a car at all and therefore able to say something about their after-sales experience.[49] Finally, in most cases the culturally specific purchase behaviour studies are carried out there too.[50] According to the National Bureau of Statistics of China, 52.6% of the Chinese people live in urban areas.[51]

1.2   Exploratory Pre-Investigation

The status quo and problem statement indicate a scientific research need, which still needs to be concretised, delimitated and possibly supplemented. An *explorative research methodology* will be used for this purpose,[52] which will also help to define a precise research objective later on in Chapter 1.3. Taking an adequate cost-benefit ratio into account an *expert survey* as a qualitative method is suited. This requires interviewing participants who have profound knowledge and experience.[53] According to

---

[48] Cf. Diez (2009), p. 400.

[49] Cf. Wang (2011), p. 104.

[50] Cf. ibidem; assessment of the state of research with regard to *Chinese consumer behaviour* in Chapter 2.3.

[51] Cf. National Bureau of Statistics of China (n. a.) (2012): XI. Population, Living Conditions and Social Security.

[52] Cf. Koch (2012), p. 41.

[53] Cf. Berekoven et al. (2009), p. 88; Koch (2012), pp. 41/262 f.

that, and to an, from the problem statement derived, interdisciplinary coverage, experts are chosen (s. Table 1 below).

Expert	Background – *Function and Company*		
Dr. Christin Emrich	**Expert for Intercultural Marketing with Prestigious China-Expertise** *Lecturer for marketing management at various universities and business schools in Germany and Switzerland as well as owner of the business consultancy, Sciestat*		Intercultural Aspects and China
Niels Straub	**Expert for Market Research, Automotive Industry and China** *Owner of Institut für Marktforschung, Statistik und Prognose (IMSP) as well as author with publications concerning the automotive industry and China*	Automotive Industry and Marketing	
Prof. Dr. Willi Diez	**Expert for Automotive Industry and Marketing** *Professor at Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen as well as Director of the Institut für Automobilwirtschaft (IFA)*		
Dr. Holger Hättich	**Expert for Automotive Marketing and After-Sales; Especially Free Workshops** *Managing Director PV Automotive GmbH*		
anonymised	**Expert for After-Sales** *Project Leader Boston Consulting Group*		After-sales
Dr. Christian Splett-Henning	**Expert for Car Dealership and After-Sales** *Managing Director Nordostsee-Automobile GmbH u. Co. KG authorised Mercedes-Benz Trade and Service*	Automotive Industry and Marketing	
Norman Radtke	**Expert for After-Sales at a Car Dealership** *Chief service manager Walter Burmester GmbH northern German Mercedes-Benz representation*		
Dipl.-Kfm. Hans Jürgen Wahlen	**Expert for Spare Part Trade** *Managing Director of the general association Gesamtverband Autoteile-Handel e.V. (GVA)*		
Thomas Fischer	**Expert for the German Spare Part and Service Market** *Chief of the board of directors Verein Freier Ersatzteilemarkt e.V. (VREI)*		
Prof. Dr. Michael Zerres	**Expert for Marketing and Success Factor Research with a Long-Time Expertise in Automotive Marketing** *Professor at Universität Hamburg (em.) and Publisher of various automobile-specific research works.*		Success Factor R.

Table 1: Experts of the Exploratory Pre-Investigation

Reference: Author's table.

The survey was carried out via e-mail or telephone depending on the availability and preference of the participant. Amongst others, the following issues were addressed.

- Is the topic considered relevant by the expert?
- Have German manufacturers already taken up this issue specifically?
- Could the recently rapidly growing Chinese new-car market have led to under-emphasised after-sales activities?
- Are the after-sales instruments weighty and multi-variant enough that they can actually influence any success criteria?
- How can research take into account cultural aspects and peculiarities?
- Are there any other very important aspects that are not mentioned by the re-searcher?

All of the experts interviewed agreed that this research is of *high relevance*. Whereby towards after-sales service, especially the criteria *brand loyalty as a success indicator* has been suggested. This will be considered in the later stages of this work, especially in the development and design of the research model.[54]

Additionally, various specific aspects were discussed and the insights gleaned from these interviews are listed in the following Table 2:

---

[54] Cf. Chapter 1.6, Course of Research.

Car markets	After-sales	Cultural aspects in China
Long-term stagnation in European car markets	The Experiences of mature car markets show that, while the market develops, after-sales profit margins become much higher than sales profit margins	Even in Germany, Chinese customers are considered to have different needs, therefore cultural training is needed
The German after-sales market is overstaffed and free workshops are growing at the expense of the OEM workshops	In the past, after-sales and customer retention had no priority in China due to market penetration focus	Chinese customers in Germany have exceedingly high expectations
The Chinese market still has potential, but realising this only by selling might be more difficult than in the past	Low emphasis on the optimal design of an after-sales business might be a result of former high sales figures	Country of origin effects have a massive impact in China, especially the 'Made in Germany' label
The Chinese after-sales service market is considered to be crucial for the future of the OEMs	Due to local market conditions, the after-sales instruments used worldwide differ greatly	Chinese culture is still a great challenge for foreigners and enterprises
After a huge first buyer wave in China, brand loyalty will become very important, therefore after-sales could become the main influencer	The findings of this research are valuable as feedback to improve after-sales training in Germany, with the aim of serving Chinese customers in the best way	Being successful in China requires a precise understanding of the culture as a whole as well as of the specific issues at play
	After-sales marketing should be strictly aligned with the specific needs of the Chinese market	It is assumed that Chinese customers are less brand or workshop loyal and more open-minded about non-original parts
	One expert is in favour of an autonomous local marketing effort, another says this is a huge risk with regard to the global strategies and controlling needs of the OEMs	Generally, social relationships are very important, therefore customer experiences are spread through the networks of influence or 'guanxi'[55]
	Today, after-sales networks in China are being developed; knowing the key success factors helps to develop them in line with the needs of OEMs	The Chinese often use cars within the family network, which is usually very strong related (with high involvement)

Table 2: List of Insights of the Expert Survey

Reference: Author's table.

---

[55] Culturally strong anchored Chinese network system of relations (social exchange) for mutual benefit. Cf. Emrich (2007), p. 336.

1.3   Identification of a Research Gap

To be able to identify a scientific research gap, based on the issues elaborated thus far, the following topics have to be assessed: First, *automotive marketing* as a parent frame. Second, *after-sales service* in general and the automobile industry in particular, as well as *Chinese buying behaviour* in the context of intercultural marketing. In order to ensure the best possible overview, the comprehensive review of the detailed *state of research* is shown separately in Chapter 2. Thus, the most important issues with respect to the research gap are addressed in the following section.

Generally, it could be asserted that research has been done in each of the subject areas mentioned above. With regard to the 'service strategies of manufacturing companies', GEBAUER ET AL. (2012) point to the following facts and research deficits: [56]

- The existing research concentrates on heavy industries, capital goods and B2B markets
- A broader industry range needs to be investigated
- Often, the research focuses on mature, saturated western markets
- Knowledge about emerging markets is limited
- The understanding of the globalisation of the service business of multinational manufacturers can be broadened
- The western enterprises examined 'suffer' from a distorted self-perception (bias)[57] due to the relevance of high labour costs and advanced technical expertise, which could lead to a disadvantage, especially within a global context and in terms of the qualitative methods used

According to the assessment of the state of research, the author of this work confirmed these points most widely. Moreover, JÖNKE (2012) emphasises the need for further research in the area of after-sales in terms of theory and practice.[58] Also the specific view on the automobile industry shows, that one from HÄTTICH (2009) emphasised deficit is still of high relevance. Thus, compared to the area of sales-related automotive marketing, research in the area of after-sales marketing is indeed lack-

---

[56] Cf. Gebauer et al. (2012), pp. 123 ff.
[57] Cf. ibidem, p. 126.
[58] Cf. Jönke (2012), p. 145.

ing.[59] Furthermore, organisational focal points towards process and cost optimisation dominate, as well as the limitation that primarily western markets are researched. International approaches to the after-sales marketing of OEMs are rare. One exception is the work of HÜNECKE (2012), who focuses on Spain, Italy and France. He specifically emphasises the great importance of further intercultural, non-European research.[60]

ZHANG ET AL. (2008) claim that in cultural research, particularly towards service expectations, context variety is crucial. Here, workshops are worth to be focused, due to the customer service provider relationship.[61] With regard to the still insufficiently examined China,[62] it is important to point out that the availability of data is limited and that mainly the supply side was investigated in the past, despite the fact that consumer preferences and requirements were changing quickly. In addition, (inter)cultural aspects generally get little attention in the automotive industry, especially in the area of demand and service behaviour, despite continuous claims.[63] In the case of China, however, understanding these considerable cultural differences could be crucial for success in this huge market with its enormous after-sales potential.

A customer-oriented success factor research on the after-sales of German manufacturers with regard to the reference object China, was, despite great scientific and practical relevance, *not executed in any work*.

1.4 Research Objective

Considering the background of the current situation, the problem statement given, the explorative pre-investigation and the research deficit identified, the *objective of this work* is to investigate theoretically and to verify empirically the determinants of success of an after-sales within the automotive marketing, under considering cultural influence factors. Therefore, the after-sales business of German manufacturers in the

---

[59] Cf. Hättich (2009), p. 287.
[60] Cf. Hünecke (2012), p. 174.
[61] Cf. Zhang et al. (2008), p. 222.
[62] Cf. Knörle (2011), p. 5.
[63] Cf. Löffler/Decker (2012), p. 405; Wang (2011), p. 100; Gudergan (2010), p. 251 f.; Zhang et al. (2008), p. 222; Gong (2003), p. 379; Asugman et al. (1997), p. 26.

important Chinese car market serves as the object of reference. Furthermore, the construct brand loyalty will also be implemented within the theoretical model in order to explain the success of after-sales.[64]

Exploring a single sector in the Chinese market helps to focus on industry-specific aspects and to derive appropriate findings. Cross-industry meta-analytic models are unable to achieve this.[65] Moreover, limiting the investigation to *urban* China is necessary and useful because of the considerable differences in local motorisation density throughout the country.[66]

The scientific added value of this work, absolutely, puts emphasis on the acquisition of innovative knowledge. But simultaneously it is aimed to present specific, effective and suitable recommendations for action for automotive marketing practitioners.

1.5   Scientific Approach and Research Methodology Overview

St. Galler Management Model as a Framework for the Understanding of Science

For this work with the purpose of investigating the automobile after-sales success factors, a *framework concept* will be used. This research design base frame helps to manage the high complexity of the entire research process structurally and effectively. In this regard, the *conceptual heuristic character* is of great importance because the object of study must first be captured conceptually to understand any causal relationships that may arise in the course of the investigation. In other words, heuristics provide instructions in the process of knowledge acquisition with regard to an unknown objective.[67]

The basis therefore is the well-established *St. Galler Management Model* from UL-RICH/KRIEG of the year 1972, which, in the context of the St. Galler school of thought, was modified in 1991 to the *St. Galler Management-Concept* and more recently through RÜEGG-STÜRM to the *New St. Galler Management-Model*. All three

---

[64] Cf. Chapter 1.2, Exploratory Pre-Investigation; Chapter 1.6, Course of Research.
[65] Cf. Backhaus (2009), p. 99.
[66] Cf. Chapter 1.1, Status Quo and Problem Statement.
[67] Ref. Schwaninger (2009), pp. 53 ff.

models rely on *system-oriented management theory*, which is co-founded by UL-RICH.[68] 'The system approach is a perspective of management theory based on systems theory and cybernetics. Systems theory is a formal theory on the structure and behaviour of systems (i.e. organised totalities). (…) The science of cybernetics mainly deals with communication and control processes in and of complex dynamic systems.'*[69]* Using this system-thinking provides some major amenities such as holism, interdisciplinarity, process orientation, pragmatism as well as simultaneously analytic and synthetic thinking.[70] Bottom-up on this general basis of the St. Galler understanding, the in Chapter 1.4 defined objective shall be achieved through a research approach of ULRICH (amongst others 1981; 1984; 1985).[71]

ULRICH argues that business administration is an applied social science, which differs from basic science in its purest form.[72] He understands this as a 'management science, which deals with the problems of organisation and control of productive social systems.'[73] Thus, research in the area of business administration shall deal with practical problems in the economy, in consideration of POPPER, for whom problems are the first step on the way to knowledge. As a result, the practitioners thus obtain useful knowledge as well as methods, rules and models that likewise ensure an independent, solution-oriented acting. Moreover ULRICH emphasises that in applied business administration the creation of situational aligned design rules,[74] and 'design models for the change of the social reality'[75] are especially important.

The globally operating German manufacturers face major challenges, such as the after-sales service market in China, which is extremely important for future success.[76] However, it is still unknown which factors determine this success and to what extent they are culturally influenced. In line with the aforementioned argumentation, based on the problem statement, this work uses the application-oriented research approach

---

[68] Cf. Schwaninger (2009), p. 60.

[69] Ibidem; for further explanations s. Ulrich/Krieg (1974), pp. 11 ff.

[70] Cf. Ulrich/Krieg (1974), p. 12.

[71] Cf. Ulrich (1981), pp. 3 ff.; Ulrich (1984), pp. 131 ff.; Ulrich (1985), pp. 4 ff.

[72] Cf. for instance Ulrich (1981), p. 3 ff.

[73] Ibidem, p. 3.

[74] Cf. ibidem, p. 18.

[75] Ibidem, p. 11.

[76] Cf. Chapter 1.1, Status Quo and Problem Statement; Chapter 1.2, Exploratory Pre-Investigation as Relevance Rationalisation, Concretisation and Possible Addition of Topic-Choice.

of ULRICH in a conceptual manner, thus it will be theoretically analysed and empirically tested. The investigation is therefore driven by hypotheses so that innovative scientific findings and practical management recommendations can be derived.

In the context of this work, the use of ULRICH's seven-phase research approach means that: [77]

1. The practical problems and a scientific research gap were identified, defined by way of an explorative pre-investigation and addressed as an objective of the research (s. Chapters 1.1–1.4)

2. In the second phase, problem-related theories from fundamental science of various disciplines have to be identified and interpreted

3. The detection of problem-relevant procedures of formal science will be specified according to the objective of the investigation

4. In phase four, the relevant application context will be set up and investigated

5. Related functional assessment criteria have to be derived to develop an appropriate design model, including the design rules

6. This, including all the postulated hypotheses, presented as a simplified description of the (complex) reality, will be tested empirically via customer surveys and appropriate statistical evaluation methods (IT-aided)

7. Finally, the scientific findings of this research are summarised and described. Also recommendations for action are presented and the need for further research is shown

Success Factor Research

At this place, a methodological overview is given; the comprehensive discussion takes place in Chapter 5.1.

This research work is based on the *success factor research* method. The fundamental assumption here is that a few influencing factors have a significant impact on the success of firms. Thus, the *cause-effect relationship* of special success-critical determinants is shown.[78] Initially, the variables that determine success, the *indicators of*

---

[77] Cf. Ulrich (1981), pp. 17 ff.

[78] Cf. Haenecke (2002), p. 166; Baumgarth/Evanschitzky (2009), p. 237 f.; Schoeneberg (2011), p. 48.

success, have to be defined. Afterwards, variables are searched, which affect these indicators, namely the *success factors*.[79]

Considering the requirements,[80] and the *high potential for uncovering causal structures*, an *indirect quantitative-confirmatory method* appears to be very appropriate for this research project. In doing so, well tested theoretical and empirical effect interdependencies are verified respectively falsified using a causal analytical procedure.[81]

In addition, in researching the success factors of after-sales services of German automobile manufacturers in China and taking the cultural aspects into consideration, it is particularly important that non-observable variables can occur, which are relevant and success affecting. In this regard, these so-called *latent variables* are typically incorporated in psychological and sociological constructs. BACKHAUS ET AL. (2006) therefore recommend the application of a *structural equation model* supported by statistical analysis software, like AMOS (Analysis of Moment Structures) and SPSS (Statistical Product and Service Solutions) or PLS-software (Partial Least Squares). This allows complex relationships with various dependent variables, multistage causal relationships and non-observable (latent) variables to be examined.[82]

Excursus

HAENECKE (2002), as well as other authors, calls for the use of a *reference frame* mainly to overcome the problem of systemising the theories that are used to set up the hypotheses.[83] Moreover, the research becomes more transparent and possible different findings become more comprehensible.[84] The symbolic reference frame, illustrated in Figure 2 below, is established within the conceptual foundations in Chapter 4.1.

---

[79] Cf. Sass (2012), p. 23; Forsmann et al. (2004), p. 3.
[80] For details s. Chapter 5.1, Success Factor Research and Structural Equation Modelling.
[81] Cf. Haenecke (2002), pp. 167 ff.; Töpfer (2012), pp. 281 ff.; Schoeneberg (2011), p. 52.
[82] Cf. Backhaus et al. (2006), p. 11; Töpfer (2012), p. 282.
[83] Cf. Haenecke (2002), p. 174; Schoeneberg (2011), p. 52; Klarmann (2008), pp. 10 ff.; Hesse (2004), p. 45.
[84] Cf. Schoeneberg (2011), p. 60; Mayring (2002), p. 29.
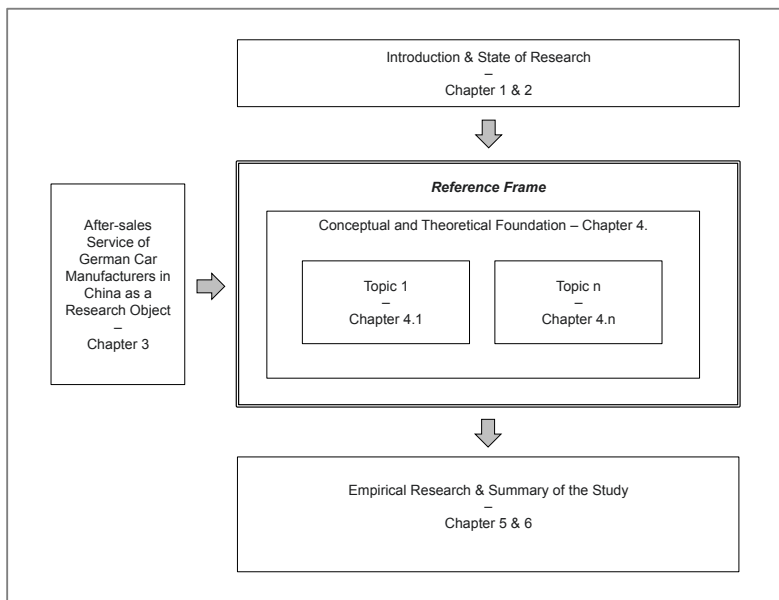
Figure 2: Reference Frame

Reference: Author's illustration referring to Schoeneberg (2011), p. 61.

The state of research, comprehensively reviewed in Chapter 2, shows the existence of necessary prior theoretical knowledge and relevant preliminary studies so that, taking into account important theories and conceptual basis-examination, theoretically well-founded hypotheses can be formulated. Afterwards, a causal-analytical method is used for testing the hypotheses based on the empirical data collection of standardised customer surveys. This is done using an indirect quantitative-confirmatory method using the structural equation model.[85] So far, this is undoubtedly the main focus of this work.

In the following Chapter 1.6 the chosen course of research is summarised and presented in writing and graphically.

---

[85] Ref. Backhaus et al. (2006), p. 338.

1.6   Course of Research

This research project on the *success factors of after-sales services of German auto-mobile manufacturers in China* began with a description of the current situation, the *status quo*, and the *problem statement*. The high relevance of this topic could be clearly confirmed, supplemented and concretised by an *exploratory pre-investigation*. The *state of research* in the area of automotive marketing, after-sales services and Chinese buying behaviour in the context of intercultural marketing shows an identifiable scientific *research gap*. Consequently, the *research objective* was defined and a suitable *scientific method*, based on an application-oriented approach of ULRICH, was chosen and illustrated.

Chapter 2 provides the detailed presentation of the assessed state of research.

A delimitation of the research area, as well as market analysis, and the major challenges are elaborated in *Chapter 3*.

In *Chapter 4*, the definitional and conceptual foundations for the systematisation of this study are presented and a reference frame is established. Also, the success indicators and the impact of success variables are analysed. Furthermore, basic theories are examined, the conceptual research model is established and hypotheses are derived.

Chapter 5 describes the applicable research design and empirical testing of the hypotheses is carried out via software-aided processing and the analysis of statistical data. Afterwards, the findings of the empirical study are interpreted in order to establish new scientific findings.

The entire study is summarised in *Chapter 6*, in which recommendations for management and the implications for further research are given. The following Figure 3 summarises the course of research outlined above.

Chapter 1

Introduction

Chapter 2

State of Research

Chapter 3

German Car Manufacturers in China as Research Object

Chapter 4

Conceptual and Theoretical Foundations for the Analysis of Success Indicators and Variables as well as their Influence

System of Hypotheses

Chapter 5

Empirical Study to Determine Success Factors

Processing, Analysis and Interpretation of the Empirical Findings

Chapter 6

Summary of Results, Management Implications and Further Research Needs

Figure 3: Course of Study

Reference: Author's illustration.

2 State of Research

The identification of a deficit in research in Chapter 1.3 is derived from a comprehensive literature review of the state of research, which is shown in-depth in this chapter. The object of the investigation is primarily the after-sales and Chinese consumer behaviour of the topic groups, for which the automotive marketing serves to begin with as a parent frame. Due to the German perspective, the Chinese buying behaviour is considered in the context of intercultural marketing. As follows, each state of research area is a selection according to relevance, because the intention is to combine these individual areas later on in this work. Thus, there is no claim to completeness.

2.1 Automotive Marketing

The intended research work comes from *automotive marketing*, which is a business administration area of expertise. The industry-specific consideration within the German scientific community has intensified since the mid-90s.[86] Thereby, with numerous publications, DIEZ[87] and DUDENHÖFFER[88] take a very popular position.

The relevant international literature on automotive marketing is mostly sales-oriented and focusses on the *market*, the classic instruments of the *marketing mix*, the 4 Ps (**p**roduct, **p**lace, **p**rice and **p**romotion), and *brand management*.

A basic overview of these topics is provided by DIEZ (2009)[89] in his book on automobile marketing. But a treatise as a holistic marketing concept, considering all relevant service parameters, is not done in this by trend sales oriented work. This is apparent through, for instance, the lack of a systematic elaboration of the marketing mix in-

---

[86] Cf. Möhlen (2007), p. 15.

[87] Director of the Institute for automotive industry (IFA – Institut für Automobilwirtschaf) and professor at the university (HfWU – Hochschule für Wirtschaft und Umwelt) Nürtingen-Geislingen (http://www.ifa-info.de).

[88] Professor for business administration and automotive industry at the university Duisburg-Essen as well as director of the Center for Automotive Research (CAR) (http://www.uni-due.de/ car) located there.

[89] Cf. Diez (2009), pp. 1 ff.

strument, 'personnel', which is often deemed necessary.[90] For the automotive manu-
facturers DIEZ states that the *downstream management*, to which the service-
affected after-sales area belongs, is gaining importance steadily.[91]

In addition, within the German marketing publications, there are a few quite well
founded omnibus volumes such as EBEL ET AL. (Pub.) (2004). Here we should take
note of the publisher's critique, that often the *technological orientation* weighs more
than the *customer orientation*.[92] GOTTSCHALK/KALMBACH (Pub.) (2007) complain
about a mostly *non-holistic consideration of the automobile industry*, which is why
amongst *industry challenges* and *case studies*, *management recommendations* are
shown here.[93] The *basic principles*, *structural characteristics* and *design parameters*
of the German automotive industry are described by DIEZ ET AL. (Pub.), now in its
fifth edition from 2012.[94] Here the *globalisation challenge*s of OEMs as well as im-
portant growth markets like China are preliminarily outlined. This is a task area which
HÜNERBERG ET AL. have already been dedicated to since 1995, focussing on the
international automotive marketing.[95] With regard to this global context DIEZ (2012)
recently examined the *international competitiveness* of the German automobile in-
dustry by means of the indicators of production, sales (market share) and profitabil-
ity.[96] DIEZ argues, however, that an empirical coverage of the industry's competitive-
ness cannot be carried out on the basis of a closed, generally accepted model, be-
cause there is no existing theory about the international ability of competitiveness.[97]
The publisher ESCH (2013) is focussing on automotive marketing primarily in terms
of brand by showing up marketing strategy and technics on the basis of the manufac-
turers´ brand identity and by taking into account the needs of consumers.[98]

Likewise, with regard to the marketing mix, the automotive marketing is researched in
an instrument-specific way, which is why each one important research work within

---

[90] Cf. Meffert et al. (2012), p. 22; Meffert/Bruhn (2009), pp. 243 f./358.
[91] Cf. Diez (2009), pp. 19/176 f.
[92] Cf. Ebel et al. (2004), p. 5.
[93] Cf. Gottschalk/Kalmbach (2007), p. vi.
[94] Cf. Diez et al. (2012), pp. 1 ff.
[95] Cf. Hünerberg et al. (1995), pp. 1 ff.
[96] Cf. Diez (2012), pp. 1 ff.
[97] Cf. ibidem p. 18; Lehmann (2006), pp. 296 f.
[98] Cf. Esch (2013), pp. 1 ff.

the 4 Ps is shown as follows. To the price policy ZERRES (2010) analyses the *effect of price promotions* against the background of the individually *perceived utility* of the respective buyers. Therefore he uses two structural equation models.[99] MÖHLEN´s (2007) empirical means-end-chain study focusses the communication policy (promotion) by investigating the target group of *elderly people 50plus* in itself and *gender specifically*, with the aim of developing a suitable *communication concept* for premium providers.[100] In the area of distribution policy SPLETT-HENNING (2004) develops exploratively, empirically, a *key-account management concept* for German automobile dealers, which is finally evaluated through a three-round running Delphi survey.[101] To what extent the brand, as part of the product automobile, contributes to value creation is researched by HEIDER (2001), who considers that especially sales-related volume increases and price premiums are opportunity-rich and enforceable.[102] Furthermore, *value drivers of the brand-strength* are identified and financially assessed, so that their *cash flow impact* could be shown. Finally, the *brand value* can thus be managed as one part of corporate strategy.[103]

VERHOEF ET AL. (2007) examine in the Dutch automobile market the relation and correlation between *dealer- and brand retention* considering especially the moderating variable *kind of brand*. Here they distinguish between 'economy brand', 'volume brand' and 'prestige brand'. Their study proves empirically that through recent repurchases the dealer retention merely exerts a significant impact on brand retention only if the dealer is selling brands of the volume segment. Thus the brand tier works as a moderator.[104] An important limitation is however, that Dutch dealerships are mostly based on a mono-brand sales structure,[105] a major difference from the often seen multi-brand trade, such as exists in the US and Germany.

Finally, the theoretical-conceptual contribution by REICHHUBER (2010) will be emphasised, which aims at a scientific and integrated holistic consideration of strategy

---

[99] Cf. Zerres (2010), pp. 1 ff.
[100] Cf. Möhlen (2007), pp. 1 ff.
[101] Cf. Splett-Henning (2004), pp. 1 ff.
[102] Cf. Heider (2001), p. 219.
[103] Cf. ibidem, pp. 8 ff./219 ff.
[104] Cf. Verhoef et al. (2007), pp. 97 ff./110.
[105] Cf. ibidem, p. 98.

and organisation in the automotive industry,[106] the 'new revolutionary break (...): a transition from a functional, proprietary added-value structure to one that is driven by competencies (..)'[107] as well as providing a future outlook.

2.2 After-Sales

Automobile Specific After-sales Research

In the *automotive industry* after-sales is the subarea within the value chain that describes the performances of the *post purchase phase* ('after sales') and thereby it does not concern the activities before the purchase ('pre sales') as well as during the purchase ('at/in sale').[108] As SASS (2012) summarises, the expression after-sales is, within the established literature, '(...) used primarily temporal for the service performance phase after purchase, and the services that are performed during this period are designated *after-sales services*.'[109] In general and in the specific context of the automotive industry, after-sales services are subsumed under both car-related *performance in kind* such as spare-parts, as well as *services*, such as repairs.[110] Such services have the ability to reduce possible problems with the use of the car and to support the utilisation phase, in which the consumer experience could even be improved.[111]

Unlike automotive marketing, which because of its product orientation is to be assigned to *consumer goods marketing (*commodity car),[112] after-sales or *after-sales marketing* is to be assigned primarily to *services marketing* (here: consumption-related secondary services of automobile manufacturers).[113] These areas are not completely mutually exclusive, but overlap.[114] An independent consideration of automotive after-sales appears relevant and particularly important, because the *maintenance* and *repairs* services, which are necessarily provided after the sale, belong to

---

[106] Cf. Reichhuber (2010), pp. 1 ff.
[107] Ibidem, p. 213.
[108] Cf. Mann (1995), p. 447.
[109] Sass (2012), p. 14.
[110] Cf. Hättich (2009), pp. 34 f.; Saccani et al. (2007), p. 54; Goffin/New (2001), pp. 275 f.
[111] Cf. Asugman et al. (1997), p. 12.
[112] Cf. Meffert et al. (2012), p. 29.
[113] Cf. Meffert/Bruhn (2009), p. 14.
[114] Cf. ibidem, pp. 5/15.

the so-called must-services.[115] In order to select relevant literature, this state of affairs is taken into account below. It is started by examining to what extent the topic of after-sales is been considered automotive industry inherent.

Already in 1995 the relevance of a market-oriented, service management covering all purchase phases was emphasised in the omnibus volume of HÜNERBERG ET AL., in what MANN (1995) shows the basic *service policy* principles.[116] Afterwards CANVIN/SCHINKEL (1995) addressed the changing *after-sales service industry*, especially from the suppliers' perspective, with regard to the areas: kind of workshop, technological progress, and international market differences.[117]

According to DIEZ (2009), the car as a physical product still captures a dominating position in the OEM´s market performance policy. However, he observes a steadily increasing importance of the *value-added services* and thus also of after-sales services, which he considers to be of extremely high importance.[118] Furthermore, he emphasises the relevance as an *independent source of income* of the automobile manufacturers and refers thereby in particular to the parts business. Finally, he addresses basic *optimisation needs* within the after-sales area, especially the dimensions of quality, customer satisfaction, communication and costs.[119]

Following up on the previously mentioned issues, one of the studies of DIEZ (2010) deals with the *after-sales market in Germany*, for which he predicts a sustainable process of consolidation. Thus, among others, significant trends are the increasing *importance of intermediaries*, the *polarisation of customer worlds,* the *connected car* and *e-mobility*. DIEZ concludes that OEMs and their contract partners are increasingly losing the first buyer contact, which means their market position is endangered, and that this is a development which intermediaries, especially, can benefit from.[120]

---

[115] Cf. Diez (2009), p. 164.
[116] Cf. Mann (1995), pp. 443 ff.
[117] Cf. Canvin/Schinckel (1995), pp. 475 ff.
[118] Cf. Diez (2009), pp. 109/162.
[119] Cf. ibidem, pp. 176 ff.
[120] Cf. Diez (2010), pp. 1 ff.

DUDENHÖFFER ET AL. (2005) argue in a study of the automobile sales that the service and spare-part business is a central field of action for dealership management. The illustrated strategic success factors, *broad service spectrum*, *workshop price differentiation* and a *high corporate customer share,* show, contrary to cost-, structural- and process-related success factors, a relationship with necessary after-sales marketing, which may need to be initiated by the manufacturers.[121]

The study called 'fascination service' by DIEZ/REINDL (2005) focusses on the service and after-sales service area within the German car industry. The authors discuss *changing customer needs* as well as the a*daption tools* that the workshops will need as a result of these needs.[122] Important results are, amongst others, that price awareness continues to rise and that a price marketing aligned with it promises success; the target groups need to be handled in a more differentiated way and the understanding of them has to be more in-depth; the German market volume is likely to shrink until 2020; and despite that, two thirds of dealer profits are earned through after-sales.[123]

On the basis of 1,083 online interviews, MERTEN (2012) queries the *customer behaviour* of German private and business customers. For the segments of private customer, self-deciding employees with a business car (the 'user chooser'), freelancer and commercial customers with less than 15 vehicles and without a frame-contract (the 'small commercials'), and fleet customers with more than 20 vehicles, the following categories are examined: *workshop loyalty*, *information channels*, *customer requirements and fulfilments* as well as *dialogue-reception*. In this connection it is remarkable that corporate customers, the target group with the highest workshop frequency and the lowest price sensibility, feel worst supported.[124] The after-sales potential as a result of the *purchase of a used car* are described by MERTEN (2011) in an additional study, for which sellers, service consultants and used car buyers have been interviewed. From a customer perspective it shows that one out of five is willing to change workshop, that brand-workshop customers generally have higher expectations, and that basically the potential of the after-sales business could be lifted, in-

---

[121] Cf. Dudenhöffer et al. (2005), pp. 13 ff.
[122] Cf. Diez/Reindl (2005a), pp. 1ff.
[123] Cf. ibidem, pp. 8 f.
[124] Cf. Merten (2012), p. 36.

cluding for the reason that after-sales services such as mobility packages are not offered enough at the point of sale or point of service.[125]

HECKER ET AL. (2012) published a multilayer management handbook about *after-sales in the automotive industry*. This practical manual takes account of consumer-focused aspects, such as the emotionalisation of services from the perspective of brain research.[126]

HÄTTICH's (2009) dissertation develops a *holistic after-sales marketing concept* to the manufacturers' initiated increase in *customer retention* and *brand loyalty* for the German automobile dealership. It is empirically based on a workshop customer survey and a workshop survey, evaluated through a Delphi-survey in order to assess the elaborated concept. Moreover it is summarised and assessed in a comprehensive meta conclusion according to the success impact.[127] The results of this convincing mixed-methods approach therefore contribute to a deeper understanding of the *success factors of after-sales*. Thus for instance, responsible managers can check if the relevance of *switching barriers* and *relationship marketing* is taken into account, and if the *after-sales marketing objectives* are sufficiently adjusted across the companies` departments.[128]

HÜNECKE (2012) is also dedicated to *automotive loyalty research*. He measures, via a PLS path modelling verified analysis model, in the markets of France, Italy and Spain, the relationship between *customer satisfaction* and *brand loyalty* among 1,500 premium car customers.[129] As an important result he finds, '(…), that in no market does customer satisfaction with service have a *direct influence* on brand loyalty. It is only through the *mediator of service loyalty* that customer satisfaction with service exerts an indirect influence on brand loyalty.'[130] What is remarkable is that the determining factors can differ even in very culturally similar, geographically close markets. In France, for instance, the biggest driver in automotive service quality is the friendli-

---

[125] Cf. Merten (2011), p. 23 ff.
[126] Cf. Hecker et al. (2012), p. 1 ff.
[127] Cf. Hättich (2009), p. 1 ff.
[128] Cf. ibidem, p. 286.
[129] Cf. Hünecke (2012), p. 1 ff.
[130] Ibidem, p. 4.

ness of the staff, whereas in Italy and in Spain, this is insignificant. In the latter coun-
tries, however, the level of professionalism is most valued.[131] The data collection in
three Latin-European countries with relatively similar cultures has the consequence
that a transfer of this knowledge to other countries is not permitted and thus repre-
sents a limitation in terms of generalisation.[132]

Likewise, the international business consultancy BAIN & CO. (2008) has surveyed
more than 1,800 car customers to examine after-sales service impact as one aspect
of *customer retention* and *brand loyalty* development. To assess brand loyalty the
Net Promoter Score (NPS) is used. Here, on a scale from zero to ten, customers rate
how likely they are to *recommend* their vehicle. Afterwards the NPS is calculated by
subtracting the percentage of customers who give a score of six or less ('detractors')
from the percentage of customers who give a nine or ten ('promoters').[133] This pro-
duces the important insight that, 'high among the factors that create promoters – and
help sustain their loyalty – is a strong after-sales service experience.'[134]

BLOEMER/PAUWELS (1998) still have to be mentioned. They explore the relation
between various satisfaction and loyalty constructs within the automotive industry.[135]
In their model they represent amongst other things the indirect impact of *after-sales
satisfaction* as well as the direct impact of the *dealer after-sales loyalty* on brand loy-
alty.[136] This topic is complemented by LILJANDER/ROOS (2002) as they analyse
from the customer's perspective, qualitatively, whether *customer relations with the
automotive dealers* and respectively to the after-sales service are real or unreal.
Thereby they emphasise for instance that the after-sales retention is high when it
comes to actual behaviour. Emotional retention, however, is relatively low.[137]

SHUQUIN/GANG (2012) analyse the automotive consumer-based after-sales service
industry (n=327), by using a structural equation model. Here they investigate the im-
pact of *service quality* on *relationship quality* with its three dimensions of satisfaction,

---

[131] Cf. ibidem, p. 147.
[132] Cf. ibidem, p. 173.
[133] Cf. Flees/Senturia (2008), After-Sales Service Key to Retaining Car Buyers.
[134] Ibidem.
[135] Cf. Bloemer/Pauwels (1998), pp. 78 ff.
[136] Cf. ibidem, p. 81.
[137] Cf. Liljander/Roos (2002), pp. 603/609.

trust and commitment, and finally the impacts on the construct, *relationship value*, whereas only trust does not have a significant direct influence on relationship value.[138]

ESCH ET AL. (2012) examine the success of automobile brands – due to the triangular relationship between *brand strength*, *customer retention* and *service quality* – by surveying the customers' perception of utility to reflect explicitly the customer`s point of view. Utility and service experience are analysed as well with regard to auto brand and dealer. In the context of after-sales it is to be emphasised that the general estimation of brand quality significantly influences the perception of service quality, and that the responsibility of service is seen primarily as that of the dealer. However, the higher the brand strength, the more the service responsibility shifts towards the manufacturer.[139]

How the manufacturer-dealer relation has changed since the EU enacted Regulation (EC) No. 1400/2002, is researched in BODENSTEINER´s (2006) dissertation on *customer retention in contract-marketing systems*, which explicitly attracts the spare-part market of the automotive industry as a research object.[140] An overview of the structure of the German automotive industry, including the after-sales areas car maintenance and customer service behaviour, is provided in the DAT-report.[141]

In a combined consideration of sales and after-sales, BLANCHET/RADE (2007) show the industry challenges, to maximise the *value of the automotive life cycle*.[142] According to their analysis, the European area is characterised by a high complexity and diversity of markets, drivers and customer habits, which leads to a mutual dependency of central actors. As a result, neither OEMs, big dealer chains and finance or insurance groups nor professional buyers have the needed market power to dominate the whole life cycle. But in the *emerging markets,* premium manufacturers have a chance to monetarise the automobile life cycle more strongly, if they force the verti-

---

[138] Cf. Shuqin/Gang (2012), p. 175 ff.
[139] Cf. Esch et al. (2012), p. 1 ff.
[140] Cf. Bodensteiner (2006), p. 1 ff.
[141] Report of the DAT (Deutsche Automobil Treuhand GmbH); available online at www.dat.de.
[142] Cf. Blanchet/Rade (2007), pp. 171 ff.

cal integration via their own branches.[143] The background to this is the vehicles' high degree of complexity and their repairs, which small, independent workshops usually cannot cope with.[144]

In a case study for the northern American brand, Saturn, COHEN ET AL. (2000) describe what is in their opinion an exemplary spare-part delivery concept. Here they show how the alignment towards the customer need for *speed*, combined with a *holistic net-structure* of all Saturn dealers, optimises the spare-part logistics for both manufacturers and dealers.[145]

The automobile-specific *after-sales supply chain* optimisation is furthermore a fairly widely discussed subject in the scientific literature. Because of its primarily organisational focus, it is not dealt with here. For more on this topic, please refer to the following authors: BRUNNERMEIER/MARTIN (2002);[146] DORAN (2004);[147] GUNASEKARAN (2008);[148] KIM ET AL. (2007);[149] KÜHLWEIN ET AL. (1999);[150] MAKRIS/CHRYSSOLOURIS (2013);[151] MEYR (2004);[152] SÁNCHEZ/PÉREZ (2005);[153] TOWILL ET AL. (2002);[154] ZILLING (2006).[155]

Regarding the previously mentioned supply-chain issue one work from GAIARDELLI ET AL. (2006) will be emphasised exceptionally. Here the authors propose an integrated framework in order to measure the *after-sales performance of the whole network* (authorised channels). The empirical application is carried out via two case studies, simultaneously the works' biggest limitation, of automotive companies and their official service network.[156] Thereby, within their performance measurements,

---

[143] Cf. ibidem, pp. 213 ff.
[144] Cf. ibidem, p. 211; Jönke (2012), p. 6.
[145] Cf. Cohen et al. (2000), pp. 93 ff.
[146] Cf. Brunnermeier/Martin (2002), pp. 71 ff.
[147] Cf. Doran (2004), p. 102.
[148] Cf. Gunasekaran (2008), pp. 549 ff.
[149] Cf. Kim et al. (2007), pp. 1843.
[150] Cf. Kühlwein et al. (1999), pp. 16 ff.
[151] Cf. Makris/Chryssolouris (2013), pp. 2077 ff.
[152] Cf. Meyr (2004), pp. 447.
[153] Cf. Sánchez/Pérez (2005), pp. 681.
[154] Cf. Towill et al. (2002), pp. 79 ff.
[155] Cf. Zilling (2006), pp. 1 ff.
[156] Cf. Gaiardelli et al. (2007), pp. 698 ff.

one of the companies focusses on the customer loyalty of the dealer network,[157] but brand loyalty seems to be ignored. Moreover the research of SACCANI ET AL. (2006) is strongly related to this topic. They investigate empirically the *role of after-sales services in three durable consumer goods industries*, and they also investigate the related *performance measurement systems*.[158] Generally they conclude that, 'the automotive industry appears to be the most advanced in terms of after-sales performance measurement systems, in terms of their structure, reliability and exploitation of the information gathered, due partly to higher information integration between manufacturers and dealers.'[159] Furthermore the research shows that volume oriented manufacturers have a profitability focus on after-sales services. In contrast, premium vendors tend to focus on aspects such as customer retention and company image to differentiate within the competition.[160]

DIRLENBACH (2009), using a mixed-methods approach, analyses the success factors of *after-sales service innovations* in automotive management.[161] In this context, an article by GOFFIN/NEW (2001) will also be emphasised, where some years before the role and relevance of customer support is considered in the course of new product developments. The authors thereby confirm the assumed, great importance of this aspect and thus refer to the managements` need, to ensure an appropriate resource allocation in this regard.[162]

DOMBROWSKI ET AL. (2011) look ahead to the automotive spare part market towards the year 2030, with their contribution, 'Scenario Management for Sustainable Strategy Development in the Automotive Aftermarket'. Using a five-phase *scenario-management method,* according to GAUSEMEIER they analyse the four fields of *economy*, *business environment*, *technology* and *stakeholders*.[163] In total they portray three extreme scenarios, in order to enable industry representatives to anticipate

---

[157] Cf. ibidem p. 704.
[158] Cf. Saccani et al. (2006), p. 259.
[159] Ibidem, p. 280.
[160] Cf. ibidem, p. 278.
[161] Cf. Dirlenbach (2009), pp. 1 ff.
[162] Cf. Goffin/New (2001), pp. 275 ff.
[163] Cf. Dombrowski et al. (2011), pp. 285.

the most relevant developments. Likewise required actions can be implemented in the enterprise strategy if there is a need.[164]

Directly related to the object of research, seven compact articles – published in the omnibus volume, BusinessFocus China: Automotive Industry (2009) – address the Chinese *after-sales market*. They deal with focal points such as the automotive insurance market, which the authors discuss against the background of their corporate activity. Likewise, this publication provides basical data for the Peoples Republic of China, an automobile market overview, the illustration of relevant framework conditions, as well as explanations on the areas of marketing, sales, the suppliers industry, commercial vehicles and environment. [165]

The previously mentioned state of research documents that there is *no* comprehensive scientific consideration of after-sales for the automotive industry. Furthermore, the main focus of this research work is only taken into account partly in a few approaches, which is why general after-sales research will be shown below.

Supplements from General After-Sales Research

A historical review shows that after-sales service in the manufacturing industry was initially mainly regarded as a *sales-enhancing accessory*. So for instance, LEVITT wrote in 1972, '(...) customer service is not viewed by manufactures as an integral part of what the customer buys, but as something peripheral to landing the sale.'[166] In 1983 it is again LEVITT who emphasises the relevance of 'customer service', marking the beginning of emerging research into service in general and after-sales services in particular. Beyond that, in his article, 'After the sale is over..', he campaigns strongly for active *relationship management* and for a deeper understanding of the *customer needs* after the sale.[167] 'It is not a matter of just getting and then holding on to customers. It is more a matter of giving the buyers what they want.'[168] Thus the increasing importance of after-sales services becomes very clear in this context. Al-

---

[164] Cf. ibidem, p. 289.
[165] Cf. German Industry & Commerce (n. a.) (2009), pp. 1 ff.
[166] Levitt (1972), p. 47.
[167] Cf. Levitt (1983a), pp. 87 ff.
[168] Ibidem, p. 88.

though LEVITT draws his findings from industrial good markets, he forecasts that the change reaches *all* areas, even that of fast-moving consumer goods.[169]

Three years later LELE refers to the strong *competitive pressure* within various industries in the USA,[170] which is why after-sales becomes '(...) [a] key area for investments – a sharp contrast to its historical image (...)'.[171] Building on this, LELE (1997) provides an *after-sales reference system*, which allows the user to check how high the cost of failure is to the consumer if the product fails.[172]

'This is the golden age of Services, (...)'.[173] In the 21st century, the great importance of after-sales service is well known in practice and science, however, COHEN ET AL. (2005) see a big *optimisation requirement in the corporate configuration*. Thus they present, with the article 'Winning in the aftermarket', a six phase model called 'Managing Service Networks'. Primarily, it will contribute as a useful *code of practice* to make the after-sales business more profitable, as well as effective on the one hand, and on the other hand to increase the service quality.[174]

In an omnibus volume published by BARKAWI ET AL. (2006), the after-sales service business is addressed in a comprehensive and multi-layered way by various authors from science and industry, in seven topic complexes: *market development*, *business strategies*, development and marketing of product supporting services, the so-called *service engineering*, *service supply chain management*, *spare-parts management*, *outsourcing* and *collaboration with suppliers* as well as *technology* and *innovative business models.*[175] Additionally, a management handbook by BROCK (2009) can be consulted on the areas of *cost optimisation*, *customer satisfaction*, and *repurchases*.[176]

---

[169] Cf. ibidem, p. 89.
[170] Cf. Lele (1986), pp. 63 ff.
[171] Ibidem, p. 63.
[172] Cf. Lele (1997), pp. 141 ff.
[173] Cohen et al. (2006), p. 129.
[174] Cf. ibidem, pp. 129 ff.
[175] Cf. Barkawi et al. (2006), pp 1 ff.
[176] Cf. Brock (2009), pp. 1 ff.

BAUMBACH (2004) focusses on the question of how after-sales service can become a *strategic success position*. To do this he develops an integrated after-sales management reference frame on the example of machinery and plant engineering, which is supported by case studies, amongst other things. Moreover he researches in this regard the organisational implementation into the company as a whole.[177] This work is the second revised edition of his dissertation writing, dating back to 1998.

In his cumulative dissertation JÖNKE (2012) picks up the *theory-building of after-sales* by developing a holistic concept regarding 'Strategies and Interfirm Relationships'. This includes a three-phase model to develop spare-part logistic strategies, the empirical identification of archetypes of relationship constellations as well as the emergence of constellations due to firm-internal, net-internal and external determinants.[178]

In a paper published in 2007, CAVALIERI ET AL. have aimed to contribute to a better understanding about the general factors that influence the performance of after-sales. Thus in order to allow enterprises to consistently design their *corporate after-sales service strategies* with those performances required at operational levels within a service chain. Therefore three industrial case studies were carried out to examine the provision of durable consumer goods in a B2C scenario.[179]

Since the beginning of the 90s, various, often logistically focused papers on the *after-sales service supply chain* have been published, which, as with those on the automobile specific supply chain, will be listed only for instruction.[180]

- Spare-part management: AMINI ET AL. (2005);[181] COHEN ET AL. (2000, 1997);[182] COHEN/LEE (1990)[183]
- Distribution channels and vertical integration aspects: NORDIN (2005);[184] GOFFIN (1999);[185] LOOMBA (1998, 1996);[186] ARMISTEAD/CLARK (1991)[187]

---

[177] Cf. Baumbach (2004), pp. 1 ff.
[178] Cf. Jönke (2012), pp. 1 ff.
[179] Cf. Cavalieri et al. (2007), pp. 436 ff.
[180] A selection referring to Saccani et al. (2007), p. 55.
[181] Cf. Amini et al. (2005), pp. 369 ff.
[182] Cf. Cohen et al. (2000), pp. 93 ff.; Cohen et al. (1997), pp. 535 ff.
[183] Cf. Cohen/Lee (1990), pp. 55 ff.
[184] Cf. Nordin (2005), pp. 576 ff.

- Organisational structure and information technology: BRAX (2005);[188] ZACKARIASSON/WILSON (2004);[189] HULL/COX (1994)[190]

These focal points regarding SACCANI ET AL. (2007) also give a good literature and study overview.[191] Moreover they research the building of an *after-sales supply chain* via case studies, by considering the parameters of *degree of vertical integration*, *degree of centralisation* and *decoupling business activities* with regard to the producers of durable consumer goods.[192]

The steadily increasing appreciation of after-sales that occurred in the past as an important contribution to business performance is accompanied by the emerging relevance of services in general. To what extent this process leads the manufacturing industry towards special challenges, and what marks the eventual *transition of product to service providing enterprises*, is researched extensively in particular in investment goods marketing. The following studies encourage a deeper understanding of this dynamic:[193] BRAX (2005);[194] DAVIES (2004);[195] GAIARDELLI ET AL. (2008);[196] GEBAUER ET AL. (2005);[197] KAERNER ET AL. (2004);[198] MATHIEU (2001);[199] OLIVA/KALLENBERG (2003).[200]

Beyond that, it can be stated that many authors have made their after-sales investigations in the previously mentioned investment goods sector or have specified them based on that. A well-founded overview of the corresponding state of research is de-

---

[185] Cf. Goffin (1999), pp. 374 ff.
[186] Cf. Loomba (1998), pp. 143 ff.; Loomba (1996), pp. 4 ff.
[187] Cf. Armistead/Clark (1991), pp. 111 ff.
[188] Cf. Brax (2005), pp. 142 ff.
[189] Cf. Zackariasson/Wilson (2004), pp.75 ff.
[190] Cf. Hull/Cox (1994), pp. 115 ff.
[191] Cf. Saccani et al. (2007), pp. 54 ff.
[192] Cf. ibidem, pp. 52 ff.
[193] Reffering to Gebauer et al. (2012), p. 128.
[194] Cf. Brax (2005), pp. 142 ff.
[195] Cf. Davies (2004), pp. 727 ff.
[196] Cf. Gaiardelli et al. (2008), pp. 261 ff.
[197] Cf. Gebauer et al. (2005), pp. 14 ff.
[198] Cf. Kaerner et al. (2004), pp. 1 ff.
[199] Cf. Mathieu (2001), pp. 451 ff.
[200] Cf. Oliva/Kallenberg (2003), pp. 160 ff.

livered by SASS (2012),[201] who conducted customer-oriented success-factor re-
search in the German offset-printing-machine industry.

One paper out of the industrial after-sales research will be highlighted here, because
the implementation of *cultural aspects* is specifically addressed there. GUDERGAN
(2010) has developed a model that shows the indirect and moderating influences of
HOFSTEDE´s (2001) cultural dimensions (individualism/collectivism, uncertainty
avoidance, power distance)[202] in regard to the adoption of technologies.[203]

KURATA/NAM (2010) examine, primarily game-theoretically, the *competition in the
after-sales supply chain* of durable goods and the *resulting customer satisfaction*.
Thereby two groups are considered, first the manufacturers who offer free, basic af-
ter-sales performances (mostly required by law), as for instance repair services in the
context of guarantee cases. Second, dealers who offer an additional, fee-based after-
sales service, as when manufacturers offer guarantees that supplement basic obliga-
tions.[204] They assume that after-sales offers influence demand; likewise, that it is
possible that an oversaturation through too many services can occur, with the result
being that customer satisfaction could diminish or it deters interested consumer from
buying. This hypothesis is confirmed insofar as after-sales offers crafted strictly to
maximise profits in no case led to optimal customer satisfaction. [205]

International Aspects

MORSCHETT ET AL. (2008) empirically investigate the choice of *market entry* of
German companies in the course of the internalisation of their after-sales services.
Conceptually thereby transaction, company- and country-specific variables are test-
ed.[206]

The article 'The Role of After-Sales Service in International Marketing' by ASUGMAN
ET AL. (1997) contributes, in the area of durable consumer goods, to the understand-

---

[201] Cf. Sass (2012), pp. 13 ff.
[202] Cf. Hofstede (2001), 79 ff./145 ff./209 ff.
[203] Cf. Gudergan (2010), pp. 252 ff.
[204] Cf. Kurata/Nam (2010), pp. 136 ff.
[205] Cf. ibidem, pp. 138/144.
[206] Cf. Morschett et al. (2008), pp. 525.

ing of the relationship between *internalisation* and the *meaning of after-sales* as well as the performances offered. Furthermore, the moderating variables of *intensity of competition*, *relative product quality* and *ability to influence the distribution channels* are considered. The hypotheses testing basically shows that the higher the degree of internalisation, the stronger is the perceived relevance of the after-sales offering by a given management.[207] This does not mean however, that at the same time the actual offer is accordingly extended or improved. Thus, especially in markets with low competitive intensity, there is the danger that too few resources flow into after-sales services, although the responsible managers conceive this as strategically important.[208] The empirical survey is based on business decision makers, which is why the authors refer to the need to investigate the customer perspective in the future. On the one hand to uncover possible discrepancies towards the managers perspective, and on the other hand to investigate how *cultural aspects* influence the *perception of after-sales service*.[209]

VAN BIRGELEN ET AL. (2002) examine the *impact of cultural influences* on the *perceived service quality*, as well as the associated *customer satisfaction*. Their study differentiates, according to the type of customer contact, between the technology standard in traditional personal, telephone and online after-sales service.[210] With regard to the interpretation and to a thinkable transferability of the results towards other industries, it should be noted that the customer group is composed only of B2B buyers for office materials in industrialised Western countries. Also, it will be noted critically that the online affinity of the reference group could have changed significantly since the survey in 2002.

2.3   Chinese Consumer Behaviour in the Context of Intercultural Marketing

Intercultural Marketing

For this research purpose this paper will have recourse to the scientific discipline of *intercultural marketing*, to be able to fathom specific Chinese preferences in after-

---

[207] Cf. Asugman et al. (1997), 11 ff.
[208] Cf. ibidem, p. 23.
[209] Cf. ibidem, pp. 25 f.
[210] Cf. van Birgelen et al. (2002), pp. 43 ff.

sales service. Thus it will be oriented towards the special features of the culture and therefore as closely as possible towards local customer needs. As a generally accepted definition is not established yet, a possible definition is delivered,[211] because this one supports the project and shows the relevance of the approach, 'Intercultural marketing encompasses the analysis, planning, coordination and control of all corporate activities oriented toward the cultural conditions and influencing factors of current and potential international markets or of the world market, regardless of the chosen form of foreign involvement.'[212] The preferred recourse of the intercultural school will not diminish the importance of international marketing, but will set a target, because 'culture (..), as a significant independent variable, determines consumer behavior'[213] so that the knowledge gained through research examining demand-oriented success factors could be strengthened; thus, concern (group)-wide efficiency decisions are not focused accordingly. For a general understanding of the discipline of intercultural marketing, please refer to EMRICH (2014),[214] MENNICKEN (2000)[215] and MÜLLER/GELBRICH (2004).[216]

Historical Review and Current Relevance

To approach Chinese consumer behaviour within the intercultural context it is advisable, besides analysing current developments, to review historical developments of country and culture in order to acquire an awareness of the entire relationship.

In 'dragon flight', BECKER/STRAUB (2007) dedicate themselves to promoting this background knowledge, by presenting *China`s history*, explaining how philosophy led the *ways of thinking* and the *social system*, deriving resultant differences from Western culture, and against this background, discussing the economic and social stability of China.[217] In relation to this research, especially the book`s second part, 'society in change' is of high relevance, as the following excerpt may demonstrate, 'The differentiation of various income groups and social milieus is proceeding as quickly as the

---

[211] Cf. Emrich (2007), p. 25.
[212] Cf. Mennicken (2000), p. 90.
[213] Emrich (2007), p. 35.
[214] Cf. ibidem; Emrich (2014), pp. 1 ff.
[215] Cf. Mennicken (2000), pp. 1 ff.
[216] Cf. Müller/Gelbrich (2004), pp. 1 ff.
[217] Cf. Becker/Straub (2007), pp. 1 ff.

pluralisation of lifestyles and values. The [Chinese] social structure, consensus-oriented and geared towards collectivism, is increasingly confronted with the orientation of Western industrial societies toward individualistic values, which stands in stark contrast to basic traditional Confucian attitudes.'[218] A detailed *historical explanatory statement on the consumer culture of China* is also provided by GERTH (2003), who analysis particularly the dichotomy of the unfolding forces of nationalism and materialism.[219] Also GERTH (2011) describes the way the Chinese *emulate American consumer behaviour*.[220]

The high *relevance of China-specific marketing* is likewise expressed clearly through the recently published academic journal, 'International Journal of China Marketing'. The publishers refer explicitly to the adaption need of the marketing and namely as well to the automotive industry.[221] Furthermore an automobile specific analysis of the *Chinese motor vehicle market* can be taken from the Chapter 3.2 of the omnibus volume BusinessFocus China – automotive industry.[222] Moreover, for a continuative consideration of current China as well as the complex, economic, political and social developments, the publications of the German Institute of Global and Area Studies (GIGA) are reffered;[223] here in particular the freely accessible Journal of Current Chinese Affairs.[224]

Consume in China – Structure, Segments and Market Cultivation

How multinational companies could take advantage of global marketing strategies in emerging markets is researched by CUI/LIU (2001) using the example of China, in which notably the *heterogeneity* of *market segments* is shown.[225] Due to the enormously fast change, the specific findings, based on the year 1997, are no longer up-

---

[218] Ibidem (2007), p. XIII.
[219] Cf. Gerth (2003), pp. 1 ff.
[220] Cf. Gerth (2011), pp. 1 ff.
[221] Cf. Tian/Rhee (2010), p. 11.
[222] Cf. German Industry & Commerce (n. a.) (2009), pp. 1 ff.
[223] Information about GIGA is available online at http://www.giga-hamburg.de.
[224] The Journal of Current Chinese Affairs ist is available online at http://hup.sub.uni-hamburg.de/giga/jcca/index.
[225] Cf. Cui/Liu (2001), pp. 84 ff.

to-date, but the basic knowledge that standardised products and global brands are not sufficient to exploit the full market potential,[226] appears, as before, highly relevant.

DEVAN ET AL. (2009) discuss the *structural characteristics of private domestic consumption*, especially those conditions that led to a China that, based on GDP, has a very low consumption ratio. This ratio in fact decreased from 1990 to 2009 by around 15%. With regard to consumer behaviour, it will be emphasised that the average *household`s saving rate* of spendable income is quite high at 25% – in fact 15% higher than the Asian average. Beyond that consumers are cautious when it comes to borrowing in order to buy the high-quality products available to them.[227]

MC EWEN ET AL. (2006) examine the Chinese from two perspectives, the worker and the consumer. They show on the consumer side that *incomes* are rising continuously, but the mass of people *cannot* buy what they really want. Only the group of the rich city inhabitants already has several of the most popular consumer goods, so that here *repurchases* and *extensions* could be of interest. In the automotive area, however, first-time purchases dominate. The authors argue that in consumer durables marketing it has to be considered that it is not all about satisfying needs, rather consumers expect a good and target-group-appropriate *design* as well as faultless *performance*. [228]

SUN/WU (2004) survey 5,584 Chinese consumers, based on a stratified random sample, in order to investigate the *impacts of economic developments on various lifestyles*. They show that the consumption patterns of rural people differ greatly from those of urban people.[229] This is true for every part of the marketing mix. For instance, the rural population is more price conscious, less tied to brands and less exposed to mass media advertising. In addition they use other retail channels than urban dwellers, which, in 2004, had nearly three times the disposable income.[230] In 2012 this ratio, with a factor of 3.1, was almost equal.[231]

---

[226] Cf. ibidem, p. 99.
[227] Cf. Devane et al. (2009), pp. 1 ff.
[228] Cf. McEwen et al. (2006), pp. 68 ff.
[229] Cf. Sun/Wu (2004), pp. 245 ff.
[230] Cf. ibidem, p. 253.
[231] Own calculations based on n. a. (2012e), XI. Population, Living Conditions and Social Security.

The segment of luxury goods is researched by SAIDI ET AL. (2010) by using a litera-ture analysis, in order to discover what is different about people who own a great deal of capital, the so-called high-net-worth individuals (HNWIs).[232] The authors refer to the fact that this Chinese target group strongly differs from both Western and other Far-Eastern HNWIs. Moreover, all of society in China is subject to fast changes. 'The Confucian background, socialist political system, frugal-value oriented collective so-ciety and the rapid economic growth are influencing permanent changes in societal pre-existent values.'[233] Summing up, they recommend adjusting marketing strategies to local conditions and especially strengthening brand awareness. As well it is nota-ble that luxury goods in China do not necessarily have to be perceived as rare, rather they always will contain, in addition to their prestige function, a utility function.[234]

In place of the many available studies, carried out through the international business consultancies, the very recent 'Upward mobility: The future of China´s Premium Car Market'[235] will be emphasised, because it has a strong reference to the offerings of the German automobile manufacturers. SHA ET AL. (2013) focus primarily on prod-uct-oriented sales opportunities; however some findings are usable in the context of after-market behaviour. In this regard, the authors emphasise the steadily growing *demand for value added services*.[236] The *buying motives* then become complex, so that the previously mentioned really important aspect of *status symbol* gets supple-mented, by *fun orientation*, the *symbolism of business credibility* and the *demand for excellent service,* as being also of high relevance. Further emphasised is the mean-ing of the *target group women*, which appreciate values like *safety* and *comfort* more than men. Regarding after-sales it could be stated that the car is usually replaced af-ter six to eight years, whereas in the premium segment this happens two to three years faster.[237] In what direction the premium market will develop in the future the authors cannot predict, but they do accentuate that the OEMs should try to acquire a better understanding of the Chinese consumer.[238]

---

[232] Cf. Saidi et al. (2010), pp 1 ff.
[233] Ibidem, p. 2.
[234] Cf. ibidem, pp. 30 f.
[235] Cf. Sha et al. (2013), pp. 1 ff.
[236] Cf. ibidem, p. 5.
[237] Cf. ibidem, pp. 6 f.
[238] Cf. ibidem, p. 13.

The advertising expert DOCTOROFF[239] (2005) explains, in the management hand-book 'Billions', how the Chinese consumer can best be reached.[240] According to his experience, even leading business managers mistakenly tend to apply Western norms (non-reflected) when selling consumer goods in China.[241] DOCTOROFF de-scribes three focal areas. First, the eminent importance in *Chinese culture of the de-cision making or buying process*; second, he shows *basics*, due to which strategies for the 'Middle Kingdom' can be derived, and finally he analyses the largest '*pitfalls' in market cultivation*.[242] Here he offers a comprehensive and well-founded overview. The scientific proof of individual drivers and context relations is, however, not the ob-jective of his work.

Chinese Buying Behaviour and Country of Origin Effects

WANG/CUI (2008) describe, in the Journal of Consumer Behaviour*,* the results of seven research works on Chinese *buying behaviour*. Throughout, they assert that various *customer segments, a variety in behaviour* and *traditional values*, even today, exist. Because the *emphasis on social relations*, *feng shui* and *superstition* influences the decision making process, with this effect being more pronounced for the elderly than for the younger population.[243] The key messages of the individual studies is as follows:

- ECKHARDT/HOUSTON (2008) describe that Chinese consumers ascribe to one and the same product different meanings, because the *assessment takes place in the context of social relationships*. Interpersonal relationships might therefore dominate over individual product attributes.[244]

- HERNANDEZ ET AL. (2008) examine the *impacts of superstition at product releases*. They test both 'proactive superstitious behaviors', like wearing a tal-isman as well as 'passive superstitious beliefs' such as for instance the belief in fate.[245]

---

[239] CEO JWT Greater China – J. Walter Thompson is one of the biggest ad-agencies of the USA with globally located branches. Continuative to that, it will be referred to the case study 'JWT China: Advertising for the New Chinese Consumer'; Köll (2009), pp. 1 ff.

[240] Cf. Doctoroff (2005), pp 1 ff.

[241] Cf. ibidem, p. 2.

[242] Cf. ibidem, pp. 2 ff.

[243] Cf. Wang/Cui (2008), pp. 421 ff.

[244] Cf. Eckhardt/Houston (2008), pp. 484 ff.

[245] Cf. Hernandez et al. (2008), pp. 424 ff.

- Via 400 personal interviews WONG/ZHOU (2005) investigate the motives of young Chinese upon purchase of prestigious and understated foreign consumer goods. They confirm previous researches by showing that the *perceived brand quality* strongly influences the consumption of less understated goods, whereas the *perception of brand prestige* and *brand value* has a bigger impact on the *purchase intention*, if the product category symbolises a high social position.[246] In the context of this research work especially the following partial result is to be emphasised: 'The findings showed that for conspicuous products, perceived brand quality is seen as a major purchasing motive by the high social compliance group, (...)'.[247]

- FAM ET AL. (2008) interview 630 persons in Beijing, Shanghai and Guangzhou by means of a stratified random sample. For the three *age cohorts* 15-21 years, 34-56 years and over 57 years, they were able to capture both the *attitude* towards the advertising of controversial or socially sensitive products such as cigarettes, as well as about various ad execution technics. The most significant differences were between the youngest and the oldest cohorts and especially with regard to gender aspects.[248] They strongly recommend that Western marketers build up a good understanding of Chinese habits, in order to make appropriate cultural adaptions.[249] The *reaction of potential Chinese buyers to ad contents and formats* are also researched by other authors not on this list – authors like ZHOU/BELK (2004) on *global and local advertising appeals*,[250] or LIN (2001) on reflected *cultural values*.[251]

- LINDRIGE/WANG (2008) examine twelve young Shanghai-Chinese who are planning to have or have had plastic surgery, in order to find out whether the *cultural aspects of consumption* are increasingly in line with Western values in the course of *modernisation*. The authors argue that plastic surgery has become a constructing function for the personality adjustment towards reaching

---

[246] Cf. Wong/Zhou (2005), pp.1 ff.
[247] Ibidem, p. 9.
[248] Cf. Fam et al. (2008) pp. 461 ff.
[249] Cf. ibidem, p. 468.
[250] Cf. Zhou/Belk (2004), pp. 63 ff.
[251] Cf. Lin (2001), pp. 83 ff.

the *desired ideal*, reflecting social change. Thus, *perfection*, *success* and *wealth* are the central attributes of the 'new' China.[252]

- LI ET AL. (2008) question 300 students via both e-mail and paper question-naire on their *service consumption behaviour* (hairdressing service). Thus, they deliver explanations for the factors that influence *repurchase behaviour,* or which could lead to repurchase.[253] The authors show that *customer satis-faction* and the *cost of switching* have a positive influence on the repurchase intention, but that the *purchase interval* exerts no significant influence. Fur-thermore the perceived value correlates positively with customer satisfac-tion.[254]

- HSU/NIEN (2008) compare consumers from Taiwan – whose cultural and so-cial system was shaped by Japanese colonisation between 1895 and 1945[255] – with consumers from the urban Chinese mainland for the decision-influencing variable of *ethnocentrism:* 'a form of nationalism in which one sees one's own people (one's own nation) as the centrepoint and at the same time as superior to other peoples.'[256] They acknowledge that ethnocentrism de-creases with increasing contact with foreign influences.[257]

Following on ethnocentrism, the closely associated '*country of origin (COO) effect*' will be referenced, which describes what effect the image of the originating country has on the perception of products and services. In the context of buying behaviour, for instance, KUMARA/CANHUA (2010) examine this effect through a survey of 170 Chinese students. They determine for the situation of buying a foreign product that the *economic value* is taken into account, an *information demand* occurs or remains, that the consumer considers what impacts the product has on his *social status*, and therefore how his or her *personality* could be promoted.[258]

---

[252] Cf. Lindrige/Wang (2008), pp. 496 ff.
[253] Cf. Li et al. (2008), pp. 448.
[254] Cf. ibidem, p. 455.
[255] Cf. Hsu/Nien (2008), p. 438.
[256] Duden (n. a.) (2013), Ethnozentrismus.
[257] Cf. Hsu/Nien (2008), pp. 441 f.
[258] Cf. Kumara/Canhua (2010), pp. 343 ff.

With regard to the COO in conjunction with China, the following studies can be considered: [259]

- *Global brands* in context of decision-making: ROSENBLOOM ET AL. (2012)[260]
- *Brand preferences* of urban Chinese in buying behaviour: KWOK ET AL. (2006)[261]
- *Using preferences* of domestic and foreign internet services: OH/ZHANG (2010)[262]
- *Ethnocentrism* and *nationalist opinions* as a potential danger for foreign goods: PARKER ET AL. (2011);[263] ISHIA (2009)[264]
- *Case studies* regarding Taiwan and Acer in China to aversion and price-quality topics: AMINE ET AL. (2005)[265]
- Differentiation of COO in '*Country of Design*' (COD), '*Country of Assembly'* (COA) and '*Country of Manufacture'* (COM) with regard to quality assessment and purchase intention of young Chinese: WONG ET AL. (2008)[266]

Research with an Intercultural Focus on Decision-making Processes

GONG (2003) picks up the need for intercultural research, as he considers the *influence of the Chinese culture on all phases of the buying decision process*. From this he derives hypotheses, so that a preparatory reference frame for further analysis results. The hypotheses are not tested; instead possible implications for the international marketing are shown.[267] The hypotheses formulated by GONG offer valuable starting points for the success factor research that is studied in this work. For example, the usually positive effect of *guarantees* could be weak in China; so it is hypothesis P10: 'Chinese consumers are less likely than Westerners to be attracted by product warranties',[268] an aspect that can influence the success of the automotive after-sales marketing.

---

[259] A selection referring to Trotter/Lijuan (2012), pp. 47 f.
[260] Cf. Rosenbloom et al. (2012), pp. 20 ff.
[261] Cf. Kwok et al. (2006), pp. 163 ff.
[262] Cf. Oh/Zhang (2010), pp. 227 ff.
[263] Cf. Parker et al. (2011), pp. 4 ff.
[264] Cf. Ishia (2009), pp. 209 ff.
[265] Cf. Amini et al. (2005), pp. 369 ff.
[266] Cf. Wong et al. (2008), pp. 455 ff.
[267] Cf. Gong (2003), pp. 373 ff.
[268] Ibidem, p. 376.

KNÖRLE (2011) examines *brand loyalty in China* with the objective of, 'pointing out the cultural particularities for building brand loyalty in the Chinese context.'[269] The author conducts a qualitative and a quantitative study (PLS-path modelling) that includes the consideration of central intercultural value studies. In terms of brand loyalty, he explores the fact that relationship to a brand is affected most strongly by social influences, amongst which the perception of the brand within the family context could be seen as the most intense. Based on the hypotheses tests in the path model, he also confirms empirically, that '(…) when it comes to relationships to brands, social aspects play a central role. In particular the perception of a brand as international has a positive effect on the judgement of its quality, on prestige and its perceived value as well as on social connectedness and brand loyalty.'[270]

HE/MUKHERJEE (2007) researched, with a structural equation model, how the *pursuit of self-congruity*[271] in the Chinese consumer influences their buying behaviour, especially as to their preferred business image. They notice that the Chinese consumer behaviour is driven by the motives of *actual self-congruity* and *social self-congruity*, which is why the satisfaction felt, the perception of value as well as dealer loyalty can be positively influenced here.[272] Personal and societal ideals, which are relevant in Western decision patterns, are overlain by the pressure of social acceptance and consistency, as the authors argue.[273]

Also within the context of intercultural marketing MOSER ET AL. (2011) research explicitly the *cultural standards of behaviour from the perspective of German managers*. They differentiate between the three generic cultural areas of *time*, *relationship* and *communication* from the five specific standards of *trust*, *collectivism*, *power distance*, *risk perception* and *negotiation pattern*, which usually establish aspects of the cultural areas mentioned.[274] Because people in business relationships are surveyed, caution is advised when transferring the findings to the average consumer. However, they

---

[269] Knörle (2011), p. 221.

[270] Ibidem, p. 225.

[271] The concept of self-congruity is based on the 'assumption that the agreement of a consumer's personality characteristics with those of a brand leads to the consumer valuing the brand.' Mäder (2005), p. 26.

[272] Cf. He/Mukherjee (2007), pp. 443 ff.

[273] Cf. ibidem, p. 454.

[274] Cf. Moser et al. (2011), pp. 102 ff.

provide starting points and hints for those cultural aspects that can influence buying behaviour – such as the special position of the value, *trust*, which is closely associated with the requirement to *save face*, the av*oidance of direct confrontation* as well as the specifics of *Chinese negotiation methods*.[275]

Meta-Analysis of Consumer Behaviour

In a meta-analysis KROLL ET AL. (2011) consider 48 published studies (2000-2008) on *consumer behaviour*, to derive generally valid statements and to give recommendations for consumer goods marketing. Here, the main topics are: values/culture, attitude/motives, product characteristics, brand choice as well as consumer profiles.[276] The authors state that the *novelty of Western products* becomes less important as a purchase incentive, and likewise by trend there is a general decline in the *preference of Western products*;[277] but young Chinese are an exception, because more and more they are catching up with global trends, and thus they are adapting to their Western peer-group`s consumption patterns. With regard to communication, they recommend strict credibility, because the *brand trust* acts as a major success criterion.[278] It is important that almost all surveys were performed in urban China. A transfer of the findings to the whole of the People's Republic is therefore not possible, as neither the single surveys nor the meta-analysis are representative of the nation as a whole.

---

[275] Cf. ibidem, pp. 106 f.
[276] Cf. Kroll et al. (2011), pp. 1 ff.
[277] Cf. ibidem, p. 9.
[278] Cf. ibidem, pp. 3 ff.

3 German Car Manufacturers in China as Research Object

In this chapter the aim is to delimitate the German Car manufacturers as a *research object*. As set out in Chapter 1 there are a lot of indicators that demonstrate why China is tremendously important for these OEMs and why investigations should therefore be done there. The following section, *German Market Overview*, shows the stagnation of the domestic market and the huge contribution of foreign markets, thus based on this foundation, the role of China as a drawing card becomes understandable. Consequently Chapter 3.2 describes the *Chinese macro environment* as well as the biggest *challenges* for after-sales services. Following on that, the after-sales *operations* of German brands in China are analysed (Chapter 3.3), thereby with a special focus on provision modes. Finally in Chapter 3.4, the aggregation of findings will result in a clear delimitation of the object of research. Overall the entire Chapter 3 is relatively comprehensive, which is due to the requirement to describe two markets, but therefore an appropriate understanding about the background is provided in order to establish a profound research study.

3.1 German Market Overview

This section starts with a description of *manufacturers*, German market data and the sales contribution of foreign markets. Then, Chapter 3.1.2 shows the co-operating role of *suppliers*, before finally the *consumer* side is stressed in Chapter 3.1.3.

3.1.1 Car Manufacturers

Car manufacturers, which are also called OEMs in the automotive industry, mainly aim to produce and sell cars as final products. Here they operate as *system leaders*, because they are able to steer the above-mentioned aspects as well as the very important brand design.[279] In Germany there are usually five corporations, and their subordinated brands, stated as German manufacturers, namely BMW, VW, Daimler, Ford and Opel. But it is needed to delve deeper into this topic of *origin*.

---

[279] Cf. Diez/Reindl (2005b), p. 61; Barthel et al. (2010), pp. 16 f.; Chapter 3.1.2, Co-operating Suppliers.

Referring to DIEZ´s (2012) definition of the 'German automobile industry' and the manufacturers operating there, delimitation can be done in two different ways: firstly *location-dependent*, and secondly *corporation-dependent*. This sharpens the focus specifically, so both delimitations are not mutually exclusive.

A *corporation-based delimitation* of German automotive manufacturers would include all corporations headquartered in Germany. Thus Ford and Opel are not defined as German manufacturers because the groups´s headquarters of General Motors (Opel) and Ford are located in the USA, albeit both Ford and Opel have affiliates according to German law. Consequently German manufacturers of this definition are deemed as originary or genuine ones. Using the second option, to *delimitate based on location*, entails that all corporations producing in Germany be counted. The first-mentioned group of five, however, are German manufacturers.[280] In the context of the German market overview, henceforth, the location-based delimitation will be used in this section. Beyond that, both options include subordinated brands like Audi (depending on VW), which likewise might be perceived by customers as autonomous manufacturers. The following provides an overview of the most important, respectively sold, brands in Germany.

German Brand Overview			
Brand	**Corporate Group**	**New Car Registrations 2014**	**Variation towards 2013 in %**
Audi	VW	259,459	+3.0
BMW	BMW	271,436	+2.0
Ford	Ford	192,823	+3.9
Mercedes	Daimler	272,566	-1.7
Opel	GM	219,084	+5.6
Porsche	VW	24,365	+17.1
Seat	VW	92,129	+11.7
Skoda	VW	173,583	+8.5
Smart	Daimler	22,408	-13.8
Volkswagen	VW	656,494	+2.2
Others	-	5,533	+2.5

Table 3: German Brand Overview
Reference: Author's table referring to VDA (n. a.) (2015b), Neuzulassungen.

---

[280] Cf. Diez (2012), pp. 17 f.

Consolidation process

After the Second World War, as part of reindustrialisation, the German automobile industry and domestic production have grown steadily. Simultaneously with the increasing output a *consolidation* of manufacturers has taken place. Initially 15 autonomous manufacturers operated in the market at the mid-fifties. But by the early seventies, the consolidation peaked in an *oligopolistic structure* with only six highly concentrated manufacturers left. In fact this situation was stable for a long time until Porsche was integrated, as a brand, into the VW group in 2012.[281]

Market Volume and Contribution of Foreign Markets

The German OEMs have a strong position in the market capturing almost 71% of the domestic share.[282] To understand the development behind this figure, the *market volume*, measured by turnover, should be the next issue of analysis. Here, some statistical data of the 'Statistisches Bundesamt Wiesbaden' is used. They classify manufacturers, likewise location-based, under the code 'WZ08-291' as manufacturers of automobiles and automotive engines. The following figure shows the industry turnover, and a split into domestic and foreign market.
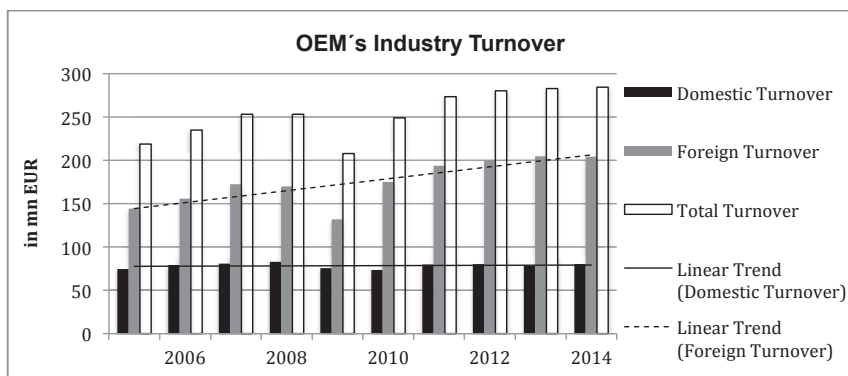
Figure 4: OEM`s Industry Turnover

Reference: Own calculations and illustration referring to Statistisches Bundesamt Wiesbaden (n. a.)
(2015a; 2013d), Beschäftigte und Umsatz der Betriebe im Verarbeitenden Gewerbe.

---

[281] Cf. Fraß (2012), pp. 50 f.; VDA (n. a.) (2013), Automobilproduktion; Diez (2012), p. 42.
[282] Cf. VDA (n. a.), (2013b), p. 26.

The development shows that the domestic turnover is stagnating. The absolute growth is a result of the foreign turnover, which increased significantly, interrupted only briefly by the financial crisis. Taking into consideration that the VDA argues that the meaning of activities in foreign countries has been continuously and notably stronger since 1997,[283] it is worth delving into this aspect by comparing the amount of *exported cars* against *new registrations* with a long-term view.

In the following Figure 5 the absolute numbers show that exports have been more significant than new registrations since the turn of the century. As well, the derived trends indicate a far bigger sales potential on the export site. This picture is fairly similar to the foregoing turnover analysis. It does not describe Germany as an unimportant market, but growth potential is clearly elsewhere.
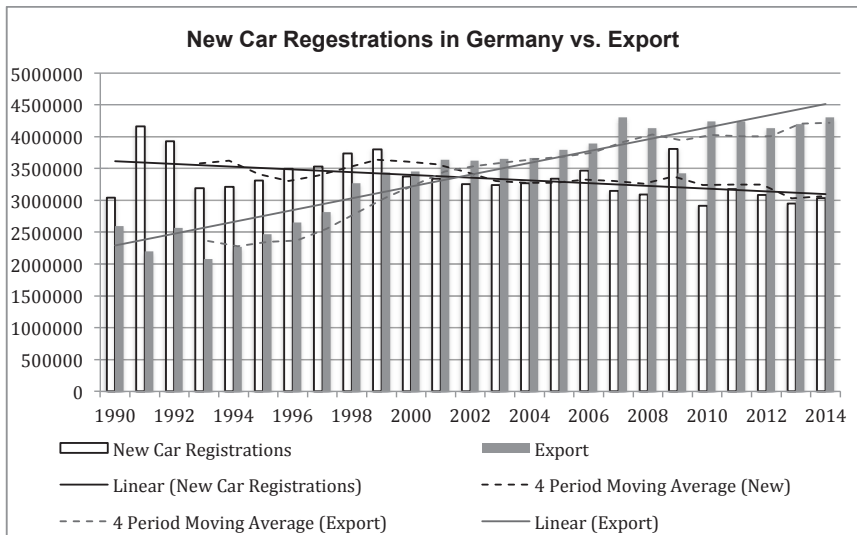
Figure 5: New Car Registrations in Germany vs. Export

Reference: Own calculations and illustration referring to VDA (n. a.) (2015c; 2013a), Export; VDA
                   (n. a.) (2015c; 2013d), Neuzulassungen.

Regarding the previously mentioned aspects we should also learn which of the foreign markets are of high potential, and whether export explains the market develop-

---
[283] Cf. ibidem, p. 14.

ment at all completely. Usually German manufacturers serve foreign car demands with a *two-pillar strategy*, by *export* and *local production* in the relevant countries. To what extent the options are used will differ significantly, depending on market conditions and the models in demand. However, for German corporate groups nowadays this means that three out of five cars are produced mainly locally in foreign markets; a duplication of the share ten years ago. With a global view on production site regions it is obvious that China is the most important country for German manufacturers, because 2.9 mn cars were assembled there, the largest number in any country in the world.[284] Considering all overseas production, German OEMs produced 35% in Chinese plants in 2012, which was an increase of about 26% over the year 2000. In addition, at last 274,212 cars per year have been exported from Germany to China. Looking at the global export figures in 2014, except for Europe (60.6%), the largest national export market is USA (14.3%) followed by China (6.4%).[285]

As mentioned above and in Chapter 1.1 China is tremendously important for the German manufacturers in several aspects. To specify this group as a clearly delimited research object, the previous discussion about export and local production must be combined with Chinese structures and challenges. This will happen starting in Chapter 3.2 Macro Environment of the People´s Republic of China. Here it should be emphasised that in China local production by German OEMs is approximately ten times higher than export. Accordingly a delimitation therefore might be reasonable, so that this aspect will be picked up in the examination of China.

3.1.2 Co-operating Suppliers

The fact is, to produce a car is a highly co-operative process that covers a lot of parties. Even if car manufacturers are system leaders, *suppliers* deliver the lion´s share of value added. The proportion of value added differs from model to model and as well there are niche-cars, which are manufactured completely make-to-order, such as the Mini-Countryman and the -Paceman from the BMW Group. However, the suppli-

---

[284] Cf. VDA (n. a.) (2015a), p. 7; VDA (n. a.), (2013b), p. 29; Stobbe (2013), p. 4.
[285] Cf. Own calculations based on VDA (n. a.) (2015a), Export and VDA (n. a.) (2013a), Export; Wissmann (2013), Deutsche Automobilindustrie in China weiter auf Wachstumskurs; Percentages are rounded.

er's share in the value chain averages at around 75%.[286] To consider the thereby supplied modules in detail, only the body is still primarily made by manufacturers, and the prognosticated trend is that suppliers will continuously increase their production share here and in all other segments.[287]

The supplier enterprises are deemed to be mostly *small or medium-sized* compared to the group structured and globally operating OEMs.[288] The turnover comparison of the years 2010 to 2012 in Figure 6 shows that in a global view. The group of suppliers, which is about eight times bigger than the group of manufacturers, gained, roughly considered, only half the amount of total turnovers in 2012. In the suppliers' case only automobile-specific turnovers are illustrated.
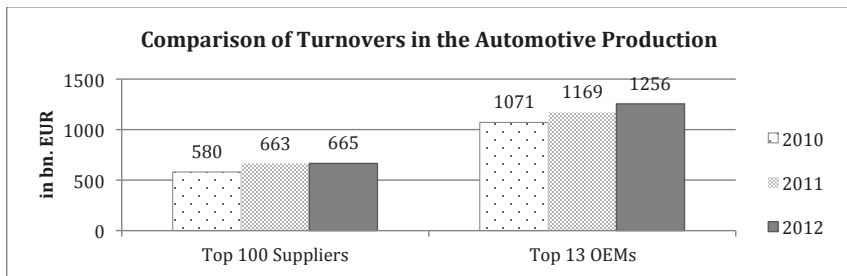
Figure 6: Comparison of Turnovers in the Automotive Production

Reference: Author's illustration referring to Berylls (n. a.) (2013), p. 2.

With an industry analysis it also can be demonstrated that suppliers are typically *strongly dependent* on OEMs. For instance FRAß (2012) shows this for the German automotive suppliers, using mainly PORTER´s five forces model. Important aspects of the great bargaining power of OEMs and the high rivalry within the suppliers industry are: high concentration of few but huge manufacturers, multiple less concentrated and very heterogeneous suppliers, the importance of every single customer in view of the high buying volume, price war within the suppliers of less differentiated offers, and new (potential) market entrants.[289]

---

[286] Cf. Fraß (2012), p. 1; VDA (n. a.) (2011), p. 47; n. a. (2011b), Noch ein Mini für Magna; BMW Group (n. a.) (2012): Wo wird was gebaut; Barthel et al. (2010), pp. 16 ff.

[287] Cf. VDA (n. a.) (2013b), p. 37; Barthel et al. (2010), p. 30.

[288] Cf. Reichhuber (2009), p. 23; Diez/Reindl (2005b), p. 61.

[289] Cf. Fraß (2012), pp. 82 ff.

3.1.3 Consumer

Macroeconomic Tendencies and the Average Buyer

As just set out the German car market is currently deemed to be saturated. Against this background *consumer analysis* starts with a broad issue, the *demographic development*. Since 31st December 2011, Germany officially has a population of 80.3 mn people. Due to a new counting method this figure shows approximately 1.5 mn people less than the foregoing census (81.8 mn).[290] Germany´s population peaked in 2003, but since that point there has been a *steady decrease*; a development that will continue in the future as the official population forecast shows. Depending on the chosen scenario, the so-called mean population, might decrease to between 65 mn and 70 mn by 2060. The 'maximum population' scenario, which shows the highest figure, projects 77 mn inhabitants. This decreasing trend, whatever the exact population numbers might be, is accompanied by a significant *age-group shift*. With a view towards 2030, the relative share of the '65 and older' group will increase and the 'under 20s' will decrease. Likewise it is expected that the motorisation grade of the latter will decrease as well.[291]

Furthermore people's *income* levels must be scrutinised. BARTHEL ET AL. (2010) show that the middle class is steadily shrinking and the low-income group is growing larger, with ever lower wages.[292] The future buying power of these German consumers is inclined to weaken as the mentioned macro data indicates. In what follows the investigation scope will be narrowed, specifying the typical automobile buyer and his behaviour, in order to assess the consumer's impact on the market.

In 2014 the *average buyer* paid € 28,330 for a new car, and two-third of the buyers did this by financing it completely or partly. Of these, 80% had already owned a car, replaced with the new one; 8% bought an additional car; and just 12% were first-time buyers. Typically the buyer was 43,5 years old, and if he had owned a car before, he

---

[290] Cf. Statistisches Bundesamt Wiesbaden (n. a.) (2013a), Bevölkerung.
[291] Cf. Statistisches Bundesamt Wiesbaden (n. a.) (2009), pp. 10 ff.; Barthel et al. (2010), p. 12; VDA (n. a.) (2013b), p. 96; Pötzsch (2011), pp. 211 ff.
[292] Cf. Barthel et al. (2010), p. 12.

had used it nearly six years. The average monthly net income of the buyers' house-holds was € 3,785.[293]

Affordability, Usage and Kind of Demand

The prices paid for new cars as well as fuel prices have been increasing in Germany for a long time. Thus, the development over the last 20 years shows that new car prices increased by 63.7% while the general cost of living, measured by the consum-er price index (CPI), increased by only 39.3%, as the DAT reveals. Focusing on the new century, the price index for petrol on the basis of 2010 surged from 70.7% in 2000 to 117.5% in 2012.[294] The following Figure 7 compares the *consumer price in-dex* with the *car driver price index*, which explains the holistic cost of individual mo-torised mobility. The basket of goods and services includes buying costs, repairs, petrol, insurances and other costs such as taxes.[295]
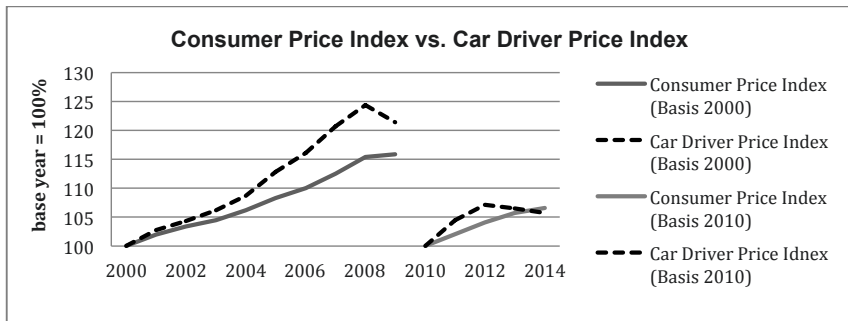
Figure 7: Consumer Price Index vs. Car Driver Price Index

Reference: Own calculations and illustration referring to Statistisches Bundesamt Wiesbaden (n. a.) (2015b; 2013c), Verbraucherpreisindex; Diez/Kohler (2010), p. 15.

With the exception of 2014, buying and using a car is, relatively speaking, steadily more expensive than living in general. Moreover, combined with the recently observ-able decrease of first-time buyers and the relatively small share of buyers with low incomes, the DAT-Report already in 2013 concluded that individual mobility through

---

[293] Cf. DAT (n. a.) (2015), pp. 10 ff.
[294] Cf. ibidem, pp. 70 f.; Statistisches Bundesamt Wiesbaden (n. a.) (2013c): Verbraucherpreisindex; Janovsky et al. (2011), pp. 99 f.
[295] Cf. Statistisches Bundesamt Wiesbaden (n. a.) (2013b), Kraftfahrer-Preisindex.

the use of a car is becoming more and more of a luxury for many potential buyers. As a result people may delay or skip purchase.[296]

Some authors argue that, independent of affordability and willingness to pay, the young urban generation in Germany and other highly industrialised countries esteem cars less than ever as desirable *status symbols*. Even though there is no final evidence for this, it should be considered that, especially in urban areas, more and more people prefer *demand-orientated car-usage* like car sharing.[297] In addition to that, car use should be reviewed in a broader sense. Accordingly, it is important to emphasise the long-term development of the *traffic volume* as an indicator of people's mobility preferences; thereby the relative car use versus other key mobility options, which often serve as substitutes.
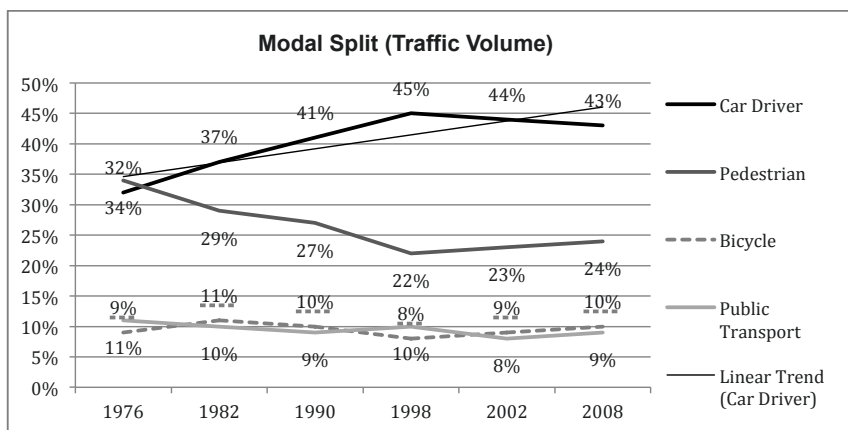
Figure 8: Modal Split (Traffic Volume); Up to 1990 covers only West Germany

Reference: Author's illustration referring to n. a. (2010), p. 8; n. a. (2008), p. 25.

Figure 8 shows that people used mostly the car as a means of travel. The latest data available (2008)[298] gives a figure of 43%. Aside from the finding that car use had the biggest volume, the car driver chart itself should be focussed (it does not include car

---

[296] Cf. DAT (n. a.) (2013), pp. 70 ff.

[297] Cf. Unsöld (2013), Langsamer Abschied von einem Statussymbol; Sopha (2012), p. 99; Fraß (2012), pp. 40 f.; Bundesverband CarSharing (n. a.) (2013), pp. 2 ff.; Diez (2012), pp. 160 ff.; Heymann et al. (2011), pp. 18 f.; Barthel et al. (2010), p. 12.

[298] A Survey update is planned for the year 2016 (s. http://www.mobilitaet-in-deutschland.de).

passengers, their rate averages at 14%). The remarkable increase until 1998 was stopped by a slight decrease of 1% for each survey date. The long-term growth-trend seems to be broken, as correspondingly indicated by the linear-trend cut-off in 2002.

Likewise what *kind of purchase* consumers prefer is of interest, especially whether *new* or *used* cars are demanded. Accordingly Figure 9 shows the ratio of used- to new-car registrations from 2004 to 2014.
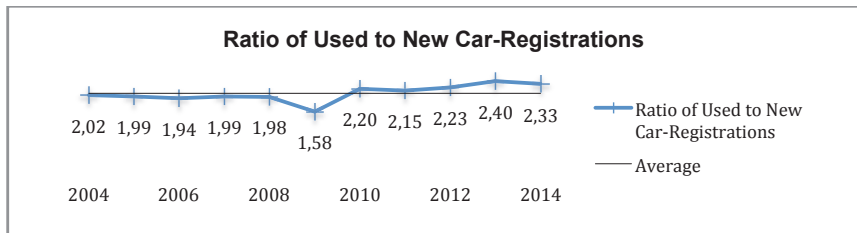
Figure 9: Ratio of Used- to New-Car Registrations
Reference: Own calculations and illustration referring to DAT (n. a.) (2015), p. 16.

After a long period of stagnation the relative demand for used cars dropped in 2009. This development was due primarily to the '*Abwrackprämie*', a scrapping incentive enacted by the German government as part of the economic growth package, in re-action to the enduring financial crisis at the time. Consumers got a bonus for the purchase of a new car if they scrapped one at least nine years old. In fact, next to the environmental benefit, the aim was to support the automotive industry, which was in a bad way.[299] The rate above average of used-car-registrations since 2010 is most likely a reaction towards this market stimulation, but the figures cannot explain how long it will last, and if any another unknown variable effects the ratio additionally. However, the long-term stagnation just described and the latest trend towards used cars delivers no indication of a prospective increase in new car use or purchase.

Future Trends

Oliver Wyman and VDA developed some *trends* showing *customer orientation*, through the FAST 2025 study. They forecast that customer demand will be very indi-

---

[299] Cf. Horn (2013), Abwrackprämie; Barthel et al. (2010), p. 6.

vidual; necessarily variety in car models must be increased to satisfy this kind of demand. In addition, complexity is increasing and product life cycles are shortening. Furthermore customers tend to prefer high quality cars, but, as pointed out in this study, prices cannot be increased at the same level due to the strong competition within the industry.[300] However, it must be emphasised that these trends are nothing new, rather they are a process that has been going on for years.[301]

3.2   Macro Environment of the People´s Republic of China

This section about the macro environment of China describes three general topics, the Chinese *economy* in Chapter 3.2.1, the *consumer landscape* (Chapter 3.2.2), and the main *challenges* in reference to after-sales services in Chapter 3.2.3.

China, the third largest country in area, has approximately 1.35 bn inhabitants, which means in absolute numbers that it is the most populated nation in the world.[302] Chinese people call their country 'zhōngguó', which means 'The Middle Kingdom', first because they are surrounded by the 'barbarian' Vietnamese, Mongolians, Koreans and Japanese; and second, because their historical self-conception is that they are the centre of the world (sinocentrism). The commonly used name China is derived from the Latin word 'Sina'. After World War II a remaining conflict between communist and nationalist groups flamed up again. Finally, Mao Zedong, leader of the communist´s troops, won against Chiang Kai-shek. Thus the civil war ended on 1 October 1949, when Mao Zedong proclaimed the new Chinese state. Since this date, the country´s name is officially *People´s Republic of China (PRC),* covering the Chinese mainland, Hong Kong and Macau. The *Republic of China* must be distinguished from the PRC, because the so-called *Taiwan* (Taiwan island and the Kimmen and Matsu archipelagos), where Kai-shek and his Republic of China supporters fled, has a special status, still struggling to be an autonomous country. By the early seventies Taiwan was recognised by most countries as independent, but not by the People´s Republic of China, where Taiwan is seen as a breakaway province. Sometimes, the term 'Greater China' is used in the literature, which usually covers both the Republic

---

[300] Cf. Oliver Wyman (n. a.) (2012), pp. 2 f.
[301] Cf. Fraß (2012), p. 13; Kurek (2004), p. 13; Diez (2009), pp. 90 f.; Radtke et al. (2004), p. 21.
[302] Cf. World Factbook (n. a.) (2013), China; Holtbrügge/Puck (2008), p. 7.

of China and the People´s Republic of China.[303] This work is always about the Peo-
ple´s Republic of China.

3.2.1 Chinese Economy

Still, China is a socialistic country being governed by one authoritarian party, the
Chinese Communist Party (CCP). In the late seventies China`s functionaries started
to open up their *centrally planned economy* with a slow but well-planned transfor-
mation process. For instance, by abandoning the state monopoly of foreign trade. As
a result, a move towards a market-oriented economy was made. In 1992, at the 14th
national congress, political leaders acknowledged the Chinese model as a *socialistic
market economy*, which on the one hand means that production factors remain col-
lective property, and on the other hand that their use is aligned towards market-
oriented principles. Following this opening-up process, in 2001 the entry into the
World Trade Organisation (WTO) marked an important milestone towards foreign
trade activities. After that, even the conditions for foreign enterprises operating in
China improved remarkably.[304]

Still classified as an *emerging market*, the Chinese economy has grown very re-
spectably. From the early 1980s until now, gross domestic product has increased at
an average rate of approximately 10% per year. Today China plays a major global
role in a lot of areas such as politics or trade. In fact, China outpaced the USA in
2007 and Germany in 2010, becoming the *largest exporter worldwide*.[305]

Gross Domestic Product

Next, the *gross domestic product (GDP)* is examined as a scale of economic
achievement. First an illustration of *China´s share of world´s GDP* since 1700 (Figure
10) and second the *sectoral split* will demonstrate where the GDP contribution comes
from and how the economic pattern has changed over the last 50 years, which is il-

---

[303] Cf. Knörle (2011), p. 1; Holtbrügge/Puck (2008), pp. 10 ff.; Becker/Straub (2007), pp. 29 f./59 f.
[304] Cf. Knörle (2011), p. 3; Maddison (2007), pp. 19/51 ff.; World Factbook (n. a.) (2013), China; Holt-
brügge/Puck (2008), pp. 9 f./18 ff.; Becker/Straub (2007), pp. 34 ff.; Kasperk et al. (2006), p. 7.
[305] Cf. Wang (2011), p. 110; World Factbook (n. a.) (2013), China; Holtbrügge/Puck (2008), p. 23; Han
(2013), p. 107.

lustrated in Figure 11. Both contribute to understanding contemporary China in the long run.
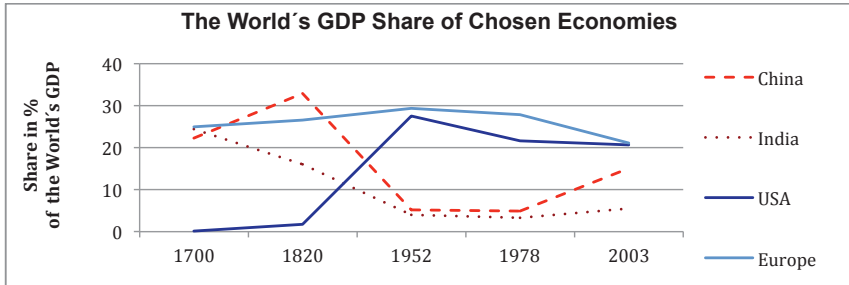
Figure 10: The World´s GDP Share of Chosen Economies

Reference: Author's illustration referring to Maddison (2007), p. 44.

In 2012, 10.1% of China´s GDP was gained through agriculture, 45.3% through the industry sector, and 44.6% via services.[306]
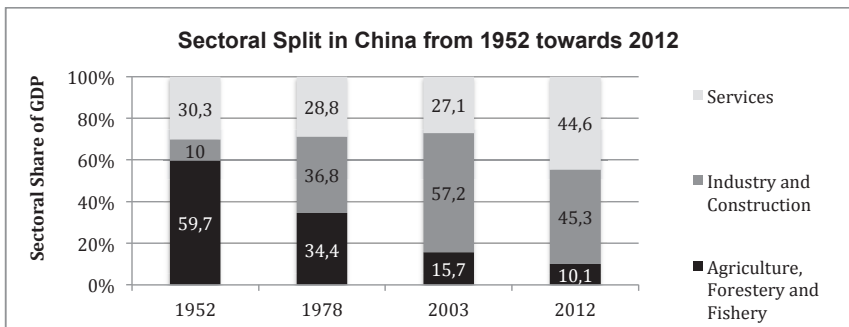
Figure 11: Sectoral Split in China from 1952 towards 2012

Reference: Author's illustration referring to Maddison (2007), p. 70; Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), p. 1.

Today, if price differences are taken into account, by using purchasing power parity (PPP), China is the world's *second largest economy* since 2012. Thus, the estimated GDP was $ 12.61 trillion in 2012. Here, only the USA surpasses China, predominantly based on the highly developed service industries (nearly 80% of GDP-share). The

---

[306] Cf. Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), p. 1.

European Union would surpass China as well, if the complete region is seen consolidated as one country.[307] Furthermore, to clarify these numbers it is necessary to emphasise that the official Chinese GDP ($ 8,227 trillion) underestimates the actual output, if it is measured on the official exchange rate and not by using purchasing power parity, as stated in the World Factbook: '(..) because China's exchange rate is determine by fiat, rather than by market forces, the official exchange rate measure of GDP is not an accurate measure of China's output; GDP at the official exchange rate substantially understates the actual level of China's output vis-a-vis the rest of the world; in China's situation, GDP at purchasing power parity provides the best measure for comparing output across countries.' [308]

Next, *GDP growth rates* are examined to describe recent developments in China.

China´s GDP Growth Rate Compared to Chosen Countries

in %

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
China	10,1	11,4	12,7	14,2	9,6	9,2	10,6	9,5	7,8	7,7	7,4
Germany	1,2	0,7	3,7	3,3	1,1	-5,1	4,1	3,6	0,4	0,1	1,6
USA	3,8	3,3	2,7	1,8	-0,3	-2,8	2,5	1,6	2,3	2,2	2,4
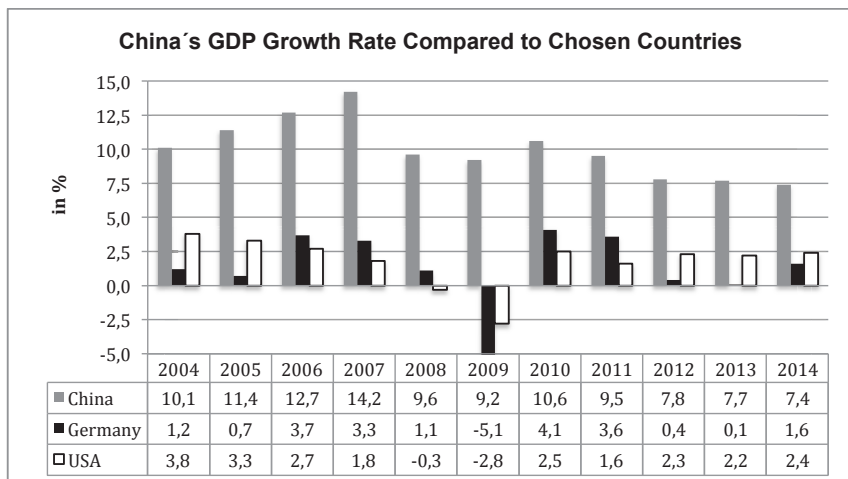
Figure 12: China´s GDP Growth Rate Compared to Chosen Countries

Reference: Author's illustration referring to Worldbank (n. a.) (2015), GDP growth.

Reasons for these steadily high growth rates are manifold, but some are deemed to be crucial, in the forefront the fact that China used its strength as the *world´s workbench*. The huge population seemed to be a never-ending workforce pool. Further-

---

[307] Cf. World Factbook (n. a.) (2013), China; Bryson/Griffiths (2013), p. 8.
[308] World Factbook (n. a.) (2013), China.

more, *people as a production factor* were very cheap for a long time. Simultaneously to the increasing mass production, *consumer's domestic demand* rose; this had a stimulating effect as well. Even if wages rose (stressed later on), China is a comparably cheap place to produce.[309]

Secondly, the low dependence on high-tech areas, which are usually sensitive to conjuncture changes, combined with an accumulated *need in all economic areas*. And finally, the unbroken *trust of foreign investors* in China´s future, as a prospering *market and production place*;[310] independent of all actually existing problems like property rights for instance. By the way, among the emerging markets, China is the largest foreign direct investment recipient within the last three decades.[311]

Conspicuously, in spite of the financial crisis dip, recently the GDP rate *decreased* significantly (s. Figure 12). Incidentally, a development as assumed by a long-term OECD study, here it is stated: 'The pace of Chinese progress will slacken as it gets nearer to the technological frontier.'[312] Right now, experts estimate that double-digit rates are most likely an aspect of the past. Real GDP rates *under the 8%-threshold* have been expected and occurred in 2013 and 2014.[313] Furthermore, it is unclear what growth rate is needed for China to experience a healthy development. However, a value-added comparison with the USA will be delivered here, to foster the understanding of scale and benchmark. If China´s yearly GDP growth rate was roughly two and a half times larger than that of the US, both would have the same effect on the global value added. For instance, using the 2013 growth rate of China with around 7.7%[314] as a year basis, the US economy must grow by approximately 3% to equal this example.[315]

---

[309] Cf. Becker/Straub (2007), pp. 177 ff.; Knörle (2011), pp. 4 f.; Maddison (2007), p. 96; Holt-brügge/Puck (2008), pp. 137 ff.

[310] Cf. Becker/Straub (2007), p. 177; Maddison (2007), p. 96.

[311] Cf. Gao et al. (2013), p. 57.

[312] Maddison (2007), p. 20.

[313] Cf. Worldbank (n. a.) (2015), GDP growth; Bryson/Griffiths (2013), p. 8; Ganther/Issel (2013), p. 18; Wang et al. (2012), p. 2; Chapter 3.2.1, *Five-year planning*.

[314] Cf. Worldbank (n. a.) (2015), GDP growth; Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), p. 1.

[315] Cf. Bryson/Griffiths (2013), p. 8.

Employment, Domestic Demand and Infrastructure

The Chinese workforce is about five times bigger than the European one. In 2012, 767 mn people were counted, of which 48.37% in urban areas. The *unemployment rate* is between 4.3% and 4% since 2003 (4.1% in 2012). But this does not mean that China achieves nearly full employment, in fact only the urban unemployment rate is given officially.[316]

As mentioned before, the GDP has grown fast and continuously in the long run, partly due to the total *increase of employment*, as well because *labour productivity* was increased four-fold in the first 25 years from the political opening process started in 1978.[317] According to that, likewise *wages rose*, a progress that fostered *buying power* and *domestic demand*. Even today, after an enormous increase of more than 440% between 1989 and 2005, Chinese per capita income is continuously rising, but it is still below the world average.[318] Generally domestic demand is deemed to be too weak in China. Here, relatively high *saving rates* and especially income inequality are causative for corresponding low consumption rates.[319] However, in the recent past, domestic demand held up, but with the beginning of 2013 private consumption and investments increased significantly, which is assessed as a positive economic indicator in this area.[320] Further micro economic income analysis follows, in section 3.2.3.

Infrastructure, as an important factor of both a viable competitive economy and an influencer of automotive markets, will be treated next. In the past, China used infrastructure projects to stimulate the economy and to foster the automobile market. Even the car is only one mobility option amongst others, and in general far less important than in Western countries, the expenditure on road traffic is higher than for air or railway traffic. As a result, for instance, the motorway network grew in 2012 by 12,300 km to a length of 97,000 km. This one-year increase in construction has ap-

---

[316] Cf. Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), p. 1; World Bank (n. a.) (2013), Unemployment; National Bureau of Statistics of China (n. a.) (2013): News & Events; Becker/Straub (2007), p. 184.

[317] Cf. Maddison (2007), pp. 59 ff.

[318] Cf. World Factbook (n. a.) (2013), China; Becker/Straub (2007), pp. 164/184 ff.; Jianye (2013), p. 41; PwC (n. a.) (2011), p. 65.

[319] Cf. Gan et al. (2014), p. vii; World Factbook (n. a.) (2013), China; Devan et al. (2009), pp. 3 ff.; Becker/ Straub (2007), pp. 216 ff.

[320] Cf. Jianye (2013), p. 40.

proximately the same length as the sum of all existing motorways in Germany.[321] Furthermore, WANG (2011) remarks that the above-mentioned infrastructural progress will ensure that there is no restriction on future automobile market growth, as seen in other developing countries.[322] But it must be considered that the latter argument is a relative comparison, and as stated in Chapter 1.1, traffic jams actually cause massive problems, especially downtown.[323]

Five-year Planning

The communist party of China uses so-called *five-year plans* as an instrument of country´s development. A lot of actions aim to foster the economy, but amongst others there are also societal and environmental elements, and furthermore these aspects are typically related rather than being mutually exclusive. The first table below shows some important facts for the last seven five-year plans since 1980, to provide an overview of the development of growth focus and economical context. Afterwards, the second table summarises the current schedule of the political leadership.

Five-Year Plan Overview since 1980			
Five-year plan no. and time-scale	Growth focus	Local focus	Average GDP growth rate
No. 6/7 1980-1989	Reform and opening	Huge metropolises	15.35%
No. 8/9 1990-1999	Export and low wages	Coastal and eastern regions	18.6%
No. 10/11 2000-2009	Domestic demand and services	Coastal, eastern and rural regions	15.1%
No. 12 since 2010	Optimisation and sustainability	Western and central China plus rural areas	Estimate: 7%-8% Real average 2010 until 2014: 8.91%

Table 4: Five-year Plan Overview since 1980

Reference: Author's table and calculation on the basis of Worldbank (n. a.) (2015), GDP growth; Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), p. 1; PwC (n. a.) (2011), p. 64; Becker/Straub (2007), p. 146.

---

[321] Cf. Wissmann (2013), Deutsche Automobilindustrie in China weiter auf Wachstumskurs; PwC (n. a.) (2011), pp. 75 ff.; Becker/Straub (2007), pp. 194 ff.

[322] Cf. Wang (2011), p. 110.

[323] Cf. Chapter 1.1, Status Quo and Problem Statement; Pwc (n. a.) (2011), pp. 49 f./76 ff.

The actual five-year plan (2011-2015) – Essential Aims and Provisions			
Area *Motivation*	**Economy** *Optimisation and transformation*	**Society** *Stability*	**Environmental** *Sustainable development*
Aims	• To increase the sectoral service-share of GDP from 43% towards 47% • To increase R&D-share of GDP from 1.75% towards 2.2%	• Maximum of 4% inflation • To increase the rate of urban living people by 4% towards 51.5% • To increase the rate of affordable real estate in urban areas up to 20%	• To reduce CO_2-emission by minus 17% per GDP-unit • To reduce energy consumption by minus 16% per GDP-unit
Provisions	• Focus on R&D, innovation and services • To increase the education expenditures	• To defeat inflation well-directed • To increase the income in rural areas by more than 7% per year	• Definition of seven key-industries like new-energy vehicles • Investment of at least 430 bn Euro

Table 5: The Actual Five-year Plan (2011-2015)

Reference: Author's table referring to PwC (n. a.) (2011), p. 63.

Regarding the actual planning purpose, of transforming China into a more service-oriented and sustainable economy, JIANYE (2013) sees strong indicators of success. Here, for instance, the service sector outpaced the industry sector on the supply side, which fostered the labour market additionally.[324] However, knowledge of these policies is absolutely basic to understanding ongoing developments in China, and moreover it delivers a broad context for some issues regarding the following sections, whereby the Chinese consumer landscape is stressed next.

3.2.2 Chinese Consumer Landscape

A very important insight about *Chinese consumerism* is that there is neither the one Chinese market nor the one Chinese consumer. Prima facie this is a banal awareness of marketing in general, but it is therefore relevant to emphasise that, as opposed to Europe, a lot of issues are comparatively *heterogeneous*, such as *customer segments* and communications media.[325] Likewise ECKHARDT (2004) pointed out that it might be that there are more differences within the Chinese customer seg-

---

[324] Cf. Jianye (2013), pp. 40 f.

[325] Cf. Knörle (2011), p. 7; Xin-an et al. (2008), pp. 377 ff.; Köll (2009), pp. 7ff.; Cui/Liu (2001), p. 101; Wang et al. (2012), p. 10; Holtbrügge/Puck (2008), p. 143.

ments than between China and the West.[326] This indicates that examining Chinese consumer behaviour is tremendously complex. Because of that, it is more useful to analyse customer behaviour in regard to each special topic rather than drawing a comprehensive picture of the Chinese consumer landscape. By doing so, plenty of consumer behavioural issues, presented in Chapter 2.3, will be exploited later on. Nonetheless, the situation of Chinese *households* will be highlighted in detail here, because experts[327] recommended examining this elementary issue with respect to culture and to automobile after-sales. Besides, the role of households is important, as it is China's basic social unit.[328] Finally, cars are suitable to be used by more than one person. Regarding private car use, typically in households.

The subsequent section refers primarily to the *China Household Finance Survey* conducted by GAN ET AL. (2014), because this study is quite new, comprehensive, and furthermore it is the first representative one about this issue.[329]

The average Chinese household includes 2.94 persons (Germany: 2.02)[330], whereby 2.67 is the size for urban households, and 3.18 is the one for rural ones. Notably, overall, single households are comparatively rare with 6.68%. More than 50% of people live in a two- or three-person community and nearly a quarter of households have five or six members. Remarkably, a large number of adult Chinese live with their parents. Thus 36.32% of 30-to-40-year-old urban Chinese live with their parents if they are married, and 56.40% if they are unmarried. For the 40 – 50 age group the numbers are: 23.24% for married people and 27.28% for unmarried. The mean age of Chinese people is 38.37 years.[331] Due to the so-called 'one-child policy' China has a low population birth rate, ranking 163 with respect to the rest of the world. Today the average Chinese life expectancy is nearly 75,5 years, 35 more than 1950, so the population pyramid is becoming more and more like the Western urn form.[332] That is why *aging* is a remarkable problem and a serious social challenge in China. GAN ET

---

[326] Cf. Eckhardt (2004), p. 404.
[327] Cf. Chapter 1.2, Exploratory Pre-Investigation.
[328] Cf. Emrich (2014), p. 440; Gan et al. (2014), v; PWC (n. a.) (2011), p. 27.
[329] Cf. Gan et al. (2014), pp. 14 ff.
[330] Cf. n. a. (2012e), Bevölkerung und Haushalte.
[331] Cf. Gan et al. (2014), pp. 17 ff./76 f.
[332] Cf. World Factbook (n. a.) (2015), China; Holtbrügge/Puck (2008), p. 9.

AL. (2014) conclude, '(…) China has become old before becoming rich.'[333] A fact, which should be kept in mind, especially with regard to automotive sales and after-sales markets.

Income and Debt Structure

In considering consumerism more deeply, *income* is a major variable, so it is useful to ask at first, where the consumer comes from, because there are huge *disparities between regions*. Here, MADDISON (2007) states that there is a ten-to-one spread of average per capita income between the best and the worst region that, unfortunately, has hardly changed since 1978.[334] Furthermore, in general there are big income disparities between *urban* and *rural* areas. In 2012, with 24,565 CNY (€ 2,968), urban living people earn, per capita, more than three times as much as their rural counterparts who achieved an average of 7,917 CNY (€ 957). Moreover, this rural-urban inequality is bigger than in other Asian countries and the rural-urban spread has increased continuously since twenty years.[335] Considering households instead of individuals, the sum of incomes averages at 59,174 CNY with a median of 27,900 CNY. The *mean to median ratio* of approximately two to one indicates a big income inequality as well. Table 6 will deepen this aspect by showing a mean, median and 90% quantile comparison of rural and urban households.

Urban vs. Rural Household Income (in CNY)		
Household Income	**Mean**	**Median**
Overall sample	59,174	27,900
Household income > quantile-90%	324,612	174,880
Urban household income		
Overall sample	78,944	37,500
Household income > quantile-90%	430,275	230,000
Rural household income		
Overall sample	35,806	19,619
Household income > quantile-90%	175,938	93,077

Table 6: Urban vs. Rural Household Income

Reference: Author's table referring to Gan et al. (2014), p. 161.

---

[333] Gan et al. (2013), p. 19.
[334] Cf. Maddison (2007), p. 22.
[335] Cf. Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), p. 1; National Bureau of Statistics of China (n. a.) (2013): News & Events; PwC (n. a.) (2011), p. 65; Maddison (2007), p. 22.

Again the data shows clearly a huge gap between rural and urban amounts, and furthermore the group of the best earning ten per cent have an income that is about five times the average. If additionally urban households are compared to the overall sample mean, the figure is more than seven times higher than the average. In addition to that, GAN ET AL. (2014) mention, 'Income disparities become more extreme at the upper end of the income ladder.'[336]

To complete the picture, additionally, the *debt structure* is illustrated in the figure below, whereby issues with more than 1% are drawn. Thereby, the average total debt of the households is 62,576 CNY (rural: 36,504 CNY; urban: 100,816 CNY).
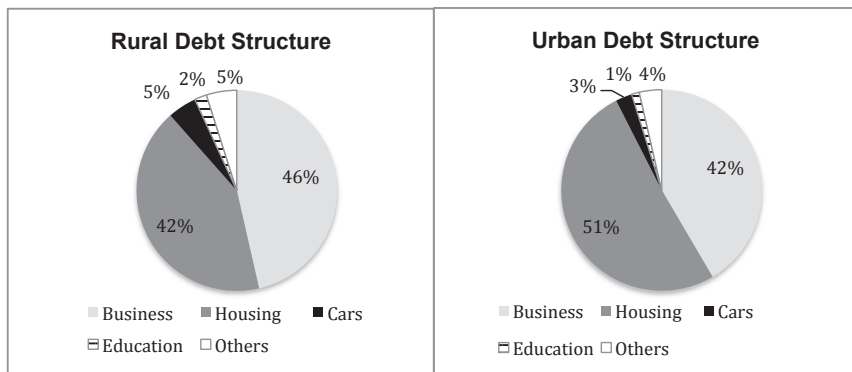
Figure 13: Rural and Urban Debt Structure
Reference: Author's illustration referring to Gan et al. (2014), p. 134; Percentages are rounded.

In fact, the car is the *only* noteworthy durable good for which households borrow money. Here, based on the mean, the amount of money borrowed from banks is approximately twice as big as that borrowed privately, a common practice in China. Additionally, 'cash is king' in China, so leasing has been allowed since 2007, savingsrates are high and credit financed consume is less common. Few durable goods like cars are exceptions, but as well here only approximately 10% of the purchases are fully credit financed.[337]

---

[336] Gan et al. (2014), p. 161.
[337] Cf. Gan et al. (2014), pp. 87/133 ff.; PwC (n. a.) (2011), pp. 29 f.; Holtbrügge/Puck (2008), p. 152.

Closing this section, important disparities are summarised in Table 7, thus with a fo-cus on regional allocation.

Important Regional Disparities in China		
Density	96% live in coastal regions	Sparsely populated mainland
Regional disparities	West - East Axis Relatively high buying power and afflu-ence in eastern regions decreasing to-wards the West	North - South Axis Relatively high buying power and afflu-ence in southern regions decreasing to-wards the North
	Urban • 52.6% of population • Per capita income: 24,565 CNY • Broad product range • Strong immigration • Average household size: 2.67	**Rural** • 47.4% of population • Per capita income: 7,917 CNY • Restricted product range • Strong emigration • Average household size: 3.18

Table 7: Important Regional Disparities in China

Reference: Author's table referring to Knörle (2011), pp. 7 ff.; Chapter 3.2.2.

3.2.3 Challenges to After-Sales Services in the Chinese Market

The most important challenges for German car manufacturers when it comes to after-sales in China are mainly driven from three areas, *competition* within the industry sector, *laws* and *political influences* in the centrally planned economy environment and last but not least *consumers*. Subsequently, some needed facts about the auto-motive market in China are delivered, both as an introductory framework and as ma-jor indicators to derive competition driven aspects, so this area will be stressed first.

Competition Driven Challenges

The subsequent Figure 14 shows the *total sales* in the vibrant Chinese automotive market. Here, in 2014, over 23.4 mn cars were sold. From 2000 to 2010, the average growth rate was approximately 25%. This enormous sales potential created a *need for nearly every OEM to participate*. But within the last four years, sales rates have decreased significantly averaging at almost 6.88%.[338] This indicates a developmental change at the moment, where it is considered that the strong year 2013 was an ex-ception of this trend.

---

[338] Own calculations referring to the data basis of Figure 14.
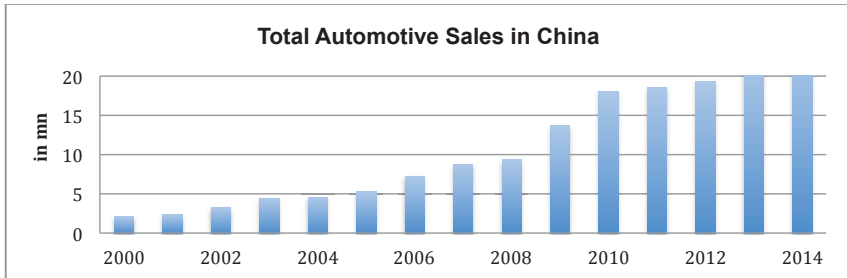
Figure 14: Total Automotive Sales in China

Reference: Author's illustration referring to VDA (n. a.) (2015a), p. 21; VDA (n. a.) (2013b), p. 19.

Having a look at the operating manufacturers shows that in total, Chinese brands capture the highest market share actually, but the *premium market* draws an absolutely different picture, as the figure below illustrates.
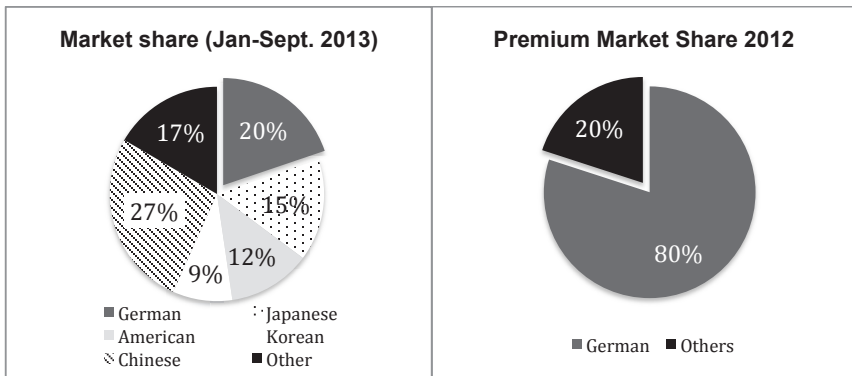
Figure 15: Comparison of Market Share by OEM´s Country of Origin

Reference: Author's illustration referring to CAAM (n. a.) (2013): The passenger cars market share of Chinese brand continued to decline; Sha et al. (2013), p. 5.

With almost 20% of overall market share German manufacturers are recently around 2.5% above the year-average of 2009. Only the sum of Chinese's brands surpasses the German brands. In fact, the figure looks best in the premium segment, which is absolutely dominated by German brands. In 2012 they captured a market share of approximately 80%. Furthermore it is estimated that this segment will grow by dou-

ble-digit rates.[339] On the one hand the estimated premium market growth shows a good short-term potential for German manufacturers, but on the other hand focussing this segment strictly is a big market limitation. Besides, as mentioned, it is short-sighted. Furthermore, the *competition within the whole car market* is much higher, as indicated through the aforementioned four-year average market grows figure of 6.88%. As pointed out in Chapter 1.1 the after-sales could contribute high profits, due to the most likely *fast growing after-sales service market*, where moreover profit margins are comparably high.[340]

So why is the after-sales service market in China most likely fast growing? Drawing a comparison to a mature market shows the potential. For instance, the automotive service and repair market of the USA could be chosen. Thereby, at the end of 20th century new car sales were almost constant at approximately 15 mn vehicles per year. In contrast, the service market grew from 60 mn cars in 1950 towards 200 mn cars at the end of the century. This is a remarkable rate of 13:1 in 50 years, as WISE/BAUMGARTNER (1999) have shown. Furthermore, other authors recognise this development industry-wide. However, the after-sales market in the automotive industry is also described here as four to five times bigger than the OEM-sales market,[341] and renowned consultancies acknowledge the mentioned automotive after-sales growth potential recently. Also they refer to the need for preparing for the up-coming challenges that will result from this growth.[342]

In terms of competition it should be advantageous that usually relatively new cars, which are plentiful in the market (s. Figure 14), are repaired through the OEMs' own or contract-related workshops. Nonetheless there are many *competing providers* offering after-sales services, as Table 8 illustrates. Likewise, in contrast to other emerging markets the competitive intensity in the Chinese market is relatively high,[343] and as a result GEBAUER ET AL. (2010) state that 'China is the most challenging

---

[339] Cf. Wissmann (2013), Deutsche Automobilindustrie in China weiter auf Wachstumskurs.; Geinitz (2013), Deutsche Hersteller fahren in China weiter an der Spitze; CAAM (n. a.) (2013), The passenger cars market share of Chinese brand continued to decline; Sha et al. (2013), p. 5.

[340] Cf. Chapter 1.1, Status Quo and Problem Statement.

[341] Cf. Wise/Baumgartner (1999), p. 134; Cohen et al. (2006), p. 129; Shuquin/Gang (2012), p. 175.

[342] Cf. Mohr et al. (2013), pp. 9/13; Arthur D. Little (n. a.) (2011), pp. 1 ff.; Gebauer et al. (2010), pp. 4 ff.

[343] Cf. Gebauer et al. (2010), p. 4/9.

[after-sales] market'.[344] Furthermore they argue that 'companies trying to exploit the aftermarket with a standardized global approach will most likely fail'.[345]

Types of Automotive Workshops in China		
Type	**Quantity**	**Comment**
OEMs' own or contracted workshops	8,000	• Notably well accepted during warranty time • The reference in terms of quality
Workshop chains	8,000	• Here, international chains play a minor role • In the past not as successful as OEM workshops but with remarkable growth potential
Tyre specialists	8,100	• At last highest growth potential • Offering smaller repairs and services as well
Special repair workshops	11,000	
Free workshops, overall Category 1 = generalists Category 2 = specialists	216,000 52,000 164,000	• Category-2 workshops often have poor standards
Do-it yourself	0	• Chinese car owners do not repair by theireselves • In contrast, in Germany around 8% of all works are 'do-it yourself'
Total	251,000	• Competition forces a steadily quality increase

Table 8: Types of Automotive Workshops in China

Reference: Author's table referring to Saueressig (2009), pp. 268 ff.; DAT (n. a.) (2013), p. 60.

The service provider structure in general is similar to the European structure. In China the existing competition within the workshops has recently tended to result in better service offerings among the OEM competitors. This is no doubt a favourable development for customers, but a negative one for manufacturers.

Relative to competition, it is important to have a look at the aspect of *protection of intellectual property* in China. Working with the industry, German and European governmental agents have been trying to convince China to take care of important rights such as design protection, as this aspect is particularly important for German manufacturers that are in competition with Chinese ones,[346] especially because the Germans stand for innovation and highly engineered cars. China, where before 1970 no protection of intellectual property existed, is even today, deemed to be the biggest pi-

---

[344] Ibidem, p. 5.

[345] Ibidem.

[346] Cf. VDA (n. a.) (2013b), pp. 195 f.

racy market in the world, with a lot of negative impacts on other market participants
and as well on consumers.[347] The question of how much harm is done to German
OEMs operating in China is difficult to establish, but a comparison with Europe, made
by VDA, illustrates the degree of the problem. The estimated harm amounts to be-
tween 5 bn and 10 bn euros, which means that even if we consider only the German
automotive market more than 80% of forgeries are from China.[348]

However, BECKER/STRAUB (2007) point out that insufficient protection of intellectu-
al rights obviously harms the automotive industry. In fact copying parts and products
(product piracy) is the biggest challenge. Here they show for instance that in the year
2002 two very popular Chinese car models were unmistakable reproductions of VW´s
Jetta and Daihatsu´s Xiali. Moreover, the copied Jetta costs approximately half of the
original, though it was produced with some original VW parts, bought secretly from
one of VW's Chinese production partners.[349] Issues to do with collaboration and joint
ventures are taken up again below, in *Political and Law Driven Challenges*. In fact,
most of the experts[350] who were consulted described the topic of *competition through
piracy* as a big challenge for after-sales service with respect to various aspects, es-
pecially in regard to the customer who might be willing to accept non-original parts.

Political and Law Driven Challenges

Foreign companies operating in China are liable to Chinese *law* in general and more
specifically in terms of direct investments to the *Provisions on Directing Foreign In-
vestment* and the *Catalogue for Directing Foreign Investment*. In these documents
foreign investments, and therefore also the configuration of foreign operations, are
categorised by industry sector and by whether they are *prohibited*, *restricted*, *permit-
ted* or *encouraged*.[351] In fact, usually foreign enterprises have to co-operate with Chi-
nese enterprises to cope with local law. Thereby the Chinese government mainly
aims to *transfer important technologies* from Western firms towards domestic ones to
use them in the long run by coming up with discretely self-owned innovations. This

---

[347] Cf. Becker/Straub (2007), pp. 263 ff.; Holtbrügge/Puck (2008), pp. 139 ff. See also statements
made by experts in Chapter 1.2, Exploratory Pre-Investigation.
[348] Cf. VDA (n. a.) (2013b), p. 197.
[349] Cf. Becker/Straub (2007), pp. 265 f.
[350] Cf. Table 1: Experts of the Exploratory Pre-Investigation.
[351] Cf. Holtbrügge/Puck (2008), p. 93.

way, Chinese enterprises will strengthen their (global) competitive ability, while fostering the associated Chinese.[352]

There are many options for collaboration, but due to the requirements of Chinese law, capital intensity, long-term scope, and remarkably challenges of the then newness of the Chinese market, automotive OEMs mostly founded *equity joint ventures* to produce in, and to penetrate China. The following Figure 16 shows selected Chinese OEMs with important joint ventures from a German perspective on brand level.
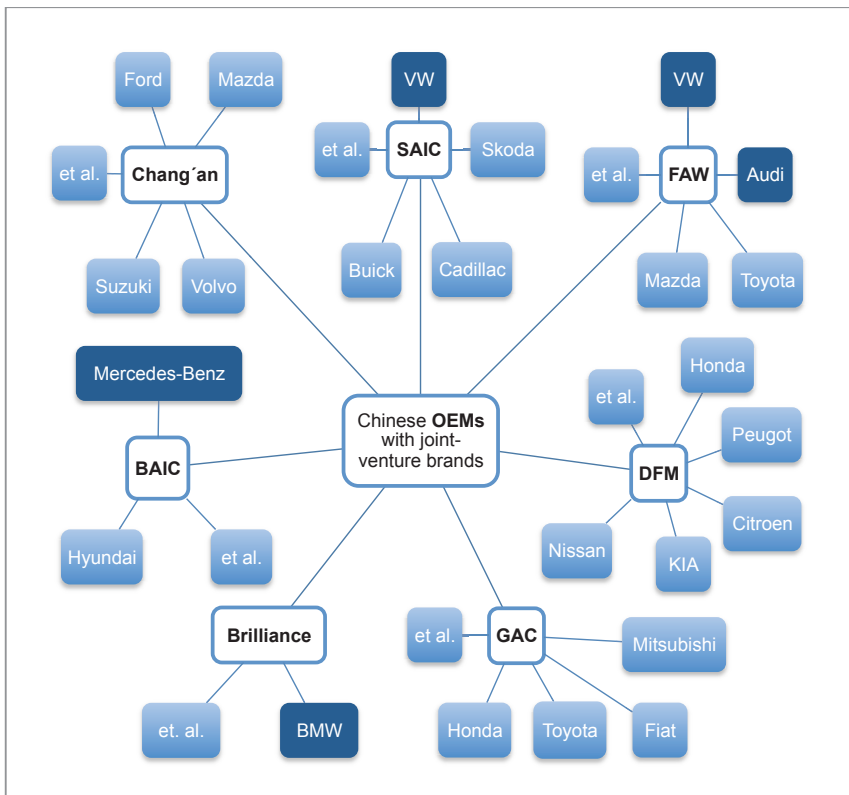
Figure 16: Selected Chinese OEMs with Important Joint-Venture Brands

Reference: Author's illustration referring to n. a.(2013f), Sino-Foreign Joint Ventures.

---

[352] Cf. Jen-Kai (2011), p. 1; Holtbrügge/Puck (2008), pp. 100 f.; Meyring (2009), p. 31; Becker/Straub (2007), pp. 201 f.; Sopha (2012), p. 98.

In Addition to the preceding figure it must be emphasised that Porsche and Opel are only exported to China.[353]

The shown connections demonstrate that foreign enterprises usually do *not* have an *exclusive* partner at the group level. This could lead to a future challenge if competition in China becomes very strong. However, nowadays the partner choice can also be crucial. For instance, Daimler suffered when the full sales potential could not be achieved because distribution channels and collaboration with dealers are not on a level with those of German competitors.[354] Thus, generally, the market regulation in China is challenging, likewise in regard to the OEMs' after-sales service strategies because equity joint ventures are hardly changeable, and they also define partly the subordinated downstream organisation.

The next legally respectively politically driven aspect is itself driven, namely by *environmental challenges*. In the course of the rapidly growing economy, China has struggled with a lot of negative impacts, with regard to traffic with crucial developments like heavy environmental pollution, massive traffic congestions as well as thereby resulting health and safety issues. Politically driven *car emission* and *traffic regulations* are the result. Thus for all new automobiles in China the Euro 1-norm plus catalyst has been compulsory since 2000, and since 2004 regulations have aimed at significant fuel reductions. In some regions Euro 3 is mandatory for petrol and diesel engines, in megacities like Shanghai Euro 4 is obligatory and Beijing has enacted a prohibition zone for diesel engines in general. Furthermore, from 2015 regulations will specify the maximum average fleet fuel consumption to 5.9 litres. This is an aim that is unlikely to be achieved unless e-mobility is pushed quickly and effectively.[355] In comparison, the Chinese regulation is not as strict as the European one, but definitely substantial. In the EU the manufacturers' fleet average must be under the threshold of 130 g/km CO_2 by 2015. In China the intention is to reduce emissions to 117 grams by 2020. Even this regulatory challenge is not as strict as in the EU (95 g/km) but stricter than in the USA (121 g/km).[356]

---

[353] Cf. Geinitz (2013), Deutsche Hersteller fahren in China weiter an der Spitze.

[354] Cf. Pretzlaff (2012), Daimler will mit dem China-Vorstand Vollgas geben; n. a.(2012f), Daimler bündelt Vertrieb; n. a. (2012g), Mercedes strauchelt auf Chinas Automarkt.

[355] Cf. Jen-Kai (2011), p. 5.

[356] Cf. VDA (n. a.) (2013b), pp. 65 f.

Besides, as mentioned beforehand, in some megacities the regulation might be even stricter. Due to the bad air quality, one option is to allow only zero-emissions cars in inner-city zones.[357] Independent of regions, *sales taxes* will foster small car segments. For instance, the sales tax for very large-cylinder-capacity cars is about 40 times higher than for small ones. Remarkably, the sector promoted is the same, where domestic players have established their products respectively a good market share.[358]

As in Western countries, the need in general, caused by regulation, and especially due to the CO_2-emission reduction, has a direct impact on manufacturers' engineering and market strategies. These appear on the face of it to be huge challenges for selling cars, and that is undoubtedly the case, but the after-sales service is also affected. Due to regional regulation activities consumers might be forced to upgrade their cars, for instance in response to a requirement to treat waste gas, if it becomes mandatory. Even for consumers these aspects are quite challenging. That is why it is so important to operate with proper after-sales marketing, founded on very good knowledge of customer needs.

The last major challenge in this section regards both political and, the hereafter shown, consumer driven challenges. Having a look back, the *financial crisis* and the resulting recession affected China significantly. That is why the Chinese government reacted by supporting ten *key-industries* with special emphasis. In the process, they *stimulated the domestic market* with a number of subsidies. Here, amongst others the car sales had been massively promoted in 2009 and 2010, so due to thereby increased sales the automotive market in China became for first time the largest automobile market worldwide.[359] However, currently the five-year plan does not foster the whole car market again, but rather *new energy cars* such as those with electric engines are focused on by politics, so that new energy vehicles are affiliated to the actual five-year plan.[360] The electrification of the power train is one of the biggest issues in the automotive industry presently. Indeed heavily related to engineering, this topic is an after-sales challenge as well. The electrification challenges are a far too wide

---

[357] Cf. Barthel et al. (2010), p. 25.
[358] Cf. PwC (n. a.) (2011), pp. 69 ff.
[359] Cf. Jen-Kai (2011), pp. 1 f.; Wang (2011), p. 103.
[360] Cf. Table 5: The Actual Five-year Plan (2011-2015); Jen-Kai (2011), p. 6.

and complex topic to be stressed in this work and this section, but having a look at previous developments in this context is helpful.

The *technical enhancement* in cars in general and thereby especially the increasing *usage of complex electronics*, and prospective the electric power train are challenges, which on the one hand are consumer driven developments because the demand for highly engineered and differentiated products increases steadily.[361] On the other hand there are challenges for satisfactory delivery of service because this complexity must be handled especially through the personnel, which have to be trained continuously for that purpose.[362]

Consumer Driven Challenges

Car ownership and *demand* will be the first issue stressed in this *consumer*-related section. In this regard, data before 1997 is extremely limited. Since that time the average rate of owned cars has increased steadily.[363] In a representative study, GAN ET AL. (2014) found that 14.53% of these households own motorised vehicles such as cars, buses or trucks. In rural areas this rate is at 10.26%, but rural households often tend to buy vehicles that are suitable for agricultural purposes. This means the real car ownership quota is significantly smaller. Presumably the stock of German premium cars is very small. In contrast, the urban vehicle household owner rate averages 19.23% and here the most popular brand is VW followed by Toyota and Hyundai. In contrast to the view on households, car-density is a common recognized indicator of market penetration. The car density per 1000 inhabits in China is at about 61 whereas this figure in Germany is well above 450.[364]

In China 90% of the families in the total household sample own just *one car*. If people of the urban households plan to buy a car, nearly *90%[365] of them prefer to buy a new one*, arguably because of the prestige gain or in other words, the loss of face inher-

---

[361] Cf. Gerischer (2010), p. 2; Fraß (2012), pp. 13/41 f.; Diez (2009), p. 91; Kremlicka et al. (2011), pp. 10/48 ff.

[362] Cf. VDA (n. a.) (2013b), p. 190.

[363] Cf. Wang (2011), p. 104.

[364] Cf. VDA (n. a.) (2015a), p. 21; Gan et al. (2014), pp. 83 ff.; VDA (n. a.) (2013b), p. 20; Jen-Kai (2011), p. 2; Janovski et al. (2011), p. 95.

[365] In 2011 the management consultancy Arthur D. Little publicised that, 'Today, about 80% of customers are first-time purchasers; (...)' Arthur D. Little (n. a.) (2011), p. 1.

ent in purchasing a used-car. This means the figure of 90% is the same whether they owned a car before or not. As a result, today, the *used-car market* amounts to only 25% of the new car market. In contrast in Germany it is twice as big. Furthermore the second car purchase in urban areas is approximately 30,000 CNY higher than the initial purchase.[366] This means that achieving strong brand loyalty could be a crucial challenge in competition, also affected by after-sales services.

Another challenge for German car manufacturer is caused by *origin*. As early as 1997, ASUGMAN ET AL. showed that it can be strategically harmful if global vendors offer *after-sales services of lower quality* than the services offered to their domestic market. Additionally, this takes more effect the higher the *customer expectations* are.[367] Within the explorative pre-investigation for this work several experts emphasised that Chinese expectations of European products are usually very high, and oftentimes even higher when it comes to German cars.[368] That is why especially German manufacturers must be alerted to the fact that knowledge of expectations can be crucial. On the one hand this is a major challenge, because there is a lack of scientific knowledge about it.[369] On the other hand because this topic has recently been a *hotly disputed issue* in regard with customer complaints and political agitation.[370]

This became important, especially for German companies, because they were met with hostility through the Chinese state television. As a result, at least within the industry and also the German media landscape, it is deemed to be political initiated. Allegedly, German car manufacturers used insulating materials with unhealthy levels of volatile gasses.[371] Here, even the after-sales areas of German manufacturers have been affected, as various examples show. So, for example, the BMW customer Mr Zahng refers through the media to diverse problems with his two-year-old car, which almost caused a fatality. 'The BMW personnel all wore friendly smiles, but they showed little sincerity to solve my problem.'[372] At VW, Chinese watchdogs focussed their attention on so-called DSG´s (direct-shift gearboxes) by gathering more than

---

[366] Cf. Gan et al. (2014), pp. 83 ff.; PwC (n. a.) (2011), pp. 30 f.; Green (2009), p. 264.

[367] Cf. Asugman et al. (1997), p. 13.

[368] Cf. Chapter 1.2, Exploratory Pre-Investigation.

[369] Cf. Chapter 1.3, Identification of a Research Gap.

[370] Cf. Chapter 1.1, Status Quo and Problem Statement.

[371] Cf. n. a. (2013d), China stinkt der deutsche Erfolg.

[372] Zhang cited in: n. a. (2012c), Luxury int'l car brands running over Chinese trust.

10,000 bits of data about possible problem cases. Thus VW increased the warranty for gear boxes to ten years or 160,000 km, which for this component is the longest warranty time in the world.[373]

As stated in Chapter 3.2.2, the *family* as a unit is a variable that should be noted. In terms of after-sales service there might be a challenge because the contact person coming to the workshop is maybe only partly the real or final decision maker. In fact, the linkage within Chinese families is, despite a lot of changes, still very strong. Furthermore, a PricewaterhouseCoopers analysis shows that older generations increasingly finance car purchases, when a long-run comparison since 1960 is done.[374] Thus it is likely that the role or the importance of *potential influencers* in Chinese´s families is different from what it is in Western ones. The automotive after-sales marketing should take this 'addressing challenge' into consideration to be effective. Additionally, it might be beneficial to take this into consideration, especially with respect to brand loyalty within families.

3.3   After-Sales Operations of German Automobile Brands in China

Due to the importance of origin, and a distinct identification by the Chinese, German manufacturers are *limited to corporation-based companies* in this work, which means that only BMW, Daimler, Volkswagen and their related brands are taken into consideration. Usually cars and automotive performance are marketed on brand level, which is why this research will explicitly focus on the brand instead of the group. Additionally, success factor research with specificity ambition requires a homogenous basic population (object of research) on at least industry level.[375] Investigating the entire group of corporation-based limited group brands would lead to heterogeneity. For instance Porsche, as a Volkswagen brand, is mostly deemed to be a luxury brand, but Volkswagen is considered a quality volume brand. *Audi, BMW* and *Mercedes-Benz* are therefore best suited to this research – first because these three brands are consistently seen as *premium brands* in China and their relevance within

---

[373] Cf. n. a. (2013e), Quality watchdog keeps eye on VW.

[374] Cf. Chapter 3.2.2, Chinese Consumer Landscape; PwC (n. a.) (2011), pp. 27 ff.; Holtbrügge/Puck (2008), p. 147.

[375] Cf. Schoeneberg (2011), p. 6/51; Trommsdorff (2009), pp. 26 f.; Haenecke (2002), p. 169.

the market is high,[376] second because the model portfolio they offer is similar, and finally because the after-sales operations are set up in a similar way. As regards the focus of this research, the latter aspect will be deepened as described in the following section.

Provision of After-Sales Services by German Brands in China

Chapter 1.1 illustrates why the manufacturers` after-sales business is so essential. There is now a need for an analysis of the after-sales *provision modes* to ensure that the objectives of the chosen manufacturers are in fact realisable. The most important consumer-related contact points in this context are car *dealerships* and *workshops*. Car dealers usually offer after-sales services as well as sales, and thus have an integrated workshop. Exceptions are so-called *showrooms* (typically brand bound), which are common in Chinese metropolises such as Beijing.[377] Usually they do not offer maintenance and repair services, which is why they are not addressed in this work. Generally dealers and workshops can be classified by *manufacturers` retention grade*, in *manufacturer own* companies (property), *brand bound* companies and so called *independent* companies.[378] Here, the OEM`s influence declines similar to the chronology of this enumeration.

In order to investigate the after-sales instruments for the consumer related constructs, service satisfaction, workshop loyalty, brand loyalty and important moderating influences, one must focus on car drivers which are customers of brand bound or brand own workshops. Only these workshops are related tightly enough to the brand. As a result independent workshops and their customers are not part of this research. However, brand own workshops or branches are part of the focus of this research. The last group, the brand bound or authorised dealers and workshops are legally and economically independent companies; therefore we must ask whether these companies are able to properly fulfill the brands` after-sales interests, objectives and specifications.

---

[376] Cf. Figure 15: Comparison of Market Share by OEM´s Country of Origin.

[377] Author's own observations on-site. The niche manufacturer, Tesla, uses the showroom concept very intensively by consistently separating showrooms from workshops. Further information is available online at www.teslamotors.com.

[378] Ref. Zerres (2010), pp. 16 f.; Diez/Reindl (2001), p. 61.

Customer retention in vertical contract marketing systems (OEM/dealer) in the auto-motive industry is researched by BODENSTEINER (2006), who states that vertical contract marketing systems cause a *harmonisation in the marketing activities* of manufacturers and dealers, and that these systems try to *coordinate* the interests of the system elements.[379] In addition, contract bound dealers are *directly integrated* in-to the manufacturer's marketing and business operations.[380] This understanding is transferable to service operations,[381] which is why contract bound workshops suit this research project. Finally, some China-specific information about previously limited brands Audi, BMW and Mercedes-Benz is shown.

In 2014, 362 Audi brand dealers are listed in China, of which most are authorised companies. Of these last, 305 offer a 24h roadside assistance service. This service and the availability of the dealer are centrally communicated through the manufactur-er´s brand marketing, which is derived from global marketing to specific Chinese re-quirements by the department 'Audi Department Brand Operations'. Note that the brand´s online presence focusses strictly on the products.[382] There is scant mention of service aspects, but it is made clear that Audi has had a world-standard service system in place since 2000.[383] Around 330 Mercedes-Benz dealers were operating in China, and the short-term plan is to grow the network by a further 100.[384] In contrast to Audi, the after-sales business is aggressively promoted online. Here as well, glob-al service standards are promoted, primarily the 'After-Sales Service Certification', which means that authorised dealers and their staff are qualified and trained to satis-fy Mercedes-Benz´s global objectives.[385] As well as global standards, the manufac-turer takes responsibility for after-sales services within the OEM to-dealer value chain, which becomes obvious through the fact that the after-sales performance is meas-ured centrally.[386] Even though BMW´s after-sales marketing is centrally controlled and the influence on the authorised dealers is expressed through e. g. China-wide

---

[379] Cf. Bodensteiner (2006), p. 7 and the there stated literature.
[380] Cf. ibidem, p. 33.
[381] Cf. Diez (2009), pp. 183. ff.
[382] Cf. Audi China (n. a.) (2014).
[383] Cf. ibidem, Audi in China.
[384] Cf. Daimler AG (n. a.) (2014), p. 153.
[385] Cf. Mercedes-Benz China (n. a.) (2014a), After-Sales Training and Certification.
[386] Cf. Mercedes-Benz China (n. a.) (2014b), After-Sales Research Projects.

unified prices for service packages. Finally, BMW has 184 official brand dealerships registered.[387]

The logical conclusion is that all three brands operate a vertical contract system with owned or authorised dealers. This means that the brand´s communication about dealers usually includes workshop services. As a result, from here on, every dealership mentioned also runs a workshop. Moreover, the after-sales services that are executed through these dealers are strongly coordinated, influenced and marketed by the related manufacturers. As a result this limited group makes a homogenous object of research.

3.4   Interim Conclusion and Delimitation of the Research Object

As was shown in Chapter 3.1, *car manufacturers* operate as *system leaders* in the automotive industry. As a result, the production process in particular requires a highly co-operative workflow, whereby around 75% of value added is contributed by the supplying enterprises. Despite this major share, the mostly small- or medium-sized *suppliers are fairly dependent* on OEMs. German car manufacturers can themselves be delimitated in two ways: they are either location-based or corporation-based (origin). The latter includes all brands of BMW, Daimler and VW because their headquarters are in Germany, but excludes Ford and Opel.

However, independent of this, the German market is characterised by an *oligopolistic structure* on the supply side, where the five biggest manufacturers capture 71% of market share. But the *German market has been stagnating* for quite some time and *growth opportunities are located in foreign markets* as was demonstrated on an industry level. To complete the market analysis *consumers* are targeted. Here, all examined aspects, such as for instance demographic development, affordability and car use, indicate that the saturated car market is inclined to become more challenging rather than to grow significantly. In terms of growth and after-sales potential, today *China* is deemed to be the most important market. To penetrate this market, German OEMs use *local production* approximately ten times as much as export.

---

[387] Cf. BMW China (n. a.) (2014), BMW Aftersales.

Relying on this insight, Chapter 3.2 deals with China, starting with a description of the macro environment. Here it must be emphasised that this work always refers to the *People´s Republic of China*. An examination of the economy shows that very fast growth, with double-digit rates, is over. Real GDP *rates under 8%* are expected in future. Even if China becomes more and more market orientated, political planning still leads the way, whereas *five-year plans* are used as general guides. China is currently striving to move its economy towards *service-orientation* and *sustainability*. As a result, fostering the entire automotive industry *ended* in 2011.

The *Chinese consumer landscape* is extremely *heterogeneous* and various social and economic *disparities* were apparent. Due to this complexity, *households* respectively *families*, as very important Chinese units, were given special emphasis. The average Chinese household, with nearly three members, is larger by one than a German household. Regarding *income*, as a major topic, it was demonstrated that the general level and thereby the buying power rose constantly in the past. But this positive gain is, again, very unequally distributed. This is most obviously the case with regard to *regions*, so the mean *urban* per capita income (24,565 CNY/€ 2,926) is three times as high as the rural income. Moreover, *credit-financed consumption* is much less common in China than in Western countries and the car is the only noteworthy durable good that some Chinese borrow for.

Afterwards the *challenges to after-sales service* in the Chinese car market were investigated. First a market overview and *competition driven issues* were stressed, whereby it was shown that Chinese manufacturers have the biggest market share. An important exception is the *premium market*, where German manufacturers capture approximately 80% market share. In total, the Chinese *car market growth decreased* recently, but the *less focused after-sales market* of today provides remarkable *potential*. However, the competition in this sector is getting stronger. With respect to *law-driven challenges*, German *OEM joint ventures* and environmental impacts were emphasised. Thus emission-reduction requirements and *car-permit restrictions* are major challenges. The *consumer*-related section showed that in rural areas vehicles are often used for agricultural purposes. German premium cars are most likely to be used in *urban areas*, where the household-owner rate is approximately twice that of rural areas. Offering *after-sales of a low quality* could be harmful, as ASUG-

MAN ET AL. showed as long ago as 1997. Right now this aspect is *up to date* because German manufacturers are *hit by hostility* among complaining customers and corresponding political agitation. Furthermore this has a strategic impact because *origin*[388] is a very important aspect for Chinese customers, and *expectations* of German products and services are usually very high. Combined with the findings mentioned beforehand about Chinese households, *families* might play an important role in the after-sales marketing; mainly in respect of *potential influencers* who live in relatively big and strong communities, where furthermore older generations often purchase their children´s cars.

The assessment of all these findings combined with the ones of the first two chapters shows that a major challenge for German premium car manufacturers is the best possible establishment within the existing market rather than focussing on penetrating China only via new car sales. As stated in Chapter 1.3, customer-orientated, scientific research is limited in regard to German car manufacturers offering after-sales services in China. Concrete knowledge concerning important performance success factors is very beneficial for practitioners as well; especially if this allows the impact of moderating effects to be revealed.

Finally, the *after-sales operations of German automobile brands in China,* and thereby especially *provision modes*, are analysed, which leads to the following delimitation.

Delimitation

Due to the importance of origin, and a clear identification by the Chinese, German manufacturers will be *limited to corporation-based companies* in this work, which means that only BMW, Daimler, Volkswagen and their related brands are taken into consideration. In order to specify this aspect, and to support the need for a homogenous object of research, only customers of brand own and authorised dealers from the premium brands of Audi, BMW and Mercedes-Benz will be discussed – only drivers of cars, which means that utility-vehicle customers are explicitly excluded. Due to the findings of this chapter, and in accordance to SUN/WU´s (2004) argumentation to

---

[388] Cf. Chapter 2.3, *Chinese Buying Behaviour and Country of Origin Effects.*

carry out an urban versus rural segmentation instead of a regional one,[389] this empirical research and the survey will be done with *customers living in big cities in urban regions*, because the intention is to examine the success factors and moderating influences on after-sales rather than of sales. Therefore the people must both *own a car* made by the *above-mentioned brands* and *be accessible*. This is because of the research design, which is intended to take account of *cultural aspects* as well as the latent variable *brand loyalty*. Thereby, again the limited extent of available data for people living in rural areas, especially in regard to this special research design,[390] supports the urban delimitation.

The next chapter sets the conceptual foundation, which is needed to investigate the after-sales success factors for the object of research as delimited above.

---

[389] Cf. Sun/Wu (2004), p. 249.
[390] Cf. Wang (2011), p. 104; Assessment of Chapter 2.

4 Conceptual and Theoretical Foundation

4.1 Conceptual Reference Frame

The development of a *conceptual reference frame* is the starting point of this chapter, in which the *conceptual foundations* are elaborated. The reference frame helps to structure and systematise the research process in a transparent and comprehensible manner, to show possible problem fields, and in particular to steer the conceptual and theoretical foundations during this process.[391]

The conceptual reference frame expresses topic areas, where relevant cause-effect relationships occur, so that potential success factors can be identified specifically.[392] Because the objective of this work is to identify what determines the success of after-sales in automotive marketing, with a special concentration on Chinese cultural influences, *service satisfaction*, *workshop loyalty*, *brand loyalty* and *Chinese culture* are the topics considered. The *perspective* of the three automobile brands of Audi, BMW and Merced-Benz are of particular interest, which is why a special emphasis is placed on two areas: first, the OEM´s after-sales marketing with resulting after-sales instruments and their impacts on service satisfaction; second, cultural issues, which can be assumed to affect the entire functional chain from service satisfaction to brand loyalty. Consequently the interests of individual car dealerships are not considered.

This research work focuses on the customer, therefore knowledge of customer perception is highly relevant. In order to consider *all* possible success variables, the success factors that can be *directly* influenced by the OEM must be investigated as well as those that the OEM influences only *indirectly or not at all*. Considering this, and to be able to give insights into the entire after-sales process chain, a success indicator must be derived on the basis of the constructs disambiguation. Afterwards the model variables and the related causal relationships have to be identified to finally elaborate the conceptual model. Likewise, research hypotheses are elaborated and

---

[391] Cf. Dorka (2012), p. 88; Schoeneberg (2011), pp. 59 f.; cited literature in Chapter 1.5, *Excursus.*
[392] Cf. Thiebes (2012), p. 49.

theoretically founded, because this combined with the research model reflects the basic structure for the empirical work and the resulting questionnaire.

The aforesaid steps are summarised graphically, whereas formally, the reference frame is a provisional explanation model. Drawn as a diagram of boxes and arrows, where the boxes represent the categories of interest.[393] The reference frame on a meta level, for the entire research process, was already shown in Figure 2, the detailed conceptual reference frame is presented next in Figure 17.
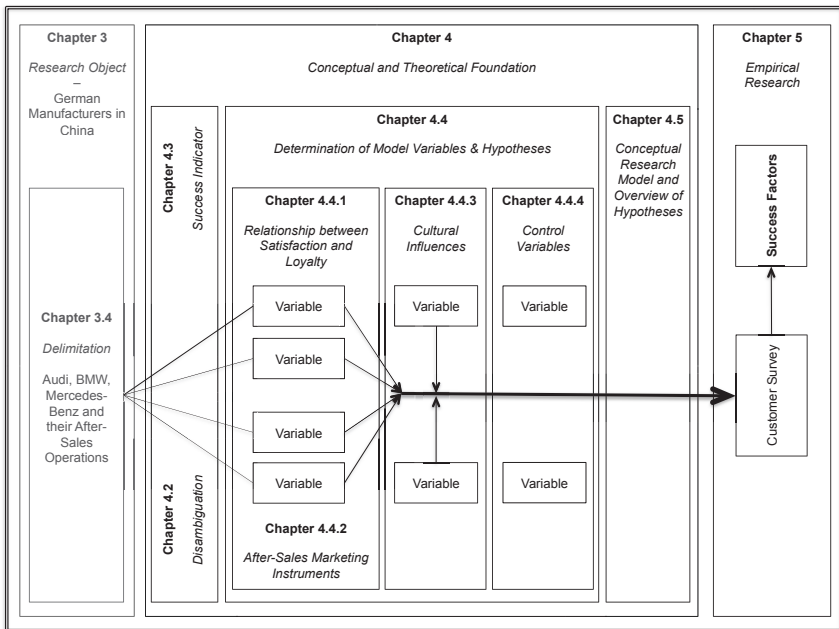
Figure 17: Conceptual Reference Frame

Reference: Author's illustration.

4.2   Disambiguation

Assumed assertion patterns are based on hypothetical constructs. In scientific use this means these constructs must be precisely defined, free of contradiction and

---

[393] Cf. Kubicek (1977), pp. 17 f.

comprehensible. Only in this way it is possible to formulate valuable cause-effect relationships and hypotheses for empirical testing, because indistinct terms would lead to mistakes and inaccuracies in measurement.[394]

4.2.1 Success

The research design of this work is basically determined through the applied research method, success-factor research. Here, the assumed relationships have to be mathematically transformed, formally structured and statistically assessed so that cause-effect relationships affecting *success* can be uncovered.[395] In this regard it is important to define what we understand by success.

Success by itself is a complex, abstract and not directly measurable construct. Even in the context of scholarship no unified definition exists. This means that context and precise descriptions are essential to define its content.[396] In order to be able to express the *construct success*, it is also necessary to choose one or several suitable *success indicators*, because a construct is hypothetically and therefore not directly measurable (latent variable). But observation or measuring becomes possible by using *indicators*,[397] which can be defined following BOLLEN (2011): 'Indicators are observed variables that measure a latent variable.'[398] Due to the operationalisation of these indicators,[399] it is possible to measure success and the individual influence of each success factor.[400]

As mentioned above, the context must be stressed first. In the course of this work three brands are chosen, which undoubtedly lead to a company-related context. As SCHOENEBERG (2011) states, a company's success is mostly considered to be the achievement of that company's objectives.[401] Companies usually have a bundle of

---

[394] Cf. Töpfer (2012), pp. 53 f./72 f.

[395] Cf. Fischer (2013), p. 54; Backhaus et al. (2011) pp. 65 ff.

[396] Cf. Dorka (2012), p. 103; Schoeneberg (2011), p. 47; Freiling (2006), p. 177; Woywode (2004), pp. 22 f.; Bachmann (2009), p. 90.

[397] Cf. Backhaus et al. (2006), p. 340; Töpfer (2012), pp. 53 f.; Kuß (2011), pp. 154 ff.

[398] Bollen (2011), p. 360.

[399] Cf. Chapter 5.2.2, Operationalisation.

[400] Cf. Schoeneberg (2011), p. 48; Sass (2012), p. 23; Forsmann et al. (2004), p. 3.

[401] Cf. Schoeneberg (2011), p. 47, and the literature cited there.

monetary and non-monetary objectives,[402] and companies are successful to the degree that they achieve their system of objectives.[403] Therefore success is strictly related to the company`s objectives, which is why the success indicators of this research are derived from objectives.

When considering the target system of service enterprises, MEFFERT/BRUHN (2009) show that success is dependent to three *target dimensions*, the so-called enterprise-directed, customer-directed and staff-directed target dimensions. These dimensions are linked, and thus they form a success chain. The authors argue that the link between companies and customers is of special importance – for instance, what business provisions (input) are required in order to generate effects on the customer side (output).[404] Because of that, and due to the customer orientation of this research, first, the staff-directed target dimension will not be considered. Second, obviously the customer-directed target dimension seems to be worthy and relevant.

'[Customer directed objectives] (..) are virtually directly aligned with what determines purchasing behaviour, i.e. the key influencing factors of service marketing.'[405] Customer related objectives can be differentiated into three topic groups, *psychological* (e. g. image, quality perception and customer satisfaction), *behavioural* (e.g. repurchase behaviour, recommendation behaviour and customer retention) and *economical* (e.g. customer value) objectives.[406] It should be noted that even psychological and behavioural objectives lead both directly and indirectly to economic gain. Also, customer-directed objectives have an impact on enterprise-directed objectives.[407] This is important insofar as any after-sales marketing objective has to be in line with the context of the entire company (enterprise objectives).[408]

---

[402] Cf. Dorka (2012), p. 103; Kotler et al. (2010), p. 15; Müller-Stewens/Lechner (2005), p. 243; Fischer (2013), p. 57; Dess/Robinson (1984), p. 265.

[403] Cf. Baumgarth/Evanschitzky (2009), p. 243; and basically Etzioni (1964), pp. 1 ff.

[404] Cf. Meffert/Bruhn (2009), pp. 139 f.

[405] Ibidem, p. 142.

[406] Cf. ibidem.

[407] Cf. Esch et al. (2008), pp. 24 ff.; Meffert (1994), p. 96; Meffert/Bruhn (2009), pp. 139 ff.; Edvardsson (1997), p. 36.

[408] Cf. Hättich (2009), p. 83; Homburg/Krohmer (2009), p. 416; Meffert/Bruhn (2009), p. 138.

After-Sales Marketing Objectives

As shown in Chapter 1.2, experts highly recommend the use of brand loyalty as an expression of success in after-sales marketing for China. Moreover, brand loyalty has a very high scientific and practical relevance.[409] Finally, German premium car manufacturers face a major challenge in attempting to establish the best possible after-sales market in China.[410] Brand loyalty also suits the companies` customer-directed target system mentioned above, because it is a kind of customer retention (behavioural). Following these aspects, Figure 18 summarises the *service success chain*[411] in connection with the assumed after-sales process chain.
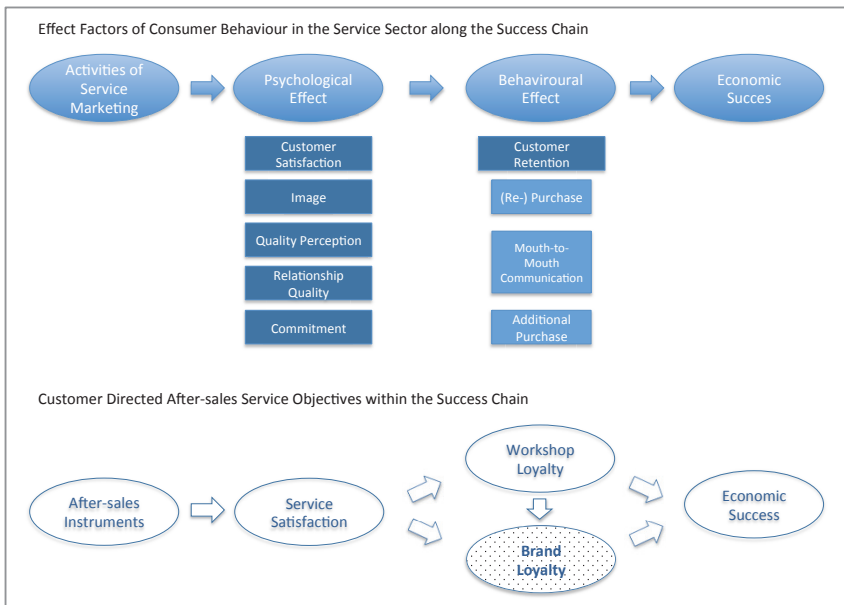
Figure 18: Success Chains of Consumer Behaviour and Automotive After-sales Service
Reference: Author's illustration referring to Meffert/Bruhn (2009), p. 91.

So far brand loyalty seems to be an adequate success indicator, but the final determination takes place in Chapter 4.3, because the proposed and their related con-

---

[409] Cf. Chapter 1, Introduction and 2, State of Research.
[410] Cf. Chapter 3.4, Interim Conclusion and Delimitation of the Research Object.
[411] Cf. Meffert/Bruhn (2009), p. 91.

structs as well require a disambiguation. This will happen along the success chain (s. Figure 18) in the next section, starting with the definition of *service and after-sales service*. The explanation of the term *culture* closes this section.

Success Variables (Factors)

Success itself, as mentioned earlier, can be seen as a result of numerous influences. Within success factor research it is assumed that just a *few influencing factors* have a significant impact on success or success indicators. These factors are called *success factors* and they are conceptualised as *success variables*.[412] Success variables can be separated into *internal* and *external* variables, where internal variables are influenceable through the company. Influencing the external variables is difficult or impossible, because they are part of the companies´ environment. Both kinds can have a *direct* or *indirect* effect on success. Success can also be influenced by *mediator* and *moderator* variables.[413] Mediators are often latent and they have an effect between the independent variable and the dependent variable. If the mediator occurs directly between the two, complete mediation is given. The indirect path from the dependent variable via the mediator towards the dependent variable is called partial mediation. Moderators are variables, which indirectly affect the relationship between independent and dependent variables.[414] All these variables together describe the *total of all potential success factors*.[415]

The present work considers all of these sorts of influences with a focus on both the directly influenceable after-sales service instruments along the process chain and the effects that are not influenceable, which are the result of Chinese culture (green boxes). Figure 19 shows all of these sorts of variables and exemplary relationships in a simplified and abstract manner.

---

[412] Cf. Chapter 1.5, Success Factor Research.
[413] Cf. Fischer (2013), pp. 58 f.; Herr (2007), pp. 45 f.; Töpfer (2012), pp. 160 f.
[414] Cf. Töpfer (2012), pp. 160 f.; Müller (2009), pp. 237 ff.
[415] Cf. Fischer (2013), p. 59.
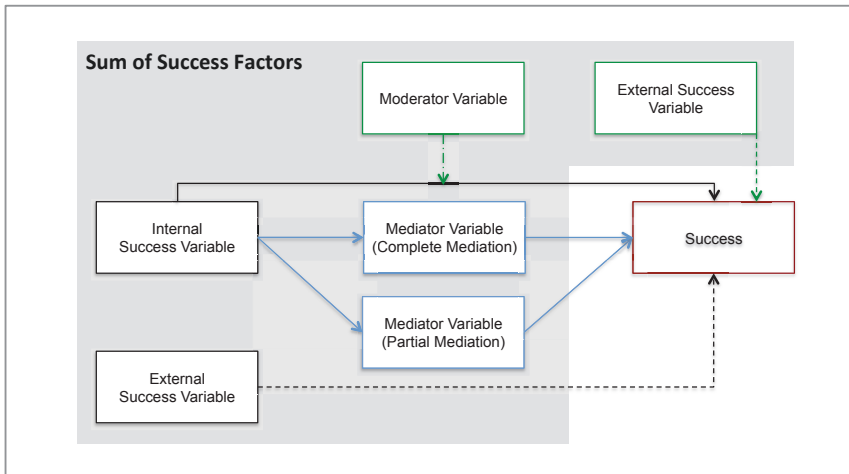
Figure 19: Relationship of Success Variables

Reference: Author's illustration referring to Fischer (2013), p. 59; Herr (2007), p. 46; Töpfer (2012)
                  p. 161; Steffenhagen (1997), p 327 ff.

4.2.2 Service and After-Sales Service

The cross-industry and automotive-specific relevance of *after-sales* was exemplified
in the introduction to this work.[416] The *after-sales service* was then described as a
manufacturers` performance that usually sustains or enhances the utility or value of a
core performance in the form of *service*. Furthermore it was shown that, within the
automobile context, this often includes *performances in-kind*, such as spare parts.[417]
Amongst others things, this apparent contradiction makes a definitional concretisa-
tion of the term *after-sales service* necessary. The relevant literature provides *no* uni-
fied definition,[418] but indicates that the chosen perspective is important,[419] which is
why the following explanations are given, in order to enable a proper derivation.

---

[416] Cf. Chapter 1.1, Status Quo and Problem Statement.
[417] Cf. Chapter 2.2, After-Sales.
[418] Cf. Fitzsimmons et al. (2014), p. 4; Fischer (2013), p. 60; Saccani et al. (2007), p. 54; Dangelmaier
      et al. (2006), p. 155; Edvardsson et al. (2005), pp. 107 f.; Goffin (1999), p. 374.
[419] Cf. Edvardsson et al. (2005), p. 107.

Services can be seen as economic goods, which generally serve to satisfy human needs.[420] Within marketing they depict that parent category, where the after-sales service is usually incorporated performance typologically.[421] A comprehensive distinction between services and tangible goods, as well as a detailed description of service characteristics, will *not* be undertaken in this work because, as mentioned before, the term is not clearly defined, the concept itself is criticised, because different scholars exist,[422] and finally as basic characteristics (mainly: inseparability, heterogeneity, intangibility, and perishability)[423] could be looked up in established literature.[424] As a result, the focus is laid on automobile-specific aspects, but a possible and popular *definition of services* by MEFFERT/BRUHN (2009) is given next. The author follows on that definition.

'Service deliverables are independent, marketable benefits associated with provision of (as in the case of insurance services) and/or the application of (as in hairdressing) expertise – *potential approach*. Internal factors (such as business premises, staff and equipment) and external factors (i.e. those not within the control of the service provider) are combined as part of the production process – *process approach*. The combination of factors offered by the service provider is applied with the goal of providing benefits (such as car servicing) to the external factors, to people (e.g. customers) and to their objects (e.g. the customer's car) – *results approach*.'[425]

To systemise automotive services, first it is important to distinguish between *company- and market-directed dimensions*. The company-directed dimension shows whether the service belongs to a company's core performance, called *primary service*, or to an additional or supporting performance that is named *secondary service*.[426] Analogous to the term service, descriptions vary across authors, thus for instance ZEITHAML ET AL. (2013) speak of pure service companies, selling services as a product (cf. primary), and services provided in support, namely customer service

---

[420] Cf. Dirlenbach (2009), pp. 20 f.; Corsten/Gössinger (2007), p. 19.

[421] Cf. Dirlenbach (2009), p. 20; Meffert/Bruhn (2009), p. 5.

[422] Cf. Zeithaml et al. (2013), p. 4.; Edvardsson et al. (2005), pp. 107 ff.

[423] Cf. Edvardsson et al. (2005), p. 108.

[424] Concerning the distinction between services and their characteristics s. for instance Fitzsimmons et al. (2014), pp. 1 ff.; Zeithaml et al. (2013; 1996), pp. 1 ff.; Meffert/Bruhn (2009), pp. 1 ff.; In the automotive context Dirlenbach (2009), pp. 20 ff. or Mann (1995), pp. 447 ff. can be emphasised.

[425] Meffert/Bruhn (2009), p. 19.

[426] Cf. Meffert/Bruhn (2009), p. 14.

(cf. secondary).[427] PEPELS (2007) describes primary services as independent sales objects, which are characterised by the independence of core products.[428] The reference object of this research is always the manufacturer's after-sales business, which is why pure primary services are not considered. Secondary services, also commonly called customer services, are not autonomous, they are based on a core performance, which can be a tangible good or a service. Consequently they are part of a performance bundle;[429] here, in the context of the chosen research perspective, related to the car as the OEM´s core performance. MANN (1995) stated in this regard, 'Services constitute […] secondary services that aim to increase customer satisfaction by enhancing the value of the product and/or the benefit to the customer.'[430] Furthermore he notes that the distinction between primary and secondary services is not always clearly possible, because the huge wide range of possible services can be related to all purchase phases.[431] This is a relevant aspect that is stressed before the market-directed dimension is described.

Generally, market performances can be distinguished *temporally*. Here, a *three-phase approach* is applied to discriminate between the service-purchase related phases, the phase *before* a market performance or before making a purchase (pre-sales), the phase *during* the purchase (at/in sales), and the *post* purchase phase (after-sales).[432] This distinction appears to be linguistically unambiguous, but in practice it comes to overlaps, such as when advisory services towards the product usage are used as sales arguments, and afterwards, during the usage, as utility bringing advisory services. In regard to the object of research, any services, which are significantly elaborated before or during the car sale, are not considered in this work. The same applies for the special case of 'primarisation'[433] of secondary services, which describes the independent marketing of these services. Consequently, the automotive after-sales services considered here are seen as *secondary services* in terms of *customer services*.

---

[427] Cf. Zeithaml et al. (2013), pp. 4 f.
[428] Cf. Pepels (2007), p. 14.
[429] Cf. ibidem, pp. 14 f.
[430] Mann (1995), p. 447.
[431] Cf. ibidem.
[432] Cf. ibidem, p. 447; Sass (2012), p. 57; Foscht/Swoboda (2011), p. 35; Corsten/Gössinger (2007), p. 27; Gouthier (2013), p. 133.
[433] For further information s. Gregori (2006), pp. 113 f.

As mentioned before, it is important to consider the *market-directed dimension*, where it is distinguished: the market on which market services are offered. They can be of a consumptive nature (consumptive services), if they are directed to private end consumers, or of a productive nature, if they are investment-related (investing services), thus commercial companies are addressed.[434] Although in practice cars can be used privately, commercially or both together, this consumer-focussed research will not consider commercial buyers, because they have significantly different needs and structures (e.g. professional buying centre) from those of individuals.

Next, the service *content* can differ, according to whether it is *technical* or *commercial*.[435] Automobile *technical after-sales* primarily ensure the use of the vehicle. Predominantly it relates to maintenance and repair services, but spare part supply, and disposal services are also seen as potential aspects of this area.[436] *Commercial* secondary services can be consultations, personal as well via hotline; training sessions; and calculations of profitability.[437] Automobile-specific, also mobility services, such as pick-up and delivery services are common, which shows that both technical and commercial aspects *are relevant* in this after-sales context.

As part of technical after-sales services, *spare part deliveries* have been included, although this can contain the pure trade of *material goods*, if the customer orders a spare part from the workshop and installs it personally. In Germany, for example, this do-it-yourself market has an 8% share of the market as a whole, and is applied primarily to cars eight or more years old.[438] However, in China, do-it-yourself work accounts for an irrelevant or extremely small percentage of the market.[439] A categorical distinction is almost impossible because it is difficulty to capture whether a commercial secondary service, such as a consultation, is being given at the same time. Finally, this special *distinction is unusual in the automotive industry*.[440] The author there-

---

[434] Cf. Pepels (2007), p. 15; Meffert/Bruhn (2009), pp. 14 f.; Diez (2009), p. 399; Kotler et al. (2007), p. 550.

[435] Cf. Pepels (2007), p. 15.

[436] Cf. Diez (2009), p. 176; Pepels (2007), p. 15; Mann (1995), p. 447.

[437] Cf. Pepels (2007), p. 15; Pflaum (2007), p. 203.

[438] Cf. DAT (n. a.) (2013), p. 60, Here, around 20% of surveyed people bought these spare parts in brand workshops.

[439] Cf. Table 8: Types of Automotive Workshops in China.

[440] Cf. Hättich (2009), p. 36; Diez (2009), p. 176.

fore takes the common view espoused by DIEZ (2009),[441] which means that spare parts supply is considered as part of after-sales services. The previous explanations are now summed up in Table 9, where the conceptual classification and delineation of the automotive after-sales service is coloured out. Areas, which are marked by a red cross, are not considered.

Conceptual Classification of After-Sales Services				
Kind of Performance				***Layer***
Services				Performances in Kind (Consumer and Capital Goods) (x)	***Marketing Sector***
Primary Service **X**	Secondary Service				***Company-directed Dimension***
	Pre-sales **X**	At/In-sales **X**	After-sales		***Temporal Phase/ Time of Event***
			Consumptive	Investing **X**	***Market-directed Dimension***
			Commercial	Technical	***Content***
			After-Sales Service	Spare Part Delivery	***Automobile Industry Usual***

Table 9: Conceptual Classification of After-Sales Services

Reference: Author´s illustration.

Besides this derivation, one aspect of the service-dominant logic (S-D logic), invented by VARGO/LUSCH (2004, et al.),[442] will be inspired, because it fits perfectly from the perspective of providing after-sales services, '(...) S-D logic views goods ⌈cars⌉ as being merely vehicles for the provision of service, (...).'[443]

In the light of the foregoing, and due to the great diversity of services within the automotive industry, the *definition of the automotive after-sales service* shall follow a general perspective: The after-sales service covers all potential and actual activities provided by a business so as to obtain, reproduce or enhance utility value after a car sale, and to support the customers, for example in terms of disposal.[444] From a cus-

---

[441] Cf. Diez (2009), p. 176.

[442] Cf. Vargo/Lusch (2004), pp. 1 ff. For this, a profund and brief introduction is given by Edvardsson et al. (2011), pp. 327 f.

[443] Edvardsson et al. (2011), p. 327 referring to Flint (2006), p. 349 ff.; Vargo/Lusch (2008), p. 7.

[444] Cf. Saccani et al. (2007), p. 54; Zollikofer-Schwarz (1999), p. 22; Asugman et al. (1997), p. 12.

tomer perspective it is therefore a '(…) tangible good related customer service after the car purchase (..).'[445]

Additionally, secondary services can be classified according to the *degree of core performance dependence*, and to *customer expectations* as well, in: *must*, *shall* and *can services*.[446] Repairs and warranty obligations are must services in the automotive industry; an internal car rental agency at dealerships is considered a shall service; an integrated cafeteria, because it does not affect core performance, is considered a can service.[447] Thereby, this can area provides the biggest differentiation potential, as both customer expectations and market distribution of such services are usually weak – always assuming it offers real benefits to the customer.[448]

4.2.3 Customer and Service Satisfaction

In Chapter 4.2.1, the after-sales process chain as well as the service success chain were discussed, and the construct of brand loyalty was suggested as a possible success indicator. Moreover, Figure 18 indicates that brand loyalty is a result of preceding constructs within this chain, where *customer satisfaction* marks a very important link in the chain.[449] It is considered as both crucial for long-term business success,[450] and '(...) a key element of today´s marketing theory and practice.'[451]

The scientific literature has elaborated different concepts and various *definitions* of customer satisfaction, but most of them apply the basic idea that customer satisfaction is based on a complex comparison process between the expectation of a performance (the *should* component) and the subjective consume experience (the *is* component).[452] The origin of this way of thinking is the *Confirmation/Disconfirmation*

---

[445] Hättich (2009), pp. 33 f.

[446] Cf. Pepels (2007), p. 14; Sass (2012), p. 60; Gregori (2006), p. 115.

[447] Cf. Diez (2009), p. 164; Laakmann (1995), pp. 13 f.

[448] Cf. Gregori (2006), p. 115; Laakmann (1995), p. 14.

[449] Cf. Figure 18 Success Chains of Consumer Behaviour and Automotive After-sales Service; Meffert/Bruhn (2009), p. 53; Homburg/Krohmer (2009), p. 45; Bloemer/Pauwels (1998), p. 86.

[450] Cf. Hogreve et al. (2013), p. 180.

[451] Löffler/Decker (2012), p. 404.

[452] Cf. Fitzsimmons et al. (2014), p. 144; Zeithaml et al. (2013), p. 80; Hättich (2009), p. 75; Meffert/Bruhn (2009), p. 92; Kotler et al. (2007), p. 46; Scheuch (2007), p. 80; Oliver (2010), p. 8; Homburg/Krohmer (2009), pp. 43 f; Foscht (2002), p. 84.

(C/D)-paradigm initiated by OLIVER (1980). Popular alternatives – for instance the attribution theory and the theory of justice – are less widespread in terms of customer satisfaction, and moreover they could be seen as additional explanation approaches in line with the C/D-paradigm.[453]

A general concept is given by KOTLER ET AL. (2007), who base customer satisfaction on the concept of value profit gain. The customer will choose the performance with the highest value profit, where this describes the difference between the sum of value and of cost. After the consume experience, satisfaction results in dependence to the degree of achieving customers expectations (perceived value profit).[454] Thus they define that 'Satisfaction derives from a feeling the customer experiences as a result of comparing perceived value gain (...) with expected value gain (...).' [455]

STAUSS/NEUHAUS (2000) say that customer satisfaction is to be interpreted as a complex construct with an *affective* (emotional, attitudinal), *cognitive* (knowledge, perception) and intentional (or *conative*: behavioural intention, willingness to purchase) component.[456] The aforementioned process of comparison seems to mainly describe a cognitive process, but this definition shows that it is also very important to consider affective components, to be able to explain satisfaction-related consumer judgments properly. The same holds for conative components, which in terms of conceptualisation are usually captured separately. As a result customer satisfaction usually contains the three mentioned elements (affective, cognitive, conative).[457]

Likewise very popular but somewhat more specific is the definition by OLIVER (2010): 'Satisfaction is the customer´s fulfilment response. It is a judgement that a product/service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfilment, including levels of under- or over-fulfilment.'[458] This definition applies well to the current study, because it explicitly considers services, integrates the affective component ('pleasurable'), distinguishes

---

[453] Cf. Borth (2004), p. 16 ff.
[454] Cf. Kotler et al. (2007), pp. 43 ff.
[455] Ibidem, p. 46.
[456] Cf. Stauss/Neuhaus (2000), p. 79
[457] Cf. Borth (2004), p. 12.
[458] Oliver (2010), p. 8; Based on his definition from 1997.

between different fulfilment levels, and finally it has proved in a relevant scientific context.[459]

Next, the automobile-specific context needs to be applied to this construct. Here, it is common to *differentiate* customer satisfaction in: *product*, *price*, *purchase* and *service satisfaction*.[460] Due to the after-sales focus of this work, the car as a product and all purchase-related aspects are not considered, so *service satisfaction* is clearly most important. However, this service-related view contains aspects such as the price, but here the service price level is crucial, and that is therefore what is researched, not the vehicle's price. To be precise, the used satisfaction construct of this work is called *after-sales service satisfaction*. In line with the previously mentioned success chain, loyalty constructs are considered next.

4.2.4 Brand and Workshop Loyalty

Brand Loyalty

High customer satisfaction could be beneficial for companies in various ways, but it does not necessarily lead to economic gain. In line with the aforementioned conative components the focus must be on behavioural effects resulting from satisfaction. On this subject, HOMBURG/KROHMER (2009) state that customer satisfaction affects two areas, *customer loyalty* and *price-related behaviour* (willingness to pay).[461] The latter is *not* considered here, due to the focus chosen for this research. Nor is customer loyalty itself discussed separately. Furthermore, brand loyalty is a part of customer loyalty, where a single brand is the point of interest, and not for instance a product. However the basic assumptions are equal.[462]

Customer and *brand loyalty* are sometimes used identically with similar constructs such as *retention or attachment,* and moreover for each there is no generally accepted definition in marketing science.[463] *Customer retention* describes a phenomenon

---

[459] Cf. Hünecke (2012), p. 9; Westbrook/Oliver (1991), pp. 84 f.

[460] Cf. Hünecke (2012), p. 49; Diez (2009), p. 80; Hättich, (2009), p. 136; Verhoef et al. (2007), p. 99.

[461] Cf. Homburg/Krohmer (2009), p. 45.

[462] Cf. Foscht/Swoboda (2011), p. 244.

[463] Cf. Skala-Gast (2012), pp. 36 f.; Knörle (2011), p. 89; Hättich (2009), p. 77; Liljander/Roos (2002), p. 594; Foscht (2002), p. 48.

which is related to the seller's/buyer's business relationship. This relationship can be considered in terms of *both* the provider's (seller's) perspective and the customer's perspective. The distinction from loyalty is that loyalty focuses merely on the customer´s perspective, which makes the construct a bit more specific.[464] Additionally, the German brand science specialist ESCH (2010) argues that customers can have an emotional *attachment* to a brand without having used a single product of this brand, such as Ferrari fans who are not owners, but are nonetheless passionately engaged in Ferrari communities. In contrast, loyalty is necessarily built on the use of the brand;[465] or experience with a car of the brand, as was mentioned in the previous chapters of this work.

Brand loyalty was originally understood as a behavioural reaction in terms of observable phenomena. Later the attitudinal approach arose, because it was seen as required to implement the consumer's actual preferences. Finally, loyalty was not merely viewed as a result, but rather as a relational phenomenon. Which is why some authors strictly focus on the relational understanding to explain loyalty.[466] KNÖRLE (2011) shows a good overview about essential definition approaches (s. Table 10).

---

[464] Cf. Foscht/Swoboda (2011), p. 249.
[465] Cf. Esch (2010), pp. 72 f.
[466] Cf. Knörle (2011), pp. 90 ff.; Foscht (2002), pp. 39 ff.

Author & Year	Definition	Focus
CUNNINGHAM 1956	'the proportion of total purchases by the largest single brand'	Behavioural Approach
NEAL 1999	'The proportion of times a purchaser chooses the same product or service in a category compared with his or her total number of purchases in a category, assuming that acceptable competitive products or services are available'	
DAY 1969	'true brand loyalty occurs when the customer holds favourable attitude toward the brand in addition to purchasing it repeatedly'	Behavioural and Attitudinal Approach
DICK/BASU 1994	'(…) the strength of the relationship between an individual's relative attitude and repeat patronage'	
AMINE 1998	'an effective buying behaviour of a particular brand (and not only an intention to buy it), repeated over time (its buying proportion exceeding 50% of the purchases made within a product category) and reinforced with a strong commitment to the brand'	
OLIVER 1999	'A deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour.'	
JACOBY/KNYER 1973	'brand loyalty is essentially a relational phenomenon'	Relational Approach
FOURNIER 1998	'a long-term, committed, and affect-laden partnership'	

Table 10: Definitions of Brand Loyalty

Reference: Author's table referring to Knörle (2011), p. 99.

Having a look at the citation index of Google Scholar shows that the most cited author among those presented in the list is OLIVER (1999),[467] thus the scientific use of this definition in general is undoubted. However, to build a good definitional basis for the upcoming operationalisation of this construct, the research-specific context must also be studied. His definition was recently used in highly relevant studies regarding China and the automobile after-sales.[468] Finally, note that this approach takes into account the fundamental critique against the behavioural paradigm, which measures repurchase behaviour (a common operationalisation of brand loyalty) by actual observable transactions. This assumption, which means that *only* previous behaviour explains future behaviour, is not favoured anymore, for instance because attitudes

---

[467] Cited 4837 times until 6/2/14 measured by http://scholar.google.de.
[468] Cf. Deng (2010), p. 290; Hünecke (2012), p. 20.

have to be implemented.[469] The *dimensions of loyalty* are shown next to briefly symbolise this aspect graphically.
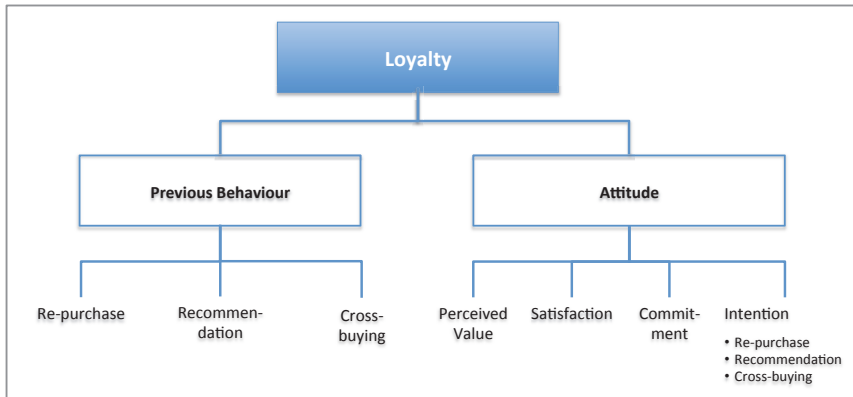
Figure 20: Dimensions of Loyalty

Reference: Author's illustration referring to Foscht (2002), p. 104.

Due to the aforementioned arguments, brand loyalty is defined in regard to OLIVER´s (1999)[470] loyalty understanding and his definition presented in Table 10.

Workshop Loyalty

Similar to brand loyalty *workshop loyalty* is a kind of loyalty referred to a specific object of interest.[471] The alternative term *dealer loyalty* is also used in automotive research.[472] For instance, VERHOEF ET AL. (2007), thereby consider the dealer as a subsystem within the entire car consumption system. Here, they primary focus after-sales services with their dealer loyalty measures.[473] However, linguistically the word dealer is likewise strongly associated with sales efforts. To avoid any ambiguity, the term workshop loyalty is used in this research, in order to clearly focus the after-sales activities provided by the dealer.

---

[469] Cf. Foscht/Swoboda (2011), pp. 244 ff. The specific discussion on this appears in Chapter 5.2.2.3, Construct Operationalisation of Satisfaction and Loyalty Variables.

[470] Cf. Oliver (1999), p. 34.

[471] Cf. Foscht/Swoboda (2011), p. 244.

[472] Cf. Verhoef et al. (2007), pp. 97 ff.; Huber/Herrmann (2001), pp. 97 ff.; Bloemer/Lemmink (1992), pp. 351 ff.

[473] Cf. Verhoef et al. (2007), pp. 99 ff.

4.2.5 Culture

To begin with, it should be noted that the general relevance of cultural aspects are considered very contrary in marketing. Two main schools exist. In keeping with the expression 'everything is global',[474] some people believe that cultural standards adapt globally (to western standards), and therefore *standardisation* is most successful for international firms.[475] On the other hand, the idea that 'all business is local'[476] is very popular; therefore *differentiation* is what is most needed.[477] The author of this work does not follow a one-scholar exclusive view, as he thinks that it depends on the specific context. Nevertheless, this work respects the idea that culture and marketing need to have a strong relationship, and this means the work is noticeably closer to the second paradigm. DE MOOIJ (2014) argues that pure global standardisation approaches are not effective. She writes that 'Needs may be universal, but attitudes, motivations, and expressions of needs vary.'[478] In this regard, it seems possible that both global and local aspects can occur simultaneously. In regard to this, a third scholar of thought has to be mentioned, the *contingency approach*,[479] which '(…) is based on the idea that the most effective (..)[480] strategy varies, depending on the situation.'[481]

Culture as phenomena, which explains or influences consumer's assessment or behaviour is difficulty to reveal and to *operationalise* as *explaining variables*.[482] In order to enable that, important cultural constructs, fitting to the research objective, have to be identified. Therefore this section first stresses possible *definitions* of the term culture. Then the *research perspective* is discussed in an excursus, using emic and etic criteria. Moreover the *conception of culture* with its main differentiation between concepta (explicative concept) and percepta (descriptive concept) is illustrated, before

---

[474] Cf. Levitt (1983b), pp. 92 ff.

[475] Cf. de Mooij (2014), pp. 12/15 ff.; Emrich (2014), p. 25; Mennicken (2000), p. 87.

[476] Cf. Kotler/Bliemel (2005), p. 31/650.

[477] Cf. Emrich (2014), p. 25.

[478] de Mooij (2014), p. 12.; Same argumentation, but more general s. Triandis (1994), p. 34.

[479] Cf. Agrawal (1993), pp. 26 f.

[480] The original context of this citation focusses advertising strategies s. de Mooij (2014), p. 17; Agrawal (1993), p. 30.

[481] de Mooij (2014), p. 17.

[482] Cf. Emrich (2014), p. 25.

different *levels of culture* and the meaning of *values* are shown. Finally the *role of culture in consumers` service experiences* is considered.

Defining Culture

Within traditional western marketing science, *culture* is a phenomenon which was long neglected. EMRICH (2014) considers HOFSTEDE`s pioneer study about national cultures,[483] published in 1980, as a break-through for the relevance of cultural differences. It also was the starting point for an increased marketing research effort.[484] Analogous to other terms before, even the word culture is *not* consistently defined.[485] Nevertheless, a description of culture is required, because in this work culture is considered an important stream of influences, which presumably affects the entire after-sales business, as 'Most elements of consumer behaviour are culture-bound, (…).'[486] Or as cited before in Chapter 2.3, 'culture (..), as a significant independent variable, determines consumer behavior.'[487] This can be demonstrated with an example of brand loyalty. A market comparison of the US with Japan shows that consumers are relatively loyal in Japan and very fickle in the USA. Thereby, the Japanese loyalty is positively influenced by their collectivistic culture.[488]

Culture definitions are numerous; a popular, anthropological approach is given by KROEBER/KLUCKHOHN (1952): 'Culture consists of patterns, explicit or implicit, of and for behaviour acquired and transmitted by symbols, constituting the achievements of human groups, including their embodiments in artefacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; cultural systems may on the one hand be considered as products of action, on the other as conditioning elements of further action.'[489] YAPRAK (2008) recommends, in a review paper on cultural studies in international marketing, a definition originally from NAKATA/HUANG: 'that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and

---

[483] Cf. Hofstede (1980), pp. 42 ff.

[484] Cf. Emrich (2014), p. 1; Yaprak (2008), p. 215.

[485] Cf. Emrich (2014), p. 10; Srnka (2005), pp. 72 f.; Müller/Gelbrich (2004), p. 40/71.

[486] de Mooij (2014), p. 53.

[487] Emrich (2007), p. 35.

[488] Cf. Emrich (2014), p. 24; Usunier/Walliser (1993), p. 11; Cateora/Ghauri (2000), p. 19.

[489] Kroeber/Kluckhohn (1952), p. 181.

habits acquired by man as a member of society'.[490] When consumer service experiences are researched, primarily the HOFSTEDE dimensions are used, as ZHANG ET AL. (2008) describe.[491] Therefore his classical definition (2001) is given next: '(…) the collective programming of the mind which distinguishes the members of one group or category of people from those of another.'[492] Renewed, and suggested by DE MOOIJ (2014) in the *context of global marketing,* HOFSTEDE ET AL. (2010) define culture as follows:[493] '(…) the collective mental programming of the people in an environment. Culture is not a characteristic of individuals; it encompasses a number of people who were conditioned by the same education and life experience.'[494]

This enumeration of popular definitions shows that there might be no right or wrong definition rather than it is needed to set an appropriate basis, according to the research perspective.[495] So far, the HOFSTEDE ET AL. (2010) definition is used here, because it is widely accepted within the service research field, and a given environment is crucial, thus a defined group of people (e.g. social group or society) can be the object of interest (cf. below: *levels of culture*). Moreover, as it is emphasised in, 'by the same education and life experience', that the group focussed on does not necessarily reflect the nation, as nations are per se politically defined constructs. Finally, it has to be emphasised that often SCHEIN[496] is mentioned when culture is of interest. However, as his works mainly refer to organisational culture, he will not be considered in this work.

Excursus: Research Perspective: Emic vs. Etic Approach

With respect to the above chosen definition, and especially considering that country subgroups[497] can vary significantly,[498] it must be emphasised that this work does not aim to elaborate generalising insights about the whole Chinese

---

[490] Yaprak (2008), p. 217 and the literature cited there.

[491] Cf. Zhang et al. (2008), p. 213.

[492] Hofstede (2001), p. 9.

[493] Cf. de Mooij (2014), p. 57.

[494] Hofstede et al. (2010), p. 5.

[495] Cf. Triandis (1994), p. 22.

[496] An overview on Edgar Schein and his publications is available on http://mitsloan.mit.edu/faculty/det ail.php?in_spseqno=41040.

[497] Cf. Chapter, 3.2.2 Chinese Consumer Landscape.

[498] Cf. de Mooij (2014), pp. 185 f.; Kirkman et al. (2006), p. 311; Meffert et al (2010), p. 111; Mennicken, (2000), p. 59. Specifically for China s. Xin-an et al. (2008), pp. 377 ff.

nation. Findings are *limited* to the delimitated group of automobile users and there *culturally affected service behaviour*.[499] On the one hand this is a limitation, but on the other hand it is a strong (and quite intended) benefit, because one of the globally, currently most relevant service consumer groups can therefore be investigated most deeply. Moreover this research work is an *approach from a Western perspective* with the objective of understanding, as well as possible, the cultural influences in China on globally acting brands and companies. Further, the after-sales success chain, as one research part, is already investigated roughly similar for a few Western markets.[500] Thus the findings from this work can be partly compared, in order to provide an increasing scientific value. Also, because it is not known today whether or not this success chain will last in the Chinese context.

Within cultural research there is a strong debate about the superiority of the *emic* or *etic* oriented research approach.[501] 'While the emic approach is based on the premise that theorising is culture-specific and favors within-culture investigation, the etic approach advocates generalization and focuses on issues that are universal and common to all cultures.'[502] Some people present the emic-based paradigm that only culture-inherent researchers can appropriately apply cultural research. On the first view, following on that, for this research topic it consequently would mean that a German researcher could not appropriately investigate Chinese topics; likewise that a Chinese researcher could not appropriately investigate Western companies such as Audi, BMW and Mercedes-Benz.

EMRICH (2014) concludes that emic approaches are deemed to be more reliable but in contrast they are too specific to be applied across cultures. She refers to HOLZMÜLLER (1989) who suggests combining both approaches. Then at measuring, both pan-cultural and culture-specific items are considered,

---

[499] Cf. Chapter 3.4, and broadly referring to the 'market place cultures concept' from Consumer Culture Theory (CCT). Cf. Arnould/Thompson (2005), pp. 873 f.

[500] Cf. Hünecke (2012), pp. 1 ff.; Hättich (2009), p. 1 ff.

[501] Cf. de Mooij (2014), p. 73; Emrich (2014), pp. 195 ff.; Zhang et al. (2008), p. 221. Müller/Gelbrich (2004), pp 224 ff.

[502] Zhang et al. (2008), p. 221; Berry (1989), pp. 721 ff.

which then are interpreted culture-independent.[503] ZHANG ET AL. (2008) also say that there is no single best approach; rather that there is an appropriate way to apply any methodology. They recommend BERRY´s (1989)[504] *three-step process*[505] to identify which approach fits.[506] Therefore, and also due to the context of this research topic, a *combined approach is chosen* in this work, as both so-called *imposed etic* (primarily) and *derived etic (to some extent) is-sues* are needed. This selection is laid out in the next table, which also shows BERRY`s (1989) three-step approach on the left.

Choosing the Imposed Etic Approach on the Basis of BERRY (1989)	
Berry´s three-step process	**Context of this research work, especially towards the after-sales success chain**
1) Initial research in one´s own culture (emic A)	- The automotive after-sales service success chain is researched emic in the West - It is not researched emic in China
2) Using the same concept to study behaviour in another culture (imposed etic)	- Due to the assessment of step one: this is the main focus of this research work
3) Apply a discovery strategy in another culture (emic B)	- Not applicable due to research economic limitations, and as the author is not Chinese
4) Compare emic A and B	- Not applicable due to No. 3)
5) When step four lacks communality, comparison is not possible With some communality so called derived comparisons are possible	- This fact is a given - Derived comparisons with established literature are possible and intended, additionally scientific knowledge is fostered, because specifically cultural influences are taken into account

Table 11: Imposed Etic Approach

Reference: Author's table referring to Zhang et al. (2008), p. 221; Berry (1989), p. 730; Berry (1995), pp. 165 ff.

Additionally TRIANDIS (1994) shall be emphasised, specifically because he gives a very valuable recommendation on this issue. He claims that constructs can have both etic and emic aspects.[507] Therefore he concludes, concerning

---

[503] Cf. Emrich (2014), pp. 196 f.; Holzmüller (1989), p. 1147.
[504] Cf. Berry (1989), pp. 721 ff.
[505] Zhang et al. (2008), p. 221 call it five-step process. Berry (1989, p. 730; 1995, p. 165) originally names it a three-step process, but uses five sub-stages (numbers) to describe these three stages.
[506] Zhang et al. (2008), p. 221.
[507] Cf. Triandis (1994), p. 72.

such constructs: 'They may have a universal meaning, one that most re-searchers understand the same way; yet these concepts must be operational-ized and measured differently in each culture, because behaviour has different meanings in each culture (Triandis, Vassiliou, & Nassiakou, 1968).'[508]

With regard to the points stated, only in China approved culture studies and related constructs as well as items are used for this research. What exactly is required to operationalise culture is elaborated in Chapter 4.4.3.1.

Conception of Culture

It is of great importance that culture consists of both *explicit* and *implicit* aspects, as reflected in the KROEBER/KLUCKHOHN (1952) definition, mentioned earlier.[509] In other words culture incorporates *visible* and *invisible* elements. Most researchers agree with that, and therefore still use the concepta/percepta distinction, which was introduced by OSGOOD in 1951.[510] The descriptive elements of culture, the *percepta,* contain all visible and therefore perceivable elements, which are manifested in *social* (e.g. rituals) and *material culture* (e.g. fashion). In contrast, *concepta* elements (*mental culture*) are not directly observable, but are nonetheless important, because they cause the behaviour of cultural members (social culture) and the resulting material culture.[511] Figure 21 shows the concepta/percepta distinction and connection, and the related layers towards the manifestation of culture.

---

[508] Ibidem, p. 74.
[509] Cf. Kroeber/Kluckhohn (1952), p. 181.
[510] Cf. Emrich (2014), p. 31; Meffert et al. (2010), pp. 107 f.; Müller/Gelbrich (2004), pp. 68 f.
[511] Cf. Meffert et al. (2010), p. 108; Srnka (2002), pp. 1 ff.
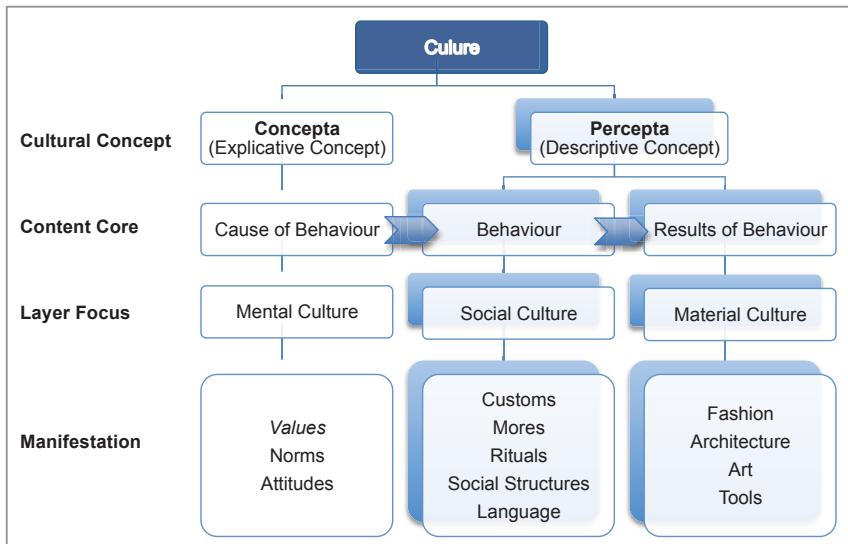
Figure 21: Concept of Culture

Reference: Author's illustration, referring to Meffert et al. (2010), p. 108; Müller/Gelbrich (2004), p. 69;
            Osgood (1951), p. 202 ff.

Values

The previous figure shows that *values* are one cause for culturally affected behaviour (s. manifestation layer). Because they are causal, values are considered a central component within the scientific concept of culture.

'Values are taught at an early age and in an absolute manner. They describe what people in general think the world ought to be in an absolute way: freedom, peace (…). Values can serve as standards that guide our choices, beliefs, attitude, and actions. Values are more stable than attitudes and occupy a more central position in a per-son`s cognitive system. We are not aware of values; they operate unconsciously, like on automatic pilot.'[512] The next table shows widely accepted and popular definitions, which are used in Chinese research settings as well as Western ones.

---

[512] de Mooij (2014), p. 54.

Author	Definition of Value or Values
KLUCKHOHN (1951), p. 395	'A value is a conception, explicit or implicit, distinctive of an individualistic or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of actions'
ROKEACH (1968), p. 111	'a centrally held, enduring belief which guides actions and judgements across specific situations and beyond immediate goals to more ultimate end states of existence'
SCHWARTZ (1994), p. 21	'I define values as desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity.'
HOFSTEDE (2001), p. 5	'a broad tendency to prefer certain states of affairs over others'

Table 12: Value Definitions

Reference: Knörle (2012), p. 31.

DE MOOIJ (2014) gives some further valuable specifications. In her opinion, values are either collective (macro-level values) or individual (micro-level values), where collective values are often called *cultural values*. In contrast, individual values are called *value orientations*, which can become manifest in people's actions as cultural values.[513] As stated previously, and mentioned by further important authors,[514] values can serve as standards that guide our choices and actions; a success-critical starting point in marketing. Amongst others,[515] especially HOFSTEDE pointed to values as the *culture´s core*,[516] which he symbolises as the core of an onion, where the whole onion, with all its layers, stands for the manifestation of culture.[517]

Values as a core element of culture, and a major cause of behaviour, will thus be used in this research as a very important *determinant of culture*.

Levels of Culture

LEUNG ET AL. (2005) point out that culture should be considered as a *multi-layered construct* consisting of different levels, from global to group culture, and finally cultur-

---

[513] Cf. ibidem.

[514] Cf. Triandis (1994), pp. 111 f.; Schwartz (1992), p. 2; Müller/Gelbrich (2004), pp. 301 ff.; Srnka (2005), p. 78.

[515] S. for instance Engelen/Brettel (2011), p. 75 or Schwartz (2006), p. 138 f.

[516] Cf. Müller/Gelbrich (2004), p. 303; Hofstede (1997), pp. 7 ff.

[517] Cf. Hofstede/Hofstede (2005), pp. 7 f. Nowadays, Gert and his son Gert Jan Hofstede publish together, but Gert Hofstede is the originator of concept mentioned here.

al values represented in individuals.[518] In line with this understanding, DE MOOIJ (2014) recommends, when culture is considered, that it is important to be specific about the chosen *level* to which the term culture applies. Cultural groups share similar values, amongst other things, which means the degree of homogeneity varies between different levels. These levels can be symbolised as a pyramid, where the individual marks the narrowest level, followed by family, tribe, region/province, nation, continent, and world/humanity as the widest. Moreover, because individuals belong to different groups, different layers of culture influence them.[519]

Similar to that is the threefold reference layer classification into *macro-level*, *meso-level* and *micro-level*. The *macro-level* is considered as culture or cultural area (often a nation), and thus it determines the complex environment. The *meso-level* can be described as subculture or milieu, and finally the individual or the behaviour of small groups is at the *micro-level*.[520] It must be mentioned that the assignment of groups differs from author to author,[521] but this is not surprising, since a three-group classification itself marks broad categories. Finally, independent of the number of categories, there is interplay among these levels.[522]

The Role of Culture in Consumers' Service Experiences

Besides the arguments given in the first chapter of this work, ZHANG ET AL. (2008) state that 'A solid understanding of the role of culture in the service delivery process is more crucial than ever for service firms operating globally.'[523] In line with major service paradigms they use a conceptual framework (s. Figure 22), which shows key effects of culture on relevant service dimensions.[524]

---

[518] Cf. Leung et al. (2005), pp. 362 f.
[519] Cf. de Mooij (2014), pp. 58 ff.
[520] Cf. Mennicken (2000), p. 53; Emrich (2014), pp. 1 f.; Srnka (2005), pp. 80 ff.; Wang (1996), pp. 74 f.
[521] Cf. Srnka (2005), pp. 80 ff. A popular variation example is Steenkamp (2001), pp. 36 ff.
[522] Cf. Yaprak (2008), p. 217; Leung et al. (2005), p. 362 ff.
[523] Zhang et al. (2008), p. 212.
[524] Cf. ibidem, pp. 212 f.
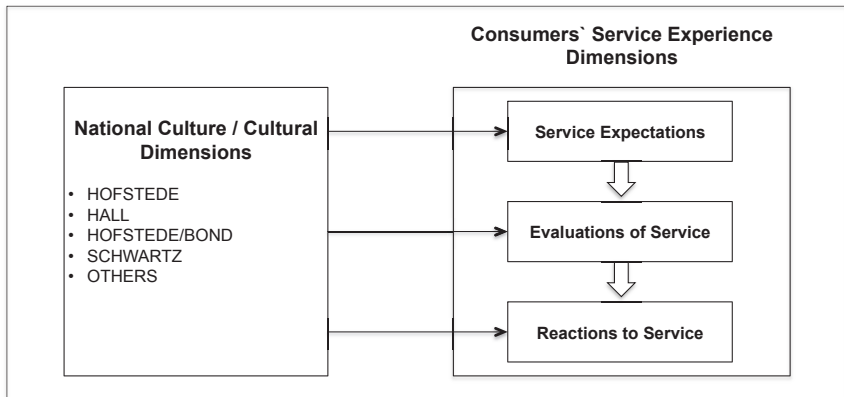
Figure 22: The Framework of the Role of Culture in Consumers' Service Experiences
Reference: Author's illustration referring to Zhang et al. (2008), p. 212.

The framework used in this study shows that every stage in the service experience process is affected by cultural influences. Thus, it is most likely that the entire after-sales service chain is likewise affected. In combination with Figure 18, it will be considered in the research model[525] that culture affects all constructs, which regard to this process chain. Besides, as was shown in the value section, values in particular are a central point of interest. Accordingly, they are explicitly focused, which will happen level specific within the Chinese context in Chapter 4.4.3 and subchapters.

4.3   Determination of a Success Indicator

A variety of arguments, elaborated in prior chapters, indicate that brand loyalty might be a success indicator well suited to this research. Additionally, SIVADAS/BACKER-PREWITT (2000) note that, 'There is increasing recognition that the ultimate objective of customer satisfaction measurement should be customer loyalty.'[526]

Brand loyalty is generally seen as *a central objective within brand management*.[527] With regard to China more specifically, KNÖRLE (2011) investigates *brand loyalty in*

---

[525] Cf. Chapter 4.5, Conceptual Research Model and Overview of Hypotheses.
[526] Sivadas/Backer-Prewitt (2000), p. 75.
[527] Cf. Esch (2010), p. 72 and the literature cited there.

China in his dissertation. There, he summarises why brand loyalty is a crucial objective of brand management, as well as why it has a success-critical role in a company's effort to create value. His central focal points are shown next:[528]

- Brand loyalty generates stable revenues
  - o Fosters repurchases
  - o High loyalty creates emotional switching barriers
  - o Customers are less attracted by alternatives
- Brand loyalty creates revenue growth
  - o Increases buying frequency
  - o The willingness for cross-buying becomes fostered
  - o Customer increasingly tend to word-of-mouth behaviour
- Brand loyalty rises profitability
  - o Ability to achieve higher prices (price premium)
  - o Increases advertisement efficiency

Besides this convincing relevance for China brand loyalty is tested now within the automobile context, and thereby especially towards the scientific use of the loyalty construct. Table 13 shows the state of the literature on this topic, selected for a focus on the after-sales service relevance.

Obviously, a number of important studies have used brand loyalty as an indicator to identify success factors and relationships. Due to the given high context relevance, this provides a strong indication of its suitability for this research. Notably all scientific studies operationalise the construct at least by 'repurchase intention'. In combination with the definition of brand loyalty mentioned previously, which includes behavioural and attitudinal components, this information is a first approach for the final operationalisation of the construct in Chapter 5.2.2.3.

---

[528] Cf. Knörle (2011), pp. 19 f. and the literature cited there.

Author/Year	Construct	Measured by	Notes/Findings
BLOEMER/ PAUWELS 1998[529]	Brand Loyalty	'(…) is measured as the likelihood of repeat purchase of the brand times the degree of commitment.'[530] Automobile customers (n=407) of two related German brands in the Netherlands.	Test of three satisfaction and loyalty constructs with the result that satisfaction is a key determinant of loyalty. Differences exist between the two brands (one is more exclusive). Different loyalty constructs seem to be interdependent.
HUBER/ HERRMANN 2001[531]	Brand Loyalty	Measured by repurchase intention and recommendation. N=1,000 driving licence owners in Germany.	Customer satisfaction is the main determinant of loyalty. '(…) manufacturers, would be wise to see their dealers as crucial success factors for their brand.' 'The after-sales service, in particular, has tremendous potential to secure a customer's loyalty.'[532]
DEVARAJ ET AL. 2001[533]	Brand Loyalty	Measured by actual Dealer repurchase data and repurchase intention. 2,338 Workshop customers in the U.S.A.	Mass-market cars and light trucks. 'Brand loyalty and repurchase intentions are affected by both the quality of the vehicle and the quality of the service delivered (…).'[534]
HÄTTICH 2009[535]	Brand Loyalty	Measured by repurchase intention. Workshop customers in Germany (n=4,893).	Service satisfaction indirectly affects brand loyalty through the mediator workshop loyalty.
HÜNECKE 2012[536]	Brand Loyalty	Measured by repurchase intention. Workshop customers in France, Italy and Spain (n=1,500)	Service satisfaction affects brand loyalty through the mediator service loyalty, thereby determining factors differ across the three markets.
At Most Used Practical Approach (Consultancy)			
BAIN & CO. 2008[537]	Brand Loyalty via 'Net Promoter Score' (NPS)	Car owners rate, from 0 to 10, how likely they are to recommend their vehicles. By subtracting the percentage of 'detractors' (score 0-6), from the percentage of 'promoters' (score 9-10) NPS is calculated. N=1,800 customers in the U.S.A.	'First, promoters are nearly 10 times more likely than detractors to repurchase (…) [the same brand]. Second, promoters are far more likely to recommend (...). Indeed, high NPS correlated with healthy new-car sales growth; (…)'[538]

Table 13: Studies towards Automotive After-Sales Focussing on Brand Loyalty

Reference: Author's table.

Footnotes

---

[529] Cf. Bloemer/Pauwels (1998), pp. 78 ff.

[530] Ibidem, p. 80.

[531] Cf. Huber/Herrmann (2001), pp. 97 ff.

[532] Ibidem, pp. 117 f.

[533] Cf. Devaraj et al. (2001), pp. 424 ff.

[534] Ibidem, p. 435.

[535] Cf. Hättich (2009), pp. 1 ff.

[536] Cf. Hünecke (2012), pp. 1 ff.

[537] Cf. Flees/Senturia (2008), After-Sales Service Key to Retaining Car Buyers.

[538] Ibidem.

Because of the chosen manufacturer´s perspective, and in order to understand the entire after-sales process chain, after-sales service satisfaction and workshop loyalty can be seen as intermediate or secondary objectives. But in this study, the primary focus when it comes to *success indicators is brand loyalty*. Predominantly product-related aspects are consequently excluded from this research. Consciously, just *one* main indicator is determined here. In contrast, a bundle is conceivable, but then every single success factor, and particularly its strength and influence, is not precisely assignable. This becomes obvious in the context of changing conditions, where, the sum of the bundle could express the same result, even if each success factor itself could differ.[539]

An abstract success indicator in terms of a defined construct such as brand loyalty without a key figure, as it is common in praxis, is also used in this study, in order to be able to show cultural influences on the after-sales process chain. A predefined key figure would lead to a biased and subjective interpretation, because aimed figures probably differ even within the small group of chosen brands. This research work emphasises *explanatory contributions*, which are helpful for getting a deeper, more scientific understanding of the *whole* and complex process chain. In this regard, the success indicator is also highly relevant for the automobile brands considered here. The measurement of brand loyalty (operationalisation) is elaborated in Chapter 5.2.2.2.

4.4   Determination of Model Variables and Hypotheses

So far, the required general basic considerations have been discussed. Based on that, the specific *research model* can be established. For this purpose, first satisfaction, loyalty and constructs associated with after-sales are determined, then the role of culture and its related variables are stressed. In the process every construct is explained conceptually, and if required the state of research from Chapter 2 is completed. The *deduction of hypotheses* takes place after all relevant explanations for each construct have been given. Finally, in line with the chosen scientific approach, *theoretical foundations* support the hypotheses. Here, theories are applied in the context

---

[539] Cf. Dorka (2012), p. 111.

of this research, which is why a selection of theories is always given, based on their relevance to the project. General explanations of theory are not offered, because they can easily be found in the literature. There is in fact no single theory which comprehensively explains the entire field of service marketing.[540] Therefore, this work acknowledges *pluralism of theory*, which means that different, comprehensive theories are used.[541] Theories cannot be selected self-servingly and at random,[542] so only theories which are both well recognised in the field of service marketing[543] and appropriate to the given automobile after-sales service context have been applied.

4.4.1 Relationship Between After-Sales Service Satisfaction and Loyalty

Deviating from the chronology of the marketing mix, which is stressed in the next Chapter, first the *relationship* between *after-sales service satisfaction*, *workshop loyalty* and *brand loyalty* is considered, because Chapter 4.2.1 and there especially Figure 18 shows that these constructs are crucial and linked.[544] Moreover SACCANI ET AL. (2006) conclude in their durable consumer goods study, concerning the roles of automotive after-sales, that divergent features are critical. Which means that competitive priorities have to be aligned to the manufacturer's supply portfolio or strategy. Here, volume-oriented providers may focus on revenue and profitability, due to comparably (cf. sales) high after-sales margins. With regard to the *premium segment* (which is focused in this work) they state that other competitive priorities are focused, especially differentiation. Here the orientation could be to increase the *companie's image* and the *customer's loyalty*.[545]

Within service marketing, generally customer loyalty should not be researched without considering customer satisfaction, because *satisfaction* is considered to be the *central determinant of loyalty*.[546] Many researchers from both the theoretical and empirical perspective have investigated these constructs and found a positive relation-

---

[540] Cf. Meffert/Bruhn (2009), pp. 54 f.
[541] Cf. Schanz (2009), p. 83.
[542] Cf. Töpfer (2012), p. 122.
[543] An overview could be found at Meffert/Bruhn (2009), p. 84.
[544] Cf. also Zeithaml et al. (2013), p. 87.
[545] Cf. Saccani et al. (2006), p. 178.
[546] Cf. Meffert/Bruhn (2009), pp. 102 f.; Diez (2009), p. 66; Zeithaml et al. (2013), p. 86; Fitzsimmons et al. (2014), pp. 106 f.

ship.[547] Likewise, an application to many industries happens where the positive rela-
tionship can nearly always be proved.[548] However, the consideration of different in-
dustries shows as well that the strength of the influence differs when it comes to
competition. Studies have shown that the stronger the competition, the stronger the
influence, and the automobile industry serves as an example of this.[549] Since the
mid-nineties a number of carefully constructed articles on the subject have been pub-
lished.

Various automobile brand-specific studies have demonstrated the positive relation-
ship between customer satisfaction and dealer loyalty.[550] Even the generally less of-
ten considered linkage between satisfaction and brand loyalty or retention has been
shown by some authors.[551] In particular two German dissertations take up the area of
automotive after-sales service, and the related influences on brand loyalty. HÄTTICH
(2009) and HÜNECKE (2012) both suggest a positive, triangular relationship be-
tween the targeted constructs, where satisfaction directly affects both dealer and
brand loyalty. However, the empirical testing afterwards brings up the fact that the di-
rect relationship between satisfaction and brand loyalty is either not significant or
weak and negative. But in both cases there is a significant total effect via the media-
tor of workshop or service loyalty.[552] In one case, too, a perfect statistical mediation
was given.[553]

As a result, the three constructs mentioned have to be considered as very important
in the current context. They build the basis for the suggested research model, but
due to previous findings, in a linear connection instead of the formerly assumed tri-
angular relationship (cf. Figure 23); and furthermore with the specifically elaborated
terms from Chapters 4.2.3 and 4.2.4.

---

[547] Cf. Meffert/Bruhn (2009), pp. 102 f.

[548] Cf. Hünecke (2012), p. 24.

[549] Cf. Meffert/Bruhn (2009), p. 103.

[550] Cf. Hünecke (2012), p. 127; Hättich (2009), p. 213; Bei/Chiao (2001), p. 138; Devaraj et al. (2001),
pp. 434 f.; Bloemer/Pauwels (1998), p. 82; Bloemer/Lemmink (1992), p. 362.

[551] Cf. Hünecke (2012), p. 127; Hättich (2009), p. 213; Huber/Herrmann (2001), p. 115; Mittal et al.
(1999), p. 94.

[552] Cf. Hünecke (2012), p. 128; Hättich (2009), p. 213.

[553] Cf. Hünecke (2012), p. 132.
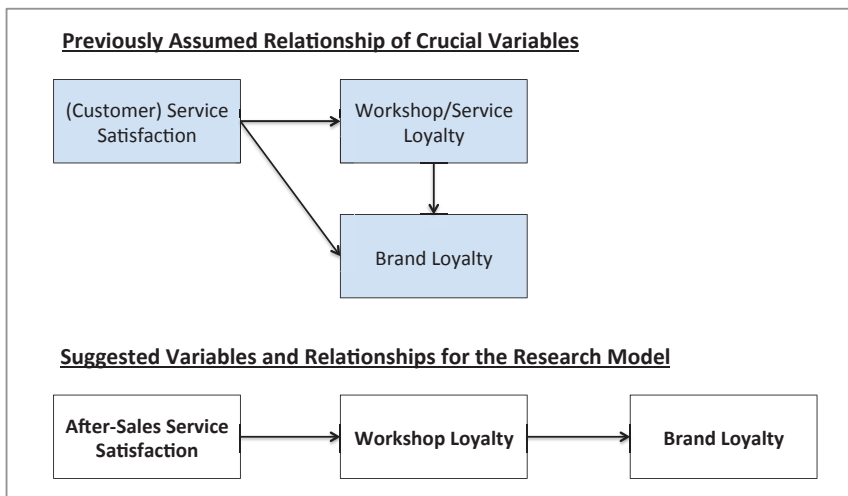
Figure 23: Relationship between After-Sales Service Satisfaction and Brand Loyalty

Reference: Author´s illustration referring to Hünecke (2012), p. 128; Hättich (2009), p. 213.

Deduction of Hypothesis and Theory Foundation

The remarks on construct definitions mentioned in Chapter 4.2.3 and 4.2.4, the general acceptance of the relationship between satisfaction and loyalty within marketing science, as well as the research findings specifically on automobile after-sales service strongly lead to the assumption that after-sales service satisfaction is positively related to workshop loyalty, which itself is positively related to brand loyalty.

However, the suggested relationships have actually *not* been tested in China. Nevertheless some service-related studies have stressed this aspect in other Chinese industries. Thus, LI ET AL. (2008) confirm a direct, positive relationship between customer satisfaction and the intention to repurchase, using a sample of hairdressers' customers.[554] For hairdressing, YIM ET AL. (2008) also approve this in terms of future loyalty with a sample from Hong Kong, were likewise fast food restaurant customers are examined, but here the relationship is not significant.[555] DENG ET AL. (2010) focus on mobile instant message services in China. They also confirm that

---

[554] Cf. Li et al. (2008), pp. 455 f.
[555] Cf. Yim et al. (2008), p. 751.

satisfaction is the strongest determinant of loyalty.[556] Hypotheses H1 and H2 are based on the sum of arguments mentioned thus far.

H1:	The higher the after-sales service satisfaction, the higher the workshop loyalty.

H2:	The higher the workshop loyalty, the higher the brand loyalty.

Furthermore, the following scientific theories foster both hypotheses:

- Risk theory
- Dissonance theory
- Learning theory

These theories, which are considered very relevant for service marketing, have their origin in psychological approaches, as human behaviour is the point of interest.[557] The demand for services is related to risk, because the consumer cannot be sure beforehand whether the performance of the service will be satisfactory. The *risk theory* assumes that individuals try to reduce perceived risk through their buying behaviour. A satisfied customer with at least one after-sales service experience, could use loyalty as a strategy to reduce the risk of dissatisfaction through disappointed expectations.[558] D*issonance theory*,[559] which has some parallels with risk theory, considers that individuals desire cognitive balance,[560] whereas dissonances are often experienced in after-sales phases and by products or services with a high subjective meaning, for instance cars.[561] According to the theory, customers with low dissonance are more loyal than customers with dissonance or than unsatisfied customers.[562] No or low perceived dissonance means that the desired balance has been found.[563] Finally, the *learning theory* contributes, because in the context of services, the learning theory can be seen as a boosting principle (amplifying experiences), where when it

---

[556] Cf. Deng et al. (2010), p. 295.
[557] Cf. Meffert/Bruhn (2009), pp. 68 f.
[558] Cf. ibidem, pp. 70 f.; Foscht (2002), pp. 23 ff.; Shet/Parvatiyar (1995), p. 266.
[559] Cf. Festinger (1957), pp. 1 ff.
[560] Cf. Meffert/Bruhn (2009), pp. 72 ff.
[561] Cf. Kroeber-Riel/Gröppel-Klein (2013), pp. 259 ff.
[562] Cf. Hättich (2009), pp. 151 f.
[563] Cf. Foscht (2002), p. 29.

comes to after-sales services, it could be assumed that customers maintain a relationship if it was useful in the past.[564]

4.4.2 Determination of Variables According to the Marketing-Mix

In order to further elaborate the research model, the following section lays the conceptual foundations for constructs, which have a direct influence on the aforementioned after-sales relationship from satisfaction towards loyalty, primarily the *after-sales instruments*. These constructs mostly express marketing variables, which are *influenceable and steerable* by OEMs. Therefore, the instruments of the *marketing mix* are stressed separately. With regard to the marketing mix, traditionally four main areas have been considered: *product* (in this case*, service*), *price*, *place* and *promotion*. Moreover, due to the special characteristics of service marketing the fifth area of *personnel* is also considered.[565] Finally, it has to be noted that discussing the marketing mix will not bring up variables to every possible aspect; rather, it will provide a set of guidelines that will allow all areas of interest to be covered systematically. Out of this, the most important variables are chosen and condensed so that they can be integrated into the research model.

4.4.2.1 Instruments of Service Policy

The first policy of the marketing mix is the product. In the context of this work, the product itself is a service, and therefore named likewise. In service marketing literature *quality* is considers as '(…) the most important purchase decision factor (…)'.[566] Based on this idea, the *service quality concept* was elaborated (see below). Likewise, noticeably service quality is seen as directly linked and the main antecedent of *customer satisfaction*,[567] which was mentioned as a key element of this research within the previous chapter.

---

[564] Cf. Meffert/Bruhn (2009), p. 70; Foscht/Swoboda (2011), p. 248; Shet/Parvatiyar (1995), p. 257.

[565] Cf. Meffert/Bruhn (2009), pp. 243 f.

[566] Sachdev/Verma (2004), p. 97.

[567] Cf. Zeithaml et al. (2013), p. 79; Pollack (2009), p. 46; Cronin/Taylor (1992), p. 64.

Service Quality

The construct of service quality can be defined '(…) as the degree and direction of discrepancy between consumers` perception and expectations in terms of different but relatively important dimensions (…)'.[568]

The service quality research was strongly intensified during the 80s,[569] when first GRÖNROOS (1984) fostered the understanding, when he figured out that the quality of judgement is mainly based on two aspects, namely technical (service outcome quality) and functional (service process quality) quality.[570] Shortly after, PARASURA-MAN ET AL. (1985) made a major contribution to marketing science when they iden-tified ten determinants of service quality,[571] which are the basis for the *five service quality dimensions* of the Service Quality Model (SERVQUAL) published in 1988.[572] In order to measure service quality, the five dimensions mentioned are: *responsive-ness, reliability, assurance, empathy,* and *tangibles* (further explanations are included in Table 14).

SERVQUAL as the measurement of service quality, an antecedent of customer satis-faction, is successfully used in various service contexts and industries around the world.[573] Nonetheless, this model is criticised as well.[574] As a result, the model has been further developed in several regards, for instance the dimensions or the ap-plicability of service quality in specific nations or cross-cultural settings.[575] On this subject, RAAJPOOT (2004), for instance, elaborated a new, culture-specific scale in order to measure service quality in non-Western cultures. This PAKSERV approach contains six dimensions (24 items), which have been validated in Pakistan.[576]

---

[568] Sachdev/Verma (2004), p. 97 based on Parasuraman et al. (1985), pp. 41 ff.

[569] Cf. Sachdev/Verma (2004), p. 97.

[570] Cf. Pollack (2009), p. 43; Grönroos (1984), pp. 36 ff.

[571] Cf. Parasuraman et al. (1985), pp. 41 ff.

[572] Cf. Bearden et al. (2011), pp. 402 ff.; Parasuraman et al. (1985), pp. 41 ff.; Parasuraman et al. (1988), pp. 12 ff.

[573] Cf. Pollack (2009), p. 44; Zhang et al. (2008), p. 213; Meffert/Bruhn (2009), p. 203; Sachdev/Verma (2004), p. 102.

[574] Cf. Meffert/Bruhn (2009), pp. 203 f.

[575] Cf. Zhang et al. (2008), p. 217.; Raajpoot (2004) p. 182; Brady/Cronin (2001), p. 34; Finn/Lamb (1991), pp. 483 ff.

[576] Cf. Raajpoot (2004), p. 181 ff.

The most popular point of critique on SERVQUAL is that perceived service quality is seen as an attitude similar construct, which then is measured satisfaction-oriented through a double scale (how it shall be/how it actually is).[577] This hesitancy leads to a well-established alternative approach, the Service Performance Model (SERVPERF). Here a performance-only scale with 50% fewer items is used, which surveys the perceived service quality. CRONIN/TAYLOR´s (1992) research shows that the SERVPERF benefits as it explains a higher variation of the construct and the model could be confirmed in a broader variety of industries.[578]

BRADY/CRONIN (2001) suggest that service quality conceptualised best as a third-order factor model, which means that the construct is multidimensional and *hierarchical*. In other words they assume that the customers decision on service quality is based on three corresponding subfactors, which constitute the customers` overall perception.[579] Due to increasing research efforts on it, this approach becomes known as hierarchical service quality model (HSQM).[580] Nonetheless, remarkably, the further developed models all contain or build up on the five SERVQUAL dimensions, thus they are more differentiations, and context adapted conceptualisations rather than completely contrary approaches.

Service Quality Operationalisation and Marketing-Mix Additions

The general thoughts behind the SERVQUAL idea are undoubtedly crucial and valuable, when service quality, as an antecedent of satisfaction, is the point of interest. Therefore, the operationalisation of service quality shall consist in these dimensions,[581] which is why these dimensions are specified to the after-sales context. Based on that, the intended *operationalisation* is shown in Table 14.

---

[577] Cf. Cronin/Taylor (1992), pp. 57/64 and the there cited literature.
[578] Cf. ibidem, pp. 55 ff.; Cronin/Taylor (1994), pp. 125 ff.
[579] Cf. Brady/Cronin (2001), pp. 34 ff.
[580] Cf. Pollack (2009), p. 42.
[581] The detailed operationalisation takes place in Chapter 5.2.2, Operationalisation.

Dimension	General Explanation	How car after-sales service customers judge the dimension
		Automobile Specific Operationalisation[582]
Responsiveness	Willingness to help customers and provide prompt service	Accessible; no waiting; responds to requests
		Convenience; Ease of getting an appointment
Reliability	Ability to perform promised service dependably and accurately	Problem fixed the first time and ready when promised
		Cost; Ability to do the job right; Ability to do the job on time
Assurance	Employees` knowledge and courtesy and their ability to inspire trust and confidence	Knowledgeable mechanics
		Knowledge of 'target' car; Honesty and integrity
Empathy	Caring, individualized attention given to customers	Acknowledges customer by name; remembers previous problems and preferences
		Friendliness of personnel
Tangibles	Appearance of physical facilities, equipment, personnel, and communication materials	Repair facility; waiting area; uniforms; equipment
		Cleanliness and appearance of facility

Table 14: SERVQUAL Dimensions and After-Sales Customer Judgements

Reference: Author`s table referring to Zeithaml et al. (2013), pp. 87/92; Conlon et al. (2001), p. 1202.

Table 14 shows that most of the SERVQUAL dimensions or the intended operationalisation, involves aspects which are discussed again in the following chapters on the marketing mix. For instance price (cf. Chapter 4.4.2.2) is a component of reliability and a distinct item[583] for measuring service quality. However, all aspects of the marketing mix are stressed separately, as the literature review might bring up conceivable moderating variables, foster assumed relationships or will shed light from different angles on the topic. Thus, it is worthy to follow the given structure.

Deduction of Hypothesis and Theory Foundation

Even if operationalisation is debated controversially, the literature review shows a wide acceptance that service quality is the main determinant of customer satisfaction. Nonetheless, automobile after-sales and China-specific researches have to be adopted in order to deduce hypotheses appropriately with regard to the construct of after-sales service quality.

---

[582] Cf. Conlon et al. (2001), p. 1202.
[583] Cf. Zeithaml (2013), p. 89.

The positive relationship from service quality towards service or customer satisfaction within the automotive industry is proven several times through the following important studies:

- HÜNECKE (2012) concerned the automobile after-sales service markets in Italy, France and Spain.[584]
- HÄTTICH (2009) concerned the German car service market.[585]
- BEI/CHIAO (2001) focussed on perceived product quality, perceived price fairness and perceived service quality in Taiwan.[586]
- DEVARAJ ET AL. (2001) showed for the US market that the brand has a considerable influence on service satisfaction, but that quality of service is most important.[587]

SHUQIN/GANG (2012) conducted research on relationship value within the Chinese automotive after-sales industry, and thereby successfully incorporated the construct of service quality, which they measured by a scale proposed by ANDALEEB/BASU (1994). The hypothesis testing shows that in this specific Chinese context as well, service quality is a major determinant of satisfaction. However, one service quality dimension, namely *responsiveness*, failed to be significant.[588] Chinese studies of other industries, for instance the mobile telecommunication sector, likewise show that service quality or perceived service quality is crucial in terms of building up satisfaction.[589]

The general and automobile-specific literature review shows that service quality has to be considered a distinct variable, which is critical to service satisfaction. The critics mentioned do not neglect the variable itself or the function as an antecedent, but the best suitable operationalisation. This is taken into account, especially when the final operationalisation takes place in Chapter 5.2.2. As the aim of this study is to investigate the customer´s perception, the construct is named 'perceived service quality'. As a result hypothesis H3 is formulated:

---

[584] Cf. Hünecke (2012), p. 147.
[585] Cf. Hättcih (2009), p. 213.
[586] Cf. Bei/Chiao (2001), pp. 136 ff.
[587] Cf. Devaraj (2001), p. 434.
[588] Cf. Shuqin/Gang (2012), pp. 175 ff.
[589] Cf. Deng et al. (2010), p. 296; Yim et al. (2008), 751.

H3:	The higher the perceived service quality, the higher the after-sales service satisfaction.

The assumed hypothesis H3 is also in line with:

- C/D-paradigm[590]
- Kano-model
- Attribution theory

In Chapter 4.2.3 the *C/D-paradigm* initiated by OLIVER (1980), was mentioned as a central model, which explains satisfaction.[591] The theory on this is that the customer compares the perceived performance (is) with a reference standard (should performance). The reference can be the customer's expectation, experience or concept of an ideal performance level. As a result of the comparison process between *should* and *is*, if the perceived performance is below expectations, the result is what is called disconfirmation. In contrast, an equilibrium (confirmation) or a positive disconfirmation (the product outperforms expectations) causes satisfaction. Theoretically both sides can be influenced.[592] In the given context service quality expresses the comparison's *is-component*, which is why higher quality leads to a greater satisfaction, if the *should-component* is kept stable. Inspired by HERTZBERGS (1965) two-factor theory,[593] KANO ET AL. (1984) further developed the *Kano-model*,[594] which assumes that satisfaction is multidimensional and related to five quality-factors. The five factors influencing satisfaction are the *must-be*, the *one-dimensional*, the *attractive*, the *indifferent* and the *reverse* qualities. Notably, within evolving literature the model is commonly known and used as a three-factor model referring to *delighters*, *satisfiers* and *basic needs*.[595] Each of them has a different effect, thus basic needs (must-be quality) are expected to be delivered, and therefore do not cause satisfaction, but cause dissatisfaction in the case of their absence. In contrast, the absence of delighters (attractive quality) do not lead to dissatisfaction, but have the potential to

---

[590] Often the C/D-paradigm is treated as a theory itself, but very strictly seen the C/D-paradigm is based on various theories. Cf. Stauss (1999), p. 6. In this work, the C/D-paradigm is presented, as it is the best way to focus simultaneously very precisely and compact.

[591] Cf. Chapter 4.2.3, Customer and Service Satisfaction.

[592] Cf. Foscht/Swoboda (2011), pp. 238 ff.; Oliver (1980), pp. 460 ff.

[593] Cf. Hertzberg (1965), pp. 364 ff.

[594] Cf. Kano et al. (1984), pp. 39 ff.

[595] Cf. Gregory/Parsa (2013), pp. 30 f.

cause or strengthen satisfaction. Satisfiers (one-dimensional quality) cause (dis)-satisfaction symmetrically.[596] The positive influence of service quality towards after-sales service satisfaction can be seen in line with the Kano-model, because the service can be delivered at every mentioned (quality) level (cf. must/shall/can services).[597] KELLEY's *attribution theory* (1973) says that transaction partners endeavour to explain the outcome of actions by attributing causes to their own behaviour, to the transaction partner`s behaviour or to the environment. In service situations, due to the integration of the external factor, often the customer aims a personal attribution. The service provider's staff is part of the service quality,[598] which is why good service levels can contribute to satisfaction. This is not the case if services are attributed to situations.[599]

4.4.2.2 Instruments of Price Policy

The *price policy* is deemed to be a very important and success-critical instrument within automotive marketing. In terms of the after-sales business the *cost of ownership* or life-cycle cost are most relevant to the customer. Here, the loss of value is the biggest cost factor, but it is not an after-sales service instrument that the provider can steer. In contrast, typical after-sales services as repair and maintenance performances are steerable and typologised as part of the customer´s *operating cost*.[600] Besides the importance in the automotive industry, GUO (2013) summarises Chinese consumer behaviour by saying that price is absolutely crucial, and Chinese customers are very price conscious, which he supports with an example of a typical Chinese expression: 'Never make a purchase until you have compared three shops'.[601] Moreover he argues that pricing is a hard task in China, because of the dichotomy that paying more than necessary is a cause for shame in the Chinese, but on the other hand they see price as an important quality indicator: there is a strong belief that products that are too inexpensive are bound not to be good.[602]

---

[596] Cf. Foscht/Swoboda (2011), p. 242; Gregory/Parsa (2013), pp. 30 f.; Kano et al. (1984), pp. 39 ff.
[597] Cf. Chapter 4.2.2, Service and After-Sales Service.
[598] Cf. Chapter 4.4.2.1, Instruments of Service Policy.
[599] Cf. Meffert/Bruhn (2009), pp. 72 f.; Kroeber-Riel/Gröppel-Klein (2013), pp. 393 ff.; Foscht/Swoboda (2011), p. 242.
[600] Cf. Diez (2009), pp. 211 ff.
[601] Guo (2013), p. 25.
[602] Cf. ibidem.

Undoubtedly, price or cost is a central after-sales service instrument, which has to be analysed. However, it is already considered within the intended research model, as it is a major part of the service quality operationalisation (dimension: reliability; item: cost), and therefore particularly implemented.[603]

Combining the aspects of operational cost and customer loyalty, another influencing factor should be considered, which becomes immediately obvious when loyalty is seen as causing retention, namely the *switching costs*.[604] Switching costs can be defined, according to PORTER (1980), as the 'one time costs facing the buyer of switching from one supplier´s product to another.'[605] BURNHAM ET AL. (2003) further develop this definition when they argue that even if switching costs have to be incurred immediately, they must be associated with a process. Thus their definition reads, '(…) the one time costs that customers associate with the process of switching from one provider to another.'[606]

Both generally and in the automotive context, 'switching costs' is an umbrella term for three categories of economic and non-economic costs in accordance to change barriers, namely economic, psychological and social-change barriers or the switching cost due to them. *Economic switching costs* in the automotive after-sales area are of a financial nature – for instance contractual costs, regular customer discounts, higher driving and time costs to reach the dealer, higher charges for services performed, and also the benefits of loyalty. *Psychological switching cost*s are for instance personal relationships with workshop personnel, or an emotional identification with the brand. Finally, *social switching costs* concern the social environment of the customer, such as opinions of friends and family members.[607] Notably, other categorisations are applicable, such as procedural, financial and relational switching costs,[608] however here the above-mentioned structure is used due to the popularity and established adaptation to the automotive context. In every of the three declared areas, switching

---

[603] Cf. Table 14: SERVQUAL Dimensions and After-Sales Customer Judgements. The specific operationalisation of final constructs and items takes place in Chapter 5.2.2, Operationalisation.

[604] Cf. Baumgartner (2012), p. 281; Dick/Basu (1994), pp. 104 f.

[605] Porter (1980), p. 10.

[606] Burnham et al. (2003), p. 110.

[607] Cf. Zeithaml (2013), pp. 161 ff.; Diez (2009), pp. 68 f.; Wang (2010), p. 254; Srivastava/Rai (2014), p. 16.

[608] Cf. Deng et al. (2010), p. 292.; Burnham et al. (2003), pp. 109 ff.

costs include any kind of effort the customer has to cope with, thus it is assumed that the higher the switching cost, the higher the perceived challenge to change provider.[609]

With their study 'Consumer Switching Costs: A Typology, Antecedents, and Consequences' BURNHAM ET AL. (2003) focus on the given topic intensively across industries.[610] They find consistent evidence through industries for eight distinct switching costs (economic risk, evaluation, learning, set-up, benefit loss, monetary loss, brand relationship loss, personal relationship loss costs), which can also be aggregated to higher order dimensions, as mentioned earlier. Furthermore, contributions on the consequences of switching costs are that switching costs have a stronger effect on customer retention than on customer satisfaction by explaining nearly double the amount of variance, and all three aggregated cost dimensions are relevant (financial at least). Moreover there was no evidence for interaction effects with customer satisfaction. [611] Additionally, a review of literature on switching costs and their relationship to loyalty (or familiar) constructs shows that they are modelled as both a direct effect (e. g. LI ET AL. 2008) and a moderating one (e.g. WANG 2010).[612]

Switching costs can be established by the provider as barriers or via benefits, and thus refer to the after-sales instruments, but on the other hand aspects such as the opinions of friends (social), which are difficult to influence, might be important as well. Therefore, in this research the abstract variable of *perceived switching costs* is chosen, and specified with regard to the after-sales focus, as *perceived workshop switching costs*.

Deduction of Hypothesis and Theory Foundation

One of the first well-respected loyalty studies, which incorporate change barriers in an automotive context, is by PETER (1997).[613] She surveyed customers of a German car brand in order to investigate important loyalty antecedents. For reasons de-

---

[609] Cf. Wang (2010), p. 253.
[610] Cf. Burnham et al. (2003), pp. 109 ff.
[611] Cf. ibidem, pp. 119 ff.
[612] Cf. Li et al. (2008), p. 452; Wang (2010), p. 256 or for a current overview: examplary Srivastava/Rai (2014), pp. 16 f.
[613] Cf. Peter (1997), pp. 1 ff.

scribed earlier, and as well particularly due to her operationalisation, the constructs change barriers and switching costs can be considered similar. She focusses on social and psychological change barriers, rather than on financial barriers. Notably, psychological change barriers have a stronger effect on customer loyalty as, the mostly as crucial considered variable customer satisfaction. Moreover, this makes psychological change barriers the strongest direct antecedent in the entire model.[614]

Addressing specifically automobile sales and services, VERHOEF ET AL. (2007) analyse the Dutch new car market for brand and dealer retention by applying an econometric model. Thereby, they incorporate dealer and brand switching costs as antecedents to retention. The nested logit model results addressing dealer retention show that 'Surprisingly, no significant effect is found for dealer switching costs.'[615] In contrast, when it comes to brand retention the effect is significant, and moreover has an expected positive contribution.[616] However, the authors point to the peculiarities of the Dutch mono-brand distribution system, where switching brands always has to go in line with switching the dealer, thus brand switching is much more important than dealer switching, if the buyer's intention is to opt for another brand (disloyalty).[617]

HÄTTICH (2009) uses, in his research, the variable change barriers. This variable contains the three initially mentioned social, psychological and financial dimensions, plus a risk-related item in regard to workshop loyalty. He shows that, considering the total effects, after customer satisfaction and price-performance ratio, change barriers are an important factor. If only direct effects are considered, the barrier´s effect strength is second in importance.[618]

As regards China, no automobile after-sales specific studies incorporating switching costs can be found, but recent indications from other industries are presented next. DENG ET AL. (2010) show for Chinese mobile phone services that switching costs have a highly significant, positive effect on customer loyalty, whereby the path coefficient of trust is similar strong, and the one of satisfaction is three times stronger than

---

[614] Cf. Peter (1998), pp. 77; Diez (2009), p. 70.
[615] Verhoef et al. (2007), p. 108.
[616] Cf. Ibidem.
[617] Cf. ibidem, pp. 98/109
[618] Cf. Hättich (2009), p. 213 ff.

the one of switching costs.[619] However, the authors' summary is that 'Our results imply that the higher the switching cost, the greater [the] likelihood it will drive consumers to stay with their current provider, and encourage others to use the provider's service.'[620] These findings confirm another Chinese service study conducted in 2008 by LI ET AL., where the same three constructs are tested in accordance with repurchase intention. As well, findings and particularly effect strengths are nearly the same as described above.[621]

The literature review shows generally, after-sales and China specific that switching costs are important, if loyalty constructs are considered. Moreover, when direct effects are focussed on, most studies show positive effects on loyalty where automobile specific both dealer and brand loyalty is the aim of research. Due to the low amount of those particular researches, it is very worthy to contribute to the body of knowledge regarding both dealer and brand loyalty. Therefore, on perceived switching costs H4 and H5 are formulated separately as follows:

H4:	**The higher the perceived workshop switching costs, the higher the dealer loyalty.**

H5:	**The higher the perceived workshop switching costs, the higher the brand loyalty.**

A review shows that the following theories contribute to the latter two hypotheses:

- Transaction cost theory
- Prospect theory (loss aversion)
- Transaction cost utility concept

The *transaction cost theory* by COASE (1937) belongs to the school of thought called new institutional economics. It claims that every transaction is related to costs of various kinds, such as initiation cost, control cost, or barely quantifiable costs such as time, cognitive effort and lost profit. Generally, it is favourable for every party, if

---

[619] Cf. Deng et al (2010), p. 295.
[620] Ibidem, p. 296.
[621] Cf. Li et al. (2008), pp. 455 f.

transaction costs are as small as possible.[622] Searching for a new service provider is generally related to costs at least in terms of effort, such as initiation or search costs and cognitive efforts, but it is doubtful that these costs are perceived as high enough to prevent a provider change. Nonetheless, these costs contribute as further costs or further change barriers, in the occasion of switching. Additionally, if switching costs already exist that are related to the actual brand or workshop, such as benefits, discounts, or preferred personal relationships, then the sum of all perceived switching costs might be above an acceptable threshold. The latter aspect could even be boosted if customers have strong *loss aversion*, which is part of the *prospect theory* (s. Chapter 4.4.2.4) of KAHNEMAN/TVERSKY (1979).[623] Loss aversion is an important aspect within the decision making process of customers, where it is assumed theoretically that losses are valued higher than gains.[624]

To understand the advantages of the combination of both explanatory approaches, the *transaction cost utility concept* of THALER (1985) is applicable and useful. THALER defines the total utility as the sum of the acquisition utility and the transaction utility.

total utility   = acquisition utility + transaction utility

$N (Pi. P. P^*) = (Pi-P)$ $+ (P^*-P)$

The general idea is that a consumer could reach two kinds of utility at every transaction. Here the acquisition utility is a basic utility (microeconomic net utility), which is defined as the difference between the actual purchase price (P) and the maximum price that the customer is willing to pay (Pi). The transaction utility is the difference between (P), and the reference price (P*) perceived by the consumer as fair.[625] Therefore, whether the customer feels he or she has made a good decision or purchase is important, and furthermore dependent on buying circumstances (transaction utility) or perceived losses through switching.

---

[622] Cf. Rindfleisch/Heide (1997), p. 31; Müller-Stewens/Lechner (2005), pp. 149 ff.; Mann (1998), pp. 124 ff.; Coase (1937), pp. 386 ff.

[623] The prospect theory discussion takes place in Chapter 4.4.2.4; Kahneman/Tversky (1979), pp. 263 ff.

[624] Cf. Tversky/Kahnemann (1991), p. 1039.

[625] Cf. Zerres (2010), p. 73; Thaler (1985), p. 205; Thaler (1999), p. 189.

4.4.2.3 Instruments of Place Policy

The policy of *place* describes the *distribution patterns* of services – for instance, where and how the customer can receive them. Services, in contrast to products, can be traded only with restrictions, which means that usually only performance vouchers or service promises such as flight tickets are comparably easy to trade.[626] This aspect is also known as *perishability*.[627] As a result, local aspects are important, which means where services can be performed, and where the customer or her/his car is integrated as an *external factor*. Here, out of the customers view, *location decisions* are more important in terms of services than in terms of consumer or industry goods.[628] As well internally, location decisions are highly relevant for automobile manufacturers, because the service delivery system is difficult to change, due to the high investment made or a long-term contract with the dealer workshops.[629] As a result location planning is crucial in terms of elaborating an appropriate service network,[630] which fits both the customer`s and the OEM´s requirements. The latter aspect is not part of this research as it often refers to non-customer-oriented topics, such as internal parts-logistics.[631]

Location planning is strongly related to customer needs, and thereby particularly to the *acceptance of distance*, or how long it takes to reach the workshop,[632] with 30 minutes being considered the critical maximum on the German market.[633] LERCHENMÜLLER (2007) notes that distribution policies are rarely discussed in the literature, when customer satisfaction is considered, despite two facts: first, that some features are directly related – for instance, the speed of processing the services provided and the accessibility of service locations; second, that after-sales operations can contribute in terms of building customer satisfaction, only if all marketing mix instruments are considered.[634]

---

[626] Cf. Meffert/Bruhn (2009), p. 335.

[627] Cf. Zeithaml et al. (2013), pp. 22 f.

[628] Cf. Meffert/Bruhn (2009), p. 336.

[629] Cf. Diez (2009), p. 266; Arthur D. Little (n. a.) (2011), p. 2.

[630] Cf. Diez (2009), pp. 300 ff.

[631] Cf. Lerchenmüller (2007), p. 180. For further information on this topic, see for instance in presented literature on pp. 30/34 f.

[632] Cf. Meffert/Bruhn (2009), p. 337; Diez (2009), p. 301; Lerchenmüller (2007), p. 175.

[633] Cf. Diez (2009), pp. 301 ff.

[634] Cf. Lerchenmüller (2007), pp. 184 f.

When it comes to acceptance of distance, there are no accessible scientific findings on automobiles which indicate how far or how long Chinese consumers are willing to travel. A variable called *acceptable workshop distance* will therefore be integrated in the research model. Moreover, findings on this are crucial for German automobile manufacturers, because the Chinese workshop network is still under development.[635]

Deduction of Hypothesis and Theory Foundation

As stated above, there is a significant lack of specific literature towards indications on the acceptable workshop distance in China. Nonetheless, and in accordance to DIEZ,[636] it is to be assumed that a threshold exists, a distance which customers find too far to reach a workshop. Furthermore, that satisfaction and loyalty are the better, the shorter the distance to the service encounter, because the customer´s convenience increases. In order to explore these relationships, the following hypotheses are assumed:

H6:	**There is a relationship between acceptable workshop distance and after-sales service satisfaction or workshop loyalty.**
H6a:	The shorter the acceptable workshop distance, the higher the after-sales service satisfaction.
H6a:	The shorter the acceptable workshop distance, the higher the workshop loyalty

Even if the literature review shows a gap in the postulated relationships, theory contributes accordingly:

- Transaction cost theory

In the given context, the directions of the assumed hypotheses are in line with the *transaction cost theory*,[637] which says that every transaction causes costs and consumers experience the greatest benefit if their own costs are as low as possible. Thus in principle the less time customers spend on a transaction, the more they benefit.

---

[635] Cf. Chapter 3.3, *Provision of After-Sales Services by German Brands in China.*
[636] Cf. Diez (2009), pp. 301 f.
[637] Cf. Chapter 4.4.2.2, *Transaction cost theory.*

Type of Customer Contact and Facility Appearance

Service deliveries can be distinguished by the *type of contact*, where three general kinds can occur. First, the customer is *physically present* and interacts with the provider. Second, the contact is *indirect* for instance via the internet. Third, there is *no contact* for providing a service.[638] Automotive after-sales services thereby can occur in different ways, however, at repairs it is usually expected that the customer interacts with the provider, when he brings his car to the workshop and explains the deficiency. Then, direct contacts are subdivided in two categories depending on whether there is an *interaction* with service workers or *not*.[639] The latter is called self-service, and is not considered here. When customers make contact, *facility issues* are important as this affects the evaluation process of services, here *image* and willingness to *cooperate* are deemed to be important psychological aspects, when the encounter happens.[640] The latter will not be considered, because it would require an internal dealer analysis, not in keeping with the consumer research focussed on here.

Image, however, is highly consumer related. Here for instance, DIEZ (2009) states that it is an important objective of an automobile-specific distribution policy that the brand is presented properly at the point of service.[641] This mainly refers to tangible aspects, like the appearance of physical facilities, which are already considered when service quality was stressed (cf. Chapter 4.4.2.1, especially Table 14). On the other hand, brand image presumably affects the entire after-sales process chain, so it shall be considered separately. However, because this topic is mainly an aspect of promotion policy, it is discussed in the following chapter.

4.4.2.4 Instruments of Promotion Policy

The marketing-mix instruments regarding the *promotion policy* are manifold, such as personnel selling, sales promotion, advertising, public relations etc.[642] The previously mentioned construct of *image*, in this context, is a relatively abstract construct, which itself can be influenced by the initially named instruments. As early as 1984 GRÖN-

---

[638] Cf. Fitzsimmons et al. (2014), p. 75; van Birgelen et al. (2002), p. 45.
[639] Cf. Fitzsimmons et al. (2014), p. 75.
[640] Cf. Meffert/Bruhn (2009), p. 338; Fitzsimmons et al. (2014), pp. 75/91.
[641] Cf. Diez (2009), p. 265; Dahlhoff/Eickhoff (2014), p. 229.
[642] Cf. Zerres/Zerres (2006), p. 116 ff.

ROOS figured out the exceptional importance of image for service providers, and the direct link to perceived service quality.[643] Image, as well, is highly relevant for this research, as it is considered as a crucial psychological effect within the after-sales success chain (cf. Figure 18). According to MEFFERT/BRUHN (2009) image contributes very positively, because it reduces customers' perceived risk, and is an important indicator for judgements of quality and satisfaction.[644]

In the automotive context the *brand* is becoming more and more important.[645] This is a development which is generally acknowledged – for instance DE MOOIJ (2014) argues, 'In most categories, today´s companies do not compete with products but with brands, (…).'[646] Actually the combination of both brand and image is deemed to be crucial, as *brand image* is seen as extremely important for a brand's success. Specifically in the automotive area, ESCH/ISENBERG (2013) state that brand image positively influences buying intentions, satisfaction with the brand, brand retention, and future buying or loyalty.[647] Additionally, brand image is especially important, and is considered a strategic aspect of premium brands.[648]

Brand image can be defined with regard to a famous article by KELLER (1993), '(…) as perceptions about a brand as reflected by the brand associations held in consumer memory.'[649] Often researchers build on this definition, whereas various specifications are made to specific circumstances. One major aspect here is that image is considered to be a whole picture or, as AAKER (1996) says, '(…) the net result of all the experiences, impressions, beliefs, feelings and knowledge that people have about a company.'[650] It is significant that, depending on the product category, some researchers just use the term image or the term corporate image. In this study brand image is used, because for instance Audi is a brand of the VW concern but mostly considered (especially from the customer´s view) to be an independent company.

---

[643] Cf. Grönroos (1984), pp. 39 f.

[644] Cf. Meffert/Bruhn (2009), pp. 93 f.

[645] Cf. Dahlhoff/Eickhoff (2014), pp. 226 f.; Diez (2012), p. 123; Diez (2009), p. 514; Wallentowitz et al. (2009), p. 74.

[646] de Mooij (2014), p. 28.

[647] Cf. Esch/Isenberg (2013), pp. 37 f.

[648] Cf. Reichhuber (2010), p. 103; Verhoef et al. (2007), pp. 103 ff.

[649] Keller (1993), p. 3; Referring to Google Scholar in 2015, this article is cited more than 8.500 times.

[650] Aaker (1996), p. 113.

However, this work also addresses studies that use the construct of corporate image, because the concepts of brand image and corporate image are often interchangeable.

Obviously, brand image is generally an important aspect. Particularly for this research setting, it is really interesting, as brand image primarily refers to the manufacturer's side, but coincidently influences the entire after-sales success chain, which is why analysing this construct could produce valuable insights into the interface between the customer and the dealer or manufacturer. As a result, the construct of brand image is included in the research model as an independent variable.

Deduction of Hypothesis and Theory Foundation with Regard to Satisfaction

As regards service settings, ANDREASSEN/LINDESTAD (1998) conclude that 'Corporate image is consequently assumed to have an impact on customers' choice of company when service attributes are difficult to evaluate.'[651] Their hypothesis testing confirmed the assumption that brand image has a strong impact on customer satisfaction.[652] This finding is confirmed by other studies, such as ZINS (2001),[653] and AGA/SAFAKLI (2007), who compare the predictive power of price, service quality, and corporate image on customer satisfaction at consumer services in professional accounting firms. The result is that image has the strongest positive influence.[654]

In the field of automobile research, only DEVARAJ ET AL. (2001) show for the US car-service market that brand reputation, which is quite familiar to brand image, is a relevant antecedent to service satisfaction.[655]

Research concerning China directly is also rare, but OBGA/TAN (2009) state in their study on brand image that '(…) one can conclude that brand image can positively influence customers' perceived quality on a market offering and also boost customer satisfaction (…) towards a market offering.'[656] It is worth noting that they have not researched the link directly, but the correlations and interpretations give a first hint on

---

[651] Andreassen/Lindestad (1998), p. 11.
[652] Cf. ibidem, pp. 19 f.
[653] Cf. Zins (2001), p. 280.
[654] Cf. Aga/Safakli (2007), p. 94.
[655] Cf. Devaraj et al. (2001), p. 434.
[656] Cf. Ogba/Tan (2009), p. 141.

the satisfaction aspect within the Chinese context. This hint is confirmed by LAI ET AL. (2009), when they reveal that, in the Chinese mobile telecommunication service industry, corporate image has a significant effect on customer satisfaction. Moreover, in this model corporate image has the strongest direct effect on customer satisfaction, notably stronger than service quality, which was not significant as a direct driver, but was on an indirect path via corporate image and perceived value.[657]

Albeit the scientific review reveals only a few context-specific studies which show an explanatory function of brand image on satisfaction constructs, it is valuable analysing this empirically for after-sales service satisfaction in China, in order to bring up findings contributing to the body of knowledge. Therefore, hypothesis H7 is postulated as a result of the literature mentioned:

H7:	**The higher the brand image, the higher the after-sales service satisfaction.**

Theories:
- Assimilation theory

As regards previously mentioned theories such as the C/D-paradigm,[658] theory would not contribute to this hypothesis, because higher expectations lead to dissatisfaction, if the perceived performance is constant. Thus the image has to be relatively low, in order to cause high satisfaction with adequate service performances. But on the other hand image serves as a surrogate for quality (information economics: *signalling*),[659] and quality is a major antecedent of satisfaction. However, one theory contributes to the general understanding of such image aspects and therefore eases this contradiction: the *assimilation theory*.

The assimilation theory is based on the dissonance theory (cf. Chapter 4.4.1), and says that humans try to balance their attitudes or expectations, perceptions and behaviour. As a result, unconsciously an internal psychological consistency is aimed at.

---

[657] Cf. Lai et al. (2009), p. 984.
[658] Cf. Chapter 4.4.2.1, Instruments of Service Policy.
[659] Cf. Chapter 4.4.2.4, Instruments of Promotion Policy.

If perception and attitude are not consistent, this dissonance is reduced or overcome, therefore attitude or perception is adjusted afterwards. This adjustment process is called assimilation.[660] FOSCHT/SWOBODA (2011) argue that customers adjust their perception towards expectation to cause satisfaction. According to them, this is proofed by MITTAL ET AL. (1999).[661] Nonetheless the assimilation theory is criticised, mainly by proponents of the *contrast theory*, which also acknowledge corrections to discrepancies. But this correction is done towards the opposite direction, thus dissatisfaction increases.[662]

Obviously, there is no single theory delivering a comprehensive explanation. In terms of image, *combining* the assimilation and the attribution theory (cf. Chapter 4.4.2.1) seems to be favoured. If a customer selects a brand mainly because of the strong image, and afterwards is satisfied with this selection, she might charge attribute the outcome mainly to her own selection or in other words to the performance of her selection performance. In line with the attribution theory, the image-related self-attribution could therefore enhance the customer satisfaction, if the assimilation theory applies simultaneously. However, the contribution of theory to hypothesis H7 has considerable limitations.

Deduction of Hypothesis and Theory Foundation with Regard to Loyalty

Often satisfaction is seen as the main antecedent of *loyalty*, but image can be a strong antecedent as well. For complex and infrequent service purchases it is shown that brand image rather than customer satisfaction is the most effective predictor of loyalty[663]– a fact which indicates that brand image is highly relevant in terms of *workshop loyalty*, especially because of analogy of the infrequent demand behaviour.

NGUYEN/LEBLANC (2001) assume a strong relationship between corporate image and loyalty, which they test empirically in three service industries: retail services, telecommunication services and educational services. Due to various limitations, they cannot provide clear valid findings, but nonetheless the correlations found indicate

---

[660] Cf. Skala-Gast (2012), p. 21.

[661] Cf. Foscht/Swoboda (2011), p. 242; Mittal et al. (1999), pp. 88 ff.

[662] Cf. Skala-Gast (2012), pp. 22.

[663] Cf. Andreassen/Lindestad (1998), pp. 19 f.

the assumed positive relationship.[664] A Turkish study on the antecedents of customer loyalty by AYDIN/ÖZER (2005), shows a positive relationship between corporate image and customer loyalty, but it is not statistically significant.[665] Nor are BLOEMER ET AL. (1998) able find a direct relationship between image and loyalty for the financial services sector.[666] In contrast ZINS (2001) confirms the mentioned relationship for the airline industry, and concludes that 'Corporate image plays the dominant role when explaining future loyalty.'[667] Similarly, findings of research on the insurance industry show that brand image is a positive moderator of the relationship between service quality and customer loyalty, and therefore seen as an amplifier.[668]

The view across industries does not deliver a clear view. In order to clarify this, next the literature review is narrowed down, first, to the automotive industry, and then specifically to the Chinese context.

GROßKURTH (2004) analyses brand loyalty at premium car sales, but he does not incorporate brand image directly in his model, because most of variables he considers are trust-related constructs in relations to the dependent variable brand loyalty. However, trust in the brand has by far the strongest direct effect on brand loyalty. Neither trust in the product, as the second strongest effect, nor trust in the dealer or satisfaction with the dealer show this strenght.[669] Thus, this familiar research setting indicates that brand image, as a non-trust related construct, might have a crucial impact on loyalty as well.

Focussing on the Dutch new-car market, VERHOEF ET AL. (2007) tried incorporating the construct of brand equity in their research model, in order to predict brand retention. Here, brand equity is operationalised as 'The consumer's awareness and image of the brand'.[670] However, the effect was not significant, which is why they afterwards used the construct of brand tier as a wider concept in their final model, allowing a broader scope to be applied than if they simply used brand- and image-related

---

[664] Cf. Nguyen/Leblanc (2001), pp. 231 ff.

[665] Cf. Aydin/Özer (2005), pp. 919 ff.

[666] Cf. Bloemer et al. (1998), p. 283.

[667] Zins (2001), p. 287.

[668] Cf. Srivastava/Rai (2014), p. 21.

[669] Cf. Großkurth (2004), p. 260.

[670] Verhoef et al. (2007), p. 100.

items. In the end, they uncovered the moderating role of brand tier in the Dutch new-car market.[671] But this is not a service-related study, and the Dutch market is quite different from the Chinese one.

Focussing on the European markets of Spain, France and Italy, HÜNECKE (2012) significantly confirmed a positive effect of brand image on brand loyalty. In his model brand image is the *strongest driver* of the dependent variable, brand loyalty (globally viewed).[672] The differentiated view on the single markets shows that, in Italy and Spain, brand image remains the most important variable. In contrast, in France, product satisfaction is more important than brand image, though a positive relationship does also exist between brand image and satisfaction in France.[673]

It is assumed that in East Asian cultures a company's reputation contributes more strongly to brand loyalty than in Western cultures, so next Chinese studies are stressed.[674] Even if Taiwan is not analogous to Mainland China, the study by WANG (2010), which primarily focusses switching costs in the case of services, shows that here, too, brand image is an important determinant of customer loyalty.[675] Additionally, TU ET AL. (2014) have conducted research with data from Toyota car dealers from the Taipei area, in order to show that customer commitment is a mediator between brand image and customer loyalty. In this study, brand image has a significant effect,[676] but findings should be interpreted carefully as the research setting has limitations, such as a low number of variables and a mono-brand analysis.

Familiar, but more specific than brand image, KNÖRLE (2011) incorporates perceived prestige in his general research on Chinese brand loyalty. He was not able to empirically confirm his thesis that a higher perceived prestige leads to higher brand loyalty (negative effect) but, in combination with his qualitative study, he concluded that brand switching takes place if the consumer has a relevant alternative which de-

---

[671] Cf. ibidem, pp. 109 ff.
[672] Cf. Hünecke (2012), p. 128.
[673] Cf. ibidem, p. 136.
[674] Cf. de Mooij (2014), p. 148.
[675] Cf. Wang (2010), pp. 258 f.
[676] Cf. Tu et al. (2014), p. 23 ff.

livers higher perceived prestige to the customer.[677] By implication, this indicates that the hypothesis might be right, but the operationalisation might lack context specification.

Research from OGBA/TAN (2009) on the Chinese mobile phone market shows that brand image is a relevant and positively related antecedent of customer loyalty in a Non-western research context.[678] LAI ET AL. (2009) investigate the same Chinese industry but do not confirm a significant direct influence on customer loyalty. However, as mentioned in the previous section, brand image indirectly affects loyalty via customer satisfaction, to produce a combined effect.[679]

In conclusion, the findings across industries and the China-specific ones are non-uniform. As regards the after-sales focus of this research, only one study produces findings. There, brand image is a *major driver* of brand loyalty, but unfortunately it is *not* tested with regard to workshop loyalty. Therefore, it is highly relevant to postulate hypotheses for both workshop and brand loyalty, in order to make a strong contribution to the existing body of knowledge, which is currently not unambiguous. In line with most of the indications, the following hypotheses are postulated as positive relationships:

H8:	The higher the brand image, the higher the workshop loyalty.

H9:	The higher the brand image, the higher the brand loyalty.

Theories in line with the hypotheses stated above:
- Information economics
- Prospect theory

Within the neo *institutional paradigm* a major theory is the theory of *information economics*. Here, information asymmetries and the related phenomena of uncertainty are the major points of concern, where generally both parties – buyer and supplier –

---

[677] Cf. Knörle (2011), pp. 211 f.
[678] Cf. Ogba/Tan (2009), p. 141.
[679] Cf. Lai et al. (2009), p. 984.

have information deficits. Especially in service settings, customers are not fully capable of judging performance, due to the immaterial nature of services. The theory of information economics distinguishes three performance characteristics: search, experience, and trust. Here, the higher the experience and trust characteristics of an offer, the higher the information deficits and uncertainties, which hamper buying decisions. In order to reduce these negative effects, both parties can reduce information deficits. For providers like automotive brands and workshops, *signalling* is an approach to give more information to the less-informed party (customer), whereby the information functions as an *a priori surrogate* of actual performance.[680] Notably, a typical way to achieve signalling is a strong image.[681] As a result brand image helps to reduce uncertainty and information deficits, thus barriers to loyal behaviour are lowered, via signalling.

Additionally, the repetitive use of a service performed, as in a workshop, likewise has a signalling and a reputation-building function, if the customer is satisfied, because trust is fostered, which is one of the three crucial characteristics.[682]

Another theoretical aspect, which explains loyalty, is the *utility theory*.[683] Within utility research KAHNEMAN/TVERSKY (1979) developed an alternative,[684] the *prospect theory,* which mainly refers to decision-making according to the assessment of positive or negative outcomes (s-shaped value function). Here, judgement does not rely on a zero point, but on a reference point, and decisions above this point are assessed as gain. Accordingly, below the reference point losses are felt. Thus for instance, at price assessments, it is not the absolute price that is critical, but its difference from the reference price (reference dependence).[685] However, the theory is applicable widely above price or finance decisions.[686] Importantly, the reference point is not fixed, rather than depended on the customer's assessment of expectations and

---

[680] Cf. Kuß (2011), pp. 203 ff.; Meffert/Bruhn (2009), pp. 55 ff.; Mann (1998), pp. 109 ff.

[681] Cf. Meffert/Bruhn (2009), p. 60.

[682] Cf. Dorka (2012), p. 189; Meffert/Bruhn (2009), p. 59.

[683] Cf. Foscht/Swoboda (2011), p. 248.

[684] Cf. Edwards (1996), p. 19.

[685] Cf. Zerres (2010), p. 70; Kahneman/Tversky (1979), pp. 263 ff.; Tversky/Kahnemann (1991), pp. 1039 ff.

[686] Cf. Edwards (1996), p. 35; Kahneman/Tversky (1979), p. 288.

circumstances.[687] Moreover, the theory implies that for customer preferences, losses are valued higher than gains, which is called loss aversion.[688] With regard to the postulated hypotheses, it is to be assumed that brand image has an influence on the reference point, thus competitive workshop or brand offers are viewed relatively lower, if their brand image is comparably lower. Moreover, disloyal behaviour could be a risk, as the known utility level could be lost, and losses are highly considered.

4.4.2.5   Instruments of Personnel Policy

MEFFERT/BRUHN (2009), argue that *personnel policy* is the most important *internal* marketing instrument, which means that staff are viewed as internal customers. Primarily, three aspects lead to this perspective. First, staff skills have to increase continuously due to the need for a permanent supply of performance potential. Second, the integration of the external factor, where the customers' contact is the direct connection from personnel policy to customer behaviour. And finally, the immateriality of services, where staff is often seen as a surrogate for actual performance.[689]

Due to the focus of this research, internal marketing aspects of personnel issues are excluded, although they are doubtless important. However, instruments[690] such as recruitment, personnel development, and so on are not directly linked to customer behaviour.

In contrast, the *service encounter* marks a situation where the employees are in a direct contact with customers, and therefore it relates particularly to the previously mentioned surrogating, and a potentially effective way of producing customer satisfaction.[691] Automotive after-sales services are mainly so called high divergence services, which means that the service process is unprogrammed and not standardised. Therefore, at least an information exchange (interaction) between employee and customer is required.[692] The service encounter or interaction process 'defines the quality

---

[687] Cf. Kahneman/Tversky (1979), p. 288.

[688] Cf. Tversky/Kahnemann (1991), p. 1039.

[689] Cf. Meffert/Bruhn (2009), pp. 243 f./359 ff.

[690] Cf. ibidem, pp. 364 ff.; Zeithaml et al. (2013), pp. 324 ff.

[691] Cf. Fitzsimmons et al. (2014), pp. 91 ff.; Zeithaml et al. (2013), pp. 315 ff.; Meffert/Bruhn (2009), pp. 358 ff.; Thalhofer (2003), p. 61.

[692] Cf. Fitzsimmons et al. (2014), p. 74.

of the service in the mind of the customer, [and] is called a "moment of truth". The often brief encounter is a moment in time when the customer is evaluating the service and forming an opinion of its quality.'[693] This quotation shows on the one hand again the encounter's importance and on the other hand that this aspect of personnel policy is highly related to *quality*. In fact, the considered service quality dimensions contain personnel issues directly,[694] especially through the dimensions of *assurance* and *empathy*. Thus crucial aspects such as honesty, integrity, and friendliness of personnel are already conceptually considered and intended to be included in the research model (cf. Chapter 4.4.2.1).

Moreover, in this study further possible variables related to personnel policies are not comprised in the research model, because the complexity of that model would increase to the point where the number of measurable items that are economically affordable would rise to an unacceptably high level. This limitation is also required, because the more important focus of this work is on cultural aspects, which are discussed next.

4.4.3 Cultural Influences

The general discussion of culture in Chapter 4.2.5 shows that every stage in the service experience process is affected by *cultural influences*, so it is now important to elaborate conceptually, how these influences are to be integrated into the research model. Additionally, it was shown that values are a core element of culture and a cause for given behaviour.[695] Because *values* are causal, it is possible to operationalise them as *independent variables*, which is a powerful kind of application in order to reach one of the objectives of this research – to explain how Chinese culture influences the way the Chinese perform when it comes to satisfaction, loyalty assessment and behaviour. In line with that, and due to the need for considering specifically the level of culture,[696] this research *focuses* on micro or *individual level analysis*, ra-

---

[693] Ibidem, p. 91.
[694] Cf. Zeithaml et al. (2013), p. 319; Table 14: SERVQUAL Dimensions and After-Sales Customer Judgements.
[695] Cf. Chapter 4.2.5, Culture.
[696] Cf. ibidem; Zhang et al. (2008), p. 221; Craig/Douglas (2006), p. 336.

ther than on analysis at a macro level or on a national basis. Furthermore, the previously mentioned points suit this study's research perspective.[697]

The crucial question is, which theory best fits the given priorities. Out of the huge variety of cultural studies, with their quite different approaches, it is the *SCHWARTZ value theory* which strongly relates to the points mentioned, especially with an emphasis on two key aspects: values and the individual level. In addition, significant authors refer in this context to the psychologist SCHWARTZ.[698]

As regards service research in particular, ZHANG ET AL. (2008), claim in their cross-cultural review paper that it is crucial to apply other theories than those of HOFSTEDE in the field of consumer service research. They show that HOFSTEDE is by far the most often used approach in this field,[699] but despite its undoubtedly useful contributions, it is widely criticised, and alternatives[700] are too much ignored by researchers. For ZHANG ET AL. (2008) 'Going beyond Hofstede'[701] promises great benefits to service marketing, in part because authors like SCHWARTZ are widely accepted and applied in other disciplines.[702] The next section describes his *value theory*, and shows in detail, *why it fits* this research.

4.4.3.1 Schwartz`s Individual Level Values

Theory of Basic Human Values

SCHWARTZ is an Israeli psychologist who invented the *theory of basic human values* (1992)[703] in the area of cultural research. Today, it is considered to be one of the best theoretically and empirically grounded value theories globally,[704] and next to researchers like HOFSTEDE, he is one of the most popular researchers in this field.[705]

---

[697] Cf. Chapter 4.2.5, *Excursus: Research Perspective: Emic vs. Etic Approach*

[698] Cf. de Mooij (2014), p. 183; Zhang et al. (2008), p. 219; Triandis (1994), p. 112.

[699] Cf. Zhang et al. (2008), p. 213.

[700] For instance Schwartz, Hall, Riddle or Keillor et al. s. Zhang et al. (2008), p. 213 Table 2 for the whole enumeration.

[701] Ibidem, p. 219.

[702] Cf. ibidem.

[703] Cf. Schwartz (1992), pp. 1 ff.

[704] Cf. Cieciuch/Davidov (2012), p. 37.

[705] In 2012 Google Scholar lists over 8,200 citations to the first three articles, which have introduced this theory. Cf. Schwartz et al. (2012), p. 663.

His theory of values is based on the former value concept, developed by ROKEACH (1973), who argued that 'The value concept, more than any other, should occupy a central position … able to unify apparently diverse interests of all the sciences concerned with human behaviour.'[706] Additionally, SCHWARTZ/BILSKY (1987,1990) elaborated a tentative theory of the *universal content and structure of human values*,[707] which is derived from the assumption that values (in the form of conscious goals) represent three types of universal human requirements, to which every individual in every culture must be responsive:[708] 'biologically based needs of the organism, social institutional requirements for interpersonal coordination, and social institutional demands for group welfare and survival (…).'[709] Moreover they give a conceptual definition of values, as follows. 'Values (1) are concepts of beliefs, (2) pertain to desirable end states or behaviours, (3) transcendend specific situations, (4) guide selection or evaluation of behaviors and events, and (5) are ordered by relative importance.'[710]

Against this background, SCHWARTZ *defined* '(…) basic values as trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or group.'[711] Furthermore, he makes a distinction between values, because they are expressed by different motivational goals. Thus, he identified a comprehensive set of *ten basic values*, relevant in every society, which are *ordered around a motivational circle* and organised as a coherent system 'that underlies and can help to explain individual decision making, attitudes, and behavior.'[712] The coherent circular structure further reflects and specifies the dynamic relation among the values, which can be expressed as conflicts or congruities. Relatively seen, values next to each other are fairly similar in contrast to values arranged opposite to one another.[713] SCHWARTZ exemplifies this as follows: 'The pursuit of any value has consequences that may conflict or may be congruent with the pursuit of other values. For example, the pursuit of novelty and change (stimulation values) is likely to undermine [the] preservation of

---

[706] Cited by Schwartz (1992), p. 1.
[707] Cf. Schwartz /Bilsky (1987,1990).
[708] Cf. Schwartz (1992), p. 4.
[709] Schwartz/Bilsky (1987), p. 551.
[710] Schwartz (1992), p. 4.
[711] Cf. Schwartz et al. (2012), p. 664.; Schwartz (1992), pp. 1 ff.
[712] Schwartz et al. (2012), p. 664.
[713] Cf. Schwartz et al. (2001), p. 519; Schwartz (2003), pp. 268 ff.

time-honored customs (tradition values). In contrast, the pursuit of tradition values is congruent with the pursuit of conformity values: Both motivate actions of submission to external expectations.'[714]

The ten motivationally distinct basic values can also be expressed (consolidated) as *four higher order values* on two orthogonal dimensions (self-enhancement vs. self-transcendence and openness to change vs. conservation).[715] In addition the circular relation generally allows the domain of values to be partitioned into more or less detailed constructs, depending how finely the researcher wants to discriminate between the underlying motivations.[716] Below, Figure 24 and Table 15 show the circular structure of the ten basic values and their conceptual definition.
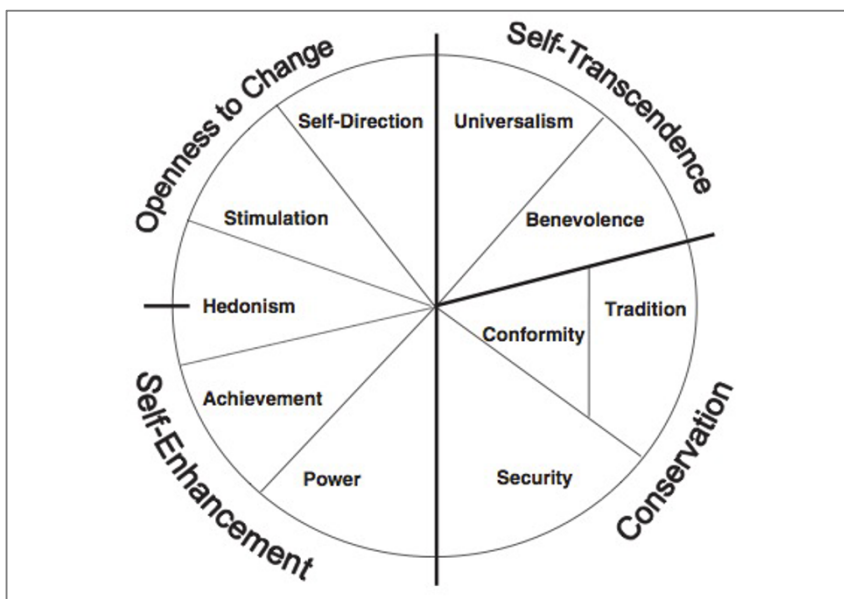
Figure 24: Structural Relation Among the Ten Values and the Two Dimensions
Reference: Davidov et al. (2008), p. 425.

---

[714] Cf. Schwartz et al. (2001), p. 521.
[715] Cf. Davidov et al. (2008), pp. 424 f.; Schwartz/Boehnke (2004), pp. 251 f.
[716] Cf. Davidov et al. (2008), p. 424.

Value	Conceptual Definition
Self-direction	Independent thought and action-choosing, creating, exploring
Stimulation	Excitement, novelty, and challenge in life
Hedonism	Pleasure and sensuous gratification for oneself.
Achievement	Personal success through demonstrating competence according to social standards
Power	Social status and prestige, control or dominance over people and resources
Security	Safety, harmony, and stability of society, of relationships, and of self
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provides
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
Universalism	Understanding, appreciation, tolerance and protection for the welfare of *all* people and for nature

Table 15: Conceptual Definition of Schwartz´s Ten Basic Human Values

Reference: Author`s table referring to Schwartz (1994), p. 22.

Scope

According to *scope*, the ten basic values can be used for different purposes.[717] Thus far, the aspects mentioned refer mainly to values reflected in individuals, and the resulting culture-specific differences (individual-level).[718] Specifically with regard to *within-country analysis*, DAVIDOV ET AL. (2008) summarise that various studies have shown important influences of individual value priorities towards attitudes such as political preferences and behaviour such as political activism or voting.[719] In fact, this is why, in this research, the individual level values fit perfectly, particularly with regard to both the delimited group of car users and their service buying behavior.

SCHWARTZ/BARDI (2001) show that the same ten values can also be used with a different scope, namely the *scope of culture level*, which they contrast concisely: 'Individual differences in the importance attributed to values reflect individuals' unique needs, temperaments, and social experiences. But the pan-cultural similarities in value importance are likely to reflect the shared bases of values in human nature and

---

[717] Cf. Schwartz (2011b), p. 309.
[718] Cf. ibidem; Schwartz/Bardi (2001), p. 280.
[719] Cf. Davidov et al. (2008), p. 441.

the adaptive functions of each type of value in maintaining societies (…).'[720] Pan-cultural similarities, comparisons of nations or the comprehensive description of Chinese Culture (culture level) is *not* the aim of this work, which is why these aspects and methods are not discussed in detail, and are not utilised for this research.[721]

Benefits

As regards the objectives and requirements discussed in Chapter 4.2.5, applying the theory of basic human values in this research work is a powerful method, because:

- 'Values can provide predictive and explanatory power in the analysis of attitudes, opinions and actions.'[722]
- The circular structure allows the whole systems of values to be studied as a kind of an expression of culture.
- Ten single values can be analysed in detail, those that are especially relevant to any specific topic can be identified.
- Simultaneously, beside the detailed single value analysis, a broader analysis of four higher-order values on two orthogonal dimensions is easily applicable.
- There is evidence for the systematic relation of value priorities to behaviour for China and also particularly for consumer purchase behavior.[723]
- Social desirable responding (neither individual, group nor society caused), does not confound the self reported-values,[724] which might be crucial especially in China due to the collectivist culture.
- Focussing and comparing individuals and groups is possible, because corrections to individual differences in use of response scales are applicable.[725]
- The design is explicitly suitable for self-completion questionnaires and internet surveys.[726]
- Applied and validated in China and 82 other countries.[727]

---

[720] Schwartz/Bardi (2001), p. 280.

[721] Concerning the ten basic human values in accordance to culture-level, further information is provided by: Schwartz (2011a), 463 ff.; Schwartz (2008), pp. 1 ff.; Schwartz (2006), pp. 137 ff.; Schwartz/Bardi (2001), pp. 268 ff.; Schwartz (1999), pp. 23 ff.

[722] Schwartz (2003), p. 261.

[723] Cf. Schwartz (2003), p. 271 and the literature cited there.

[724] Cf. ibidem, pp. 271 f.

[725] Cf. ibidem, p. 275; Schwartz (2007), pp. 180 f.

[726] Cf. Schwartz (2003), p. 274.

[727] Cf. Schwartz et al. (2012), p. 665.

- The theory allows cross-cultural comparisons and within culture analysis.

Instruments

In order to *measure the values,* postulated by SCHWARTZ, different approaches are available today.[728] The first method elaborated by himself is the *Schwartz Value Survey* (SVS), which incorporates 57 single-value-items. Respondents rate the importance of each value item on a 9-point scale from -1 (opposed to my values) to 7 as an expression of supreme importance.[729] Later, the SVS was modified, by reducing the number of items to 46, in order to provide a more equivalent meaning across cultures.[730] In addition to prior findings, SCHWARTZ/BOEHNKE (2004) confirmed the basic value structure and the distinction of the ten values by confirmatory factor analysis.[731]

However, the SVS demands a high level of abstract thought, because the value concept is measured outside of any specific context, which is why the instrument failed in some samples, which are not educated in Western schools.[732] Later, a less abstract, less cognitively complex, easier and faster instrument was elaborated, the *Portrait Values Questionnaire* (PVQ). The following example shows that, here, values are operationalised concretely and specific to gender, as verbal portraits (understandable even by 11-year-olds in Uganda),[733] where 'Each one describes a person's goals, aspirations, or wishes that point implicitly to the importance of a value.'[734]

> 'POWER: Social status and prestige, control or dominance over people and resources. (He likes to be in charge and tell others what to do. He wants people to do what he says.)'[735]

Respondents answer the question, 'How much like you is this person?' by checking one of six boxes labelled for instance with 'like me'. Beside the advantages men-

---

[728] Cf. Schwartz et al. (2012), p. 664. Schwartz officially mentioned five different measuring scales in the paper, but a literature review shows that beyond that others exist (e.g. Lindeman/Verkasalo (2005), p. 170 ff.).

[729] Cf. Schwartz et al. (2001), pp. 520 ff.

[730] Cf. Schwartz (2003), p. 268.

[731] Cf. Schwartz/Boehnke (2004), p. 250.

[732] Cf. Schwartz et al. (2001), p. 520.

[733] Cf. Schmidt et al. (2007), pp. 263 f.; Schwartz et al. (2001), pp. 520 ff.

[734] Schwartz et al. (2001), p. 523.

[735] Ibidem, p. 521.

tioned, this proceed ensures that people do not directly recognise that values are the topic of investigation.[736]

To measure values with the PVQ, different scales exist whereas the full 40-item and the short 21-item scales are very well recognised and applied.[737] Research aims and limitations determine which version is most suitable. Generally speaking, the full version of PVQ provides a more detailed force of expression and better statistical accuracy for cross-cultural comparisons.[738] Independent of the item quantity, the PVQ is easy to administer in several ways such as personal interviews, via telephone or in internet surveys.[739] Finally, it is important to emphasise that the theory itself is valid independent of the measurement method, regardless whether PVQ or the former SVS is used.[740]

The SVS and PVQ mentioned above both require remarkable answering time effort, which is why LINDEMAN/VERKASALO (2005) invented a short scale, the Short Schwartz´s Value Survey (SSVS). Here every value is measured by one item, thus SSVS can be used as a very convenient and fast measurement system for comparing values. Due to this reduction, only higher order values can be measured, so that the information content is significantly less detailed than in SCHWARTZ´s approaches. Moreover, further limitations exist.[741] Therefore and due to the intention in this work to focus on culture, the SSVS will not be applied for this research.

Refined Theory of Basic Individual Values

Finally, the latest refined and most detailed approach by SCHWARTZ ET AL. (2012) is shown. This is in order to support the conceptual idea of the motivational continuum by separating this continuum into a *larger number of narrower distinct values*. As a result, with the PVQ-RR, 19 values can be measured through this refined theory,[742] whereby it is considered as '(…) compatible with the original 10, broad value con-

---

[736] Cf. Schwartz et al. (2001), p. 523.

[737] Cf. Cieciuch/Davidov (2008), p. 37.

[738] Cf. ibidem, p. 43.

[739] Cf. Schwartz (2003), p. 274.

[740] Cf. Schmidt et al. (2007), pp. 269 ff.

[741] Cf. Lindeman/Verkasalo (2005), pp. 170 ff.

[742] Cf. Schwartz et al. (2012), pp. 663 ff. For additional information Schwartz (2011b), pp. 307 ff.; Cieciuch et al. (2014a), pp. 1 ff.; Cieciuch et al. (2014b), pp. 177 ff. are recommended.

structs (…).'[743] The PVQ-RR instrument incorporates 57 questions which can be answered in approximately 8 minutes.[744] This is roughly comparable to the PVQ-40, but beneficial in terms of a higher explanatory power (due to the finer set of values), and has a superior cross-cultural invariance,[745] which is especially important, if a large number of countries or samples has to be compared.

Comparison of Questionnaires

Finally the most popular approaches are compared in the Table 16 below; but the final choice of the value operationalisation for this research takes place in Chapter 5.2.2.5. However, following the arguments of this section, and SCHWARTZ`s (1996) claim to avoid cherry-picking specific values and to apply the whole set,[746] the intention in this study is to implement the ten individual level values as separate constructs in the research model, in order to properly distinguish the variety of cultural effects. Addressing this issue is likewise claimed in literature very particularly with regard to brand loyalty.[747] In line with the lack of a detailed consideration of values, XIAO/KIM (2009) make use of the individual level values to analyse cultural effects on foreign brand purchasing by incorporating individualism and collectivism as two broad constructs. As a result, both constructs together have a positive effect on foreign brand purchasing, which shows the lack of detailing or that the conceptualisation is too broad,[748] thus these influences are difficult to interpret.

---

[743] Ibidem, p. 665.
[744] Cf. Schwartz (2014a), pp. 1 ff.
[745] Cf. Cieciuch et al. (2014), p. 8.
[746] Cf. Schwartz (1996), p. 121.
[747] Cf. Lam (2007), p. 10.
[748] cf. Xiao/Kim (2009), pp. 615/619.

Name	Items	Approximate Time Requirement	Values	Comment
SSV	57	12 minutes	10	Demands a high level of abstract thought
PVQ-40	40	7 minutes	10	Faster and suitable in less educated cultures
PVQ-21	21	4 minutes	10	Fastest approach with the benefit of a high level of value distinction
SSVS	10	2 minutes	4	Fastest approach, but only the higher order values assessable
PVQ-RR	57	8-9 minutes	19	Highest degree of value distinction, remarkable time effort needed, but relatively time efficient compared with the PVQ-40

Table 16: Overview of Schwartz´s Value Measurement Methods

Reference: Author´s table.

4.4.3.2   *Determination of Culture Related Variables*

Within the previous chapter ten basic values were identified in order to conceptually model cultural effects. These individual level values are treated as separate constructs, which are namely *self-direction, stimulation*, *hedonism*, *achievement*, *power*, *security*, *conformity*, *tradition*, *benevolence* and *universalism* (cf. Table 15).

The review of the literature shows that SCHWARTZ´s individual level method is very often applied, but mostly in psychological or in genuine cross-cultural studies.[749] In contrast, it is sparsely used in marketing, where frequently national culture is used, and moreover, SCHWARTZ is quite rarely applied in service or China-related research. As ZHANG ET AL. (2008) conclude, one of 39 studies incorporated SCHWARTZ in service research works.[750] Recently, a very few studies focussing on China are available. Among them only XIAO/KIM (2009) and KNÖRLE (2011) focus on consumer behaviour and no study directly focusses on satisfaction or loyalty aspects.[751] Therefore, it is hardly possible to deduce hypotheses in the previous manner, and particularly with the aim of deducing a hypothesis for every one of the ten individual level values against the entire after-sales process chain from service quali-

---

[749] Cf. Chapter 4.4.3,Cultural Influences and 4.4.3.1, Schwartz`s Individual Level Values.

[750] Cf. Zhang et al. (2008), p. 213.

[751] Cf. Xiao/Kim (2009), pp. 610 ff.; Liu/Cohen (2010), pp. 493 ff.; Xin-an et al. (2008), pp. 377 ff.; Knörle (2011), pp. 1 ff. Despite the study´s name 'Markenloyalität in China/Brand Loyalty in China' the individual level values of Schwartz are only applied on antecedent constructs, and not on brand loyalty; furthermore in an aggregated form as two individualistic and one collectivistic variables. pp. 203 ff.

ty to brand loyalty. To do this, 40 highly detailed hypotheses have to be established, without the option of applying prior research adequately.

Instead, familiar literature is used, in order to discover *whether there is a cultural influence* on the most important model constructs (perceived service quality, after-sales service satisfaction, workshop loyalty, brand loyalty). As a result, hypotheses are deduced. Due to the limitation of the non-availability of particular prior research, no 'the higher…the lower' hypotheses like H1-H9 are formulated, but hypotheses which assume the *existence of a significant cultural* (individual-level value) *influence* on each related construct. It has to be emphasised that the formulation of hypotheses in the manner described is based on the general idea that values are widely accepted as causes for behaviour;[752] a fact, which is proven by BARDI/ SCHWARTZ (2003) in a study specifically related to it.[753] Notably, this proceed enables to analyse a highly complex set of various relationships, in order to properly understand the role of individual level values on the entire after-sales process chain. Thereby, this progress is a bit more explorative than the very specifically elaborated set of originary automobile after-sales related hypotheses (H1-H9) testing. However, very valuable scientific findings are expected, because the PLS-method enables path analysis, which shows insights about the direction and the relative strength of every cause-effect relationship.

The formerly applied *additional* theory foundation is thereby not intended, because a particular interpretation is not applicable due to the descriptions above.

Deduction of Hypothesis in Regard to Service Quality

Service quality is considered distinctively in regard to the country of interest as the leading VW Manager HORN explains, 'For example, about 80 percent of VW drivers in Germany make an appointment before heading into the repair shop. In the booming Chinese market the figure is just 10 percent, (...).'[754]

---

[752] Cf. Chapter 4.2.5, *Values* and Figure 21.
[753] Cf. Bardi/Schwartz (2003), pp. 1207 ff. Also particular behaviour was studied, such as voting behaviour: s. Schwartz (1996), pp. 119 ff.
[754] Horn cited in Krogh (2009), VW aims to be 'top player' in aftermarket service.

RAAJPOOT (2004) shows that service quality is also a highly relevant aspect and construct within the scientific debate in regard to culture. He states that the construct service encounter quality is highly dependent to cultural influences, which is why he developed a new service quality scale (PAKSERV) for the application in Asia, which he validated in Pakistan. Therefore, he uses national cultural dimensions as well as individual level values.[755]

An analysis by SOARES ET AL. (2006) focusses on the application of HOFSTEDE dimensions in international marketing studies. In the process they show that these dimensions have an impact on service performance.[756]

Specifically in regard to after-sales services VAN BIRGELEN ET AL. (2002), analyse the moderating effect of national culture (HOFSTEDE dimensions) on the perceived service quality to customer satisfaction relationship for the three after-sales contact modes face-to-face, telephone and electronic service. Here, both technology related modes are significantly moderated, and thus culturally affected by HOFSTEDE dimensions.[757] In line with that, REIMANN ET AL. (2008) verify empirically that uncertainty avoidance is likewise a dimension which has a moderating influence on the mentioned relationship in B2B markets. Notably, they claim for further research on the relationship of values towards customer satisfaction by applying other approaches than HOFSTEDE.[758]

KNÖRLE (2011) writes of a consumer survey he conducted in China. He uses the individual level values of SCHWARTZ to build three variables, in order to consider cultural influences in terms of the dimension individualism/collectivism. The hypothesis testing shows that on the one hand, collectivism is marked stronger than individualism,[759] and on the other hand, that the variable of collectivistic values[760] has a weak negative effect on the dependent variable of perceived quality, that the Individualistic

---

[755] Cf. Raajpoot (2004), pp. 181 ff.

[756] Cf. Soares et al. (2006), p. 281.

[757] Cf. van Birgelen et al. (2002), pp. 60 f.

[758] Cf. Reiman et al. (2008), p. 70.

[759] Cf. Knörle (2011), p. 198.

[760] The variable Collectivistic Value is operationalised by the individual level values benevolence, tradition, security and conformity.

Value 2[761] has a weak negative effect, and that in contrast the individualistic value 1[762] has a weak positive effect.[763] These findings show that if – in China – the individual level values of SCHWARTZ are applied to the construct of service quality, influences can be proven. But, because just three cultural variables are incorporated in regard to one dimension, the expressiveness is limited.

Beyond this detailed view, ZHANG ET AL. (2008) show in their literature review that *service expectations* are often of interest to researchers. Besides those mentioned above, a further ten cross-cultural studies focus on service expectations, most of them using SERVQUAL dimensions. The findings of six of the ten listed studies (LEE/ULGADO 1997; DONTHU/YOO 1998; ESPINOZA 1999; FURRER ET Al. 2000; SULTA/SIMPSON 2000; WITKOWSKI/WOLFINBARGER 2002; RAJPOOT 2004; LAROCHE ET AL. 2005; MALHOTRA ET AL. 2005; JOHNS ET AL. 2005) state cultural influences on the aimed constructs (relevant for this research) with regard to service expectations.[764]

As a result, the literature assessment on service quality shows that this construct is influenced by culture in various studies across the world. Moreover, especially KNÖRLE (2011) shows cultural effects – measured by individual level values – on the perception of quality in China; thus H10 and the related sub hypotheses are assumed, in order to be tested.

---

[761] Operationalised by: hedonism and stimulation.
[762] Operationalised by: power, achievement, self-direction.
[763] Cf. Knörle (2011), pp. 203 ff.
[764] Cf. Zhang et al. (2008), p. 214.

H10:	**Perception of service quality is significantly influenced by culture, which means by at least one individual level value.**
H10a:	Perception of service quality is significantly influenced by conformity.
H10b:	Perception of service quality is significantly influenced by tradition.
H10c:	Perception of service quality is significantly influenced by benevolence.
H10d:	Perception of service quality is significantly influenced by universalism.
H10e:	Perception of service quality is significantly influenced by self-direction.
H10f:	Perception of service quality is significantly influenced by stimulation.
H10g:	Perception of service quality is significantly influenced by hedonism.
H10h:	Perception of service quality is significantly influenced by achievement.
H10i:	Perception of service quality is significantly influenced by power.
H10k:	Perception of service quality is significantly influenced by security.

Deduction of Hypothesis in Regard to After-Sales Service Satisfaction

ZHANG ET AL. (2008), mentioned above, conduct a meta analysis on cross-cultural services research, where they suggest a framework about cultural service personality (Western individualistic vs. Eastern collectivistic). Here they conclude that in general Eastern service demanders have lower overall expectations of service quality, and are more likely to be satisfied when they evaluate the service.[765] Specifically to *service evaluations* 14 cross-cultural studies are presented, of which three mainly consider issues such as the applicability of models across cultures (GILBERT ET AL. 2004; BRADY ET AL. 2005; VELOUTSOU ET AL. 2005) and one shows consistent effects across cultures (BRADY/ROBERTSON 2001), whereas most of them affirm differences across cultures (WINSTED 1997, 1999, 2000; MATTILA 1999a, 1999b; STAUSS/MANG 1999; KEILOR ET AL. 2004; LAROCHE ET AL. 2004; UELTSCHY ET AL. 2004; VOSS ET AL. 2004; CUNNINGHAM ET AL. 2005; IMRIE 2005).[766] Thus, it can be deduced that both service quality (previous section) and after-sales service satisfaction constructs are culturally influenced.

Described in the service quality section, but also meaningful in terms of satisfaction, VAN BIRGELEN ET AL. (2002) show that national culture significantly influences the after-sales service satisfaction in various countries.[767] Furthermore, REIMANN ET AL.

---

[765] Cf. Zhang et al. (2008), pp. 220 f.
[766] Cf. ibidem, pp. 215 f.
[767] Cf. van Birgelen et al. (2002), pp. 60 f.

(2008)[768] empirically tested, and afterwards reported, cultural influences on satisfaction as discussed previously.

Customer satisfaction specifically, UELTSCHY ET AL. (2007) examine the relationship of service quality and customer satisfaction cross-culturally with a comparison of low-context and high-context countries. They conduct a *2x2 factorial experiment* with two manipulated situations: expectations (low/high) and service performance (low/high). 'Regardless of expectations, when performance was low, the low-context respondents (…) perceived lower quality than did the respondents from the high-context country (…), but gave higher quality ratings than did the Japanese respondents when the performance was high.'[769] Based on these key findings, the authors conclude that culture has to be considered when customer satisfaction, and its antecedent, service quality, are of interest.[770] Two years later UELTSCHY ET AL. (2009) do the same experiment within a group of three high-context cultures (Japan, China, Korea), to investigate whether within this group, too, cultural causes exist. Here, particularly Chinese respondents behave differently, thus the authors conclude that national culture prevents the application 'of one fits all' service offerings.[771] In line with these two studies, the predecessor study by LAROCHE ET AL. from 2004 shows cultural differences between North America (USA, Canada) and Japan when it comes to customer satisfaction.[772]

FRANK ET AL. (2013) investigate Japanese/Chinese differences in customer satisfaction by additionally considering the two perspectives of economic and cultural country differences. In total, they show that, customers are more influenced by economic factors than by cultural factors. But in contrast they also state that the cultural variance is greater within Asia than Westerners might expect, and that the antecedents of customer satisfaction are distinct due to cultural effects, so for instance: 'Chinese pay more attention to quality expectations and public brand image than German consumers.'[773]

---

[768] Cf. Reiman et al. (2008), p. 70.
[769] Ueltschy et al. (2007), p. 410.
[770] Cf. ibidem, pp. 418 f.
[771] Cf. Ueltschy et al. (2009), pp. 976 ff.
[772] Cf. Laroche et al. (2004), pp. 72 ff.
[773] Frank et al. (2013), p. 2403.

As shown in this section, various studies have focussed on the effects of culture on customer satisfaction, and in particular on the relationship between customer satisfaction and its antecedent, service quality. This generates the following hypothesis:

H11:	**After-sales service satisfaction is significantly influenced by culture, which means by at least one individual level value.**
H11a:	After-sales service satisfaction is significantly influenced by conformity.
H11b:	After-sales service satisfaction is significantly influenced by tradition.
H11c:	After-sales service satisfaction is significantly influenced by benevolence.
H11d:	After-sales service satisfaction is significantly influenced by universalism.
H11e:	After-sales service satisfaction is significantly influenced by self-direction.
H11f:	After-sales service satisfaction is significantly influenced by stimulation.
H11g:	After-sales service satisfaction is significantly influenced by hedonism.
H11h:	After-sales service satisfaction is significantly influenced by achievement.
H11i:	After-sales service satisfaction is significantly influenced by power.
H11k:	After-sales service satisfaction is significantly influenced by security.

Deduction of Hypothesis in Regard to Brand Loyalty and Workshop Loyalty

ZHANG ET AL. (2008) list ten cross-cultural studies (DE WULF ET AL. 2001; LIU/MC CLURE 2001; PATTERSON/SMITH 2001a, 2001b; HUI/AU2001; PATTERSON/ SMITH 2003; WARDEN ET AL. 2003; MATTILA/PATTERSON 2004a, 2004b; POON ET AL. 2004; WONG 2004; PATTERSON ET AL. 2006), which are related to *reactions of service*, and in which it is assumed that culture matters. *Loyalty* is considered a reaction, thus an indication is given that loyalty as well should be considered in the context of cultural influences. Remarkably, all these studies used HOFSTEDE dimensions, but just two of them *really measured* the dimensions, whereas eight used them for pre-hoc justification.[774] As a result no specific cultural causes can be shown without any side-interpretations.

DE MOOIJ/HOFSTEDE´s 2011 review of research findings shows impressively that the dimensions pertaining to national culture have various important effects, if brands are of interest. In particular, they consider brand loyalty to the affected areas, because they present it within the cross-cultural consumer behaviour framework.[775]

---

[774] Cf. Zhang et al. (2008), p. 216.
[775] Cf. de Mooij/Hofstede (2011), p. 182.

Moreover, collectivistic cultures such as China are considered to be relatively brand loyal,[776] which is influenced by cultural effects.[777]

YOO (2008) investigates how personal (individual) collectivistic orientations affect brand loyalty and equity among US and South Korean shoe consumers. A key finding is that personal collectivistic orientations have a significant influence on both constructs, and that brand loyalty is higher in both countries, when consumers are highly collectivistic.[778] Thus, regardless of national culture, brand loyalty is influenced by personal orientation, which is similar compared to the concept of values.

On the issue brand loyalty in China, a study from 2007 conducted by LAM is very valuable, as particularly the *proneness to brand loyalty* is researched. LAM shows that HOFSTEDE´s cultural dimensions, individualism and uncertainty avoidance, positively influence the proneness to brand loyalty with a β of 0,212 and 0,389.[779]

As regards individual level values and particularly their influence on brand loyalty, THOMPSON ET AL. (2014) state that a research gap exists and the understanding about it should be fostered by further research, which is why they implemented the concept of individual level collectivistic values from DONTHU/YOO (1998) in their study on brand loyalty; which was conducted in China.[780] Thereby, THOMPSON ET AL. (2014) show that within a given country differences exist and brand loyalty is affected by these differences – which is to say by cultural influences at an individual level. Thus, consumers with individually held strongly collectivist values are more loyal to brands than consumers who do not share these values, and cultural effects moderate the relationship between several antecedents and brand loyalty. Finally they conclude 'that differences in individual level collectivist values have a significant impact on brand loyalty (…).'[781] This study provides a very valuable indication that individual level values are a major concern and significantly effective in China, where brand loyalty is concerned.

---

[776] Cf. de Mooij (2014), p. 148; Emrich (2014), p. 24; Guo (2013), p. 22.
[777] Cf. Emrich (2014), p. 24; Usunier/Walliser (1993), p. 11; Guo (2013), p. 22.
[778] Cf. Yoo (2008), p. 54.
[779] Cf. Lam (2007), p. 15.
[780] Cf. Thompson et al. (2014), pp. 2438 ff.
[781] Ibidem, p. 2443.

But, due to some limitations such as the sample of students, and the investigation object (a brand of bottled water),[782] findings are not generalisable, which further research is necessary in areas such as service, non-commodity purchase decisions and premium market segments. Moreover a variety of studies mentioned previously indicate that the brand loyalty construct is influenced by culture. As a result, hypothesis H12 and related sub-hypotheses can be formulated:

H12:	Brand loyalty is significantly influenced by culture, which means by at least one individual level value.
H12a:	Brand loyalty is significantly influenced by conformity.
H12b:	Brand loyalty is significantly influenced by tradition.
H12c:	Brand loyalty is significantly influenced by benevolence.
H12d:	Brand loyalty is significantly influenced by universalism.
H12e:	Brand loyalty is significantly influenced by self-direction.
H12f:	Brand loyalty is significantly influenced by stimulation.
H12g:	Brand loyalty is significantly influenced by hedonism.
H12h:	Brand loyalty is significantly influenced by achievement.
H12i:	Brand loyalty is significantly influenced by power.
H12k:	Brand loyalty is significantly influenced by security.

The literature review shows that *workshop loyalty* is not directly analysed in cross-cultural or culture-related research. It might be too specific, but regardless of the reasons, this variable is a part of the after-sales success chain, and an important antecedent of brand loyalty. Within this chain all other constructs are most likely affected by cultural influences (H10-H12), thus it is to be assumed that workshop loyalty is likewise influenced by culture and therefore through individual level values. As a result the hypotheses H13-H13k are established as follows:

---

[782] Cf. ibidem, pp. 2441/2444.

H13:	**Workshop loyalty is significantly influenced by culture, which means by at least one individual level value.**
H13a:	Workshop loyalty is significantly influenced by conformity.
H13b:	Workshop loyalty is significantly influenced by tradition.
H13c:	Workshop loyalty is significantly influenced by benevolence.
H13d:	Workshop loyalty is significantly influenced by universalism.
H13e:	Workshop loyalty is significantly influenced by self-direction.
H13f:	Workshop loyalty is significantly influenced by stimulation.
H13g:	Workshop loyalty is significantly influenced by hedonism.
H13h:	Workshop loyalty is significantly influenced by achievement.
H13i:	Workshop loyalty is significantly influenced by power.
H13k:	Workshop loyalty is significantly influenced by security.

4.4.4 Determination of Control Variables

Within the previous chapters all relevant independent and dependent variables are stressed. Integrating *control variables* will complete the elaboration of the research model, in order to deliver additional insights about the survey population, and the related characteristics, which presumably moderate various aspects of the whole conceptual model.

Control variables are highly relevant, because they are neither independent nor dependent variables, but important when it comes to specifying and deepening the analysis of the relationships between those variables, or of the cause-and-effect relationships.[783] Commonly implemented control variables are of a demographic nature, and by the same token group comparisons are typically a consequence, and an established method of analysis. Due to the high number of already considered constructs and effect relationships, and the consequent complexity of the research model, only the most important control variables are integrated.

For this research the basic demographic variables *age* and *gender*, plus the socio-economic variable *income* are chosen.

---

[783] Cf. Bortz/Schuster (2010), p. 7; Janssen/Laatz (2013), p. 255.

4.5   Conceptual Research Model and Overview of Hypotheses

Interim Conclusion of Chapter 4

Chapter 4 lays the conceptual and theoretical foundations for the empirical research. At first the conceptual *reference frame* is given (s. Figure 17), in order to structure and steer the entire research process in accordance to the research objective. In line with this systemised approach, the term success and all fundamental constructs are precisely *disambiguated* and contextually explained (s. Chapter 4.2), so as to avoid inaccuracies or contradictions. In Chapter 4.3 *brand loyalty* was chosen as the *success indicator*, due to the high scientific relevance, and because it is a crucial objective of brand management.

Based on this comprehensive foundation, the *research model* is elaborated as off Chapter 4.4. Here, every specific construct is discussed in detail against the backdrop of the current state of research, in order to integrate it conceptually. Based on that *hypotheses* are deduced which are then supported on *theoretical foundations.* With regard to the hypotheses and cause-effect relationships, first, the *relationship* between *after-sales service satisfaction*, *workshop loyalty* and *brand loyalty* is considered (s. Chapter 4.4.1), because these are the key constructs within the after-sales success chain. Besides these after-sales-related key constructs, the most important surrounding variables are developed, to complete the automobile part of the research model. Here, the *marketing-mix* is utilised as a guideline, so that service, price, place, promotion and personnel policies are considered as distinct from one another in the sub-sections of 4.4.2. Of these, the very important variables are chosen for the research model, which means that some conceivable variables are excluded. This is in keeping with the focus of this work – the investigation of customer-related after-sales processes under consideration of cultural influences – and due to the requirement to avoid unmanageable complexity in the research model, as a result of implementing too many variables.

Within the research model *cultural influences* are the second big issue, which is treated starting with Chapter 4.4.3. In this case culture is conceptually considered with regard to *values*, because they are a core element of culture and a cause of behaviour. In line with the chosen micro-level analysis of consumer behaviour, and the

claim of going beyond HOFSTEDE, the *value theory* of SCHWARTZ, also known as the *theory of basic (individual) level values,* is discussed in Chapter 4.4.3.1. SCHWARTZ defines '(…) basic values as trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or group.'[784] The set of distinct individual level values is ordered around a motivational circle, and organised as a coherent system, which allows the effects of every single value to be researched. Various benefits of SCHWARTZ´s method and measuring approaches are shown; thus it is concluded that using individual level values is well-suited to investigating the cultural effects involved in after-sales services in China.

Afterwards in Chapter 4.4.3.2, the *ten individual level values* of universalism, benevolence, conformity, tradition, security, power, achievement, hedonism, stimulation and self-direction are *integrated into the research model* as separate constructs, which probably affect the entire after-sales process-chain from service quality towards brand loyalty. Having assessed the relevant literature, it was possible to deduce an extensive set of hypotheses, where significant cultural effects are assumed. This kind of operationalisation overcomes a big limitation in most of the culture-related studies on brand loyalty, because cultural variables are specifically measured. Most of conducted studies just compare nations, or use cultural dimensions for pre-hoc justifications, in order to interpret cultural effects.

Finally, important demographic and socio-economic *control variables* are designated to refine the whole model (s. Chapter 4.4.4).

Conceptual Research Model and Hypotheses Overview

The central *constructs* of the research model (s. Figure 25) are based on the comprehensive, previously mentioned conceptual and theoretical discussions. In order to provide an overview of all relevant constructs, and their definitional references, Table 17 follows.

---

[784] Cf. Schwartz et al. (2012), p. 664.; Schwartz (1992), pp. 1 ff.

Construct	Chapter	Definition Based on
Perceived Service Quality (PSQ)	4.4.2.1	SACHDEV/VERMA (2004), based on PARASURAMAN ET AL. (1985), pp. 41 ff.
After-Sales Service Satisfaction (ASSS)	4.2.3 & 4.4.1	OLIVER (2010), p. 8
Workshop Loyalty (WL)	4.2.4 & 4.4.1	Based on Brand Loyalty
Brand Loyalty (BL)	4.2.4 & 4.4.1	OLIVER (1999), p. 34
Acceptable Workshop Distance (AWD)	4.4.2.3	Author´s definition
Brand Image (BI)	4.4.2.4	KELLER (1993), p. 3 & AAKER (1996), p. 113
Perceived Workshop Switching Costs (PWSC)	4.4.2.2	BURNHAM ET AL. (2003), p. 110, based on PORTER (1980), p. 10
Benevolence (BEN) **Universalism (UNI)** **Hedonism (HED)** **Achievement (ACH)** **Power (POW)** **Self-Direction (SE-D)** **Stimulation (STI)** **Security (SEC)** **Conformity (CON)** **Tradition (TRA)**	4.4.3	DAVIDOV ET AL. (2008), p. 425 & SCHWARTZ (1994), p. 22
Age (AGE) **Gender (GEN)** **Income (INC)**	4.4.4	Author´s definition

Table 17: Overview of Constructs
Reference: Author´s table.

Next the overview of all established hypotheses is given. In addition, the most important contributions from the literature review are shown, because hypotheses are deducted from them. In order to present a clear table, only major contributions are listed, which directly have integrated the mentioned constructs or in the culture section familiar constructs, with empirically testable relationships. Moreover, to H1-H9 only automobile and China related studies are presented in Table 18.

Overview of Hypotheses		
Automobile Section		
No.	**Hypothesis** Relevant Literature	**Supporting Theories**
H1	**The higher the after-sales service satisfaction, the higher the workshop loyalty.** HÜNECKE (2012), p. 127; HÄTTICH (2009), p. 213; BEI/CHIAO (2001), p. 138; DEVARAJ ET AL. (2001), pp. 434 f.; BLOEMER/PAUWELS (1998), p. 82; BLOEMER/LEMMINK (1992), p. 359 Additional Input from service industries in China: LI ET AL. (2008), pp. 455 f.; DENG ET AL. (2010), p. 295; YIM ET AL. (2008), p. 751	Risk Theory Dissonance Theory Learning Theory
H2	**The higher the workshop loyalty, the higher the brand loyalty.** HÜNECKE (2012), p. 128; HÄTTICH (2009), p. 213; BLOEMER/LEMMINK (1992), p. 359	Risk Theory Dissonance Theory Learning Theory
H3	**The higher the perceived service quality, the higher the after-sales service satisfaction.** HÜNECKE (2012), p. 147; SHUQIN/GANG (2012), p. 177; HÄTTICH (2009), p. 213; BEI/CHIAO (2001), pp. 136 ff.; DEVARAJ ET AL. (2001), p. 434 Additional Input from service industries in China: DENG ET AL. (2010), p. 296; YIM ET AL. (2008), p. 751.	C/D-paradigm Kano Model Attribution Theory
H4	**The higher the perceived workshop switching costs, the higher the workshop loyalty.** PETER (1998), pp. 77; HÄTTICH (2009), pp. 213 ff.	Transaction Cost Theory Prospect Theory Transaction Cost Utility Concept
H5	**The higher the perceived workshop switching costs, the higher the brand loyalty.** VERHOEF ET AL. (2007), p. 108. Additional Input from service industries in China: DENG ET AL. (2010), p. 295; LI ET AL. (2008), pp. 455 f.	Transaction Cost Theory Prospect Theory Transaction Cost Utility Concept
H6 H6a H6b	**There is a relationship between acceptable workshop distance and after-sales service satisfaction or workshop loyalty**. The shorter the acceptable workshop distance (AWD), the higher the after-sales service satisfaction. The shorter the AWD, the higher the workshop loyalty. No directly related studies available.	Transaction Cost Theory
H7	**The higher the brand image, the higher the after-sales service satisfaction.** DEVARAJ ET AL. (2001), p. 434 Additional Input from service industries in China: LAI ET AL. (2009), p. 984.	Assimilation Theory

H8	**The higher the brand image, the higher the workshop loyalty.**	Information Economics
	TU ET AL. (2014), p. 23 ff.	Prospect Theory
H9	**The higher the brand image, the higher the brand loyalty.**	Information Economics
	HÜNECKE (2012), p. 128	Prospect Theory
	Additional Input from service industries in China: WANG (2010), pp. 258 f.; OGBA/TAN (2009), p. 141.	

Culture Section		
No.	**Hypothesis**	**Supporting Theories**
	Relevant Literature	
H10	**Perception of service quality is significantly influenced by culture, which means by at least one individual level value.**	Schwartz` Value Theory
H10 a-k	Perception of service quality is significantly influenced by: conformity (CON); tradition (TRA); benevolence (BEN); universalism (UNI); self-direction (SE-D); stimulation (STI); hedonism (HED); achievement (ACH); power (POW); security (SEC).	
	KNÖRLE (2011), pp. 203 ff.	
H11	**After-sales service satisfaction is significantly influenced by culture, which means by at least one individual level value.**	Schwartz` Value Theory
H11 a-k	After-sales service satisfaction is significantly influenced by: (CON); (TRA); (BEN); (UNI); (SE-D); (STI); (HED); (ACH); (POW); (SEC).	
	VAN BIRGELEN ET AL. (2002), pp. 60 f.; REIMANN ET AL. (2008), p. 70; FRANK ET AL. (2013), pp. 2402 f.	
H12	**Brand loyalty is significantly influenced by culture, which means by at least one individual level value.**	Schwartz` Value Theory
H12 a-k	Brand loyalty is significantly influenced by: (CON); (TRA); (BEN); (UNI); (SE-D); (STI); (HED); (ACH); (POW); (SEC).	
	LAM (2007), p. 15; THOMPSON ET AL. (2014), p. 2443; YOO (2008), pp. 53 f.	
H13	**Workshop loyalty is significantly influenced by culture, which means by at least one individual level value.**	Schwartz` Value Theory
H13 a-k	Workshop loyalty is significantly influenced by: (CON); (TRA); (BEN); (UNI); (SE-D); (STI); (HED); (ACH); (POW); (SEC).	
	No directly related studies available.	

Table 18: Overview of Hypotheses

Reference: Author´s table.

Next, Figure 25 shows the elaborated research model graphically, whereat automobile related constructs are black coloured. The influence of culture is symbolised as a parent frame in green. Therein, individual level values are shown as green ovals, as

they are modelled as separate variables. Arrows symbolise the assumed cause-effect relationships in terms of main hypotheses.
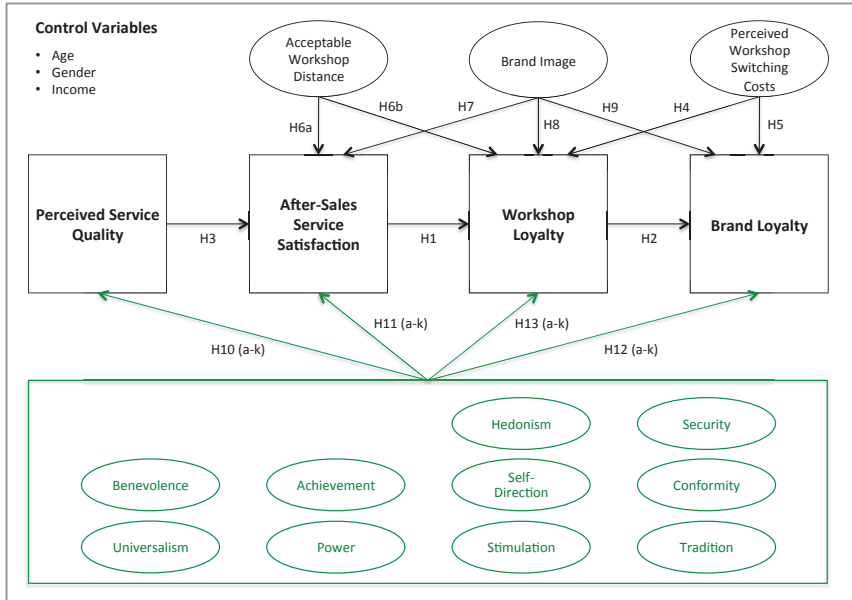
Figure 25: Research Model Overview

Reference: Author´s illustration.

5 Empirical Research

Based on the theoretical and conceptual foundations established in this study, the success factors governing after-sales services offered by German automobile manufacturers in China are analysed empirically, with particular consideration given to cultural influences. *Success factor research* and *structural equation modelling* are explained in Chapter 5.1. Then, Chapter 5.2 concerns the *research design* and provide all the details relating to the survey. After a *data and measurement evaluation* (Chapter 5.3), the *empirical results* – including the testing of hypotheses – are presented in Chapter 5.4.

5.1 Success Factor Research and Structural Equation Modelling

In addition to Chapter 1.5, first *success factor research* will be illustrated. Based on that, an appropriate statistical method for conducting *structural equation modelling* has been chosen, because both of the possible approaches, the *variance-based* and the *covariance-based approach* have quite different strengths and limitations. Therefore, it is necessary to evaluate which one fits this research.

Success Factor Research

Success factor research as a method has been used since the mid-20th century, whereby retrospectively the PIMS-program (Profit Impact of Marketing Strategies) is deemed to be the origin. Afterwards, as a result, the scientific distribution has increased significantly.[785] 'The PIMS approach (…) was the most well-known approach in the area of success factor research for a long time. The main goal of this approach was to obtain valid evidence across all sectors on the influencing factors of the business success of a SBU [strategic business unit].'[786] Even today, success factor research enjoys great popularity within the scientific community. However, it is heavily criticised as well because the approaches often lack a theoretical foundation. In addition, the ability to isolate the determinants has been a source of contention. Likewise, it is believed that especially the interdependence between determinants leads to ef-

---

[785] Cf. Homburg/Krohmer (2006), p. 440.
[786] Ibidem.

fective success.[787] On this exemplary enumeration, in Germany, there was a well-known and documented discussion between the critics NICOLAI/KIESER (2002) and the advocator FRITZ (2004).[788]

Despite the existing limitations, HOMBURG/KROHMER (2006) argue that this method should be applied, particularly in terms of decisions related to market cultivation strategies.[789] Moreover, SHOOK ET AL. (2004) attest in their analysis of 92 success factor researches 'that significant opportunities remain for SEM [structural equation modelling] to generate insights within strategic management' [,] '(…) when the technique is used prudently.'[790] With regard to the criticisms mentioned above and the aim of this work with regard to acquiring knowledge, choosing the most appropriate method is of great importance. The different possible methods for the *identification of success factors* are illustrated as an overview in the following Figure 26.
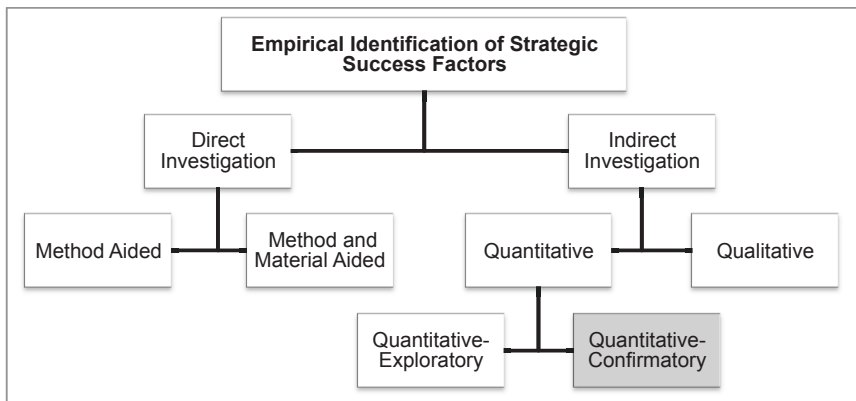
Figure 26: Methods to Identify Success Factors
Reference: Author's illustration referring to Haenecke (2002), p. 168.

The first strategic differentiation layer takes place in accordance with the kind of survey being done: direct or indirect. A *direct determination* takes places by interviewing

---

[787] Cf. Rybnikova (2011), p. 1; Annacker/Hildebrandt (2002), p. 3; Shook et al. (2004), pp. 397 ff.; Woywode (2004), pp. 30/39; Forsmann et al. (2004), p. 3.

[788] Cf. Nicolai/Kieser (2002), pp. 1 ff.; Fritz (2004), pp. 623 ff.; the documented discussion can be found on http://www.dialog-erfolgsfaktorenforschung.de.

[789] Cf. Homburg/Krohmer (2006), p. 439.

[790] Shook et al. (2004), p. 403.

internal (the company's own) or external experts in order to explore possible varia-bles affecting success. This can occur through the aid of both methods (for example through creativity techniques) and materials (e.g. checklists). In contrast, in *determin-ing indirectly*, using statistical methods either quantitatively or qualitatively, it is exam-ined which factors influence success. In *qualitative studies*, for instance, non-stan-dardised open interviewing techniques are used to find equal characteristics, which are then interpreted as success factors.[791] In indirect, *quantitative investigations* quantifiable enterprise data is gathered to find out their share on the company's suc-cess. If thus the aim is to explore new causal structures, these are *exploratory ap-proaches*. With the aid of correlation, regression and factor analysis the intention is to identify the few variables that actually influence success. In *causal structure testing approaches*, the so-called quantitative-confirmatory studies, theoretically and empiri-cally well-examined impact relationships are tested through causal-analytical proce-dures.[792] Referring to HAENECKE (2002) there are very important requirements to consider in carrying out quantitative methods, which is why they are listed in bullet point form in the following table:

Essential Requirements for the Implementation of Quantitative Methods	
Uncover the causal structure	• Use of existing findings and theories • Led through a reference frame • Setting up and testing of hypotheses • Acceptance of hypotheses only when falsification fails multiple
Consideration of all perspec-tives	• No restriction on the perspectives considered with regard to ex-isting data • No limitation through exclusively surveying employees
Consideration of qualitative and quantitative success fac-tors	• Separation of theoretical language and observable language
Review of temporal stability	• Repeated checking of success factors and causal structure
Objectivity	• Forgo one-person survey concepts or review the objectivity of expert answers • Limit social interaction with respondents
Reliability	• Exclusion of random errors

Table 19: Essential Requirements for the Implementation of Quantitative Methods
Reference: Haenecke (2002), p. 174.

---

[791] Cf. Haenecke (2002), p. 167 ff.
[792] Cf. ibidem.

Considering the aspects mentioned above, the requirements, and the *high potential for uncovering causal structures*, an *indirect quantitative-confirmatory method* appears to be most appropriate for this research project. In doing so, well-tested theoretical and empirical effect interdependencies are verified respectively falsified using a causal analytical procedure.[793] This means that the established hypotheses (s. Table 18) have to be tested statistically. Within the indirect quantitative-confirmatory methods, structural equation modelling is especially appropriate, because complex relationships between latent variables, as they occur in the given research model, can be tested. Besides, the complete causal network can be estimated simultaneously.[794]

Structural Equation Modelling (SEM)

Structural equation models represent 'complex relationships – formulated a priori and theoretically and/or logically grounded – between variables in a linear equation system, and serve both to estimate the impact coefficients between observed variables and to take account of measurement errors.'[795] Here, dependent variables are called *endogenous* variables or eta (η) and independent variables are called *exogenous* variables or ksi (ξ). In SEM it is possible for a variable to occur as both endogenous and exogenous. In this case it is called an intervening or mediating variable.[796] In this research, this is for instance the case for workshop loyalty.[797] The relationship of variables is called a *structural model*. Moreover, next to the already mentioned latent variables, manifest variables exist, and in contrast to the latent ones, they are observable, and therefore measurable, with appropriate specified *measuring models*.[798] SEM consists of both the structural model and the measuring model, whereas the measuring model of the exogenous and that of the endogenous latent variable are differentiated,[799] as shown in Figure 27.

---

[793] Cf. Haenecke (2002), pp. 167 ff.; Töpfer (2012), pp. 281 ff.; Schoeneberg (2011), p. 52.
[794] Cf. Backhaus et al. (2006), p. 338; Lowry/Gaskin (2014), p. 126.
[795] Cf. Weiber/Mühlhaus (2014), p. 7.
[796] Cf. ibidem, p. 23.
[797] Cf. Figure 25: Research Model Overview.
[798] Cf. Weiber/Mühlhaus (2014), p. 24; Backhaus et al. (2006), pp. 340 f.; With regard to measuring models, s. Chapter 5.2.2.1.
[799] Cf. Backhaus et al. (2006), p. 341; Weiber/Mühlhaus (2014), pp. 36 f.
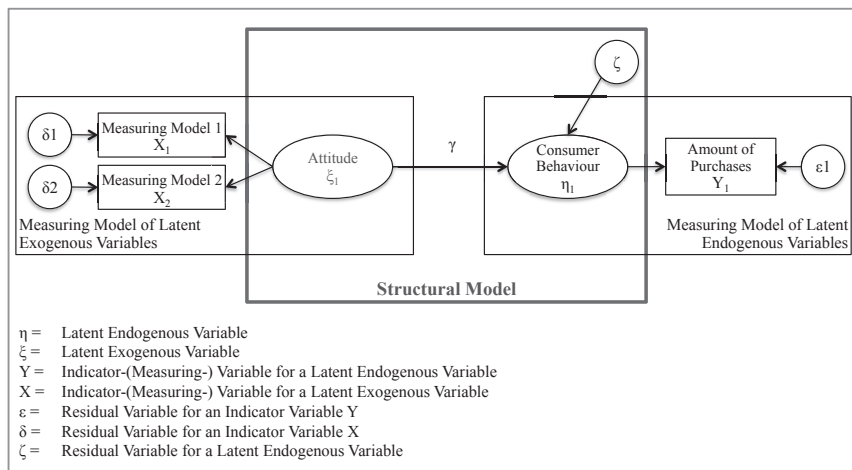
Figure 27: Structural Equation Model (SEM)

Reference: Author´s illustration referring to Backhaus et al. (2006), pp. 341/349

Within SEM two major approaches can be identified, the *covariance-based* (CB) approach and the *variance based partial least squares* (PLS) approach.[800] Formerly, covariance-based approaches were more popular, but recently PLS-SEM has received a lot of attention within various disciplines such as marketing and strategic management, as HAIR ET AL. (2014a) show in their review paper. Here they also present the top three reasons why researchers decide to use PLS-SEM instead of CB-SEM. First, because of non-normal distributed data (a requirement of CB-SEM); second, because of small sample sizes; and finally, because formatively measured constructs are implemented, which is problematic in covariance-based approaches.[801] However, a lot of other aspects of the two approaches are different, and these aspects are critical when it comes to deciding on the most suitable approach. LOWRY/GASKIN (2014) comprehensively compare both approaches.[802] As a result they provide recommendations for when to choose variance-based versus covariance-based SEM. The results are presented in the following table.

---

[800] Cf. Hair et al. (2014a), pp. 106 f.; Weiber/Mühlhaus (2014), p. 25.
[801] Cf. Hair et al. (2014a), pp. 107 ff.
[802] Cf. Lowry/Gaskin (2014), pp. 129 ff.

Recommendations for When to Use PLS Versus CB-SEM		
Model requirement	**PLS**	**CB-SEM**
Includes interaction effects	Preferable, as it is designed for easy interactions	Difficult with small models, nearly impossible with large ones
Includes formative factors	Easier	Difficult
Includes multi-group moderators	Can use, but difficult	Preferable
Testing alternative models	Can use	Preferable, as it provides model fit statistics for comparison
Includes more than 40-50 variables	Preferable	Sometimes unreliable if it does converge, sometimes will not converge
Non-normal distributions	Preferable (although it will still affect results, just to a lesser extent)	Should not be used; results in unreliable findings
Non-homogeneity of variance	Preferable (although it will still affect results, just to a lesser extent)	Should not be used; results in unreliable findings
Small sample size	It will run (although it will still affect results negatively)	Unreliable if it does converge; often will not converge

Table 20: Recommendations for When to Use PLS Versus CB-SEM

Reference: Lowry/Gaskin (2014), p. 133.

According to these recommendations, the research objectives, and the elaborated hypotheses, PLS is chosen because this approach is considered to be the most valuable and applicable, for the following reasons. First, the specification of the very important construct of perceived service quality is formative,[803] thus PLS is beneficial and less problem laden.[804] Second, not all hypotheses can be tested as strictly confirmatory, because there is a lack of theory for the application of cultural values in the given context. The hypotheses H10a-k to H13a-k are indeed to some extent *exploratory*, where PLS is highly recommended. Moreover, this design, which is confirmatory at the automobile related part, and exploratory at the culture related part, is a very good match with the statistical strengths of the variance-based approach.[805] Third, the research model is very complex with more than 45 variables, thus the modulation in PLS should be preferred, because this complexity could lead to unreliable results in CB-SEM.[806] Finally, some research limitations with regard to the survey in China are reasonable. Due to economic limitations the sample size could not be substantially extended, which would be required by CB-approaches, and due to the fact that

---

[803] For explanations on measuring models, s. Chapter 5.2.2.1; The particular benefits due to the formative PSQ construct specification are shown in the operationalisation section in Chapter 5.2.2.4.

[804] Cf. Lowry/Gaskin (2014), p. 133; Hair et al. (2014a), p. 109; Christophersen/Grape (2009), p. 108.

[805] Cf. Lowry/Gaskin (2014), p. 131 ff.; Henseler/Chin (2010), p. 106; Weiber/Mühlhaus (2014), p. 78.

[806] Cf. Lowry/Gaskin (2014), p. 133; Weiber/Mühlhaus (2014), p. 78; Hair et al. (2011), p. 140.

the customer segment is difficult to reach, the data might be not distributed in a per-fectly normal way, which is why PLS is also the appropriate methodological choice.[807]

5.2   Research Design

5.2.1   Survey Method and Structure of the Questionnaire

Survey Method

In order to gather the required data to for the empirical success factor analysis via SEM, *field research* is conducted by means of a *standardised online questionnaire*. Due to the time restrictions of a doctoral study this field research is a *cross-sectional* data approach, as the empirical data is gathered once or in one time period.

In terms of the method, an online survey was chosen due to some important aspects and limitations. Reaching the targeted group of automobile service customers in Chi-na is a major challenge for Western researchers. In the case at hand, it would be possible to co-operate with automobile manufacturers in order to reach their work-shop customers. Due to competition-related issues, no relevant brand was willing to do this. Moreover, the data of one single brand would be scientifically inappropriate, because a brand-related bias would result. Face-to-face or written interviews are not feasible options in this research setting, because of the need for a high number of re-sponses, which would result in enormous organisational and especially economic ef-forts. Additionally it must be considered that the government could restrict market re-search in China.[808] Some topics, such as sexuality, religion and politics, are very sensitive and should therefore not be included in surveys.[809] As a result a proper op-tion is to work with licensed marketing research institutions with high local compe-tence. In combination with an online survey, where the link to the questionnaire and the incentive is administered by the agency, it is possible to reach the targeted group appropriately.

---

[807] Cf. Lowry/Gaskin (2014), p. 133. Hair et al. (2014a), pp. 108 f.; Weiber/Mühlhaus (2014), p. 74; Chin (1998), p. 295.

[808] Cf. Knörle (2011), p. 126.

[809] Cf. Zeithaml (2013), p. 137.

A general methodological assessment of KUß (2012) shows that online surveys have significant strengths in the areas of data quality, effort, and the duration of an investigation.[810] A crucial benefit in terms of China, where questionnaire recipients are relatively sceptical, is that the perceived anonymity of online surveys, in contrast to other methods, is considered to be very high. The method is also considered to be relatively objective, because there is no potential interviewer bias.[811] Nonetheless online surveys have some limitations in contrast to other methods. Here, the potential lack of representativeness is the main point mentioned,[812] because not every single unit of the basic population is reachable via the internet (in other words, not every unit has an equal chance to be in the sample), thus findings are often not generalisable.[813] This is an important issue and therefore specifically addressed in Chapter 5.2.4, where the structure of the sample is shown. But it will be emphasised here that this research project is not intended to generalise findings for the whole Chinese population, as the delimitation of the research object in Chapter 3.4 shows. Next, Table 21 compares the pros and cons of various survey methods.

Pros and Cons of Different Survey Methods				
Criteria	Face-to-Face	Telephone	Written	Online
Representativeness	High	High	Medium	Very low
Time Requirement	High to medium	Low to very low	Medium	Low
Cost	High to medium	Low	Very low	Very low
Flexibility	Very high	Very low	Low	High
Controllableness	High	High	Low	High
Bias through the interview situation	Potentially high	Medium to high	Low	Low
Data accuracy	Medium to high	Medium to high	Very high	Very high
Reachable quantity of data	Low	Medium to high	Very high	Very high

Table 21: Pros and Cons of Different Survey Methods
Reference: Author´s table referring to Fantapié Altobelli/Hoffmann (2011), p. 37; Kaya (2009), p. 54.

Obviously there is no generally favourable method; thus the research objectives and capabilities must be considered, in order to choose a method. As described above, the online survey is appropriate and was therefore chosen. More precisely, an *online panel of automotive customers* was used to reach exactly the group targeted. There-

---

[810] Cf. Kuß (2012), p. 130.
[811] Cf. Fantapié Altobelli/Hoffmann (2011), pp. 34 f.
[812] Cf. Kuß (2012), pp. 128 f.; Fantapié Altobelli/Hoffmann (2011), p. 33.
[813] Cf. Berekoven et al. (2009), p. 107.

fore, the renowned market research institute SSI was chosen as a proper partner, because they have strong competence in China and they have a panel that ensures a high number of after-sales service customers of German premium car brands, which means the sample size is large enough for a proper statistical analysis via PLS-SEM.

Structure of the Questionnaire

The data collection for this survey was done through field research and, as mentioned above, via an online survey. The questionnaire is constructed with regard to the SEM requirements, in a *standardised format* with *structured questions*. Their formulation or operationalisation is discussed comprehensively in Chapter 5.2.2. The online questionnaire was programmed with a Questback Group (UNIPARK) software package: EFS Survey version 10.6, a highly professional solution explicitly adapted to scientists' needs.[814]

The questionnaire starts with a *welcome page* (s. Appendix 1, No. 1, 'Welcome Page'), where the recipient is informed of the purpose of the survey, the responsible sender, the thematic context, the expected duration, the general instructions, and of the fact that all information is treated confidentially and is strictly for scientific use. Within the questionnaire, generally two kinds of questions can be distinguished, the *result questions* (factual issues), which are related to the objectives of the research, and the *instrumental questions*, which are less intended to gather information than to steer the flow through the questionnaire via contact, control, filter, and forking questions.[815] In order to structure the sequence of result and instrumental questions properly, established principles can be used as guidelines, as FANTAPIÉ ALTO-BELLI/HOFFMANN (2011) state. In accordance with them, the best structure is to start with *contact questions* (s. Appendix 1, No. 2, 'Filter Page'), which should be easy to answer and awaken interest, thus the recipient becomes motivated to answer the questionnaire. In this section, a brand filter is integrated, thus first it ensures that the target group will be reached, and second the car brand actually driven by the recipient can be used as a dynamic variable for brand-specific questions. Additionally,

---

[814] Information to EFS Survey by UNIPARK is available online at www.unipark.com.
[815] Cf. Fantapié Altobelli/Hoffmann (2011), pp. 56 ff.

the brand workshop filter question ensures the recipient's after-sales service experience, and finally the gender distinction enables gender-specific addresses. These filter questions are programmed as must answers. The *result questions* (s. Appendix 1, No. 3-6), follow the recommended logical sequence, where topic blocks are built. These are, Block A 'Workshop Section, Block B: 'Loyalty Section', which is shown to the recipients as the brand preference section, and finally Block C, the 'Value Section', which contains gender specific profiles. Sensible and crucial questions will be placed fairly near the end of the questionnaire, which is why the value section is placed here. Moreover this section is programmed as a must answer section. With regard to the given guidelines, the questionnaire ends with *correlation questions* (s. Appendix 1, No. 7, 'Demographics'), which usually request personal information. In this case, income, age and the current home province are requested.[816]

Translation Equivalence

The questionnaire is translated into *simplified Chinese*, in order to reach the urban after-sales service customers. In this context, it is critical to ensure *translation equivalence* (linguistically and conceptually); otherwise a translation bias falsifies the survey results, because accuracy partly depends on the understanding of the recipient.[817] Generally, translation equivalence relates to four areas:[818]

- Lexical equivalence (context-dependent meaning of words)
- Idiomatic equivalence (phrases)
- Grammatical equivalence (grammar and syntax)
- Experience equivalence (real experiences with things)

In order to avoid translation biases, it is necessary to use an appropriate translation method. Within the questionnaire mentioned above, no phrases are used and the grammatical complexity is low. Moreover the recipients are car users, and therefore they have experiences with the topic and related terms. As a result, the generally very important *lexical equivalence* is the crucial item of concern. To ensure this, in accordance to EMRICH (2014) the most commonly used technique is the *translation back-translation method*. Here, one translator translates from the original language

---

[816] Cf. ibidem.
[817] Cf. de Mooij (2014), p. 181.
[818] Cf. Emrich (2014), p. 202.

(English) to the targeted language (Simplified Chinese). Another person, who has no knowledge of the original text, afterwards translates the questionnaire into the language of origin. For this exercise, native-speaker translators should be used. Afterwards the two translations are compared, problems are discussed, and then resolved, based on the discussion.[819] For this research project, the translation was conducted in collaboration with the renowned German Institute of Global and Area Studies (GIGA),[820] using professional native-speaker translators. The questionnaire was translated using the translation back-translation method, where GIGA ensured the required process mentioned above. After the discussion some minor changes were made to the final version, but generally the translators assed the questionnaire as linguistically easy. Also, it has to be emphasised that the complete cultural section is available and validated in Chinese.[821]

5.2.2 Operationalisation

The conceptualisation of this research project took place in Chapter 4. Here, all constructs and theoretically assumed cause-effect relationships are integrated into a research model via directed hypotheses. In order to verify the hypotheses empirically, the given constructs must be *operationalised*, which means made measurable.[822] Here every construct is measured by one or more indicators or items, which are themselves expressed in the questionnaire as a question. In other words, a non-observable hypothetical construct becomes measurable by means of an observable fact (item),[823] which is likewise shown graphically in Figure 28.

---

[819] Cf. ibidem; Knörle (2011), p. 131; Douglas/Craig (1983), p. 187.
[820] Information about the GIGA institute is available at http://www.giga-hamburg.de.
[821] Cf. Chapter 5.2.2.5, Construct Operationalisation of Individual Level Values.
[822] Cf. Töpfer (2012), pp. 76 f./220; Kuß (2012), p. 25.
[823] Cf. Weiber/Mühlhaus (2014), p. 105; Fantapié Altobelli/Hoffmann (2011), p. 115.
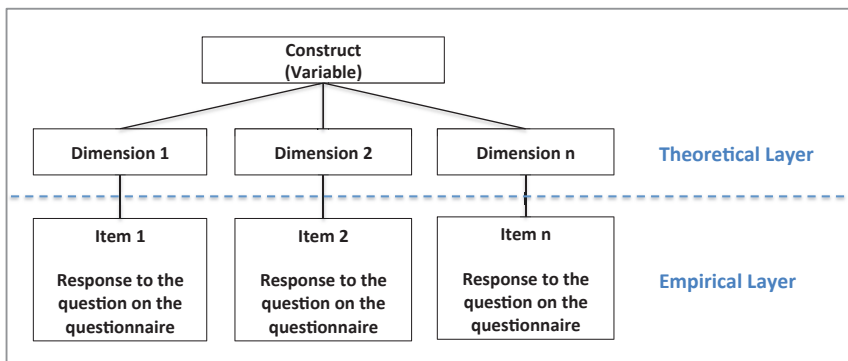
Figure 28: Construct Operationalisation

Reference: Author´s illustration.

The operationalisation builds up on the already elaborated fundament of mentioned and used definitions, conceptual and theoretical considerations. The particular construct operationalisation starts with Chapter 5.2.2.3, thereby only applied measuring models with good-quality criteria are used, so as to overcome one important point of critique, when it comes to success factor research, namely the tendency toward exclusive research,[824] in which no replication studies are done to verify or falsify relationships and measuring models.

In terms of an adequate measuring model, it is very important to consider whether constructs are specified as formative or reflective,[825] and also which kind of scale is appropriate. Therefore, the next two chapters emphasise these aspects in detail.

5.2.2.1 *Specification of Measuring Models*

When structural equation modelling is applied, the *specification of the measuring models* is considered very important, because the choice of items, and also the statistical test methodology differs with the type of specification.[826] In literature, con-

---

[824] Cf. Sobotta (2012), p. 157; further aspects on this issue are discussed in Chapter 5.1, Success Factor Research and Structural Equation Modelling.

[825] Cf. Töpfer (2012), pp. 224 f.

[826] Cf. Weiber/Mühlhaus (2014), p. 108; Diamtopolous/Siguaw (2006), pp. 263 ff.; Jarvis et al. (2003), p. 199.

structs are often specified as *reflective* or *formative*, which strictly speaking is short for a construct that is measured by reflective or formative indicators (items).[827]

In the case of *reflective measuring models,* hypothetical constructs (latent variables) are the cause of measuring indicators, thus the reflective indicators are observable consequences of the construct. On the other hand, *formative indicators* are the cause of a construct, thus the direction of causality is from the measures to the construct.[828] Figure 29 shows this crucial difference (direction of arrows) graphically.
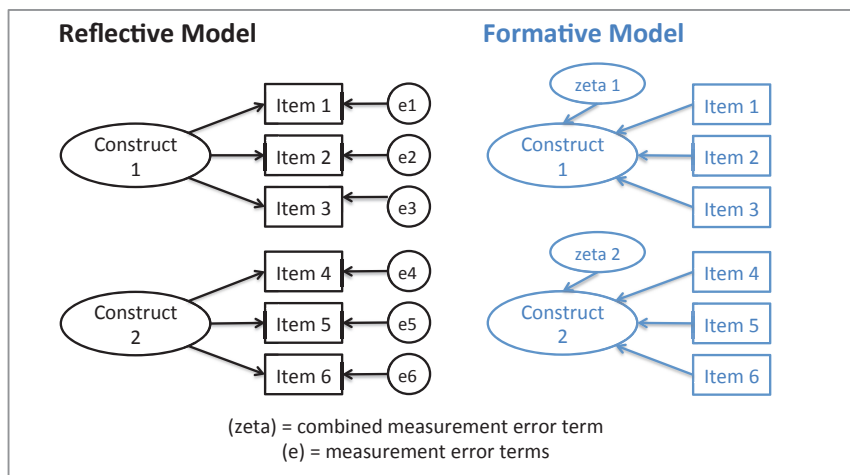
Figure 29: Reflective vs. Formative Measurement Model

Reference: Author´s illustration referring to Jarvis et al. (2003), p. 201.

Another important difference becomes obvious when the inter-correlation of items is considered. JARVIS ET AL. (2003) state, on reflective measuring models, that here '(…) the latent variable influences the indicators, accounting for their inter-correlations. Reflective indicators (…) should be internally consistent and, because all the measures are assumed to be equally valid indicators of the underlying construct, any two measures that are equally reliable are interchangeable. Thus, although reliability estimates (e.g., Cronbach's alpha) of the set of indicators will be lower if fewer indica-

---

[827] Cf. Diamantopoulos (2011), p. 336.

[828] Cf. Jarvis et al. (2003), p. 200; Lowry/Gaskin (2014), pp. 131 f.; Christophersen/Grape (2009), pp. 104 ff.; Hair et al. (2014a), p. 109.

tors are included in the measurement model, the construct validity is unchanged when a single indicator is removed, because all facets of a unidimensional construct should be adequately represented by the remaining indicators.'[829] Moreover, the construct's meaning will not change if a reflective item is removed.[830] On the other hand this is precisely what would happen if done with formative indicators; which is also a reason why formative indicator models should not be evaluated by measures of the reliability of internal consistency.[831]

In order to distinguish the construct measurement specification, JARVIS ET AL. (2003) elaborated a catalogue of conceptual criteria to determine whether the construct should be modelled formative or reflective. Here, they focus on four sets of questions (s. Table 22). First, questions regarding the direction of causality, second, on the interchangeability of indicators, third, on the covariation among them, and finally on the nomological net of construct indicators (antecedents and consequences).[832] The specification of indicators for this research is based on these criteria and shown in the subsequent operationalisation sections, as also in Table 24: Operationalisation of Constructs.

---

[829] Jarvis et al. (2003), p. 200.
[830] Cf. Christophersen/Grape (2009), p. 105.
[831] Cf. ibidem, p. 106; Jarvis et al. (2003), p. 202; Lowry/Gaskin (2014), p. 132.
[832] Cf. Jarvis et al. (2003), p. 203.

Rules for Determining Whether a Construct is Formative or Reflective		
	Formative Model	*Reflective Model*
1. Direction of causality from construct to measure implied by the conceptual definition	**Direction of causality is from items to construct**	**Direction of causality is from construct to items**
Are the indicators (items) (*a*) defining characteristics or (*b*) manifestations of the construct?	Indicators are define characteristics of the construct	Indicators are manifestations of the construct
Would changes in the indicators/items cause changes in the construct or not?	Changes in the indicators should cause changes in the construct	Changes in the indicator should not cause changes in the construct
Would changes in the construct cause changes in the indicators?	Changes in the construct do not cause changes in the indicators	Changes in the construct do cause changes in the indicators
2. Interchangeability of the indicators/items	**Indicators need not be interchangeable**	**Indicators should be interchangeable**
Should the indicators have the same or similar content? Do the indicators share a common theme?	Indicators need not have the same or similar content/ indicators need not share a common theme	Indicators should have the same or similar content/ indicators should share a common theme
Would dropping one of the indicators alter the conceptual domain of the construct?	Dropping an indicator may alter the conceptual domain of the construct	Dropping an indicator should not alter the conceptual domain of the construct
3. Covariation among the indicators	**It is not necessary for indicators to covary with each other**	**Indicators are expected to covary with each other**
Should a change in one of the indicators be associated with changes in the other indicators?	Not necessarily	Yes
4. Nomological net of the construct indicators	**Nomological net for the indicators may differ**	**Nomological net for the indicators should not differ**
Are the indicators/items expected to have the same antecedents and consequences?	Indicators are not required to have the same antecedents and consequences	Indicators are required to have the same antecedents and consequences

Table 22: Rules for Determining Whether a Construct is Formative or Reflective

Reference: Author´s table referring to Jarvis et al. (2003), p. 203.

5.2.2.2 Scaling

Non-observable or latent constructs are measured by items as described above. Additionally, these constructs are usually not one-dimensional, and therefore assembled by interacting variables. In order to ensure that objects with identical manifestations of their characteristics receive identical numbers (values), when it comes to measures, a scaling of characteristics or constructs is required. Thus, scaling is consid-

ered to be a continuum, which positions the measured characteristics.[833] Moreover it is important whether the measuring model is applied by single-item or multi-item scales. Only the construct, 'acceptable workshop distance', is measured by a single item, as it could be measured directly by metric numbers. All other constructs are measured with multi-item scales, because they are most appropriate in terms of latent variables, and therefore mostly scientific standard.[834] Crucial benefits are that this goes some way toward ensuring that multi-item measuring captures the various aspects of a construct of interest, that the measured data is more finely differentiated, and because multi-item scales are considered more reliable than single-item scales.[835]

By the application of structural equation modelling, *rating scales* are highly recommended.[836] They will thus be applied in this research; which implies that the poles must be formulated as extreme statements, such as 'extremely satisfied'.[837] Strictly speaking, rating scales deliver ordinal data, but under the given assumption of equal distances between the points of the scale, they are usually considered and applied as metric (interval) data,[838] which is required to conduct the success factor research via structural equation modelling.[839] As a result, the scale must be presented with numbers, so that distances can be interpreted.[840]

Generally, five-point and seven-point rating scales are very common within the marketing research field. Odd scales have the advantage that subjects are not forced to make a rating, which increases the willingness to answer.[841] Nonetheless, providing a middle category comes along with disadvantages, such as the differentiation problem. Which means that it could be unclear whether the response is really ambivalent or whether indifference is given (e. g. a relevant pair of characteristics is missing).[842]

---

[833] Cf. Fantapié Altobelli/Hoffmann (2011), pp. 107/115; Weiber/Mühlhaus (2014), pp. 115 f.
[834] Cf. Fantapié Altobelli/Hoffmann (2011), pp. 125 f.
[835] Cf. Dorka (2012), p. 211; Kuß (2012), p. 91; Fantapié Altobelli/Hoffmann (2011), p. 126; Weiber/-Mühlhaus (2014), p. 112.
[836] Cf. Weiber/Mühlhaus (2014), pp. 116 ff.
[837] Cf. ibidem, p. 118.
[838] Cf. Greving (2009), p. 72; Fantapié Altobelli/Hoffmann (2011), p. 121.
[839] Cf. Weiber/Mühlhaus (2014), p. 35.
[840] Cf. Kuß (2012), p. 94.
[841] Cf. Sobotta (2012), p. 157; Fantapié Altobelli/Hoffmann (2011), p.117.
[842] Cf. Weiber/Mühlhaus (2014), p. 117.

Moreover, some researchers argue that people from collectivistic cultures such as China tend to have a middle-category bias.[843] But on the other hand, the advantages of odd scales are also considered in China, which is why odd scales are recommended,[844] and often used in Chinese surveys,[845] and therefore also in this one. As regards the option of using five point or seven point scales, generally both options are considered to be suitable. An expert interview with the intercultural marketing and research expert EMRICH was conducted, in order to assess both possibilities. She emphasises that in China the avoidance of choosing extreme values is relevant, which is why she recommends five point scales in contrast to seven point scales.[846] The author follows this recommendation. For this reason, and in order make the questionnaire as easy and clear as possible, some rating scales that were originally seven-point have been converted to five-point rating scales.

The item scales used in this study, which are described in detail in the next chapters, are adapted from previous studies in order to ensure *content validity*, and against the background that they are absolutely *specific* to the automobile industry, as well as to after-sales services. Furthermore, scales are chosen which are *already validated or used within Chinese research*. This is especially the case when it comes to the individual-level value section, which is very sensitive to biases (here all items are available in Chinese). If possible, originally in China applied, and in Chinese language available scales are used. Nonetheless, some very automobile specific scales have to be translated. Here *professional* translators conduct the *translation back translation procedure* (English/Chinese and Chinese/English), thus no linguistic problems are expected, and *conceptual equivalence and translation equivalence* is provided.[847] Additionally, a pre-test (s Chapter 5.2.3) is done with Chinese respondents, so that this can be confirmed or, if misunderstandings exist, adapted. This procedure is in accordance with the procedure used by other researchers with familiar approaches, such as KNÖRLE (2011); DENG ET AL. (2010) or YIM ET AL. (2008).[848] Finally, the

---

[843] Cf. Emrich (2014), p. 194/211.

[844] Cf. ibidem.

[845] Cf. Knörle (2011), pp. 180 f.; Qin et al. (2010), p. 428; Deng et al. (2010), p. 293; Ha et al. (2009), p. 208; Ueltschy et al. (2009), p. 973; Yim et al. (2008), p. 748.

[846] The personal expert interview with Ms Emrich was done via telephone on the 26th of April 2015.

[847] Cf. Chapter 5.2.1, Survey Method and Structure of the Questionnaire.

[848] Cf. Knörle (2011), pp. 180 f.; Deng et al. (2010), p. 293; Yim et al. (2008), p. 748.

questionnaire contains almost only closed questions in order to avoid cultural barriers to answering and other related problems.[849]

The next Chapters show why and in according to which studies, constructs are operationalised. At the end of these remarks Table 24 summarises all constructs, the related items, references and the specification of each measuring model.

5.2.2.3 Construct Operationalisation of Satisfaction and Loyalty Variables

After-sales Service Satisfaction (ASSS)

In line with the chosen term definition of OLIVER (2010) in Chapter 4.2.2, an operationalisation originally from ANDALEEB/BASU (1994) is chosen, which was recently used successfully in an automobile service study by HÜNECKE (2012).[850] This operationalisation is very suitable, because it is specific to the after-sales service context, and it asks for total satisfaction as well as for satisfaction due to service quality. This *reflective* two-item measurement model captures the main dimensions of the construct properly, but in addition the application is fast enough to be well integrated into the complex research model without stressing the questionnaire´ too much. There is no measuring model available which is validated in China, but in Chinese settings satisfaction is measured almost similar. For instance, HA ET AL. (2009) use two very familiar items, also including total satisfaction. Moreover their choice is closely related to Western theory such as is found in, for instance, OLIVER (1997),[851] so the operationalisation chosen above is assessed as valid in the Chinese context.

Brand Loyalty (BL)

In order to operationalise *brand loyalty* in China, it must be considered that the Chinese premium car market is still predominantly a first buyer market.[852] Because of this a behavioural measurement approach based on actual repurchases would lead to a bias, because a significant amount of car users would be excluded from the re-

---

[849] Cf. Knörle (2011), p. 180; Only age, home country (s. Chapter 5.2.2.6) and acceptable workshop distance (s. Chapter 5.2.2.4) are open, but quiet easy and definite questions.

[850] Cf. Hünecke (2012), p. 109/214; Andaleeb/Basu (1994), p. 378.

[851] Cf. Ha et al. (2009), p. 208.

[852] Cf. Table 2: List of Insights of the Expert Survey.

search. For this research the actual users, which are also potential buyers, are also of interest, and therefore the *purchase intention* is measured. Likewise, this market logic is in line with the chosen theoretical remarks in Chapter 4.2.4. To operationalise the construct, brand loyalty, a measuring model developed by DENG ET AL. (2010) is used,[853] because it is approved in China. This measuring model originates from LIN/WANG (2006),[854] but it is operationalised with fewer items, what is required in order to integrate it into the complex research model given. DENG ET AL.´s (2010) *reflective* specified measuring model contains three items (one item directly asks about repurchase intentions), which can easily be adapted to the automobile context with minor changes in the wording. These changes are made referring to the wording of KUENZEL/HALLIDAY (2010).[855]

Workshop Loyalty (WL)

There is no available construct operationalisation for *workshop loyalty* in China, but an automobile-service-specific one by HÜNECKE (2012),[856] which is based on the established approach of ANDALEEB/BASU (1994).[857] In line with HÜNECKE´s (2012) argumentation, time and financial restrictions prevent the measurement of actual behaviour.[858] Therefore, the willingness to recommend and the willingness to return to the workshop (repurchase intention) are the basis for the *reflective* specified two-item measurement model. The application of this approach in China is suitable because the concept and the items are very close to the above mentioned brand loyalty operationalisation, whereby the workshop is the point of reference instead of the brand.

---

[853] Cf. Deng et al. (2010), p. 293.
[854] Cf. Lin/Wang (2006), p. 279.
[855] Cf. Kuenzel/Halliday (2010), p. 172.
[856] Cf. Hünecke (2012), pp. 110/215.
[857] Cf. Andaleeb/Basu (1994), pp. 378 f.
[858] Cf. Hünecke (2012), p. 110.

5.2.2.4 Construct Operationalisation of Independent Variables

Perceived Service Quality (PSQ)

When service quality is operationalised it is important to consider the industry context, because SERVQUAL and SERVPERF approaches have failed to be operationalised in some industries.[859] Also complexity is an issue which should be considered, because the number of items is high when perceived service quality is measured.

LEE ET AL. (2000), have comprehensively researched and compared the SERVQUAL and the SERVPERF approach. They conclude that the performance-only measuring approach (SERVPERF) explains more variance in overall service quality than the gap approach (SERVQUAL).[860] In combination with the fact that a performance-based scale reduces the number of items by 50 percent, this kind of scale is considered to be more efficient.[861] This is a major aspect in combination with the aspect of complexity mentioned above. That SERVPERF scales are applied in research on China becomes perceptible in various studies and industries;[862] especially in the study by SHUQIN/GANG (2012) on relationship value in China´s automobile industry.[863] As a result of the aspects mentioned, the SERVPERF measuring approach is assessed as suitable in China and superior to SERVQUAL in the context of this research work.

In accordance to the SERVPERF, HÜNECKE (2012) refers to CONLON ET AL. (2001), who elaborated a specific approach with regard to automobile maintenance services.[864] Thus, a suitable and highly context-affine operationalisation is existent, which is used as well for the construct of perceived service quality, targeted in this study. The *formative* specified measuring model contains nine items, which can be seen as an expression of the most important and supplier steerable after-sales service instruments: cost, convenience, ease of getting an appointment, knowledge of your car, honesty and integrity, ability to do the job right, ability to do the job on time,

---

[859] Cf. Brady/Cronin (2001), p. 34.

[860] Cf. Lee et al.(2000), p. 226.

[861] Cf. ibidem.

[862] Cf. for instance Law (2013), pp. 231 ff.; Qin et al. (2010), pp. 242 ff.

[863] Cf. Shuqin/Gang (2012), p. 177.

[864] Cf. Hünecke (2012), pp. 108 f./214; Conlon et al. (2001), p. 1202. Likewise Devaraj et al. (2001), p. 437 can be consulted as it is a similar paper, written by the same three authors.

the cleanliness and appearance of the facility and friendliness of the personnel. This level of detail is both worth measuring and needed. Needed because an elimination of a formative item would change the meaning of the construct,[865] and worth measuring because in formative measuring models an assessment can be made as to what indicator has what weighting on the construct.[866] This is very important, because it makes it possible to assess which of the after-sales service instruments are really relevant.

Brand Image (BI)

A review of the literature on approaches to *brand image* operationalisation in China shows that the scales used often originate in or are adapted from those in Western studies. For instance, the study, 'How quality, value, image, and satisfaction create loyalty at Chinese telecom' by LAI ET AL. (2009), uses items from ZEITHAML´s (1988) and SELNES`s (1993) scales.[867] Moreover, WANG/YANG (2010) builds on a Western theory by adapting the General Brand Image (GBI) scale from AAKER (1996),[868] which likewise is the definitional basis of brand image in this research work.[869] A familiar, but particularly automobile-related scale proposed by VERHOEF ET AL. (2007) is therefore used to measure the construct of brand image. This happens with a *reflective* model, measured by three items.[870]

Perceived Workshop Switching Costs (PWSC)

Switching costs is a construct already applied in Chinese studies. DENG ET AL. (2010) use a three-item scale,[871] which is generally applicable to the automobile service context with minor wording changes. Only item number three, 'Switching to other MIM service would require too much learning', is not valid, because here learning refers to product use, which is different from service consumption. However, this ap-

---

[865] Cf. Jarvis et al. (2003), p. 203.
[866] Cf. Christophersen/Grape (2009), p. 106.
[867] Cf. Lai et al. (2009), p. 983.
[868] Cf. Wang/Yang (2010), p. 181.
[869] Cf. Table 17: Overview of Constructs.
[870] Cf. Verhoef et al. (2007), p. 105.
[871] Cf. Deng et al. (2010), p. 294.

proach will be used without the mentioned 'learning item', as a *reflective* multi-item measuring scale.

Acceptable Workshop Distance (AWD)

In Chapter 4.4.2.3 the variable, *acceptable workshop distance,* is described as worthy of research in terms of after-sales service satisfaction and workshop loyalty. On this topic hardly any research is available. Only DIEZ (2009) argues that German customers refuse to drive more than 30 minutes to reach their favourite workshop.[872] Using time as the unit of interest has the advantage that it takes into account that the same distance can be reached quickly or slowly, dependent on circumstances such as traffic volume. It follows that minutes are the related value of measures, thus this construct can be measured directly by a metric, *single-item* scale.

5.2.2.5   Construct Operationalisation of Individual Level Values

Chapter 4.4.3.2 gives a full analysis of the reason that the theory of *individual level values* by SCHWARTZ is very valuable and suitable for this research. The argument was made that the *PVQ based approach* has a lot of benefits, so it should be the choice for the operationalisation. It has to be emphasised that this approach is also specifically suitable with SEM based research settings.[873] The operationalisation with regard to the PVQ approach is applicable in different ways, which mainly vary in the level of detail (values) and the number of items used (s. Table 23).

PVQ Operationalisation Approaches				
Name	**Items**	**Approximate Time Requirement**	**Values**	**Comment**
PVQ-40	40	7 minutes	10	Medium fast
PVQ-21	21	4 minutes	10	Fastest approach with the benefit of a high level of value distinction
PVQ-RR	57	8-9 minutes	19	Highest degree of value distinction, remarkable time effort needed, but relatively time efficient compared with the PVQ-40

Table 23: PVQ Operationalisation Approaches

Reference: Author´s table.

---

[872] Cf. Diez (2009), p. 61.

[873] Cf. Schmidt et al. (2007), pp. 270 f.

As described in the previous chapters, the complexity of the research model is already high, so the longest version the PVQ-RR is not suitable. Moreover, this approach is relatively new and therefore not validated in so many countries as the others. In particular it is not validated and applied in China.[874] The PVQ-21 as the shortest suitable version might be a good choice. Here, SCHMIDT ET Al. (2007) use a confirmatory factor analysis to show that the validity and reliability of the PVQ-21 is 'very satisfying'. Nonetheless, the reduction to two items per construct brings disadvantages in cross-cultural settings, so that they were forced to reduce the ten factors to seven. The use of the PVQ-40 should overcome this limitation.[875] But this limitation must not be existent at within-country research; likewise there are studies which successfully distinguish the ten values through confirmatory factor analysis.[876] The 40-item version is considered to be superior, if explicitly cross-cultural analysis is targeted,[877] but that is not intended in this work.

Beside the explanations of Chapter 4.4.3.2, as a result, a *PVQ 21-item* version is chosen, because it is most suitable in terms of complexity and answering time restrictions. Moreover, the level of detail is adequate, thus relevant cultural causes can be identified. The coding key as well as the 21 items are available in Chinese, and SCHWARTZ has submitted them to the author via personal e-mail. These 21 questions are shown below in Table 24. The measuring model is *reflectively* specified.

5.2.2.6 Construct Operationalisation of Control Variables

The *demographic variables* of age, gender and income are integrated into the questionnaire because group comparisons are intended. In accordance with the questionnaire developed by KNÖRLE (2011), income is measured in categories,[878] which helps to overcome Chinese scepticism on sensible or personal statements. This structure is applied, but as the sample differs significantly (premium automobile users vs. students) another classification is made. In accordance with various figures and comparisons in Chapter 3.2, the annual household income is appropriate. On this,

---

[874] Schwartz et al. (2012) applied it in ten western countries s. p. 670.
[875] Cf. Schmidt et al. (2007), p. 271; Davidov et al. (2008), p. 440.
[876] Cf. Schwartz (2011b), p. 310; Schwartz/Boehnke (2004), p. 254; Steinmetz et al. (2009), p. 614.
[877] Cf. Cieciuch/Davidov (2012), p. 43.
[878] Cf. Knörle (2011), p. 237.

the 2012 McKinsey study, 'Meet the Chinese consumer 2020', is used to express income categories.[879] Additionally, the category of very affluent is added, as it is likely that, in the customer segment of premium car users, very affluent Chinese are represented. The resulting classification on the basis of annual household incomes is as follows:[880]

- Very affluent > 75,000$ > (435,000 CNY)
- Affluent   > 34,000$ > (212,000 CNY)
- Mainstream > 16,000$ > (99,000 CNY)
- Value   > 6,000$ > (37,500 CNY)
- Poor   < 6,000$ < (37,500 CNY)

5.2.2.7   Filter Section and Operationalisation Summary

In order to ensure that the targeted sample is actually reached, the first questions of the questionnaire are *filter questions*. First, the recipient is asked, 'Which brand of car you drive?' If a non-targeted brand is selected or 'I don´t use a car' is chosen, this leads to an abort, and the recipient is directed to the questionnaires end-site, were the causes are explained. The second question filters out those who have no experience of brand workshop service. Only those who have such experience are considered. Finally, the filter determines the recipient's gender, because later on, the cultural section is differentiated in gender specific descriptions. In addition to the requirement of this section of the questionnaire, it is quite easy and convenient to answer this section, which is in order to give the recipient the good feeling that the questionnaire can be completed easily and quickly. This section closes with an overview of all construct operationalisation´s, presented in the sequence of the after-sales process chain in Table 24.

---

[879] Cf. Atsmon/Magni (2012), p. 3.
[880] Cf. Numbers are rounded and calculated on the exchange rates of 23/03/2015.

Operationalisation of Constructs			
Construct	**Operationalisation & [Coding Key]**	**Reference**	**Measuring Model**
Perceived Service Quality (PSQ)	1. Cost [PSQ_1_v_15] 2. Convenience (e.g.: Reachability, parking spaces, comfortable waiting area, etc.) [PSQ_2_v_13] 3. Ease of getting an appointment [PSQ_3_v_7] 4. Knowledge about your car [PSQ_4_v_8] 5. Honesty and integrity [PSQ_5_v_9] 6. Ability to do the job right [PSQ_6_v_10] 7. Ability to do the job on time [PSQ_7_v_185] 8. Cleanliness and appearance of facility [PSQ_8_v_11] 9. Friendliness of personnel [PSQ_9_v_14]	HÜNECKE (2012), pp. 108 f./214 based on DEVARAJ ET AL. (2001), p. 437 or CONLON ET AL. (2001), p. 1202	Formative
After-Sales Service Satisfaction (ASSS)	1. Overall, how satisfied were you with the workshop? [ASSS_1_v_26] 2. How satisfied are you overall with the service quality you received from the workshop? [ASSS_2_v_27]	HÜNECKE (2012), pp. 109/214 based on ANDALEEB/-BASU (1994), p. 378 China: HA ET AL. (2009) p. 208	Reflective
Workshop Loyalty (WL)	1. How willing would you be to recommend this workshop to others? [WL_1_v_54] 2. How willing would you be to return to a(n) 'brand name' workshop in the future? [WL_2_v_55]	HÜNECKE (2012), pp. 110/215 based on ANDALEEB/-BASU (1994), pp. 378 f.	Reflective
Brand Loyalty (BL)	1. My next car will also be 'brand name' again. [BL_1_v_59] 2. I recommend 'brand name' to my friends and relatives. [BL_2_v_60] 3. Even if close friends recommended another brand, my preference for 'brand name' would not change. [BL_3_v_61]	DENG ET AL. (2010), p. 293 based on LIN/WANG (2006), p. 279	Reflective
Acceptable Workshop Distance (AWD)	1. In your opinion, what is the maximum distance (in minutes) you would be willing to drive to reach a workshop? [AWD_v_32]	DIEZ (2009), p. 61	Single Item
Brand Image (BI)	1. 'Brand name' is a strong brand. [BI_1_v_64] 2. 'Brand name' is a well-known brand. [BI_2_v_65] 3. 'Brand name' is a unique brand. [BI_3_v_66]	VERHOEF ET AL. (2007), p. 105	Reflective
Perceived Workshop Switching Costs (PWSC)	1. Switching to a non 'brand name' workshop would cause too many problems. [PWSC_1_v_44] 2. Switching to a non 'brand name' workshop would be too expensive. [PWSC_2_v_45]	DENG ET AL. (2010), p. 293	Reflective
Self-Direction (SE-D)	1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way. [SE-D_1_78] 2. It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself. [SE-D_2_88]	Items are provided in Chinese by SCHWARTZ via personal e-mail. Cf. DAVIDOV ET AL. (2008), 427 f.	Reflective
Universalism (UNI)	1. He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life. [UNI_1_v_80] 2. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them. [UNI_2_v_85]	s. (SE-D)	Reflective

	3. He strongly believes that people should care for nature. Looking after the environment is important to him. [UNI_3_v_159]	s. (SE-D)	
Benevo-lence (BEN)	1. It's very important to him to help the people around him. He wants to care for their well-being. [BEN_1_v_152] 2. It is important to him to be loyal to his friends. He wants to devote himself to people close to him. [BEN_2_v_158]	s. (SE-D)	Re-flective
Tradition (TRA)	1. It is important to him to be humble and modest. He tries not to draw attention to himself. [TRA_1_v_86] 2. Tradition is important to him. He tries to follow the cus-toms handed down by his religion or his family. [TRA_2_v_160]	s. (SE-D)	Reflective
Conformity (CON)	1. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching. [CON_1_v_84] 2. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong. [CON_2_v_156]	s. (SE-D)	Reflective
Security (SEC)	1. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety. [SEC_1_v_82] 2. It is important to him that his country be safe. He thinks the state must be on watch against threats from within and without. [SEC_2_v_154]	s. (SE-D)	Reflective
Power (POW)	1. It is important to him to be rich. He wants to have a lot of money and expensive things. [POW_1_v_79] 2. It is important to him to be in charge and tell others what to do. He wants people to do what he says. [POW_2_v_157]	s. (SE-D)	Reflective
Achieve-ment (ACH)	1. It's important to him to show his abilities. He wants people to admire what he does. [ACH_1_v_81] 2. Being very successful is important to him. He likes to im-press other people. [ACH_2_v_153]	s. (SE-D)	Re-flective
Hedonism (HED)	1. Having a good time is important to him. He likes to "spoil" himself. [HED_1_v_87] 2. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure. [HED_2_v_161]	s. (SE-D)	Reflective
Stimula-tion (STI)	1. He thinks it is important to do lots of different things in life. He always looks for new things to try. [STI_1_v_83] 2. He likes to take risks. He is always looking for adventures. [STI_2_v_155]	s. (SE-D)	Re-flective
Age (AGE)	Age: [AGE_v_72]	Cf. KNÖRLE (2011), p. 237	I
Gender (GEN)	Gender: [GEN_v_69]	s. (AGE)	I
Income (INC)	Yearly Household Income (group classification) [INC_v_70] 1. Very Affluent > 75,000$ (435,000 CNY) 2. Affluent > 34,000$ (212,000 CNY) 3. Mainstream > 16,000$ (99,000 CNY) 4. Value > 6,000$ (37,500 CNY) 5. Poor < 6,000$ (37,500 CNY)	ATSMON/MAGNI (2012), p. 3.	I

Table 24: Operationalisation of Constructs

Reference: Author´s table. Cultural items are presented in the masculine form.

5.2.3 Pre-Test

Initial Pre-Test

The *initial pre-test* was conducted on the 21th and 23th of April 2015, in the Hamburg University of Applied Science (HAW) in three international business classes, where all students are educated in English. The English questionnaire was delivered in the same manner via an online survey as the final version will be.[881] The pre-test was conducted in order to evaluate the cover letter and the questionnaire. This was intended to test the questionnaire, especially for its acceptance and comprehensibility. The time required to fill it in was also measured.

Overall, the cover letter was assessed as pretty good, because it was considered to be clear, short and informative. The questionnaire was assessed as pretty easy, both in terms of the scales given and the questions themselves. The recipients felt that the time taken to fill it in was acceptable. Based on the discussion on issues with optimisation potential, the main point was that the cultural section (Block C) is too long to be presented in one step on one page, which might deter some people to proceed. As a result, Block C of the questionnaire was divided into two pages, so that after ten questions the recipient easily detects their progress through the status bar. The average time needed to answer all questions was almost eleven minutes and the median average almost twelve minutes. Here, it has to be considered that various recipients used the comment function to assess the questionnaire. This means the final questionnaire can be completed faster.

Overview of the Initial Pre-Test Sample			
Gross Sample Size (n)	43	Male	60%
		Female	40%
Abort	1		
Completed	42		
Completed and 100% answers given	31	Process time (arithmetic average)	10min 57sec
		Process time (median)	11min 52sec

Table 25: Overview of the Initial Pre-Test Sample

Reference: Author´s table; percentages are rounded.

---

[881] Cf. Chapter 5.2.1, Survey Method.

Chinese Pre-Test

Due to the initial pre-test some improvements were made to the questionnaire. Based on that, a second pre-test with the *Chinese questionnaire* was conducted in China between the 11th and the 21th of May 2015. Chinese car drivers were invited to the pre-test with a separate invitation letter, which describes the pre-test procedure and the related objectives. As the survey link can be passed to people who were not originally invited, the filter section is supplemented with an additional filter question, to determine whether the respondent´s nationality is Chinese. This happens in order to filter out foreigners currently living in China. Thus, it is ensured that only Chinese people take the Chinese pre-test.

The Chinese pre-test shows that the adjustments from the first pre-test had a significant effect, because only one person stopped taking the survey within the cultural section, which initially was assessed as too long. The high quota of aborts (19 out of 43 = 44.19%) was expected beforehand, because no incentive was given for the pre-test, and the survey has a substantial time requirement, thus only really interested respondents take part. This fact became obvious when twelve of the 19 aborts occurred on the welcome page, which means that these respondents did not start the actual survey. From the participants, seven were screened out because they did not exactly fit the filter criteria. With regard to the translation, potential comprehension problems, ambiguities and other issues were not mentioned, so the translation equivalence is approved by the pre-test. Furthermore, there did not appear to be an avoidance of extreme answers, as all the options on the scales were chosen. By comparing the means, section A) and B) were answered above the scale average; where positive values were expressed by high numbers. It is significant that various means in the value section C) were answered below the scale average, so it is not the case that the participants simply clicked quickly, because in contrast to A) and B), in C) positive formulations are expressed by low scale numbers, which means that the respondents read the questionnaire. Finally, the average process time of almost 8 minutes is within the scheduled range.

Overview of the Chinese Pre-Test Sample			
Gross Sample Size (n)	43	Male	58%
		Female	42%
Screened of	7		
Abort	19	12 of 19 aborts at the 'Welcome Page'	
Completed	17		
Completed and 100% answers given	12	Process time (arithmetic average)	7min 50sec
		Process time (median)	6min 8sec

Table 26: Overview of the Chinese Pre-Test Sample

Reference: Author´s table; percentages are rounded.

5.2.4 Data Collection, Preparation and Structure of Sample

Data Collection

As described in Chapter 5.2.1 a Chinese automotive panel is used to spread the survey invitation and link. The invitation process and all related activities, such as incentivation, are administered by the market research institute, SSI. If a respondent follows the invitation, they get to the welcome page of the online-survey; and is aided by the EFS-Survey application version 10.6 (s. Chapter 5.2.1). This primary field research was conducted from the 1st of June until the 16th of June 2015. In sum 434 Chinese were invited to the survey, which 340 of them took and 330 completed. After the data preparation process, a *final data set of 301 cases* resulted, which was likewise the empirical basis for the statistical tests via PLS-SEM. The applied data preparation criteria are shown in the next section, which is closed by a table showing the field report, the sample size and the resulting final data set (s. Table 27).

Data Preparation

In order to assess and to increase the data quality, an *error* check must be conducted. Most importantly five issues have to be addressed, namely *suspicious response patterns*, *missing data*, *filter criteria*, *outliers*, and *data distribution*.[882]

First, *unengaged respondents* or *suspicious response patterns* are a problem in terms of appropriate data quality. This is easily observable when respondents enter

---

[882] Cf. Hair et al. (2014b), p. 50.

data as a series (strait lining), such as 2,2,2,2,2. Within the given data, no such case exists. However, the problem is not necessarily obvious, since a respondent might choose different numbers without being actively engaged. Thus, the *answering speed* will also be used to identify unengaged respondents. Therefore, EFS- Survey delivers a sophisticated approach, which is called *quality correction*. Here, the answering time of each respondent for every single section of the survey is calculated. Afterwards, for each respondent the individual average time per page is brought into relation to the average (median) time for the entire sample. Thus, for every page, and summed up for every respondent, an index figure results, which is reported as a quality variable. Here the value 0.5 expresses that the respondent needs exactly the same answering time as the sample average, and 0.25 means that only half of the average time was needed. DORKA (2012) for instance used a threshold of 0.1 to exclude concerned cases.[883] For this research project the 0.1 threshold would be too liberal, because various speed test and the data of the pre-test show that the absolute completion time of the respondents around the 0.1 threshold is too short to be realistic in terms of answering the entire questionnaire seriously. Therefore, a threshold of 0.2 was chosen, which is considered strict, but nonetheless is not in danger of excluding very fast respondents. Due to this quality control 27 cases were excluded.

Second, important aspects are *missing values* or *missings*, which occur when a recipient has not answered, and it was not defined as a must question. It should be determined whether a case has very many missings, and whether a particular construct is related to many missing. With regard to the first aspect, HAIR ET AL. (2014b) state that it is typical to remove the case if 15% of the questionnaire´s answers are missing.[884] One such case was removed from the data. Regarding the second aspect, the high proportion of missings on a single construct, no issues occur, because all constructs were related to less than the small amount of 4% missings. However, it also must be considered, how missing values within the analysable cases are treated. Generally, to some extent missing data is not avoidable and no missing data treatment is perfect, but some are more suitable than others, depending on the given context and the data set.[885] Today, numerous sometimes very complex approaches exist,

---

[883] Cf. Dorka (2012), pp. 238 f.
[884] Cf. Hair et al. (2014b), p. 51.
[885] Cf. Newman (2014), pp. 372 ff.

to deal with missing data, but HAIR ET AL. (2014b) recommend for PLS-SEM to make use of one of the following three methods: *mean replacement*, *case-wise dele-tion* or sometimes named list-wise deletion, as well as *pairwise deletion*.[886] The rec-ommendation for this often applied (simple) method is based on the following state-ment, which refers to complex methods. '(…) as knowledge on their suitability in a PLS-SEM context is scarce, we recommend drawing on methods described above when treating missing values in PLS-SEM analyses.'[887] However, today mean re-placement is heavily criticised, which is why in this study the conservative *case-wise deletion* approach is used. Moreover, with regard to the existing data, test-comparisons showed that actually only very small differences exist between the two methods. The similarity across approaches is very likely a result of the extremely low rate of total missing (0.49%).

Third, the number of survey participants is reduced through the embedded *filter questions*. In this survey, nationality, brand and service experience are crucial filters. Because this research refers to Chinese consumers living in the Peoples Republic of China (mainland), one case was deleted. Additionally, 20 respondents were screened out, as they did not have the required brand-related service experience.

Fourth, o*utliers* are considered. Outliers, appearing as extreme values, do not exist in rating scales, but in free answerable input fields such as age. Here, the data was questioned by logical thinking as for instance age, in internet surveys, is very unlikely of three digits. Unusual inputs might be a result of typing errors. Within the survey da-ta five cases are identified as highly irregular. As a result these figures were changed to the value of zero, which expresses a missing value (s. above). All these cases oc-curred with regard to the construct of acceptable workshop distance.

Fifth, *data distribution* characteristics are considered. Generally, PLS is a nonpara-metric statistical method, which means that it does not require normally distributed data. But, the assessment of parameter significances can lack a superior quality, if the data is extremely non-normal distributed. In order to ensure that the given data is

---

[886] An overview about complex missing value imputation methods is given by for instance: Newman (2014), pp. 372 ff. or Baraldi/Enders (2010), pp. 5 ff.

[887] Hair et al. (2014b), p. 52.

suitable, *skewness* and *kurtosis* have to be assessed. These two examinations are in line with the requirements of the PLS-algorithm, thus they are recommended instead of the popular KOLMOGOROV/SMIRNOV and the SHAPIRO/WILKS tests. The general guideline for skewness (extent to which the distribution is symmetrical) and kurtosis (a measure of the so-called peakedness of the distribution) is that values above one or below minus one indicate non-normal distributions.[888] However, this threshold is sometimes doubted and considered to be too conservative, thus even thresholds of skewness >2 and kurtosis >7 are postulated instead of >1.[889] With regard to this research, only the two hedonism items, and one stimulation item exceed the conservative >1 threshold slightly; thus the data is assessed as predominantly normally distributed. The few non-normal cases are not extremely non-normal, so the entire data set is very appropriate for PLS-SEM.

Finally, Table 27 shows the field report on the aforementioned aspects, the sample size and likewise the resulting *final data set*.

Field Report, Sample Size and Final Data Set				
Description	Concretisation	**Cases**	Gross %	Net %
Gross Survey Sample		**434**	100%	–
No Reply or Dropouts on the Invitation Page		74	17.05%	–
Net Participation		**360**	82.95%	100%
Screened Out		20	–	5.56%
Dropouts During the Survey		10	–	2.78%
Total Completes		**330**	76.04%	91.67%
Excluded Cases	Due to criterion 'nationality'	1	–	0.28%
	Due to quality criterion 'answering time'	27	–	7.5%
	Due to too many missings per case	1	–	0.28%
Final Data Set	Basis for the empirical analysis	**301**	69.35%	83.61%

Table 27: Field Report, Sample Size and Final Data Set
Reference: Author´s table.

---

[888] Cf. Hair et al. (2014b), p. 54.
[889] Cf. Weiber/Mühlhaus (2014), p. 180 and the there cited literature.

Structure of Sample

The following section deals with the structure of the survey sample. As this survey uses a sample of the total population, *representativeness* is an issue. As discussed in the first Chapter, the data on Chinese consumer behaviour is limited. In fact *no* public data about the targeted group of automobile premium customers is available. Representativeness cannot be assessed directly without this information about the total population. For cases like this – which are very common in applied research settings – WEIBER/MÜHLHAUS (2014) recommend the use of the ARMSTRONG/-OVERTON test (1977), which indicates whether there is a *non-response-bias*. Here, the assumption is that people who respond late tend to share characteristics with those who do not respond at all. Thus, groups with regard to the answering date are established, and early responses are compared with late responses. If the two groups show significant differences, then the test indicates that findings cannot be generalised.[890]

In fact the ARMSTRONG/OVERTON test does not indicate a non-response bias for the existing data set. Thus, it can be concluded that the findings are *sufficiently representative for the delimitated object of research*. Next, the actual characteristics of the sample are presented.

The sample of 301 respondents is composed of 66% males and 34% females. As expected, most of these automobile after-sales service customers are Audi drivers (57%) followed by BMW (29%) and Mercedes-Benz (14%). Around one-third of the sample lives in Shanghai. The two second biggest home provinces are Beijing and Guangdong, both at 19%. Customers from Zhejiang account for 5%, and every other home province is represented by less than 5%. However, the variety from these other places is large (26%), thus in contrast to other studies – where often students are surveyed – this sample contains a widespread regional distribution.[891]

---

[890] Cf. Weiber/Mühlhaus (2014), pp. 376 f.; Armstrong/Overton (1977), p. 396 ff.
[891] Cf. for instance Knörle (2011), p. 179.
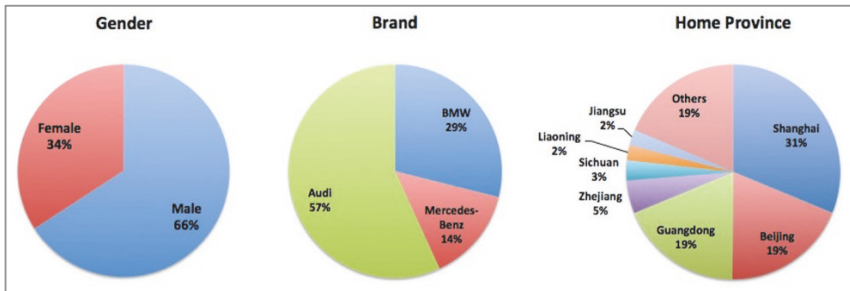
Figure 30: Gender, Brand and Home Province Distribution

Reference: Author´s illustration.

The youngest respondent of the sample is 19 and the oldest 57, which shows that online surveys in China are not limited to the young. The average age of respondents is 34 and the group distribution as follows:

- Younger than 20   → 2   (0.66%)
- Older than 20   → 87   (28.90%)
- Older than 30   → 145   (48.17%)
- Older than 40   → 60   (19.94%)
- Older than 50   → 7   (2.33%)

With regard to income levels, five subgroups or segments are predefined on the basis of the annual household income: poor, value, mainstream, affluent and very affluent. The income structure of the actual sample is presented below, however, the underrepresentation of customers in the poor and value groups is obviously logical, as the object of research is delimitated to premium car drivers.

- Very affluent > 75,000$ > (435,000 CNY)   → 50   (16.61%)
- Affluent   > 34,000$ > (212,000 CNY)   → 139   (46.18%)
- Mainstream > 16,000$ > (99,000 CNY)   → 87   (28,90%)
- Value   > 6,000$ > (37,500 CNY)   → 22   (7,31%)
- Poor   < 6,000$ < (37,500 CNY)   → 3   (1%)

5.3   Data Evaluation

This section starts with some *general conditions* of the proper use of PLS-SEM, and the exhibition of the *path model*. It is significant that the *quality control of measuring models* is considered to be crucial and mandatory, in order to conduct the causal analysis, which is why it follows that the evaluations of *reflective measuring models*, *formative measuring models*, and finally, of the *structural model* should take place in separate chapters.

General Conditions

Generally, the entire data set of 301 cases is statistically evaluated by PLS-SEM with the Smart-PLS Version 3.2.1 software package. The following settings are applied, for conducting the PLS-algorithm, bootstrapping, blindfolding, etc.:

- Path Weighting Scheme
- Max. Iterations: 1000
- Stop Criterion: 10^{-5}
- Casewise Deletion

- Bootstrapping Subsamples: 5000
- No Sign-Changes
- Bias-Corrected and Accelerated Bootstrap
- Blindfolding Omission Distance: 8 and Cross-Validated Redundancy

PLS path model

When PLS-SEM is applied, a multi stage process has to be performed, which contains the specification of inner and outer models. This operationalisation specification was already completed in Chapter 4 and 5.2.2, thus this elaboration is the basis for the *path model*. However, particularly the cultural aspects – which are operationalised as individual level values – have to be aligned properly to statistical requirements. If the ten values were modelled directly, this would lead to a huge complexity, and therefore might affect the statistical explanation power negatively.[892] For instance, the R^2 rises in complex models, when too many paths are pointing toward a target construct.[893] Moreover, with regard to measuring specificity, it is recommended that predictor and latent variable should share the same level of abstraction.[894] When

---

[892] Cf. Wetzels et al. (2009), p. 178.
[893] Cf. Hair et al. (2014b), p. 176.
[894] Cf. Wetzels et al. (2009), p. 178.

it comes to the modulation of individual level values, therefore, *higher-order con-structs* will be applied. Higher, hierarchical or second-(third-/fourth-)order constructs are considered to be beneficial, because they reduce complexity, lead to theoretical parsimony, prevent confounding effects in multidimensional models, and allow the abstraction level for predictor and criterion variable to be matched.[895] Additionally, LAW ET AL. (1998) state that '(…) treating dimensions as a set of individual varia-bles precludes any general conclusion between a multidimensional construct and other constructs.'[896] Generally, *hierarchical* or *multidimensional constructs* can be de-fined as constructs involving more than one dimension.[897]

Due to the previously mentioned points, and because the ten individual level values are considered to be theoretically distinct dimensions, *four second-order constructs* are implemented in the path-model as *auxiliary variables*. These latent variables are named 'Culture1–4'. BECKER ET AL. (2012) provide particular guidelines – which are strictly applied here – for modelling *reflective-formative* second-order constructs, which is the appropriate structure for the intended path model, because the ten val-ues are causal in regard to the auxiliary variables.[898] Technically, for every target var-iable (perceived service quality, after-sales service satisfaction, workshop loyalty, brand loyalty), one auxiliary variable, 'Culture', is used. Thus, via total effects every individual level value can be identified as a separate influence with its distinct param-eters, such as strength of path coefficients. In contrast, if only one auxiliary variable were used, all total effects would be calculated with the input values of the same score of the individual level value of interest (not distinctly dependent on the related target variable).

As shown in Figure 31, the lower-order constructs are measured reflectively, and the second-order construct is measured formatively. Likewise the relationship between the two layers is, in conformance to theory, considered formative, because the first-order constructs are structured as independent variables explaining the second-order

---

[895] Cf. Marcoulides et al. (2009), p. 172; Hair et al. (2014a), p. 115.

[896] Law et al. (1998), p. 749.

[897] Cf. Wetzels et al. (2009), p. 178 and the there cited literature.

[898] Cf. Becker et al. (2012), pp. 359 ff. This reference specifically addresses reflective-formative higher order constructs. Some main ideas and basics regarding this paper are discussed by Petter et al. (2012), p. 359; Wetzels et al. (2009), pp.177 ff.; Jarvis et al. (2003), pp. 199 ff.

construct, 'Culture' (dependent variable). In the case of both layers, the same indicators are used to measure, and it is important that the number of indicators on both layers is equal. Moreover, each of the first-order constructs has to be measured by the same number of indicators. (This approach is called the *repeated indicator approach,* which is recommended in reflective-formative relationships.)[899] As a result, the lowest loading item of the construct of universalism is omitted (UNIV_3_v_159). Reducing the number of items measuring universalism to two, does not interfere with analysis, because the indicators are reflective, and therefore interchangeable. In particular, the postulated multi-item measuring approach holds true.

Finally, taking all these into account, the remarks by BECKER ET AL. (2012) on the changing meaning of loadings and weights in hierarchical-order constructs are emphasised. 'What distinguishes the assessment of higher-order constructs from that of first-order constructs is the role of the weights and loadings in the analysis: they are not obtained from the relations between higher-order construct and manifest variables, but are obtained from the relations between higher-order construct and lower-order constructs. This distinction is especially important if the repeated indicator approach is used, as the weights and loadings are now represented by the path coefficients between higher-order and lower-order constructs, and not by the manifest indicators that are repeated at the construct level.'[900] Figure 31 illustrates in detail the second-order concept. In regard to this figure and to both following, the full names of indicator abbreviations can be found in Table 24.

---

[899] Cf. Becker et al. (2012), pp. 363 ff.; Hair et al. (2014b). pp. 230 ff.
[900] Becker et al. (2012), p. 378.
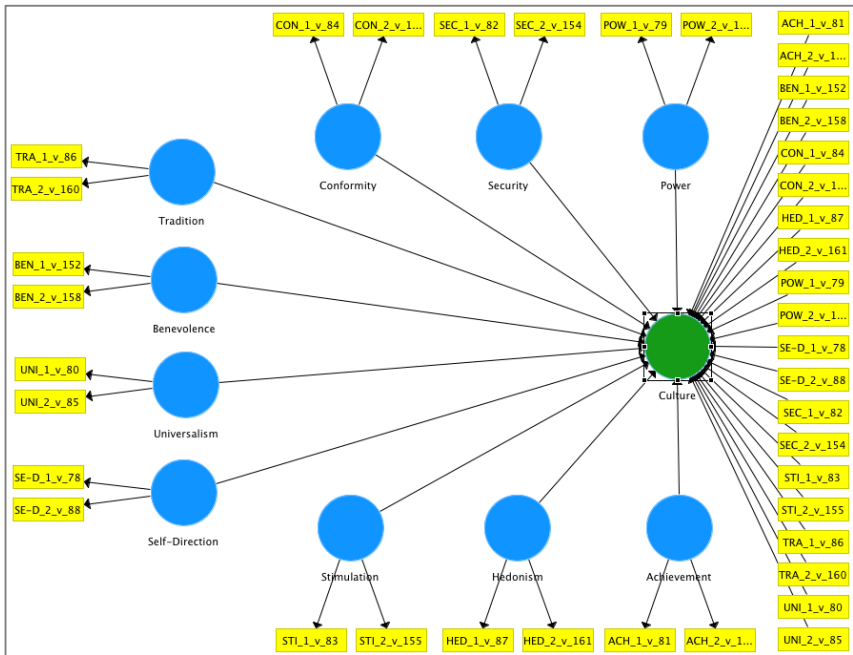
Figure 31: Reflective-Formative Second-Order Model
Reference: Author´s illustration.

With regard to the testing of the hypotheses, the hierarchical modulation enables the assessment of whether the construct of interest is generally affected by values, and additionally by what values, with what relative effect; indicated by the total effect of the path. Finally, it must be mentioned that using this reflective-formative second-order concept requires the use of the factor- or path-weighting scheme; as previously shown, the latter is applied in this research. With regard to the quality evaluations, the same criteria for assessing measurement models must be met, as generally recommended for constructs and paths in PLS-path models.[901] Building up on the concepts mentioned above, the resulting *technically required* path model is shown in Figure 32**.**

---

[901] Cf. Hair et al. (2014b), p. 231.
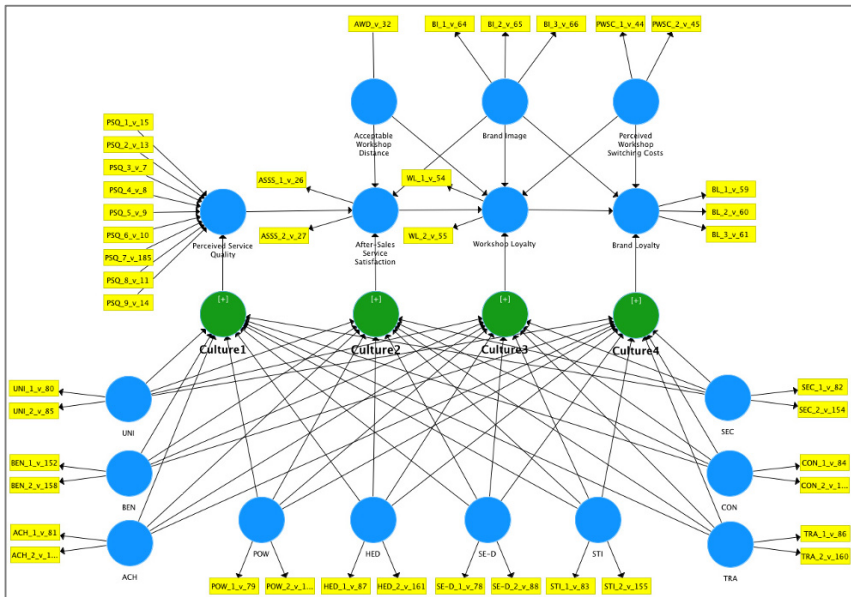
Figure 32: Technically Required PLS Path Model including the Measuring Items
Reference: Author´s illustration.

In order to deliver a clear report, a simplified path model without measuring items, and with just one symbolic auxiliary variable, 'Culture1–4', is presented in Figure 33, and used afterwards, as well. The relationships (arrows) of the constructs of interest visualise the hypotheses, which will be tested empirically (cf. Figure 25).
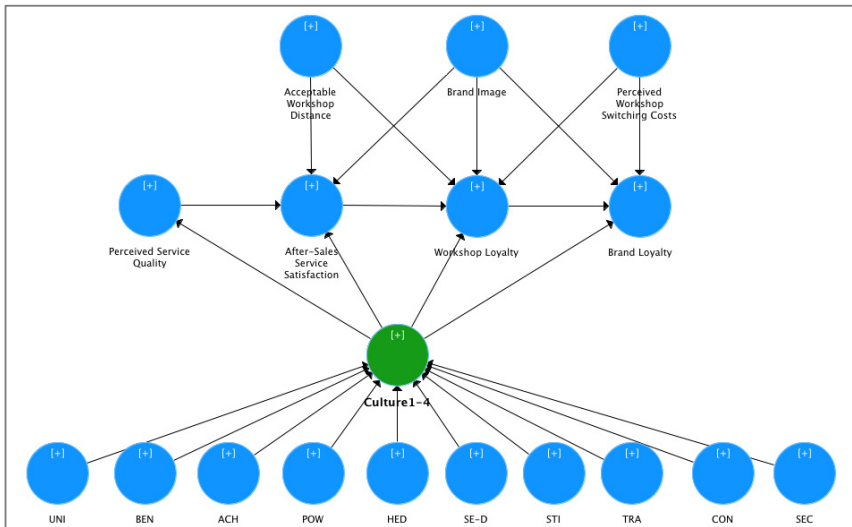
Figure 33: PLS Path Model
Reference: Author´s illustration.

When the path model is established, the next required step is to *evaluate the outer measuring models*, which is done in the following two Chapters. Here, it is crucial to distinguish between *reflectively* and *formatively* measured constructs.[902] Afterwards in Chapter 5.3.3 the structural model is evaluated. All required evaluations are discussed in detail in the chapters mentioned. Additionally, it must be considered that the construct acceptable workshop distance is measured by only one item. This approach is applicable, but comes with some limitations. As a result, some quality criteria cannot be applied. Consequently this is marked n/a ('not applicable').

Table 28 provides an overview of all required tests, applied thresholds, and their sequence.

---

[902] Cf. Hair et al. (2014a), pp. 109 f.; Diamantopoulos/Winkelhofer (2001), pp. 269 ff.; Chapter 5.2.2.1, Specification of Measuring Models.

Systematic Evaluation of PLS-SEM Results		
Evaluation of the Measuring Models		
Chapter 5.3.1, Reflective Measurement Models	*Chapter 5.3.2, Formative Measurement Models*	
Internal Consistency • Composite Reliability • ρ_c= 0.7-0.9	Content Validity	Evaluation of the underlying theory
Convergent Validity • Indicator Reliability • >0.708 (Significance) (α 0.05 level) • Average Variance Extracted • >0.5	Multicollinearity among Indicators (VIF)	<3.3
Discriminant Validity • No Cross Loadings • Distance>0.1 • Fornel-Larcker-Criterion • √AVE>Φ	Significance and Relevance of Outer Weights (If weights are not Significant → Outer Loadings)	t-value>1.96 >0.5
Chapter 5.3.3, Evaluation of the Structural Model		
Multicollinearity Testing	VIF<3.3	
Size and Significance of Path Coefficients	β>0.1 & t-value>1.96 (1.65)	
Coefficient of Determination (R^2)	Min. >0.25; >0.5; >0.75	
f^2 Effect Size	Min. >0.02; >0.15; >0.35	
Cross-Validated Redundancy (Q^2)	>0	
q^2 Effect Size	Min. >0.02; >0.15; >0.35	

Table 28: Systematic Evaluation of PLS-SEM Results

Reference: Author´s table referring to Hair et al. (2014b), p. 97; The quality criteria references are provided in the following Chapters at each relevant place.

5.3.1 Evaluation of Reflective Measuring Models

The *quality control* of *reflective measurement* models is divided in first- and second-generation criteria. Both reliability[903] and validity[904] have to be tested. First-generation criteria are mainly correlation-based reliability tests. Due to problems such as that measuring errors cannot be estimated, it is strictly required to apply criteria of the second generation. They are based on confirmatory factor analysis and allow a variety of validity tests and the consideration of measuring errors.[905] Within the next sections, every evaluation approach is explained, and applied thresholds are presented.

---

[903] 'Reliability: is the consistency of a measure. A measure is reliable (…) when it produces consistent outcomes under consistent conditions' Hair et al. (2014b), p. 116.

[904] 'Validity: is the extent to which a construct's indicators jointly measure what they are supposed to measure.' Hair et al. (2014b), p. 116.

[905] Cf. Weiber/Mühlhaus (2014), pp. 128 ff.; Hair et al. (2014b), pp. 97 ff.

The exhibition of all testing results closes this section with a summarising table, in order to provide a comprehensive overview (s. Table 29).

Internal Consistency Reliability

When it comes to SEM reliability testing, often a first-generation approach, the Cronbach´s α reliability test is used, in order to assess reliability via internal consistency.[906] However, this is not without criticism. For instance, the threshold value is debated. Generally 0.7 is recommended,[907] but on the other hand some researchers apply thresholds down to 0.4, and argue well for them.[908] According to CHIN (1998) Cronbach's α might not be the best choice in terms of reliability testing or internal consistency. He states, with regard to composite reliability, 'In comparison to Cronbach´s alpha, this measure does not assume tau equivalency among the measures with its assumption that all indicators are equally weighted. Therefore, alpha tends to be a lower bound estimate of reliability, whereas (..) [composite reliability] is a closer approximation under the assumption that the parameter estimates are accurate.'[909]

With regard to the issues mentioned, it is advisable to apply *composite reliability* (CR) tests – a second-generation approach – to evaluate the construct measures' internal consistency, because it overcomes major limitations, such as the assumption of equal outer loadings,[910] and as it is 'in line with the working principle of PLS-SEM'.[911] CR values can vary between zero and one, and according to various authors, reliability is given, if the threshold of 0.7 is reached.[912] Sometimes a value of 0.6 is proposed as acceptable,[913] but as this recommendation is based on BAGOZZI/YI (1988), it should only be used in exploratory research settings.[914] Moreover, values above 0.9 and for sure above 0.95 indicate that all indicators measure the same phenomenon, and thus are not valid measures of the construct. In this research project the

---

[906] Cf. Straub et al. (2004), pp. 411 ff.; Weiber/Mühlhaus (2014), p. 135 ff.

[907] Cf. ibidem.

[908] Cf. Sobotta (2012), pp. 171 f.; Flake (2001), p. 201; Peter (1997), p. 180.

[909] Chin (1998), p. 320.

[910] Cf. Hair et al. (2014a), p. 111; Lowry/Gaskin (2014), pp. 136 f.; Wong (2013), p. 6/22.

[911] Hair et al. (2014a), p. 111.

[912] Cf. Hair et al. (2014a), p. 111; Lowry/Gaskin (2014), pp. 136 f.; Wong (2013), p. 6/22.

[913] Cf. Weiber/Mühlhaus (2014), p. 150; Hair et al. (2014b), p. 102.

[914] Cf. Wong (2013), p. 21.

conservative range – initially suggested by NUNALLY/BERNSTEIN (1994) – of 0.7 to 0.9 is considered to be appropriate.[915]

- The CR test shows that all reflective items are within the mentioned range, with values between 0.812 (SEC) and 0.9 (ASSS).

Convergent Validity

Convergent validity expresses how much one measuring item of a construct correlates positively with the other items of this construct. As measuring items of reflective constructs are interchangeable or in other words different approaches can measure the same construct, they should share a high proportion of variance. With regard to convergent validity, two tests have to be done. First, the *indicator reliability* by assessing the indicator´s outer loadings; and second, the *average variance extracted* (AVE). If any test shows a lack, it might be necessary to remove an item.[916]

With regard to *indicator reliability*, high *outer loadings* on a construct show that the indicators have much in common. The recommended minimal threshold is 0.708, because in this case the shared variance between the construct and its indicators is larger (>50%) than the measurement error variance.[917] Additionally, outer loadings must be statistically significant, which can be proved by t-statistics.[918] Smart-PLS generates t-statistics as a result of resampling method called bootstrapping.

- The evaluation shows that all indicators have outer loadings above 0.708. The lowest value is 0.761 for BI_3_v_66 and the highest 0.912 for ASSS_2_v_27. Likewise, all outer loadings are highly significant on an α 0.01 level.

Additionally, as initially mentioned, the construct level must be focused. Here, the criterion *average variance extracted* (AVE) is suitable.[919] AVE is defined as the 'grand mean value of squared loadings of the indicators associated with the construct (i.e., the sum of squared loadings divided by the number of indicators)'.[920] As a result – as

---

[915] Cf. Hair et al. (2014b), p. 102 and the there cited literature.
[916] Cf. Hair et al. (2014b), pp. 102 ff.
[917] Cf. ibidem, p. 102 f. ; Chin (2010), p. 674; Krafft et al. (2005), p. 73.
[918] Cf. Lowry/Gaskin (2014), pp. 135 f.; Hair et al. (2014b), p. 102; Gefen/Straub (2005), p. 93.
[919] Cf. Krafft et al. (2005), pp. 74 f.
[920] Hair et al. (2014b), p. 103.

with indicator reliability – an AVE of 0.5 or higher expresses that the construct explains more than 50% of the variance of its indicators.[921]

- The AVE evaluation shows that all constructs far exceed the requirement, with values between 0.664 (BI) and 0.819 (ASSS).

Discriminant Validity

Discriminant validity has to be tested, because this makes it possible to show to what degree a single construct is empirically distinct from the others. Thereby, one option is to check the indicator´s *cross loadings*.[922] Discriminant validity is indicated when the loadings of each indicator on the related construct are higher than cross loadings on other constructs. GEFEN/STRAUB´s (2005) proposal is a bit stricter, because they suggest that the cross loadings should be discriminant by at least a magnitude of 0.1 to indicate discriminant validity. Their threshold is applied in this project.[923]

- As a result, discriminant validity is indicated, because no such cross loadings exist. A detailed table of cross loading values is shown in Appendix 3.

However, the cross loading approach is considered to be relatively liberal,[924] which is why HAIR ET AL. (2014b) recommend the usage of the FORNELL/LARCKER-criterion; established in 1981. Thereby, it is tested, whether the construct has a greater shared variance with its indicators than with any other construct of the model.[925] To test this requirement, the square root of each construct´s AVE should be higher than the highest correlation with any other construct.[926]

- The execution of the FORNELL/LARCKER test indicates strongly, discriminant validity for all constructs. The related table is shown in detail in Appendix 4.

As a result of all evaluations in accordance to reflective measuring models, all criteria are very well fulfilled. Thus internal consistency, convergent validity and discriminant validity are established. Which likewise means that no indicator has to be dropped. Table 29 shows an overview of all the criteria mentioned.

---

[921] Cf. Hair et al. (2014a), pp. 111 f.; Weiber/Mühlhaus (2014), p. 155; Fornell/Larcker (1981), p. 46.
[922] Cf. Chin (2010), p. 673.
[923] Cf. Gefen/Straub (2005), p. 93 f.
[924] Cf. Hair et al. (2014b), p. 105.
[925] Cf. Weiber/Mühlhaus (2014), p. 165; Hair et al. (2014a), p. 112; Gefen/Straub (2005), p. 94.
[926] Cf. Hair et al. (2014a), p. 112; Fornell/Larcker (1981), p. 46.

Overview of the Evaluation of Reflective Measuring Models							
Criteria		Composite Reliability	Indicator Reliability	T-Statistics (Significance)	AVE	No Cross Loadings	Fornell-Larcker-Criterion
Requirement Level		ρ_c= 0.7-0.9	>0.708	>1.96	>0.5	>0.1	√AVE > Φ
Construct	Item						
After-Sales-Service Satisfaction	ASSS_1_v_26	0.9	0.898	63.657***	0.819	√	√
	ASSS_2_v_27		0.912	88.632***		√	√
Workshop Loyalty	WL_1_v_54	0.89	0.903	60.896***	0.802	√	√
	WL_2_v_55		0.888	51.080***		√	√
Brand Loyalty	BL_1_v_59	0.875	0.846	34.958***	0.701	√	√
	BL_2_v_60		0.822	34.678***		√	√
	BL_3_v_61		0.844	38.651***		√	√
Brand Image	BI_1_v_64	0.856	0.869	52.519***	0.664	√	√
	BI_2_v_65		0.812	29.197***		√	√
	BI_3_v_66		0.761	27.889***		√	√
Perceived Workshop Switching Costs	PWSC_1_v_44	0.855	0.887	51.517***	0.747	√	√
	PWSC_2_v_45		0.841	24.450***		√	√
Self-Direction	SED_1_v_78	0.866	0.870	46.293***	0.763	√	√
	SED_2_v_88		0.877	47.218***		√	√
Universalism	UNI_1_v_80	0.881	0.884	55.554***	0.788	√	√
	UNI_2_v_85		0.891	56.416***		√	√
Benevolence	BEN_1_v_152	0.841	0.880	46.416***	0.726	√	√
	BEN_2_v_158		0.823	24.803***		√	√
Tradition	TRA_1_v_86	0.837	0.885	36.801***	0.720	√	√
	TRA_2_v_160		0.811	18,445***		√	√
Conformity	CON_1_v_84	0.835	0.821	22,139***	0.716	√	√
	CON_2_v_156		0.871	42,613***		√	√
Security	SEC_1_v_82	0.812	0.826	21,312***	0.683	√	√
	SEC_2_v_154		0.827	25,256***		√	√
Power	POW_1_v_79	0.839	0.867	31,677***	0.723	√	√
	POW_2_v_157		0.834	23,423***		√	√
Achievement	ACH_1_v_81	0.872	0.885	51,561***	0.773	√	√
	ACH_2_v_153		0.874	42,773***		√	√
Hedonism	HED_1_v_87	0.876	0.878	38,782***	0.779	√	√
	HED_2_v_161		0.887	43,781***		√	√
Stimulation	STI_1_v_83	0.865	0.905	66,257***	0.762	√	√
	STI_2_v_155		0.840	28,529***		√	√
Significance Level *p≤0.1; **p≤0.05; ***p≤0.01							

Table 29: Overview of the Evaluation of Reflective Measuring Models

Reference: Author´s table.

5.3.2 Evaluation of Formative Measuring Models

Due to the different concept of *formative measuring models*, uncorrelated indicators represent the causes for the latent variable, thus different evaluation criteria have to be used (s. Table 28). In the path model of this study, perceived service quality and the auxiliary variables Culture1–4 are formatively measured constructs, which is why they are evaluated in detail below.

Content Validity and Collinearity Among Indicators

First, *content validity* should be assessed, because it must be ensured that the bundle of indicators captures all facets of the construct.[927] This kind of content specification is already done in the conceptual part in Chapter 4.4.2.1, and perceived service quality is a well-known intensively researched construct, which is why the set of indicators is considered to fully exhaust the content domains. Second, the *empirical evaluation* has to be done, starting with testing *collinearity* issues. Because more than two indicators are used to measure perceived service quality, the correlation between indicators is called *multicollinearity*, and is problematic, as formative indicators are independent of each other, explaining different aspects of the construct. Multicollinearity harms the estimation of the weights and their significance.[928]

To assess multicollinearity two aspects can be tested, namely the *tolerance* (TOL= amount of tolerance of one formative indicator not explained by other indicators) and the *variance inflation factor* (VIF). By definition the VIF is the reciprocal of the tolerance: $VIF_{x1} = 1/TOL_{x1}$.[929] With Smart-PLS 3 both aspects can be calculated, but due to their interchangeability only the VIF is reported. The threshold for substantial multicollinearity issues is at VIF values above 5, because this indicates that 80% of the formative indicator´s variance is expressed by the other indicators of the construct of interest. In this case one must consider removing the indicator.[930] Sometimes a very

---

[927] Cf. Hair et al. (2014b), p. 119; Diamantopoulos/Winkelhofer (2001), pp. 271 f.
[928] Cf. Diamantopoulos/Winkelhofer (2001), p. 272.
[929] Cf. Hair et al. (2014b), pp. 124 f.; Lowry/Gaskin (2014), p. 137.
[930] Cf. Hair et al. (2014b), p. 125.

conservative VIF threshold of 3.3 is recommended, and still the traditional, but loyal threshold of 10 is mentioned.[931]

- The particular evaluation shows that the highest VIF value is 2.820 and thus all indicators are well below the common threshold of 5, and the conservative one of 3.3.

Significance and Relevance of Outer Weights

Second, because no multicollinearity issues exist, *significance of the outer weights*, and the *absolute* and *relative contribution* (relevance) have to be analysed. In order to do this, the bootstrapping procedure is conducted so that every indicator´s weight (relative relevance) can be assessed with regard to its significance. However, a non-significant indicator is not necessary unimportant, thus if an outer weight is non-significant, the outer loading has to be assessed. If the outer loading is above 0.5 the indicator is considered to be absolutely important, but not relatively important. As a result it must be retained. Finally, formative indicators should never be eliminated only on the basis of pure statistics; the theory must always be evaluated simultaneously, if such a case occurs.[932]

- The outer weights of the construct of perceived service quality are, with two exceptions, significant on an α 0.05 level. Only PSQ_7_v_185 and PSQ_3-_v_7 fail with a t-value of 0.703 and 1.793. However, the outer loadings of 0.596 and 0.624 (both significant on an α 0.001 level) and the theoretical contribution (adding important content dimensions) clearly indicate that these indicators should be retained, even they appear to be making more of an absolute than a relative contribution.

- The outer weights of the second-order constructs Culture1–4 are almost all non-significant on the α 0.05 level. However, the elimination of non-significant indicators would clearly be the wrong decision. First, because the measuring indicators of the second-order construct are the first-order latent variables, which fulfil all evaluation criteria very well (cf. Chapter 5.3.1). Second, the VIF analysis strongly indicates to retain all indicators. Third, the well-grounded

---

[931] Cf. Weiber/Mühlhaus (2014), p. 263; Lowry/Gaskin (2014), p. 137. Diamantopolous/Siguaw (2006), p. 270; Petter et al. (2007), p. 641.

[932] Cf. Hair et al. (2014b), pp. 126 ff.; Weiber/Mühlhaus (2014), pp. 265 f.; Diamantopolous/Siguaw (2006), p. 276.

theory of individual level values by SCHWARTZ strongly rules against discarding any indicator. Finally, in this context, it must be emphasised that the second-order hierarchical construct is an auxiliary variable, used to keep the path-model of parsimony. Partly, the content of the inherent facets is contrary, but this does not matter, because it is *not* the auxiliary construct culture that has to be explained. Indeed, the focus is on the total effect of the first-order constructs on the targeted latent variables, such as perceived service quality. As a result the no indicator is discarded. Nonetheless, for the sake of completeness, the significance assessment is presented in Table 30.

As a final result of all evaluation criteria, all formative measuring indicators are retained. The pure statistical figures are shown in detail in Table 30.

Overview of the Evaluation of Formative Measuring Models				
Criteria		**VIF**	**Outer Weight**	**t-value**
Requirement Level		**<3,3**	**n/a**	**1.96**
Construct	**Indicator**			
Perceived Service Quality	PSQ_1_v15	1.382	0.142**	2.032
	PSQ_2_v13	1.583	0.280***	3.947
	PSQ_3_v_7	1.565	0.108*	1.793
	PSQ_4_v_8	1.565	0.199***	2.963
	PSQ_5_v_9	1.914	0.206***	2.766
	PSQ_6_v_10	2.058	0.147**	2.059
	PSQ_7_v_185	1.875	-0.047	0.703
	PSQ_8_v_11	1.500	0.234***	3.481
	PSQ_9_v_14	1.718	0.184***	2.773
Culture1	ACH	2.513	-0.225	1.384
	BEN	2.679	0.058	0.333
	CON	2.366	0.212	1.586
	HED	2.595	0.169	1.031
	POW	1.748	-0.021	0.171
	SE-D	2.820	0.311**	2.041
	SEC	1.898	0.190	1.436
	STI	1.931	0.231	1.621
	TRA	1.691	-0.075	0.701
	UNI	2.563	0.340**	2.319
Culture2	ACH	2.513	-0.116	0.584
	BEN	2.679	0.261	1.239
	CON	2.366	0.020	0.109
	HED	2.595	0.079	0.383
	POW	1.748	0.048	0.325
	SE-D	2.820	0.200	1.035
	SEC	1.898	0.190	1.175
	STI	1.931	0.036	0.193
	TRA	1.691	-0.146	1.119
	UNI	2.563	0.565***	3.171
Culture3	ACH	2.513	0118	0.706
	BEN	2.679	0.174	0.840
	CON	2.366	0.016	0.102
	HED	2.595	0.012	0.075
	POW	1.748	0.003	0.025
	SE-D	2.820	0.281	1.603
	SEC	1.898	0.174	1.126
	STI	1.931	0.026	0.169
	TRA	1.691	-0.157	1.261
	UNI	2.563	0.482***	2.904
Culture4	ACH	2.513	0.093	0.665
	BEN	2.679	-0.060	0.388
	CON	2.366	0.048	0.323
	HED	2.595	-0.074	0.600
	POW	1.748	0.147	1.336
	SE-D	2.820	0.400***	2.950
	SEC	1.898	0.163	1.331
	STI	1.931	0.164	1.271
	TRA	1.691	0.224*	1.937
	UNI	2.563	0.202	1.487
Significance Level *p≤0.1; **p≤0.05; ***p≤0.01				

Table 30: Overview of the Evaluation of Formative Measuring Models

Reference: Author´s table.

5.3.3 Evaluation of the Structural Model

The operationalisation of all constructs was proved in the previous section, therefore now, the *quality of the structural model* can be assessed. In order to do this, initially, it must be emphasised that PLS-SEM does not provide a goodness-of-fit criterion as with CB-SEM. Instead, various single evaluations have to be performed, and they must be interpreted in total to understand the entire context on which the structural model is finally assessed.[933] The key criteria to evaluate the structural model are: the significance of the path coefficients, the level of R^2 values, the f^2 effect size, the predictive relevance Q^2 and the q^2 effect size.[934] Beyond these key criteria, HAIR ET AL. (2014a;b) strongly recommend beginning with a collinearity assessment of the structural model; particularly if the path model contains formatively measured constructs.[935] The evaluation of the path coefficients will be conducted after the general assessment of the model, because one also has to empirically test the postulated hypothesises; which will be discussed in Chapter 5.4.1.

Collinearity Issues of the Structural Model

The evaluation starts by assessing *collinearity*. Here, the same measures and thresholds as those that are relevant for formative measuring models can be applied (s. Chapter 5.3.2), thus VIF values below five or very conservative below 3.3 are considered to be suitable. In fact every predictor construct must be checked separately.[936]

- Actually all predictor constructs have VIF values below the conservative threshold of 3.3. The highest VIF value of the entire model (2.82) is the VIF of Culture1–4 and their relation to SE-D. The detailed VIF table for the structural model is presented in Appendix 5.

Coefficient of Determination (R^2)

The *coefficient of determination* R^2 is the most often used measure for the structural model; showing the model´s predictive accuracy. It is calculated by the squared cor-

---

[933] Cf. Hair et al. (2014b), pp. 168 f.
[934] Cf. ibidem, p. 169; Weiber/Mühlhaus (2014), pp. 326 ff.; Chin (2010), pp. 674 ff.; Krafft et al. (2005), pp. 83 ff.
[935] Cf. Hair et al. (2014a), p. 113.
[936] Cf. Hair et al. (2014b), p. 170.

relation of the actual and predicted values of an endogenous construct. Due to that, the R^2 also shows the variance of a construct explained by its predecessor constructs. This measure ranges from zero to one, where higher values indicate a higher predictive accuracy.[937] In marketing-related or success-driver studies commonly the R^2 thresholds 0.75, 0.5 and 0.25 are considered to be substantial, moderate and weak, respectively.[938] Notably, lower thresholds are also applied, even in the mentioned field.[939] However, relying on a conservative approach, the first-mentioned stricter thresholds are used here.

- All endogenous constructs of the path model have sufficient R^2 values, where satisfaction and loyalty constructs show a moderate predictive accuracy. The perceived service quality has the lowest R^2 value with 0.361, which is considered to be weak, but satisfactory.

- An R^2 evaluation of the variables Culture1–4 is not required, because these auxiliary variables do not claim to explain culture. They are just used to properly model the total effects of individual level values. Thus, no R^2 values are interpreted and reported.[940]

In order to give an additional overview, the R^2 compound is addressed. The R^2 contribution of every exogenous construct can be calculated with regard to a specific endogenous construct by multiplying the correlation with the path coefficient. The sum of all these calculations is the R^2 of the endogenous variable. This split is shown in Table 31, where figures are rounded, and therefore may slightly vary from the original (total) R^2, which is presented in the first row.

---

[937] Cf. Hair et al. (2014b), pp. 174 f.; Chin (2010), pp. 674 f.

[938] Cf. Hair et al. (2011), p. 147.

[939] Cf. Hünecke (2012), p. 120; Sobotta (2012), p. 182.

[940] Technically the R^2 of Culture 1–4 is almost one, because the second-order auxiliary variable is – theory conform – fully explained by its first-order constructs.

R² Distribution			
	After-Sales Service Satisfaction	Workshop Loyalty	Brand Loyalty
Total R²	0.633	0.643	0.648
Culture1–4	0.5%	8.7%	14.8%
AWD	0.0%	0.2%	
BI	9.9%	10.4%	10.5%
PSQ	52.8%		
PWSC		0.8%	17.6%
ASSS		44.3%	
WL			21.9%

Table 31: R² Distribution

Reference: Author´s Table.

f^2 Effect Size

In addition to the coefficient of determination, *the effect size f^2* is highly valuable, in order to evaluate the model properly. The f^2 determines the substantive impact (effect size) of an exogenous variable on an endogenous variable. Thereby, the R^2 value is calculated twice, once by omitting the exogenous variable from the model, and once by taking it into account. Thus f^2 provides information about whether the omitted construct has a substantive effect on the endogenous variable. Likewise, thresholds 0.02, 0.15 and 0.35 – initially suggested by Cohen (1988) – indicate small, medium and large effects sizes respectively.[941] Below, the most remarkable effect sizes towards endogenous constructs are mentioned, and likewise summarised in Table 32.

The detailed presentation of all numbers – which includes as well the effect sizes on Culture 1–4, takes place in Appendix 6. Because, in contrast to the constant and in its absolute value not meaningful R^2, the relative f^2 values are meaningful and therefore reported, as different individual level values are related to distinct effect sizes, depending on the endogenous construct. However, their meaning is only of importance with regard to the total effects analysed later, and not as quality criteria of the structural model or, more precisely, of its auxiliary variables.

---

[941] Cf. Hair et al. (2014b), pp. 177 f.; Hair et al. (2012), p. 430; Chin (2010), p. 675.; Krafft et al. (2005), p. 84.

- The perceived service quality has only one exogenous latent variable. Actually, Culture1´s effect size f^2 is 0.566, which is considered to be a large effect size.

- The exogenous variable of perceived service quality has the largest effect size on after-sales service satisfaction, with an f^2 of 0.643. Culture2 and acceptable workshop distance both fail to reach the minimum f^2 threshold of 0.02; thus they are assessed as effectless.

- With regard to workshop loyalty, the antecedent after-sales service satisfaction is by far the most important, because its effect size is large (0.552). Again, two exogenous constructs do not exceed the threshold to reach a small effect, namely the acceptable workshop distance and the perceived workshop switching costs.

- By contrast, perceived workshop switching costs has the biggest f^2 (0.210) on brand loyalty, and therefore the effect size is classified as a medium.

Cross-Validated Redundancy (Q^2)

The *predictive relevance* of the path model with regard to a particular endogenous construct is assessed by the *cross-validated redundancy* measure, Q^2. 'The measure builds on a sample re-use technique, which omits a part of the data matrix, estimates the model parameters and predicts the omitted part using the estimates. The smaller the difference between predicted and original values the greater the Q^2 and thus the model's predictive relevance.'[942] In order to calculate Q^2 via SmartPLS 3 the *blind-folding procedure* is conducted.[943] Due to the research of STONE (1974) and GEISSER (1974), the applicable criterion is called the STONE/GEISSER-criterion.[944] A $Q^2 > 0$ indicates that the model has predictive relevance for the particular endogenous construct of interest here. In contrast, values below zero indicate that the model has no predictive relevance.[945] However, the relative quality of prediction cannot be assessed with the cross-validated redundancy analysis.[946] Finally, it must be men-

---

[942] Hair et al. (2014a), p. 113.
[943] Cf. Chin (2010), p. 680, An overview about this technique is provided by for instance Hair et al. (2014b), pp. 178 ff.
[944] Cf. Chin (2010), pp. 680 ff.
[945] Cf. ibidem, p. 680; Hair et al. (2011), p. 145.
[946] Cf. Hair et al. (2014a), pp. 113 f.; Sarstedt et al. (2014), p. 156.

tioned that the Q^2 measure is only applicable on reflectively measured latent varia-
bles.[947]

- Within the path model, all endogenous, reflectively measured constructs ex-
  ceed the required >0 threshold very well (s. Table 32).

q^2 Effect Size

As mentioned previously the Q^2 measure does express anything about the quality of
prediction,[948] but analogously to the f^2 measure, the q^2 effect size can be used as a
representation of the relative impact of one exogenous construct of the structural
model on an endogenous variable.[949] The recommended thresholds for the evalua-
tion of the relative impact of the predictive relevance are likewise 0.02, 0.15 and 0.35,
which indicate a small, medium or large q^2 effect size on the endogenous latent vari-
able.[950] Analogue to Q^2, q^2 can only be applied at single-item and reflectively meas-
ured, endogenous constructs, thus in Table 32 no figures are shown for PSQ and the
reflective-formative specified second-order constructs Culture1–4.

- BI has no predictive relevance on workshop loyalty, because the minimal q^2
  threshold is not exceeded. All other relationships are assessed as having a
  small q^2 effect size on the endogenous constructs of interest in this study.

As a result of the applied evaluation criteria, the structural model is considered to be
pretty good, because it shows predictive accuracy and relevance by well exceeding
all R^2 and Q^2 requirement levels. Remarkably, the brand loyalty success indicator
has particularly good expressiveness, because 64.8% of the construct´s variance is
explained by its linked endogenous constructs. This section closes with an overview
of all relevant or required quality criteria (s. Table 32). In the table arrows are an ex-
pressions of an exogenous construct´s direction towards the target construct.

---

[947] Cf. Hair et al. (2014b), p. 178.
[948] Cf. Sarstedt et al. (2014), p. 156.
[949] Cf. Chin (2010), p. 680; Henseler et al. (2009), pp. 303 ff.; Sarstedt et al. (2014), p. 156.
[950] Cf. Hair et al. (2014b), p. 184.

Overview of the Evaluation of the Structural Model					
Criteria		R^2	f^2	Q^2	q^2
Construct ↓	**Requirement Level**	Min. >0.25; >0.5; >0.75	Min. >0.02 >0.15; >0.35	>0	Min. >0.02 >0.15; >0.35
Perceived Service Quality		0.361	→ASSS: 0.643	n/a	n/a
After-Sales-Service Satisfaction		0.633	→WL: 0.552	0.491	→WL: 0.059
Workshop Loyalty		0.643	→BL: 0.180	0.492	→BL: 0.033
Brand Loyalty		0.648		0.427	
Brand Image			→ASSS: 0.033 →WL: 0.034 →BL: 0.034		→ASSS: 0.051 →WL: -0.003 →BL: 0.024
Perceived Workshop Switching Costs			→WL: 0.001 →BL: 0.210		→WL: -0.020 →BL: 0.068
Acceptable Workshop Distance			→ASSS: 0.000 →WL: 0.003		→ASSS: -0.020 →WL: 0.031

Table 32: Overview of the Evaluation of the Structural Model

Reference: Author´s table.

5.4   Results of the Empirical Assessment

The empirical evaluation of measuring models and of the structural model shows that this survey, with its applied structural equation modelling approach, fits all the requirements of empirical social research, which is why the hypotheses can be tested to provide new and valuable scientific knowledge.

5.4.1   Hypotheses Testing

The estimates for structural relationships, the *path coefficients* (β), represent the hypothesised relationships, which can vary mathematically between -1 and 1 (standardized values). The closer it is to one the stronger is the relationship, the closer to zero the weaker, and vice versa for negative values. Notwithstanding that strong relationships are mostly significant, every path has to be proved assessing the standard error with the bootstrapping routine – for instance by using the t-values. In this study two thresholds are applied. The entire automobile context has to be significant on an α 0.05 level. As the cultural context is more explorative, here the less conservative,

but often applied, α 0.1 level is used,[951] when it comes to testing hypotheses via total effects. Moreover path coefficients within the model are comparable and therefore their relevance can be assessed. This is required, because sometimes relationships with a minor relevance are significant, nonetheless they might be unimportant.[952] In this empirical study – as recommended in HAIR ET AL. (2014b) – only relevant effects are considered to be sufficient to accept a hypothesis;[953] therefore a threshold for the path coefficient´s strength of 0.1 is applied.[954]

As a result, hypotheses are rejected for the following reasons. First, if the empirical relationship has a different direction from the hypothesised one, which is expressed by an opposing algebraic sign. Second, if the path coefficient´s strength is below 0.1. Third, if the relationship is not significant. Fourth, if at direct effects the effect size f^2 is not considered to be at least small, which marks the minimum. The effect size f^2 for the total effects is not applicable and therefore marked with n/a. Finally, with regard to the cultural part, the direct effect of the second-order constructs, Culture1–4, towards the endogenous constructs is used to test the hypotheses H10-H13. The related subsequent hypotheses a-k are tested via the total effects of the first-order constructs, the individual level values. If – in this hierarchical structure – the main relation fails to satisfy any of these criteria, the subsequent hypotheses are likewise rejected. Below, all hypothesised relationships are tested and, at the end of this section, Table 33 gives an overview of all hypotheses. Here, criteria which lead to rejection, are marked in italics.

- The theoretically postulated positive relationship between after-sales service satisfaction and workshop loyalty (H1) is empirically confirmed, very strongly, and highly significantly, on an α 0.01 level.
- H2, which postulates a positive relationship between workshop loyalty and brand loyalty, is also empirically confirmed, but the path coefficient's strength is almost 43% weaker than the relationship H1. Nonetheless, this relationship is considered to be important.[955] Moreover, workshop loyalty is the strongest driver of the brand loyalty success indicator in the entire path model.

---

[951] Cf. Hünecke (2012), p. 127; Knörle (2011), p. 202; Hair et al. (2014b), p. 138.
[952] Cf. Hair et al. (2014b), p. 173; Chin (2010), pp. 676 f.
[953] Cf. Hair et al. (2014b), p. 173.
[954] Cf. Weiber/Mühlhaus (2014), p. 331; Sobotta (2012), p. 190; Hünecke (2012), p.127.
[955] Cf. Weiber/Mühlhaus (2014), p. 326.

- The relationship between perceived service quality and after-sales service satisfaction has the strongest path coefficient (0.673) of the entire model. Consequently H3 is accepted and highly significant.

  o Because perceived service quality is measured formatively, additional information can be derived, to explain which are the most important drivers of this construct. Such findings are particularly relevant, with regard to managerial implications, because every item is comparable to the after-sales service instruments of the marketing mix.[956]

  o Remarkably, the price or costs, a dimension that is often considered crucial, is not the most important driver for perceived service quality in China. It is only at position seven out of nine.

  o The most important aspects are at first convenience with a weight of 0.280, followed by the appearance of the facility (0.234), and third honesty and integrity (0.206).

  o The ability to do the job on time is the least important dimension, having a small negative weight of -0.047 towards perceived service quality.

- Workshop switching costs have been postulated to predict workshop and brand loyalty, but only the relationship to brand loyalty is significant. As results H4 is rejected, H5 is accepted, and perceived switching costs can be considered a relevant antecedent of brand loyalty, as the effect size f^2 is medium.

- H6 and likewise the two sub-hypotheses H6a and H6b must be rejected, because neither a significant relationship, nor any relevant f^2 or q^2 contribution exists. This construct does not, in any case, contribute to the research model.

- Brand image contributes with a significant path coefficient of 0.162 and a small effect size f^2 towards after-sales service satisfaction; thus H7 is empirically confirmed.

- Actually, with similar characteristics H8 and H9 are accepted; thus brand image contributes positively towards workshop and brand loyalty.

- Notably, the success indicator brand loyalty, is the latent variable with the highest R^2 of the entire path model, which means that brand loyalty is explained by all linked exogenous variables with a variance of 64,8%.

---

[956] Cf. Chapter 4.4.2; All related measures are presented in Table 30.

- Within the culture related hypotheses testing, perceived service quality is the strongest culturally affected construct. The relationship theorised in H10 is highly significant and empirically confirmed.

- The detailed view of the subsequent hypotheses, H10a-k, shows that most of the individual level values do not predict a significant effect on the perceived service quality. However, H10d is accepted, thus universalism is a value which is quite relevant (β=0.205) when it comes to perceived service quality. Moreover self-direction contributes positively with a path coefficient of 0.187, but only on an α 0.1 level.

- The latent variable, after-sales service satisfaction, is not significantly influenced by any individual level value, so H11 and the subsequent hypothesised relationships are rejected. Nonetheless, this is valuable information, useful for determining what parts of the automobile after-sales success chain are influenced by cultural effects.

- Brand loyalty is very significantly influenced by culture, which is why H12 is accepted. Here, self-direction is the most important individual level value, with a positive directed path coefficient of 0.136. Likewise, universalism is of relevance (0.101), but on an α 0.1 significance level. The remaining hypotheses, H12a-c and H12f-k, are rejected, as no empirical support is given.

- Finally, workshop loyalty – as the main driver of the brand loyalty success indicator – is significantly predicted by one individual level value, namely universalism (β=0.158), thus H13 and H13d are accepted. Consequently, the remaining sub-hypotheses are rejected, due to their insignificance.

The testing results of all hypotheses are summarised in a comprehensive overview, which follows in Table 33.

No.	Hypothesis	β ≥0.1	t-value ≥1.96 (≥1.65)	f² ≥small	All criteria fulfilled
	Overview of Hypothesis Testing				
	Criteria Requirement Level	β ≥0.1	t-value ≥1.96 (≥1.65)	f² ≥small	All criteria fulfilled
No.	**Hypothesis**				**Result**
H1	**The higher the after-sales service satisfaction, the higher the workshop loyalty.**	0.578***	7.733	Large	**Accepted**
H2	**The higher the workshop loyalty, the higher the brand loyalty.**	0.331***	5.453	Medium	**Accepted**
H3	**The higher the perceived service quality, the higher the after-sales service satisfaction.**	0.673***	10.723	Large	**Accepted**
H4	**The higher the perceived workshop switching costs, the higher the workshop loyalty.**	*0.022*	*0.448*	*x*	*Rejected*
H5	**The higher the perceived workshop switching costs, the higher the brand loyalty.**	0.305***	5.720	Medium	**Accepted**
H6	**There is a relationship between acceptable workshop distance and after-sales service satisfaction or workshop loyalty.**	*x*	*x*	*x*	*Rejected*
H6a	The shorter the acceptable workshop distance (AWD), the higher the after-sales service satisfaction.	*-0.003*	*0.143*	*x*	*Rejected*
H6b	The shorter the AWD, the higher the workshop loyalty.	*0.031*	*1.032*	*x*	*Rejected*
H7	**The higher the brand image, the higher the after-sales service satisfaction.**	0.162**	2.523	Small	**Accepted**
H8	**The higher the brand image, the higher the workshop loyalty.**	0.165***	2.629	Small	**Accepted**
H9	**The higher the brand image, the higher the brand loyalty.**	0.162***	2.730	Small	**Accepted**
H10	**Perception of service quality is significantly influenced by culture, which means by at least one individual level value.**	0.601***	14.982	Large	**Accepted**
H10a	Perception of service quality is significantly influenced by conformity.	0.127	*1.239*	n/a	*Rejected*
H10b	Perception of service quality is significantly influenced by tradition.	*-0.045*	*0.659*	n/a	*Rejected*
H10c	Perception of service quality is significantly influenced by benevolence.	*0.035*	*0.311*	n/a	*Rejected*
H10d	Perception of service quality is significantly influenced by universalism.	0.205**	2.173	n/a	**Accepted**
H10e	Perception of service quality is significantly influenced by self-direction.	0.187*	1.910	n/a	**Accepted**
H10f	Perception of service quality is significantly influenced by stimulation.	0.139	*1.486*	n/a	*Rejected*
H10g	Perception of service quality is significantly influenced by hedonism.	0.102	*0.962*	n/a	*Rejected*
H10h	Perception of service quality is significantly influenced by achievement.	-0.135	*1.290*	n/a	*Rejected*
H10i	Perception of service quality is significantly influenced by power.	*-0.013*	*0.161*	n/a	*Rejected*
H10k	Perception of service quality is significantly influenced by security.	0.114	*1.349*	n/a	*Rejected*
	Significance Level *p≤0.1; **p≤0.05; ***p≤0.01				

	Criteria Requirement Level	β ≥0.1	t-value ≥1.65	f² ≥small	All criteria fulfilled
H11	**After-sales service satisfaction is significantly influenced by culture, which means by at least one individual level value.**	*0.010*	*0.151*	*x*	*Rejected*
H11 a-k	After-sales service satisfaction is significantly influenced by conformity, tradition, benevolence, universalism, self-direction, stimulation, hedonism, achievement, power or security	x	x	x	*Rejected*
H12	**Brand loyalty is significantly influenced by culture, which means by at least one individual level value.**	0.242***	4.141	Small	**Accepted**
H12a	Brand loyalty is significantly influenced by conformity.	*0.029*	*0.511*	n/a	*Rejected*
H12b	Brand loyalty is significantly influenced by tradition.	*0.040*	*0.889*	n/a	*Rejected*
H12c	Brand loyalty is significantly influenced by benevolence.	*0000*	*0.007*	n/a	*Rejected*
H12d	Brand loyalty is significantly influenced by universalism.	0.101*	1.799	n/a	**Accepted**
H12e	Brand loyalty is significantly influenced by self-direction.	0.136**	2.376	n/a	**Accepted**
H12f	Brand loyalty is significantly influenced by stimulation.	*0.059*	*1.182*	n/a	*Rejected*
H12g	Brand loyalty is significantly influenced by hedonism.	*-0.004*	*0.083*	n/a	*Rejected*
H12h	Brand loyalty is significantly influenced by achievement.	*0.011*	*0.193*	n/a	*Rejected*
H12i	Brand loyalty is significantly influenced by power.	*0.034*	*0.754*	n/a	*Rejected*
H12k	Brand loyalty is significantly influenced by security.	0.064	1.301	n/a	*Rejected*
H13	**Workshop loyalty is significantly influenced by culture, which means by at least one individual level value.**	0.157**	2.427	Small	**Accepted**
H13a	Workshop loyalty is significantly influenced by conformity.	*0.052*	*0.792*	n/a	*Rejected*
H13b	Workshop loyalty is significantly influenced by tradition.	*-0.043*	*0.849*	n/a	*Rejected*
H13c	Workshop loyalty is significantly influenced by benevolence.	*0.042*	*0.475*	n/a	*Rejected*
H13d	Workshop loyalty is significantly influenced by universalism.	0.158**	2.152	n/a	**Accepted**
H13e	Workshop loyalty is significantly influenced by self-direction.	0.118	*1.624*	n/a	*Rejected*
H13f	Workshop loyalty is significantly influenced by stimulation.	*0.058*	*0.866*	n/a	*Rejected*
H13g	Workshop loyalty is significantly influenced by hedonism.	*0.042*	*0.578*	n/a	*Rejected*
H13h	Workshop loyalty is significantly influenced by achievement.	*-0.035*	*0.466*	n/a	*Rejected*
H13i	Workshop loyalty is significantly influenced by power.	*-0.004*	*0.073*	n/a	*Rejected*
H13k	Workshop loyalty is significantly influenced by security.	*0.073*	*1.144*	n/a	*Rejected*
	Significance Level *p≤0.1; **p≤0.05; ***p≤0.01				

Table 33: Overview of Hypotheses Testing

Reference: Author´s table.

Figure 34 shows the path model with a summary of all theoretically proposed rela-
tionships, which are also empirically accepted. The strength of each path coefficient
(β) is indicated through the thickness of the arrow. Additionally, the significance level
is reported. The total effects of individual level values are symbolised targeting the
second-order construct, Culture1–4, but the number of the hypothesis indicates the
full relationship – for instance H10d shows a total effect on perceived service quality.
Non-significant relationships are not illustrated.
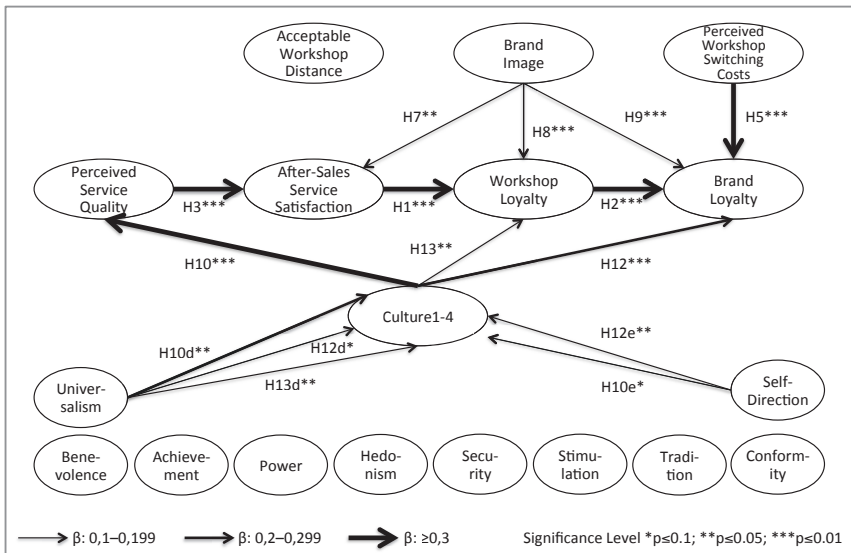
Figure 34: Strength of Empirically Confirmed Hypotheses in the Path Model
Reference: Author´s illustration.

After all hypotheses were tested empirically, an in depth-analysis was conducted, in
order to provide additional information, which enables deeper knowledge and a prop-
er understanding of the entire relevant context. The focus was especially on *mediat-
ing* and *moderating effects*.

5.4.2 Mediating Effects

Mediator variables can be directly implemented within the PLS path model, and their effects are – in contrast to moderator variables (s. Chapter 5.4.3) – automatically considered. However, the resulting path coefficients do not allow the assessment of the character and strength of mediating effects, as only the final results are presented. Mediation occurs if the effect of an exogenous latent variable (i.e. Y1) is partly or completely directed toward an endogenous latent variable (Y2) by means of the mediator variable (Y3), as shown in Figure 35. *Partial mediation* occurs if paths a and b are significant and path c is weaker than without the mediator variable. *Perfect* or *full mediation* occurs if path c becomes so weak through mediation that it is no longer significant. If the direction of a path changes due to mediation (sign change), than a special effect of mediation occurs, namely the *suppressor effect*.[957]
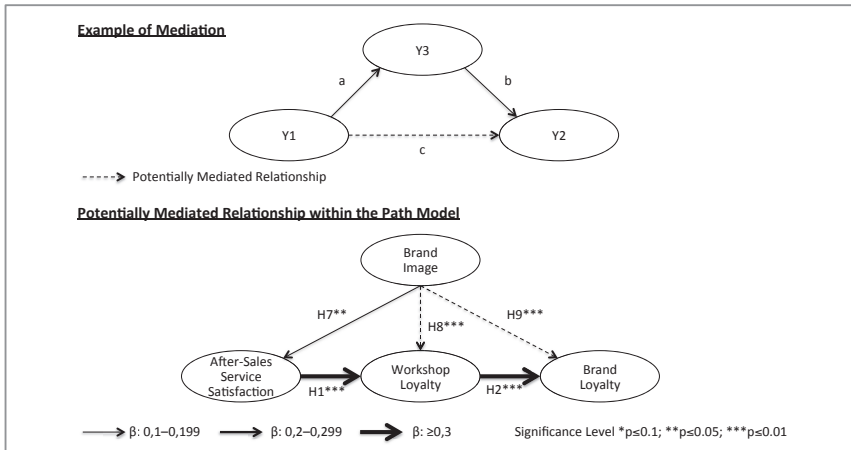
Figure 35: Potentially Mediated Relationships within the Path Model
Reference: Author´s illustration.

In order to explain mediating effects, the *variance accounted for* (VAF) can be calculated by the formula VAF = (a x b) / (a x b + c). The VAF shows the size of an indirect effect (a/b) in relation to the total effect (c), which is the sum of indirect and direct effects. As a result, the endogenous construct's variance can be distinguished with re-

---

[957] Cf. Hair et al. (2014b), pp. 219 ff.; Hünecke (2012), pp. 130 f.; Figure 19: Relationship of Success Variables.

gard to the actual percentage of the direct and the indirect (mediating) relationship. Importantly, a general condition is that the indirect effects have to be significant. A VAF below 20% is considered to be no mediation, 20%-80% is considered partial mediation, and percentages above 80% full mediation. Moreover, the VAF number explains simultaneously how much of the endogenous construct´s variance is explained via the mediator.[958]

As shown by the broken arrows in Figure 35, H8 and H9 are relationships that might be affected by mediation, so the related VAF is calculated.

- VAF (H8) = 0.362, thus after-sales service satisfaction *partially* mediates the direct relationship between brand image and workshop loyalty. Thereby, the mediator variable of after-sales service satisfaction explains 36,2% of the variance of workshop loyalty.
- VAF (H9) = 0.252, so workshop loyalty *partially* mediates the direct relationship between brand image and brand loyalty. Here, the variable workshop loyalty mediator explains 25,2% of the variance of brand loyalty.

5.4.3 Moderating Effects

As discussed in Chapter 4.2.1, *moderator variables* are influences which affect the relationship between independent and dependent variables;[959] in contrast to mediation, a moderator is without being itself a predictor variable. Thereby, strength and direction of any related path coefficient could change. Moderators can generally be known a priori, which is why often control variables such as gender are considered; or they can be completely unknown.[960] Next, the control variables that are defined a priori are checked via multi-group analysis to determine possible moderating effects.

Multigroup Analysis

Multigroup analysis is a kind of *moderator analysis*, where usually categorical data (e.g. gender) are compared to the entire path model.[961] A moderator effect is valid if

---

[958] Cf. Hair et al. (2014b), p. 225.
[959] Cf. Töpfer (2012), pp. 160 f.; Müller (2009), pp. 237 ff.; Sarstedt et al. (2011), 197.
[960] Cf. Hair et al. (2014b), p. 245.
[961] Cf. Hair et al. (2014a), pp. 115 f.; Cf. Sarstedt et al. (2011), p. 198 ff.

the difference of a path coefficient, in accordance with the groups being considered, is significant.[962] For the actual moderator analysis the control variables, which are discussed in Chapter 4.4.4, are used to establish subgroups. Thus, *gender*, *income*, and *age* are of interest in this study and are therefore analysed. Analogue to the main analysis, a sufficient sample size is required to ensure statistical power.[963] Unfortunately, the income groups poor and value, as well as the age group 50–59, are too small, which is why they are excluded. The remaining groups are presented in Table 34.

Groups for PLS-MGA						
Gender	**n**	**Income**	**n**	**Age**	**n**	
Male	198	> 99,000 CNY (mainstream)	87	20-29	87	
Female	103	> 212,000 CNY (affluent)	139	30-39	145	
		> 435,000 CNY (very affluent)	50	40-49	60	

Table 34: Groups for PLS-MGA
Reference: Author´s table.

Unlike previous versions, SmartPLS 3 enables pairwise multigroup analysis directly, by establishing groups and using the PLS-MGA algorithm.[964] PLS-MGA presents a table with actual path coefficient differences with regard to chosen groups, and likewise the p-value, which indicates significance. The same significance levels are applied as are used in hypotheses testing (s. Chapter 5.4.1). With regard to the following tables, for instance, a significant group difference on a 5% level is given, if p-values are above 0.95 or below 0.05. Also, only truly relevant paths are accepted, so the minimum β-threshold of 0.1 is applied. The resulting significant group differences are shown below.

Gender

When it comes to gender comparisons two paths show significant differences (s. Table 35), and interestingly both significant differences are related to individual level

---

[962] Cf. Hünecke (2012), p. 134; Eberl (2010), pp. 496 f.
[963] Cf. Hair et al. (2014b), p. 250.
[964] Cf. For further details on PLS-MGA s. Sarstedt et al. (2011), pp. 195 ff. and the there cited literature.

values or more generally to cultural aspects. Likewise, two drivers for perceived service quality differ significantly, which indicates that for male and female customers different aspects (of the marketing mix) are of importance. As a consequence, R^2 values differ substantially, as presented in Table 35. The conclusion drawn in this study is that gender is a relevant moderator in the given model:

- Two individual level values have path coefficient differences due to gender.
    - UNI predicts perceived service quality much more strongly for female (0.5) than for male customers (0.12).
    - ACH is not a significant predictor in the total model, but for the subgroup, females, it is. The effect is quite significant, because of its extent (-0.28) and its negative direction. Thus, the more ACH is manifested, the fewer females perceive service quality as adequate.
- The comparison of the drivers for perceived service quality shows that the biggest weight difference of 0.523 occurs with regard to the item ability to do the job right. With a weight of 0.306, it is for the group of man a very strong driver towards perceived service quality, but interestingly, for women a likewise strong, but negative one. Less strong, but also important, it is the other way round for the item, ability to do the job on time, where the contribution is negative for men (-0.134) and positive for women (0.221). Thus, depending on gender, distinct dimensions lead to perceived service quality.
- On the construct level, the explained variance is much higher in the female than in the male group. Constructs relating to satisfaction and loyalty are in fact around 30% higher for women, and notably the perceived service quality's R^2 is almost 80% higher for women.

Gender Group Differences				
Path	**β-Difference**	**p-value**	**β-Male**	**β-Female**
UNI → Perceived Service Quality	**0.379**	0.935	0.120	0.500
ACH → Perceived Service Quality	**0.290**	0.096	0.010	-0.280
Weights of Perceived Service Quality	**β-Difference**	**p-value**	**Weight**	**Weight**
PSQ_6_v_10 (Ability to do the job right)	**0.523**	0.001	0.306	-0.217
PSQ_7_v_185 (Ability to do the job on time)	**0.355**	0.995	-0.134	0.221
Construct's R^2	**R^2-Difference**		**R^2-Male**	**R^2-Female**
Perceived Service Quality	**0.276**		0.348	0.624
After-Sales Service Satisfaction	**0.163**		0.577	0.740
Workshop Loyalty	**0.199**		0.588	0.787
Brand Loyalty	**0.201**		0.579	0.780

Table 35: Gender Group Differences

Reference: Author´s table. Results may vary, due to rounding to three decimal places.

Income

The PLS-MGA allows pairwise calculations, but *income* and later age are categories with more than two group characteristics, thus the recommendations of EBERL (2010) are followed, to conduct a series of pairwise multi-group analyses via PLS-MGA.[965] In the process, some general conditions have to be met. The most important of these are that the data should not be too non-normally distributed, each sub model must be valid in terms of the PLS evaluation criteria, and there should be measurement invariance.[966] These conditions are met for the following purposes. In this study the largest subsample is simultaneously compared with other groups, which are presented in Table 36. Generally, much more culture-related differences are significant. Compared with the affluent reference group, the subgroup, *mainstream*, has seven more differences than the *very affluent* subgroup. Next, the most remarkable group differences are discussed.

- AWD is not a significant predictor in the total model, but it is for the very affluent subgroup. Here, AWD has a path coefficient towards workshop loyalty of 0.2.
- Workshop loyalty is for very affluent people less important than in the total model, and much less important (β-difference=0.414) in MGA-comparison to affluent Chinese, thus workshop loyalty effects brand loyalty by only 0.193.

---

[965] Cf. Eberl (2010), pp. 497 ff./507.
[966] Cf. ibidem, pp. 503 ff.

- In the total model only SE-D und UNI are significant individual level values predicting endogenous constructs, but the MGA shows that for subgroups, seven more and distinct values are relevant and significant.
- Very affluent Chinese service customers:
  - HED is a value which affects all automobile-related endogenous constructs significantly, with path coefficients between 0.255 and 0.325.
  - In contrast, and in accordance with the individual level value, theory,[967] BEN negatively predicts brand loyalty (-0.425).
  - The strength of the generally significant total effect of SE-D on perceived service quality (0.822) is remarkably high for the very affluent subgroup.
- Mainstream income subgroup:
  - BEN is an important and positive predictor for perceived service quality, after-sales service satisfaction and brand loyalty.
  - POW shows significant differences and is therefore a factor that contributes to perceived service quality, after-sales service satisfaction and workshop loyalty (0.311; 0.265; 0.234).
  - SEC is only in this subgroup (with comparably low income rates) significant. Surprisingly, it affects both loyalty constructs negatively (-0.287; -0.185).
  - Familiar to SEC, TRA also has significant negative effects. All endogenous constructs except brand loyalty are affected.
- In contrast to the moderator, gender, no significant differences are given, if the formative drivers for perceived service quality are analysed.
- Due to the moderating effects, R^2 values for the automobile-related endogenous constructs differ. Compared with the affluent subgroup, the highest difference (Δ=-0.21) occurs at the comparably low R^2 of the mainstream subgroup (0.548).

---

[967] Both values are on opposite sides of the self-enhancement/self-transcendence axis.

Income Group Differences						
	Afflu- ent	Compared to **Mainstream**			Compared to **Very Affluent**	
Path	β-value	β-Diff.	p-value	β-value	β-Diff.	p-value	β-value
AWD → Workshop Loyalty	-0.040				**0.240**	0.986	0.200
Workshop Loyalty → Brand Loyalty	0.414				**0.221**	0.034	0.193
ACH → Workshop Loyalty	0.100				**0.441**	0.073	-0.340
BEN → Perceived Service Quality	0.034	**0.639**	0.975	0.673			
BEN → After-Sales Service Satisfaction	0.040	**0.547**	0.955	0.587			
BEN → Workshop Loyalty	0.088	**0.423**	0.934	0.511			
BEN → Brand Loyalty	-0.005				**0.420**	0.083	-0.425
HED → Perceived Service Quality	-0.233	**0.386**	0.932	0.153	**0.501**	0.905	0.267
HED→ After-Sales Service Satisfaction	-0.186				**0.511**	0.931	0.325
HED → Workshop Loyalty	-0.202				**0.487**	0.932	0.286
HED → Brand Loyalty	-0.121				**0.376**	0.940	0.255
POW → Perceived Service Quality	-0.136	**0.447**	0.970	0.311			
POW → After-Sales Service Satisfaction	-0.102	**0.367**	0.950	0.265			
POW → Workshop Loyalty	-0.099	**0.333**	0.952	0.234			
SEC → After-Sales Service Satisfaction	0.292	**0.653**	0.009	-0.361			
SEC → Workshop Loyalty	0.265	**0.552**	0.015	-0.287			
SEC → Brand Loyalty	0.227	**0.412**	0.015	-0.185			
SE-D → Perceived Service Quality	0.325	**0.520**	0.016	-0.195	**0.497**	0.906	0.822
SE-D → After-Sales Service Satisfaction	0.263	**0.456**	0.020	-0.193			
SE-D → Workshop Loyalty	0.182	**0.319**	0.072	-0.137			
TRA → Perceived Service Quality	0.024	**0.245**	0.081	-0.220			
TRA → After-Sales Service Satisfaction	0.020	**0.290**	0.040	-0.269			
TRA → Workshop Loyalty	0.010	**0.276**	0.049	-0.350			
Construct's R^2	Afflu- ent	R^2- Diff.		R^2-Main- stream	R^2- Diff.		R^2-Very Affluent
Perceived Service Quality	0.515	**0.004**		0.511	**0.124**		0.639
After-Sales Service Satisfaction	0.690	**0.094**		0.596	**0.018**		0.708
Workshop Loyalty	0.659	**0.051**		0.608	**0.034**		0.693
Brand Loyalty	0.758	**0.210**		0.548	**0.025**		0.733

Table 36: Income Group Differences

Reference: Author´s table; Results may vary, due to rounding to three decimal places.

Age

Based on three age subgroups, some relevant differences occur due to moderating effects.

- BI is a valid predictor of after-sales service satisfaction in the total model, but for the youngest subgroup (20-29) the effect is comparably strong. Moreover, there is no relevant effect or path coefficient for the subgroup of Chinese between 30 and 39.

- The total effect of perceived service quality towards workshop loyalty is significantly stronger for 30-39 year old customers (0.436) than for older customers between 40 and 49 (0.25).

- In contrast to other groups and to the total model, CON significantly influences perceived service quality (0.408), if the youngest subgroup is taken into account.

- Analogously, SEC is an important influence (0.264) only for the age group 40-49.

- With regard to the after-sales services instruments or the formative drivers of perceived service quality, the ease of getting an appointment is fairly important for young Chinese between 20 and 29. In contrast, these customers do not value friendliness of personnel.

- Customers in the age group 40 to 49 show another significant difference: the ability to do the job on time is fairly important.

- On construct level, the highest resulting R^2-difference occurs, when it comes to the comparison of the age groups 40-49 (R^2=0.77) and 30-39 (R^2=0.26).

Age Group Differences						
	Age 30-39	Compared with Age 20-29			Compared with Age 40-49		
Path	β-value	β-Diff.	p-value	β-value	β-Diff.	p-value	β-value
BI → After-Sales Service Satisfaction	0.003	**0.250**	0.965	0.253			
Perceived Service Quality → Workshop Loyalty	0.436				**0.250**	0.047	0.186
CON → Perceived Service Quality	-0.013	**0.422**	0.925	0.408			
SEC → Brand Loyalty	0.000				**0.265**	0.932	0.264
Weights of Perceived Service Quality	β-value	β-Diff.	p-value	β-value	β-Diff.	p-value	β-value
PSQ_3_v_7 (Ease of getting an appointment)	-0.020	**0.339**	0.970	0.319			
PSQ_9_v_14 (Friendliness of personnel)	0.301	**0.375**	0.037	-0.074			
PSQ_7_v_185 (Ability to do the job on time)	-0.146				**0.365**	0.981	0.219
Construct's R^2	Age 30-39	R^2-Diff		R^2-20-29	R^2-Diff		R^2-40-49
Perceived Service Quality	0.260	**0.243**		0.503	**0.510**		0.770
After-Sales Service Satisfaction	0.656	**0.016**		0.640	**0.091**		0.747
Workshop Loyalty	0.589	**0.114**		0.703	**0.142**		0.731
Brand Loyalty	0.667	**0.046**		0.621	**0.124**		0.791

Table 37: Age Group Differences

Reference: Author´s table; Results may vary, due to rounding to three decimal places.

5.4.4 Total Effects and Construct Performances Regarding the Success Indicator

In order to properly explain all influences on the success indicator, the *total effects* need to be assessed. As here brand loyalty is of primary interest, only total effects towards brand loyalty are considered below and summarised in Table 38. The entire total effects table is presented in Appendix 7.

Total effects are the sum of indirect and direct causal effects. PLS-SEM provides the benefit of extending the findings about total effects with regard to any endogenous construct, because an additional dimension can be evaluated – the *importance-performance matrix analysis* (IPMA). '(…) IPMA contrasts the structural model total effects (importance) and the average values of the latent variable scores (*perfor-*

mance) to highlight significant areas for the improvement of management activities (or the specific focus of the model).[968] If for instance, any exogenous construct has a high importance (path coefficient) towards the endogenous variable, but a low performance (indicated by IPMA), then this is a very valuable anchor point for improvements, because there is a lot of headroom, here.

PLS-IPMA directly calculates the performance values, which are indexed varying from zero (lowest performance) to 100 (highest performance). The IPMA analysis via SmartPLS 3 requires that all latent variables be rescaled, with accordance to their original measuring scales. Further information on the details of this algorithm is comprehensively discussed by HAIR ET AL. (2014b).[969]

The rounded performance values are integrated into the following total effects table. In order to provide a good overview, only significant total effects are presented.

- Generally the deviation between the performances of the exogenous constructs is rather low (Δ=11).
- The combined assessment of importance and performance suggests that the variable perceived workshop switching costs is most valuable to be addressed (which is especially important for practitioners), as the lowest performance value of 71 indicates the biggest room for improvement, and also the path coefficient of 0.312 is the model´s second strongest total effect.
- The improvement of brand image would be the last choice, due to this perspective.
- Additionally, it must be emphasised that the two individual level values cannot be changed through management decisions.

---

[968] Hair et al. (2014b), p. 206.
[969] Cf. ibidem, pp. 206 ff.

Total Effects and Performances Towards the Success Indicator Brand Loyalty		
Exogenous Construct	**Total Effect (β)**	**Performance**
Universalism	0.101*	77
Self-Direction	0.136**	77
Brand Image	0.247***	82
Perceived Workshop Switching Costs	0.312***	71
Perceived Service Quality [970]	0.129***	76
After-Sales Service Satisfaction	0.191***	76
Workshop Loyalty	0.331***	77
Significance Level *p≤0.1; **p≤0.05; ***p≤0.01		

Table 38: Total Effects and Performances Towards the Success Indicator Brand Loyalty

Reference: Author´s table.

---

[970] The index figure of this construct is very slightly inaccurately, because one of the nine formative measuring item´s weight is negative on two decimal places. This inaccuracy is ignorable, as it is smaller then the rounding differences.

6 General Discussion

The objective of this work was to investigate theoretically and to verify empirically the determinants of success of after-sales services for German automobile manufacturers in China, under consideration of the influence of cultural factors. This objective and the related research questions have been achieved and comprehensively answered, where especially the in-depth analysis of culture shows that this topic must be analysed pretty much in detail (here moderation is crucial), in order to understand the whole picture properly. The following chapters *summarise this study* (Chapter 6.1), compare and *discuss the empirical findings* with scientific and managerial interpretations (Chapter 6.2), and finally close by considering the *limitations of this study* and the *need for further research* (Chapter 6.3).

6.1 Summary of the Study

Automobile premium brands operate globally, which is undoubtedly required, because, for the most part, domestic markets are either decreasing or stagnating. China has become the most important and biggest car market, with an average growth rate of over 25% between 2000 and 2010. But recently selling has become challenging because urban areas are well penetrated, and in poorly penetrated rural areas, incomes are low. This is particularly alarming for German brands, because of their premium orientation. Simultaneously, the after-sales market in China has been growing continuously. As a result, today this market has huge potential, which is likewise attractive because it has been scientifically proven across industries that after-sales services are high-margin profit drivers. Despite its great significance, the Chinese automobile after-sales market remains insufficiently researched, especially in terms of critical success factors and cultural influences, which therefore was the starting point for this study.

Initially an exploratory expert survey was conducted (s. Chapter 1.2), in order to specify, and to challenge the given problem statement. On this basis, and especially due to an assessment of the state of research on automotive marketing, after-sales services and Chinese consumer behaviour (s. Chapter 2), the objective was formu-

lated to investigate theoretically and to verify empirically what determines the auto-
mobile manufacturer´s success in the Chinese after-sales market, while considering
cultural influences.

In order to elaborate relevant context information, German car manufacturers are
presented and discussed as the object of research (s. Chapter 3). In the light of con-
sumer demands, the role of consumers on both the domestic and the global markets
is illustrated. A China-specific market overview is provided to illustrate the local con-
sumer landscape and important challenges with regard to after-sales services. Based
on that, the three brands, Audi, BMW and Mercedes-Benz are defined as the manu-
facturer group of interest. Due to their market penetration, the empirical research is
focussed on service customers living in urban areas.

In order to elaborate empirical findings and success drivers, a conceptual research
model and a linked system of hypotheses is elaborated in Chapter 4. Here, theoreti-
cal and conceptual foundations are comprehensively discussed. Brand loyalty is de-
fined as the predominant success indicator, and the after-sales service success
chain is presented as the basis for the research model. Additionally, cultural influ-
ences are conceptualised and integrated. The focus is on values as a core element
of culture and a cause of behaviour. These are operationalised with regard to the
theory of individual level values, which SCHWARTZ defines as 'trans-situational
goals, varying in importance, that serve as guiding principles in the life of a person or
group.'[971] The set of ten distinct individual level values is organised around a motiva-
tional circle, as a coherent system which allows the effects of every single value to be
researched.

Based on these comprehensive discussions, and the set of hypotheses deduced
from them, Chapter 5 concerns the empirical research process. Here, the success-
factor research approach is presented, and PLS-SEM is chosen as the best-fitting
method to statistically evaluate possible success factors. The research design takes
various requirements into consideration. An online survey results which suits the
Chinese` target group specific operationalisation, scaling and translation equivalence
requirements. The surveys questionnaire was tested using two pre-tests. The col-

---

[971] Cf. Schwartz et al. (2012), p. 664.; Schwartz (1992), pp. 1 ff.

lected data was challenged through an error control system, which is why the final data set was reduced to 301 cases. Afterwards, reflective and formative measurement models, as well as the structural model were strictly tested with conservative standards and thresholds. As a result, the final path model is acknowledged as absolutely appropriate, which is why the testing of hypotheses was conducted afterwards.

The detailed results of this empirical assessment (s. Chapter 5.4) provide significant new findings, which, first, substantially enrich the scientific body of knowledge, and second, foster the managerial understanding of the topic. The summary of the most important findings as well as the interpretation of these results follow in the next Chapter 6.2. Finally, this research project closes with an assessment of its own limitations and a consideration of the need for important further research (s. Chapter 6.3).

6.2   Interpretation of Empirical Results and Management Implications

Chapter 5.4 provided a detailed discussion of this study's findings, which now are summarised and interpreted. The interpretation takes place against the background of a priori theorised relationships and context-related studies. The endogenous automobile constructs are presented sequentially – in the manner of 'How to achieve…' – starting with perceived service quality. Finally, cultural aspects are deepened.

How to Achieve Perceived Service Quality

Perceived service quality is the starting point of the after-sales service success chain. The formative measurement approach makes it possible to give information about the most important drivers of perceived service quality, which are very familiar to the after-sales service instruments of the marketing mix, which can be steered by the OEMs. Often Chinese consumers are considered to be highly price sensitive,[972] and very different from Westerners, especially when it comes to rich consumers.[973] The perceived service quality is not generally moderated by income, but in fact the formative drivers are different from those in Western markets. In China costs are only the seventh important driver for quality, in contrast to France, Italy and Spain, where they

---

[972] Cf. Guo (2013), p. 25.
[973] Cf. Saidi et al. (2010), pp 1 ff.

rank within the top four.[974] KNÖRLE has (2011) doubted the predominance of price consciousness in Chinese consumer behaviour,[975] and the findings of the current study acknowledge his argumentation.

The most important drivers for Chinese premium customers are convenience, the attractiveness of the facility (both relatively unimportant in Europe), as well as honesty and integrity (desired in Europe). Additionally, the after-sales marketing should be aware of significant age- and gender-related customer preferences (s. Table 35 and 36). Here most importantly, the ability to do the job right is a strong positive driver for men but a negative one for women.

Finally, cultural effects as proposed, significantly influence the perception of service quality, thus H10 is accepted. Two individual level values are empirically identified as causal influences.

First, universalism significantly predicts perceived service quality with a path coefficient of 0.205, thus hypothesis H10d is accepted. Generally, universalism expresses tolerance of others and the understanding, appreciation, and protection of the welfare of all people and of nature. (Note that here the dimension of tolerance or wisdom and equality is emphasised, not the enhancement of welfare, which would be individual level value benevolence). On the first view that might seem to be a mismatch with the automotive context, but understanding and appreciation are dimensions which can be seen as linked to the C/D paradigm. The theory is that the customer compares perceived performance (is) with a reference standard (should be). If the reference standard is relatively low, which might be the case due to the characteristics of high tolerance and understanding, then the customer perceives or judges the service quality as being relatively high.

Second, the perception of service quality is significantly influenced by self-direction (H10e). Likewise, this proposed relationship holds true for the empirical tests. Self-direction is an individual level value which stands for such things as independent

---

[974] All ranks are related to a maximum of nine drivers. Western markets are analysed in the same manner by Hünecke (2012), pp. 229 ff.

[975] Cf. Knörle (2011), p. 225.

thinking, choosing action over inaction, creativity and exploration. As mentioned in Chapter 4.4.2.1, KELLEY's attribution theory (1973) says that transaction partners endeavour to explain the (positive) outcome of actions by attributing causes to their own behaviour, and in contrast the transaction partner`s behaviour to the environment.[976] With regard to the customer's own perception, this theory might explain that self-direction fosters perceived service quality, because if a person thinks they have made a good choice with their car service provider, the perception of quality likewise adapts in its strength or is more generous. In fact, this arguments, and that universalism and self-direction both are causal for the mentioned perception, is in line with the general argumentation of SCHWARTZ (1996) who say that, 'Self-direction and universalism both express reliance upon one´s own judgement and comfort with the diversity of existence.'[977] Moreover, ZHANG ET AL. (2008) argue that in general, Eastern service demanders have lower overall expectations of service quality, and are more likely to be satisfied when they evaluate services.[978] The two individual level values self-direction and universalism in combination with the CD-paradigm may now offer an explanation for the causal background.

The in-depth analyses, which elaborates insights going beyond the hypothesis system show, via multiple group analysis, that gender, age and income moderate the relationship between individual level values and perceived service quality. Importantly, universalism is much more strongly causal for women than for men. Moreover, various values become significant if sub-groups are analysed in detail. For instance, achievement (personal success through a demonstration of competence according to social standards) is a significant individual level value for women, which negatively affects their perception of quality. For young Chinese between 20 and 29, conformity (restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations and norms) is a valid influence of culture with a path coefficient of 0.408. Additionally, if we focus on income groups, benevolence, hedonism, power and tradition become relevant and significant (s. Table 36). Marketers should take this into account for every kind of marketing action, because it allows them to address target groups very specifically.

---

[976] Cf. Meffert/Bruhn (2009), pp. 72 f.; Kroeber-Riel/Gröppel-Klein (2013), pp. 393 ff.; Foscht/Swoboda (2011), p. 242.

[977] Cf. Schwartz (1996), p. 124.

[978] Cf. Zhang et al. (2008), pp. 220 f.

How to Achieve After-Sales Service Satisfaction

Service quality or its perception is regarded as the main antecedent of customer satisfaction in various predominantly Western car markets.[979] However, no knowledge in accordance with today's most important car market China existed. Hypothesis H3 is accepted, thus it is empirically confirmed that 'the higher the perceived service quality, the higher the after-sales service satisfaction'. As the highest path coefficient of the whole model indicates (0.673), this relationship is quite strongly, and likewise the effect size f^2 is considered large. As a result, perceived service quality is the most important exogenous factor of the model, in order to reach after-sales service satisfaction.

Perceived service quality explains 52.8% of the variance of after-sales service satisfaction. Brand image contributes too (0.163), but with a small effect size f^2 (percentage of R^2=9.9%). Nonetheless, hypothesis H7 is empirically confirmed, which is in line with prior studies concerning other Chinese industries.[980] Moreover, marketers should notice that this relationship is moderated by the customer's age, as brand image is more important for customers under 30 than for older generations.

With regard to cultural aspects, this study was not able to validate a relationship between individual level values and after-sales service satisfaction. However, due to non-significance, though cannot be concluded that ZHANG ET Al. (2008), who argue that culture influences every service experience dimension,[981] are wrong. But researchers and practitioners should be aware that cultural effects are indeed most relevant when it comes to the dimensions of perceived quality and loyalty.

How to Achieve Workshop Loyalty

According to previous studies,[982] after-sales service satisfaction is postulated as the main antecedent of workshop loyalty. This holds true for the Chinese premium mar-

---

[979] Cf. Hünecke (2012), p. 147; Hättich (2009), p. 213; Bei/Chiao (2001), pp. 136 ff.; Devaraj (2001), p. 434.

[980] Cf. Lai et al. (2009), p. 984; Ogba/Tan (2009), p. 141.

[981] Cf. Zhang et al. (2008), p. 212.

[982] Cf. Hünecke (2012), p. 127; Hättich (2009), p. 213; Bei/Chiao (2001), p. 138; Devaraj et al. (2001), pp. 434 f.; Bloemer/Pauwels (1998), p. 82; Bloemer/Lemmink (1992), p. 362.

ket, as the empirical acceptance of hypothesis H1 shows. This relationship, called 'the higher the after-sales service satisfaction, the higher the workshop loyalty', is the second strongest in the model, and the effect size f^2 is correspondingly large.

Moreover, hypothesis H8 is accepted, because the path analysis of the relationship described as 'the higher the brand image, the higher the workshop loyalty', shows significance and relevance; indicated through a coefficient of 0.165. From a detailed scientific perspective we should consider that this path coefficient would be higher if, after-sales service satisfaction were omitted from the model, because this variable works as a partial mediator (VAF= 0.362). However, usually satisfaction is considered when it comes to loyalty analysis; thus the explained variance of workshop loyalty is composed of the following exogenous factors.

- After-sales service satisfaction → 44.3%
- Brand Image → 10.4%
- Culture → 8.7%

With regard to culture generally (H13), and to the causal influence of the individual level value of universalism in particular (H13d), the empirical analysis shows that significant relationships exist.

Analogue to perceived service quality, more basic values are significant, if we focus on distinct subgroups (s. Table 36). It is significant that, compared with the total model or with other income-subgroups, very affluent Chinese are less loyal to a given workshop. One explanation is that achievement is a value with a strong cultural influence, which negatively affects workshop loyalty by an extent of -0.340.

How to Achieve Brand Loyalty

Brand loyalty is the primary success indicator of this study. In order to achieve it, the most important factor is achieving workshop loyalty. Because the hypothesised relationship (H2), which says 'the higher the workshop loyalty, the higher the brand loyalty', holds true for the empirical evaluation in China. The path coefficient has a value of 0.331 and the f^2 effect size is considered medium. Looking deeper into Chinese customer subgroups, we see that a significant difference occurs with regard to in-

come levels: the path coefficient towards brand loyalty is much stronger in the case of the affluent (0.414), than it is for the very affluent (0.193).

With very similar characteristics to those of workshop loyalty, perceived workshop switching costs are causal (0.305/medium), which is why hypothesis H5 is accepted. This is an important finding, because switching costs can be influenced by brands, with for instance linked guarantees, which tie the customer to the brand, in other words increase the switching costs. Interestingly, the perceived switching costs in this study are not significant towards workshop loyalty, which is different from the German market, where they are causal towards workshop loyalty, but comparably less relevant towards brand loyalty.[983]

As twice before, brand image is a significant determining factor. Hypothesis H9, which postulates that a higher brand image leads to higher brand loyalty, is empirically confirmed, and the path coefficient (0.162) is relevant. This finding is in line with HÜNECKE (2012) who shows empirically that brand image is the most important driver for brand loyalty in Italy and Spain, and an important one in France.[984] In China, analogue to the previously mentioned mediation, again the direct effect of brand image on brand loyalty is partially mediated through workshop loyalty (VAF=0.252), and thus weaker as if the mediator would be omitted. However, taking everything into account, in fact brand image is more important than focussing on each single brand image path coefficient indicates, because brand image is the only significant non-cultural effect which influences more than one endogenous construct. Actually, brand image constantly influences, and therefore fosters almost the entire after-sales service success chain. In fact this is an important contribution to the existing body of knowledge, because prior research on this topic reveals ambiguities, and widely neglects the analysis of image in accordance with the entire service delivery chain.

Regarding the explained variance in brand loyalty, this study concludes that the applied model has fairly strong predictive accuracy, and the success indicator is fairly well explained by the model, in other words by the predictor constructs. The explained variance of brand loyalty is 64.8%. This is a high number, particularly be-

---

[983] Cf. Hättich (2009), p. 213/217.
[984] Cf. Hünecke (2012), p. 137.

cause this study focusses on and therefore researches only after-sales services. But usually, brand loyalty is predicted by pre- and at sales services, as well as product-related aspects such as for instance product satisfaction. Generally, PLS- and CB-SEM approaches are not directly comparable, but prior familiar research on automobile after-sales was not able to elaborate a model with such a high predictive accuracy R^2. Brand loyalty in Germany is explained by a variance of 22% and in France, Spain and Italy by 40.3%.[985] On the one hand, after-sales services seem to be relatively important for Chinese customers. On the other hand, culture is considered a relevant dimension of interest, because 14,8% of brand loyalty´s R^2 are predicted by individual level values or, more generally, by cultural effects. The whole R^2 contribution split of brand loyalty is as follows.

- Brand image $\rightarrow$ 10.5%
- Culture $\rightarrow$ 14.8%
- Perceived workshop switching costs $\rightarrow$ 17.6%
- Workshop loyalty $\rightarrow$ 21.9%

Finally, in order to reach brand loyalty, focussing on the total effects is important. Here, the three most important drivers are workshop loyalty, perceived workshop switching costs and brand image. If additionally the perspective of effectiveness is taken into account via performance analysis, then one should first focus on perceived workshop switching costs, because besides the second strongest path coefficient, this variable shows the biggest room for improvement (s. Table 38). This is especially essential in order to support managerial decisions, because due to limited resources – which should be the common case – knowledge about effectiveness is crucial.

Collectivistic cultures such as China are considered relatively brand loyal.[986] This study cannot achieve a national comparison, but the R^2 contribution of culture indicates strongly that cultural effects are quite important (14,8% of 64,8%). In line with that, the empirical confirmation of hypothesis H12 shows that cultural influences indeed affect brand loyalty. Particularly, universalism (H12d) and self-direction (H12e) are individual level values which have a significant influence, thus both hypothesis are accepted. With respect to sub-groups, security (safety, harmony stability of socie-

---

[985] Cf. Hättich (2009), p. 213; Hünecke (2012), p. 127.
[986] Cf. de Mooij (2014), p. 148; Emrich (2014), p. 24; Guo (2013), p. 22.

ty and relationships, and of self) is a value which is also causal in a positive sense for 40-to-49-year-old Chinese, and in a negative sense for Chinese with a mainstream income. For very affluent customers, hedonism (pleasure and sensuous gratification of one's own desires) contributes to brand-loyal behaviour, but in contrast benevolence has a strong negative effect. The two latter opposed effects are in line with SCHWARTZ's theory, because within the circular arrangement of values, the values are diametrically opposed.

Individual Level Values as Cultural Causes

Often researchers argue that various aspects of consumer behaviour are affected by culture, particularly when it comes to services. As a result, ZHANG ET AL. (2008) claimed to go beyond HOFSTEDE by applying other theories. Prior research usually focussed on national comparisons, which is why it offered no information on the causality of culture. Due to the individual level value approach of this study, particular values have been empirically confirmed as being causal with regard to after-sales services. At first view, it seems to be sober that just two of ten individual level values are predominantly causal. However, the deeper analysis acknowledges the arguments of KNÖRLE (2011) who researches brand loyalty in China more generally than this study. He says that the constant change in China leads to a very complex consumer, and a reduction to any single cultural dimension is not valid any more. For instance, he argues that collectivistic and individualistic aspects exist simultaneously.[987] The in-depth multi-group analysis of this study shows that moderating effects have a strong influence in China. If age, income and gender are considered, various other relationships with causal individual level values become significant, which is why a detailed picture of subgroups can be drawn (s. Table 35, 36 and 37).

But, how could this be in line with the widely accepted condition that culture and values are both very time-stable phenomena?[988] In fact, values should be the same, if income subgroups are considered. In contrast, for instance RALSTON ET AL. (1999) have the rarely mentioned opinion that cultural aspects might shift more than generally thought. They focus on, and empirically confirm a general shift of work values in

---

[987] Cf. Knörle (2011), p. 224.
[988] Cf. Chapter 4.2.5, Culture.

Chinese management from Confucian dynamism toward individualism.[989] If this idea is taken into consideration as along with the new findings of the present study, the author raises the question whether it is likely that broad cultural norms such as collectivism are relatively stable, and that finely distinct sub dimensions (as revealed via individual level values) might be more strongly affected by cultural shifts.

A second approach might be worth considering if the behavioural research of BARDI/SCHWARTZ (2003) is taken into account. They focus on value-behaviour relationships, and found substantial correlations between both, but some values are more strongly related to common behavior than others.[990] As a reason they argue in line with SHODA (1999) that external situational pressure has to be considered, because '(…) the stronger the situational pressure to act in a particular way, the weaker the influence of internal factors [i.e. values]. Norms for behavior in relevant groups pose an important situational pressure. People may conform with norms, even when the normative behavior opposes their own values.'[991]

This argumentation, indeed, is fostered by the detailed multi-group analysis results (moderation) of this study, which empirically show that differences exist, and distinct values are causal, if it comes to consumer behaviour. It is very likely that different groups are exposed to different circumstances (or situational pressure), which is why values may appear insignificant, if a total research model has not taken all relevant aspects into account. Very likely, there are more moderating issues that are relevant, but which could not be addressed by this study. However, the findings mentioned in this study strongly enrich the body of knowledge with regard to automotive after-sales service behaviour and cultural determinants.

6.3 Limitations and Further Research Needs

The current study is based on a comprehensive theoretical and conceptual foundation, and assessments are judged cautiously. However, as in every empirical work,

---

[989] Cf. Kirkman et al. (2006), p. 312; Ralston et al. (1999), pp. 415 ff.; Moreover, Lennartowicz/Roth (2001), pp. 305 ff. can be stated, because they show that subculture matters within country boarders.

[990] Cf. Bardi/Schwartz (2003), p. 1216.

[991] Ibidem, p. 1217.

limitations exist, which is why they are summarised in this chapter. A limitation by its nature establishes a limit for the existing study, but at the same time it is a valuable source for new research. Therefore, as well as limitations, *further research needs* are addressed.

China is a country exposed to dramatic changes which take place in short durations. Industrialisation, rising incomes, urbanisation and ecological challenges are only a few major forces of change. Due to these many processes, consumer behaviour is constantly changing. One considerable limitation of this research is the time restriction, which leads to the *cross-sectional approach.* The empirical data is gathered in one period, so that changes cannot be shown directly. The Chinese car market changes from a first-buyer market to a riper market, and the after-sales market will follow. Future *longitudinal-research* should take this into account, in order to provide proper knowledge of the after-sales-specific forces of change, resulting consumer demands and the implications for marketing.

The object of this research is limited to German premium car brands and consumers in urban areas. As a first step, this procedure is effective and necessary, because for instance it is hardly possible to collect rural data. However, the *premium market segmentation* is a constraint which should be extended, because prior research shows significantly different *consumer behaviour with regard to other segments* like volume or low-cost brands. China-specific knowledge on this topic is something that needs researching, in order to scientifically understand, and – from a company´s perspective – to penetrate the whole market effectively and efficiently.

With regard to consumers as the database of this study, *representativeness* is an issue, because the total population of the delimited group is unknown. As a result, the representativeness of the sample cannot be assessed directly. The discussion of the structure of the sample (s. Chapter 5.2.4), and especially the ARMSTRONG/OVERTON-test (1977) indicate that the findings are *sufficiently representative for the delimitated object of research*. However, they should not be generalised. Thus, future research could build on this issue. Gathering information about the total population would be advantageous; particularly with regard to the point mentioned previously: the need for future research on market segments.

The suggestion and the use of *brand loyalty as a success indicator* is seen as limitation in some ways, because for instance loyalty does not necessarily lead to economic success. Future research could *incorporate the variety of outcomes*, in order to broaden the understanding of the after-sales success chain. Second, the explained variance of brand loyalty, due to the research model, is 64,8%. Thus, 35,2% are related to *unobserved variables* and measuring errors. The figure itself is relatively high, especially because this research is limited to after-sales as one dimension of the relationship of the consumer to the seller which leads to brand loyalty. However, the unobserved variables predicting brand loyalty should be figured out and incorporated so that brand loyalty can be explained in all of its facets. Third, in this research, brand loyalty is *considered to be mainly attitudinal*. Notably, every approach, including the behavioural and the relational, is imperfect. As a result, future replications of this research may take this into account by *measuring all three dimensions*, so the complex phenomenon of brand loyalty can be described comprehensively without being eventually biased in any technical way of measurement.

This study *introduces SCHWARTZ´s individual level values* as an advantageous operationalisation approach of culture for the automotive marketing, which overcomes the limitation of just presenting national comparisons without also uncovering cultural causalities. The quality criteria of PLS-SEM show that this approach is appropriate and the results are well able to explain the researched aspects. However, this *study should be replicated*, for instance on further markets, so as to validate advantages, and more importantly, to discuss problems which might occur in other research settings so that a comprehensive picture of the most suitable approach can be drawn.

This study has shown that cultural effects influence important aspects of consumer behaviour, but the focus on the industry leads to *subgroup analysis*. In contrast, prior research often focussed on national comparisons, which generally neglect the importance of subgroups. As a result, cultural analysis even in applied business research settings, is mostly concerned with one specific level. Future research should make considerable efforts to enlarge this limited perspective, by *focussing on simultaneously important levels of culture*, such as the macro-level (i.e. nation or country), the meso-level (i.e. subgroups such as regions, religions, social layers, etc.), and to the micro-level, which concerns individuals or culturally affected behaviour.

This study uses the widely accepted and manifold applied approach of *ten distinct individual level values*, because it effectively combines a high level of detail with the option of a relatively short operationalisation (21 items). If, as in this study, requirements such as path model parsimony and limited acceptance of the questionnaire's length have to be accounted for, then the approach is favourable. But if greater resources are available, then future research should incorporate the recently presented *refined theory of basic values* (s. Chapter 4.4.3.2), which offers a finer set of *19 distinct individual level values* measured by 57 items. Besides the level of detail, this approach provides superior cross-cultural invariance, which is important if a large number of countries or cultures has to be compared.

In line with the need to extend the level of values or level of detail in future research, the findings of this study on moderating effects describe a reasonable limitation. Various individual level values become significant if subgroups are considered. This study shows that moderating effects have a strong influence in China, but the moderating effects that were discussed are not exhaustive. It is very likely that further unknown factors are significant. Future research is needed to take this up, in order to explain today's unobserved heterogeneity. This should be addressed, particularly with respect to the following issues of the previous Chapter 6.2 and are therefore considered in detail there: *cultural subgroups*, *external situational pressure*, which might weaken (or cover) cultural influences, and finally the possibility of *cultural change.*

With regard to the latter aspect, the difficulty is that there is not a single definition of culture, and culture is therefore often interpreted differently. However, there are indications that culture is not always as stable as it was long considered to be. By implication this research raises the question whether it is likely that broad cultural dimensions are relatively stable, and finely distinct sub-dimensions (as revealed via individual level values) might be more strongly affected by cultural shifts. Here again, future research should consider the 19-value approach, as here three hierarchical levels are incorporated, easily applicable and therefore comparable.

The limitations mentioned here are not exhaustive, but due to their importance highly significant for future research.

References

A

Aaker D. A. (1996): Building strong brands, New York: Free Press.

Aga, M./Safakli, O. V. (2007): An Empirical Investigation of Service Quality and Customer Satisfaction in Professional Accounting Firms: Evidence from North Cyprus, in: Problems and Perspectives in Management, Vol. 5 (3), pp. 84-98.

Agrawal, M. (1993): Review of a 40-year debate in international advertising: Practitioner and academician perspectives to the standardization/adaptation issue, in: International Marketing Review, Vol. 12 (1), pp. 26-48.

Andaleeb, S. S./Basu, A. K. (1994): Technical complexity and consumer knowledge as moderators of service quality evaluation in the automobile service industry, in: Journal of Retailing, Vol. 70 (4), pp. 367-381.

Andreassen, W. T./Lindestad, B. (1998): Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise, in: International Journal of Service Industry Management, Vol. 9 (1), pp. 7-23.

Annacker, D./Hildebrandt, L (2002): Unobservable effects in structural models of business performance, in: Discussion Papers, Interdisciplinary Research Project 373: Quantification and Simulation of Economic Processes, No. 2002,22, available online at http://nbn-resolving.de/urn:nbn:de:kobv:11-10048804, accessed: 29/4/2014.

Amine, L. S./Chao, M. C. H./Arnold, M. J. (2005): Exploring the practical effects of country of origin, animosity, and price-quality issues: two case studies of Taiwan and Acer in China, in: Journal of International Marketing, Vol. 13 (2), pp. 114-150.

Amini, M. M./Retszaff-Roberts, D./Bienstock, C. C. (2005): Designing a reverse logistics operation for short cycle time repair services, in: International Journal of Production Economics, Vol. 96 (3), pp. 369-380.

Arnould, E. J./Thompson, C. J. (2005): Consumer Culture Theory (CCT): Twenty Years of Research, in: Journal of Consumer Research, Vol. 31 (4), pp. 868-882.

Armistead, C./Clark, G. (1991): A framework for formulating after-sales support strategy, in: International Journal of Operations and Production Management, Vol. 11 (3), pp. 111-124.

Arthur D. Little (n. a.) (2011): China´s Automotive Market, in: Automotive Viewpoint, available online at http://www.adlittle.com/automotive-viewpoints.html?&view= 525, accessed 25/3/2014.

Asugman, G./Johnson, J. L./McCullough, J. (1997): The Role of After-Sales Service in International Marketing, in: Journal of International Marketing, Vol. 5 (4), pp. 11-28.

Atsmon, Y./Magni, M. (2012): Meet the 2020 Chinese consumer, in: McKinsey Quarterly, March, pp. 1-8.

Audi China (n. a.) (2014): Audi China, available online at http://www.audi.cn/cn/brand/en.html and there especially http://contact.audi.cn/dealer_procity.action?en=1 & http://www.audi.cn/cn/brand/en/about/careers01/Audi_China_general/Departments.html, accessed 4/4/2014.

Audi China (n. a.) (2014): Audi in China, available online at http://www.audi.cn/cn/brand/en/aout/audi_branding/corp_intro/audi_in_china.html, accessed 4/4/2014.

B

Baader, A./Montanus, S./Sfat, R. (2006): After Sales Services – mit produktbegleitenden Dienstleistungen profitabel wachsen, in: Barkawi, K. et al. (Pub.), Erfolgreich mit After Sales Services – Geschäftsstrategien für Servicemanagement und Ersatzteillogistik, pp. 3-14, Berlin/Heidelberg: Springer.

Bachmann, A. (2009): Subjektive versus objektive Erfolgsmaße, in: Albers, S. et al. (Pub.), Methodik der empirischen Forschung, 3. ed, pp. 89-102, Wiesbaden: Gabler.

Backhaus, K./Erichson, B./Weiber, R. (2011): Fortgeschrittene Multivariate Analysemethoden – Eine anwendungsorientierte Einführung, Berlin/Heidelberg: Springer.

Backhaus, K./Erichson, B./Plinke, W./Weiber, R. (2006): Multivariate Analysemethoden – Eine anwendungsorientierte Einführung, 11. ed., Berlin: Springer.

Baraldi, A. N./Enders, C. K. (2010): An introduction to modern missing data analyses, in: Journal of School Psychology, Vol. 48, pp. 5-37.

Bardi, A./Schwartz, S. H. (2003): Values and Behavior: Strength and Structure of Relations, in: Personality and Social Psychology Bulletin, Vol. 29 (10), pp. 1207-1220.

Barkawi, K./Baader, A./Montanus, S. (Pub.) (2006): Erfolgreich mit After Sales Services – Geschäftsstrategien für Servicemanagement und Ersatzteillogistik, Berlin/Heidelberg: Springer.

Barthel, K./Böhler-Baedeker, S./Bormann, R./Dispan, J./Fink, P./Koska, T./Meißner, H.-R.,Pronold, F. (2010): Zukunft der deutschen Automobilindustrie – Herausforderungen und Perspektiven für den Strukturwandel im Automobilsektor, in: Friedrich-Ebert-Stiftung (Pub.), Diskussionspapier der Arbeitskreise Innovative Verkehrspolitik und Nachhaltige Strukturpolitik der Friedrich-Ebert-Stiftung, available online at http://library.fes.de/pdf-files/wiso/07703.pdf, accessed 6/9/2013.

Baumbach, M. (2004): After-Sales-Management im Maschinen- und Anlagenbau, 2. ed., Regensburg: Transfer-Verlag.

Baumgarth, C./Evanschitzky, H. (2009): Erfolgsfaktorenforschung, in: Baumgarth, C./Eisend, M./Evanschitzky, H. (Pub.), Empirische Mastertechniken – Eine anwendungsorientierte Einführung in die Marketing- und Managementforschung, pp. 235-261, Wiesbaden: Gabler/GWV Fachverlage.

Baumgartner, H. (2012): Repetitive Purchase Behavior, in: Diamantopoulos, A. et al. (Pub.), Quantitative Marketing and Marketing Management – Marketing Models and Methods in Theory and Practice, pp. 401-422, Wiesbaden: Springer/Gabler.

Bearden, W. O./Netemeyer R. G/ Haws K. L. (2011): Handbook of Marketing Scales: Multiple-Item Measures for Marketing and Consumer Behavior Research, 3. ed., Thousand Oaks: Sage Publications.

Becker, H. (2010): Darwins Gesetz in der Automobilindustrie – Warum deutsche Hersteller zu den Gewinnern zählen, Heidelberg et al.: Springer.

Becker, H. (2007): Auf Crashkurs: Automobilindustrie im globalen Verdrängungswettbewerb, 2. ed., Berlin et al.: Springer.

Becker, H./Straub, N. (2007): Drachenflug: Wirtschaftsmacht China quo vadis? Berlin et al.: Springer.

Becker, J.-M./Klein, K./Wetzels, M. (2012): Hierarchical Latent Variable Models in PLS-SEM: Guidelines for Using Reflective-Formative Type Models, in: Long Range Planning, Vol. 45, pp. 359-394.

Bei, L.-T./Chiao, Y.-C. (2001): An Integrated Model for the Efects of Perceived Product, Perceived Service Quality, and Perceived Price Fairness on Consumer Satisfaction and Loyalty, in: Journal of Consumer Satisfaction Dissatisfaction and Complaining Behavior, Vol. 14, pp. 125-140.

Steenkamp, J.-B. E. M. (2001): The role of national culture in international marketing research, in: International Marketing Review, Vol. 18 (1), pp. 30-44.

Berekoven, L./Eckert, W./Ellenrieder, P. (2009): Marktforschung – Methodische Grundlagen und praktische Anwendung, 12. ed., Wiesbaden: Gabler/GWV Fachverlage.

Berry, J. W. (1999): Emics and Etics: A symbiotic conception, in: Culture & Psychology, Vol. 5 (2), pp. 165-171.

Berry, J. W. (1989): Imposed Etics–Emics–Derived Etics: The operationalization of a compelling idea, in: International Journal of Psychology, Vol. 24 (6), pp. 721-735.

Berylls (n. a.) (2013): 2. "Global Top Automotive Supplier 2012"-Studie, München: Berylls Strategy Advisors GmbH.

Blanchet, M./Rade, J. (2007): The sales and after-sales challenge: capturing value along the car lifecycle, in: Gottschalk, B./Kalmbach, R. (Pub.), Mastering Automotive Challenges, pp. 171-215, London/Philadelphia: Kogan Page.

Bloemer, J./De Ruyter, K./Peeters, P. (1998): Investigating drivers of bank loyalty: the complex relationship between image, service quality and satisfaction, in: International Journal of Bank Marketing, Vol. 16 (7), pp. 276-286.

Bloemer, J. M. M./Pauwels, K. H. (1998): Explaining brand loyalty, dealer sales loyalty and dealer after-sales loyalty: The influence of satisfaction with the car, satisfaction with the sales service and satisfaction with the after-sales service, in: Journal of Consumer Satisfaction Dissatisfaction and Complaining Behaviour, Vol. 11, pp. 78-90.

Bloemer, J. M. M./Lemmink (1992): The Importance of Customer Satisfaction in Explaining Brand and Dealer Loyalty, in: Journal of Marketing Management, Vol. 8, pp. 351-364.

BMW China (n. a.) (2014): BMW Aftersales, available online http://www.bmw.com.cn/cn/en/owners/aftersales/overview.html, accessed 4/4/2014.

BMW Group (n. a.) (2012): Wo wird was gebaut, available online at http://www.bmwgroup.com/d/nav/index.html?../0_0_www_bmwgroup_com/home/home.html&source=oveview, accessed 10/5/12.

Bodensteiner, K. (2006): Kundenbindung in vertikalen Kontraktmarketingsystemen – eine Analyse anhand des Marktes für Ersatzteile der Automobilwirtschaft, in: Hünerberg et al. (Pub.), Gabler Edition Wissenschaft: Forum Marketing, Wiesbaden: Deutscher Universitäts-Verlag/GWV Fachverlage.

Bollen, K. A. (2011): Evaluating Effect, Composite, and Causal Indicators in Structural Equation Models. in: MIS Quarterly, Vol. 35 (2), pp. 359-372.

Borth, B.-O. (2004): Beschwerdezufriedenheit und Kundenloyalität im Dienstleistungsbereich – Kausalanalysen unter Berücksichtigung moderierender Effekte, in: Hünerberg, R./Töpfer, A. (Pub.), Forum Marketing, Wiesbaden: Deutscher Universitätsverlag/GWV Fachverlage.

Bortz, J./Schuster, C. (2010): Statistik für Human-und Sozialwissenschaftler, 7. ed., Berlin et al.: Springer.

Botschaft der Bundesrepublik Deutschland Peking (n. a.) (2013), Wirtschaftsdaten kompakt, state: first half-year 2013, available online at http://www.china.diplo.de/contentlob/344 3046/Daten/3493380/1201Wirtschaftsdatendd.pdf, accessed 1/10/2013.

Brady, M. K./Cronin, J. J. Jr. (2001): Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach, in: Journal of Marketing, Vol. 65 (3), pp. 34-49.

Brax, S. (2005): A manufacturer becoming service provider – challenges and a paradox, in: Managing Service Quality, Vol. 15 (2), pp. 142-155.

Brock, D. (2009): Aftersales Management – Creating a Successful Aftersales Strategy to Reduce Costs, Improve Customer Service and Increase Sales, London/Philadelphia: Kogan Page.

Brunnermeier, S. B./Martin, S. A. (2002): Interoperability costs in the US automotive supply chain, in: Supply Chain Management, Vol. 7 (2), pp. 71-82.

Bryson, J./Griffith, Z. (2013): How much does slower Chinese growth matter?, in: ABA Banking Journal, Vol. 105 (8), p. 8.

Bundesverband CarSharing e.V. (n. a.) (2013): Jahresbericht 2012/2013 – Das Jahr des CarSharing: fast 500.00 CarSharing-Kunden in Deutschland, available online at http://w ww.carsharing.de/sites/default/files/uploads/ueber_den_bcs/pdf/bcs_ja hresbericht_2012 -13.pdf, accessed 6/9/2013.

Bundschuh, R. G./Dezvane, T. M. (2003): How to make after-sales services pay off, in: McKinsey Quarterly, Vol. 4, pp. 116-127.

Burmann, C. (1991): Konsumentenzufriedenheit als Determinante der Marken- und Händlerloyalität, in: Marketing ZFP, Vol. 4, pp. 249-258.

Burnham, T. A./Frels, J. K./Mahajan, V. (2003): Consumer Switching Costs: A Typology, Antecedents, and Consequences, in: Journal of the Academy of Marketing Science, Vol. 31 (2), pp. 109-126.

C

CAAM – China Association of Automobile Manufacturers (n. a.) (2013): The passenger cars market share of Chinese brand continued to decline, available online at http://www.caam.org.cn/AutomotivesStatistics/20131014/1705103416.html, accessed 14/10/2013.

Calvin, J./Schinckel, R. (1995): International Passenger Car After-Sales Service, in: Hünerberg, R. et al. (Pub.), Internationales Automobilmarketing – Wettbewerbsvorteile durch marktorientierte Unternehmensführung, pp. 475-488, Wiesbaden: Gabler.

Cateora, P. R./Ghauri, P. N. (2000): International Marketing, London et al.: McGraw-Hill.

Cavalieri, S./Gaiardelli, P./Ierace, S. (2007): Aligning strategic profiles with operational metrics in after-sales service, in: International Journal of Productivity and Performance Management, Vol. 56 (5/6), pp. 436-455.

Chin, W. W. (2010): How to Write Up and Report PLS Analyses, in: Esposito Vinzi, V. et al. (Pub.), Handbook of Partial Least Squares – Concepts, Methods and Applications, pp. 665-690, Berlin/Heidelberg: Springer.

Chin, W. W. (1998): The Partial Least Squares Approach to Structural Equation Modeling, in: Marcoulides, G. A (Pub.), Modern Methods for Business Research, pp. 295-336, Mahwah: Lawrence Erlbaum.

Christophersen, T./Grape, C. (2009): Die Erfassung latenter Konstrukte mit Hilfe formativer und reflektiver Messmodelle, in: Albers et al. (Pub.), Methodik der empirischen Forschung, 3. ed., pp. 103-118, Wiesbaden: Springer Fachmedien.

Cieciuch, J./Davidov, E./Schmidt, P./Algesheimer, R./Schwartz, S. H. (2014a): Comparing results of an exact vs. an approximate (Bayesian) measurement invariance test: a cross-country illustration with a scale to measure 19 human values, in: Frontiers in Psychology. Vol. 5, pp. 1-10.

Cieciuch, J./Davidov, E./Vecchion, M./S. H. Schwartz (2014b): A Hierarchical Structure of Basic Human Values in a Third-Order Confirmatory Factor Analysis, in: Swiss Journal of Psychology, Vol. 73 (3), pp. 177-182.

Cieciuch, J./Davidov, E./Vecchione, M./Beierlein, C./Schwartz, S. H. (2014c): The Cross-National Invariance Properties of a New Scale to Measure 19 Basic Human Values A Test Across Eight Countries, in: Journal of Cross-Cultural Psychology, pp. 1-13.

Cieciuch, J./Davidov, E. (2012): A comparison of the invariance properties of the PVQ-40 and the PVQ-21 to measure human values across German and Polish Samples, in: Survey Research Methods, Vol. 6 (1), pp. 37-48.

Coase, R. H. (1937): The nature of the firm, in: Economica, Vol. 4 (16), pp. 386-405.

Cohen, M. A./Agrawal, N./Agrawal, V. (2006): Winning in the aftermarket, in: Harvard Business Review, Vol. 84 (5), pp. 129-138.

Cohen, M. A./Cull, C./Lee, H. L./Willen, D. (2000): Saturn's supply-chain innovation: high value in after-sales service, in: Sloan Management Review, Vol. 41 (4), pp. 93-101.

Cohen, M. A./Whang, S. (1997): Competing in product and service: a product life-cycle model, in: Management Science, Vol. 43 (4), pp. 535-545.

Cohen, M. A./Zheng, Y.-S./Agrawal, V. (1997): Service parts logistics: A benchmark analysis, in: IIE Transactions, Vol. 29 (8), pp. 627-639.

Cohen, M. A./Lee, H. L. (1990): Out of touch with customer needs? Spare parts and after sales service, in: Sloan Management Review, Vol. 31 (2), pp. 55-66.

Conlon, E./Devaraj, S./Matta, K. F. (2001): The Relationship Between Initial Quality Perceptions and Maintenance Behavior: The Case of the Automotive Industry, in: Management Science, Vol. 47 (9), pp. 1191-1202.

Corsten, H./Gössinger, R. (2007): Dienstleistungsmanagement, 5. ed., München: Oldenbourg Wissenschaftsverlag.

Craig, C. S/Douglas, P. (2006): Beyond national culture: implications of cultural dynamics for consumer research, in: International Marketing Review, Vol. 23 (3), pp. 322-242.

Cronin J. J. Jr./Taylor, S. A. (1994): SERVPERF versus SERVQUAL: Reconciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality, in: Journal of Marketing, pp. 125-131.

Cronin J. J. Jr./Taylor, S. A. (1992): Measuring Service Quality: A Reexamination and Extension, in: Journal of Marketing, pp. 55-68.

Cui, G./Liu, Q. (2001): Emerging market segments in a transitional economy: a study of urban consumers in China, in: Journal of International Marketing, Vol. 9 (1), pp. 84-106.

D

Dahlhoff, D/Eickhoff, J. (2014): Den Automobilvertrieb und -handel markengerecht aufbauen und steuern, in: Esch, F.-R. (Pub.), Strategie und Technik des Automobilmarketing, pp. 215-236, Wiesbaden: Springer/Gabler.

Daimler AG (n. a.) (2014): Geschäftsbericht 2013, available online at http://www.daimler.com /Projects/c2c/channel/documents/2432178_Daimler_2013_Geschaeftsbericht.pdf, accessed 4/4/2014.

Dangelmaier, W./Emmrich, A./Gajewski, T. (2006): Referenzmodell zur Serviceproduktge- staltung in der Automobilzulieferindustrie, in: Barkawi, K. et al. (Pub.), Erfolgreich mit After Sales Services, pp. 153-177, Berlin/Heidelberg: Springer.

DAT – Deutsche Automobil Treuhand GmbH (n. a.) (2015): DAT-Report 2015, available online at http://www.autohaus.de/fm/3478/DAT-Report_2015.pdf, accessed 26/8/2015.

Davidov, E./Schmidt, P./Schwartz, S. H. (2008): Bringing values back in – The adequacy of the European Social Survey to measure values in 20 countries, in: Public Opinion Quarterly, Vol. 72 (3), pp. 420-445.

Davies, A. (2004): Moving base into high-value integrated solutions: a value stream ap- proach, in: Industrial and Corporate Change, Vol. 13 (5), pp. 727-756.

de Mooij, M. (2014): Global Marketing and Advertising: Understanding Cultural Paradoxes, 4. ed., Thousand Oaks et al.: Sage Publications.

de Mooij, M./Hofstede, G. (2011): Cross-Cultural Consumer Behavior: A review of Research Findings, in: Journal of International Consumer Marketing, Vol. 23, pp. 181-192.

Deng, Z./Lu, Y./Wei, K. K./Zhang, J. (2010): Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China, in: International Journal of Information Management, Vol. 30, pp. 289-300.

Dess, G. G./Robinson, R. B. (1984): Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit, in: Strategic Management Journal, Vol. 5 (3), pp. 265-273.

Devan, J./Rowland, M./Woetzel, J. (2009): A consumer paradigm for China, in: McKinsey Quarterly, August 2009, pp. 1-9, available online at http://unpan1.un.org/Intradoc/grou ps/public/documents/apcity/unpan049280.pdf, accessed 2/6/2013.

Devaraj, S./Matta, K. F./Conlon, E. (2001): Product And Service Quality: The Antecedents Of Customer Loyalty In The Automotive Industry, in: Production and Operations Man- agement, Vol. 10 (4), pp. 424-439.

Diamantopoulos, A. (2011): Incorporating Formative Measures into Covariance-Based Struc- tural Equation Models, in: MIS Quarterly, Vol. 35 (2), pp. 335-358.

Diamantopoulos, A./Siguaw, J. A. (2006): Formative Versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration, in: British Journal of Management, Vol. 17, pp. 263-282.

Diamantopoulos, A./Winkelhofer, H. M. (2001): Index Construction with Formative Indicators: An Alternative to Scale Development, in: Journal of Marketing Research, Vol. 38 (2), pp. 269-277.

Dick, A. S./Basu, K. (1994): Customer Loyalty: Toward an Integrated Conceptual Framework, in: Journal of the Academy of Marketing Science, Vol. 22 (2), pp. 99-113.

Diez, W. (2012): Die internationale Wettbewerbsfähigkeit der deutschen Automobilindustrie – Herausforderungen und Perspektiven, München: Oldenbourg Wissenschaftsverlag.

Diez, W. (2010): Zeitwende im Automobilservice, Nürtingen-Geislingen: Institut für Automobilwirtschaft (IFA) an der Hochschule für Wirtschaft und Umwelt.

Diez, W. (2009): Automobil-Marketing – Navigationssysteme für neue Absatzstrategien, E-Book, 5. ed., München: mi-Wirtschaftsbuch/FinanzBuch.

Diez, W./Kohler, M. (2010): Otto-, Diesel, Elektromotor – wer macht das Rennen?, in: Industrie und Handelskammer Region Stuttgart (Pub.), available online at http://www.stuttgart.ihk24.de/linkableblob/sihk24/serviceleiste/Publikationen/Branchen/979512/.5./data/Broschuere_Gruene_Mobilitaet-data.pdf;jsessionid=6DD3BBE9A034D4B4CAE371C18A4DC884.repl23, accessed 25/9/2013.

Diez, W./Reindl, S. (2005a): Faszination Service, Hamburg: Auto Business Services.

Diez, W./Reindl, S. (2005b): Das Automobil aus verkehrs- und politischer Sicht, in: Diez, W. et al. (Pub.), Grundlagen der Automobilwirtschaft, 4. ed., pp. 21-69, München: Auto Business Verlag.

Diez, W./Reindl, S./Brachat, H. (Pub.) (2012): Grundlagen der Automobilwirtschaft – Das Standardwerk für Ihren Erfolg, 5. ed., München: Autohaus Buch und Formular.

Dillerup, R./Stoi, R. (2011): Unternehmensführung, 3. ed., München: Verlag Franz Vahlen.

Dirlenbach, H. C.-P. (2009): Erfolgreiches Management von After-Sales-Service-Innovationen in der Automobilindustrie – Eine Mixed-Methods-Analyse, in: Schuh, G. (Pub.), Schriftenreihe Rationalisierung und Humanisierung, Vol. 94, Aachen: Shaker Verlag.

Doctoroff, T. (2005): Billions: Selling To The New Chinese Consumer, New York et al.: Palgrave Macmillan.

Doll, N./Erling, N./Trentmann, N. (2013): Chinas Autos auf dem Weg nach Westen, in: Die Welt – iPad Edition, 22/4/2013.

Dombrowski, U./Engel, C./Schulze, S. (2011): Scenario Management for Sustainable Strate-gy Development in the Automotive Aftermarket, in: Hesselbach, J./Herrmann, C. (Pub.), Functional Thinking for Value Creation: Proceedings of the 3rd CIRP International Conference on Industrial Product Service Systems, pp. 285-290, Berlin/Heidelberg: Springer.

Doran, D. (2004): Rethinking the supply chain: an automotive perspective, in: Supply Chain Management, Vol. 9 (1), pp. 102-109.

Dorka, M. (2012): Bancassurance in Deutschland – Herausforderungen und Gestaltungs-möglichkeiten des Vertriebsweges Bancassurance im Versicherungsverkauf unter besonderer Berücksichtigung empirischer Erfolgsfaktoren, in: Zerres, M./Zerres, C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 87, München/Mering: Rainer Hampp Verlag.

Douglas, S. P./Craig, C. (1983): International Marketing Research, Prentice-Hall: New Jersey.

Duden (n. a.) (2013): Ethnozentrismus, available online at http://www.duden.de/rechtschreib ung/Ethnozentrismus, accessed 9/6/2013.

Dudenhöffer, F./Wiegand, P./Neuberger, K./Steinel, J. (2005): Entwicklungen und Erfolgsfak-toren im Automobilvertrieb – Gemeinschaftsstudie von KPMG und CAR, Berlin/Gelsenkirchen: KPMG/CAR.

Düsing, R. (1997): Betriebswirtschaftliche Anwendungsbereiche Konnektionistischer Syste-me, in: Barth, K. et al. (Pub.), Duisburger Betriebswirtschaftliche Schriften, Vol. 14, Hamburg: S+W Steuer und Wirtschaftsverlag.

E

Ebel, B./Hofer, M.B./Al-Sibai, J. (Pub.) (2004): Automotive Management – Strategie und Marketing in der Automobilwirtschaft, Berlin et al.: Springer.

Eberl, M. (2010): An Application of PLS in Multi-Group Analysis: The Need for Differentiated Corporate-Level Marketing in the Mobile Communications Industry: in: Esposito Vinzi, V. et al. (Pub.), Handbook of Partial Least Squares – Concepts, Methods and Applications, pp. 487-514, Berlin/Heidelberg: Springer.

Eckhardt, G. M (2004): The Role of Culture in Conducting Trustworthy and Credible Qualita-tive Business Research in China, in: Marschan-Piekkari R., Welch C. (Pub.), Handbook of Qualitative Research Methods for International Business, pp. 402-419, Cheltenham/Northampton: Edward Elgar Publishing.

Eckhardt, G. M./Houston, M. J. (2008): On the malleable nature of product meaning in China, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 484-495.

Edvardsson, B. (1997): Quality in new service development: Key concepts and a frame of reference, in: International Journal of Production Economics, Vol. 52, pp. 31-46.

Edvardsson, B./Tronvoll, B./Gruber, T. (2011): Expanding understanding of service exchange and value co-creation: a social construction approach, in: Journal of Academy of Marketing Science, Vol. 39 (2), pp. 327-339.

Edvardsson, B./Gustafsson, A./Roos, I. (2005): Service portraits in service research: a critical review, in: International Journal of Service Industry Management, Vol. 16 (1), pp. 107-121.

Edwards, K.D. (1996): Prospect Theory: A Literature Review, in: International Review of Financial Analysis, Vol. 5 (1), pp. 19-38.

Emrich, C. (2014): Interkulturelles Marketing-Management – Erfolgsstrategien, Konzepte, Analysen, 3. ed., Wiesbaden: Springer/Gabler.

Emrich, C. (2007): Interkulturelles Marketing-Management – Erfolgsstrategien, Konzepte, Analysen, Wiesbaden: Deutscher Universitäts-Verlag/GWV Fachverlage.

Engelen, A./Brettel, M. (2011): A cross-cultural perspective of marketing departments' influence tactics, in: Journal of International Marketing, Vol. 19 (2), pp. 73-94.

Esch, F.-R. (Pub.) (2013): Strategie und Technik des Automobilmarketing, Wiesbaden: Springer/Gabler.

Esch, F.-R. (2010): Strategie und Technik der Marken-Führung, 6. ed., München: Verlag Franz Vahlen.

Esch, F.-R./Isenberg, M. (2013): Markenidentität und Markenpositionierung festlegen, in: Esch, F.-R. (Pub.), Strategie und Technik des Automobilmarketing, pp. 35-57, Wiesbaden: Springer/Gabler.

Esch, F.-R./Rühl, V./von Einem, E./Gawlowski, D. (2012): „Deutsche Marken dominieren", in: Horizont, 27.9.2012, S. 84, available online at http://www.esch-bra nd.com/4644-deutsche-marken-dominieren/, accessed 13/6/2013., as well as the press release: Aktuelle Studie des AIM zum magischen Dreieck Markenstärke, Servicequalität und Kundenbindung aus Sicht der Kunden, available online at http://www.ebs.edu/artikel.h tml?&L=0&cHash=841599ca77f3487e5626215a5acb8b5e&tx_ttnews%5Btt_news%5 D=1550, accessed 13/6/2013.

Esch, F.-R./Herrmann, A./Sattler,H. (2008): Marketing – Eine Managementorientierte Einführung, 2. ed., München: Verlag Franz Vahlen.

Etzioni, A. (1964): Modern organizations, Englewood Cliffs (N. J.): Prentice-Hall.

Eurostat (n. a.) (2013): Reale BIP-Wachstumsrate, available online at http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=de&pcode=tec00115, accessed 8/10/2013.

F

Fam, K.-S./Waller, D. S./Ong F.-S./Yang, Z. (2008): Controversial product advertising in China: perceptions of three generational cohorts, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 461-469.

Fantapié Altobelli, C./Hoffmann, S. (2011): Grundlagen der Marktforschung, Konstanz/München: UVK Verlagsgesellschaft.

Festinger, L. (1957): A Theory of Cognitive Dissonance, Stanford: Stanford University Press.

Finn, D. W./Lamb, D. W. Jr. (1991): An Evaluation of the Servqual Scales in a Retailing Setting, in: Association for Consumer Research (Pub.), NA – Advances in Consumer Research, Vol. 18, pp. 483-490.

Fitzsimmons, J. A./Fitzsimmons, M. J./Bordoloi, K. (2014): Service Management – Operations, Strategy, Information Technology, 8. ed., New York: McGraw-Hill.

Flees, L./Senturia T. (2008): After-Sales Service Key to Retaining Car Buyers, in: Business Week Online, 23.09.2008, available online at http://www.bain.com/publications/articles/after-sales-service-key-to-retaining-car-buyers-businessweek.aspx, accessed 7/1/2014.

Flake, K. (2007): Controlling in mittelständischen Unternehmen – Ausgestaltung, Einflussfaktoren der Instrumentennutzung und Einfluss auf die Bankkommunikation, Inaugural-Dissertation, available online at http://d-nb.info/98380205X/34, accessed 11/6/15.

Flint, D. J. (2006): Innovation, symbolic interaction and customer valuing: thoughts stemming from a service-dominant logic of marketing, in: Marketing Theory, Vol. 6 (3), pp. 349-362.

Fornell, C./Larcker, D. (1981): Evaluation structural equation models with unobservable variables and measurement error, in: Journal of Marketing Research, Vol. 18, pp. 39-50.

Forsmann, D./Haenecke, H./Zerres, C./Zerres, M. (2004): Erfolgsfaktorenforschung, available online at http://bookboon.com/de/erfolgsfaktorenforschung-ebook, accessed 19/6/2013.

Foscht, T. (2002): Kundenloyalität – Integrative Konzeption und Analyse der Verhaltens - und Profitabilitätswirkungen, in: Forschungsberichte aus der Grazer Management Werkstatt, Liebmann, H. P./Schneider, U. (Pub.), Wiesbaden: Deutscher Universitäts-Verlag.

Foscht, T./Swoboda, B. (2011): Käuferverhalten – Grundlagen, perspektiven, Anwendungen, 4. ed., Wiesbaden: Gabler.

Frank, B./Abulaiti, G./Herbas Torrico, B./Enkawa, T. (2013): How do Asia's two most important consumer markets differ? Japanese–Chinese differences in customer satisfaction and its formation, in: Journal of Business Research, Vol. 66 (12), pp. 2397-2405.

Fraß, A. (2012): Automobilzuliefererindustrie in Deutschland, in: Zerres, M./Zerres, C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 88, München/Mering: Rainer Hampp Verlag.

Freiling, J. (2006): Entrepreneurship – Theorethische Grundlagen und unternehmerische Praxis, München: Verlag Franz Vahlen.

Fritz, W. (2004): Die Erfolgsfaktorenforschung – ein Misserfolg?, in: Die Betriebswirtschaft (DBW), Vol. 64 (5), pp. 623-625.

G

Gaiardelli, P./Cavalieri, S./Saccani, N. (2008): Exploring the relationship between after-sales service strategies and design for X methodologies, in: International Journal of Product Lifecycle Management, Vol. 3 (4), pp. 261-278.

Gaiardelli, P./Saccani, N/Songini, L. (2007): Performance measurement of the after-sales service network – Evidence from the automotive industry, in: Computers in Industry, Vol. 58, pp. 698-708.

Gallagher, T./Mitchke, M. D./Rogers, M. C. (2005): Profiting from spare parts, in: McKinsey Quarterly, Vol. 2, pp. 1-4.

Gan, L./Yin, Z./Jia, N./Xu, S./Ma, S./Zheng, L. (2014): Data you need to know about China: Research Report of China Household Finance Survey 2012, Heidelberg et al.: Springer.

Ganther, R./Issel, H. (2013): Westliche Nutzniesser des Wachstums in den Schwellenlän-
        dern, in: UBS Investor´s Guide, 1/2/2013, Frankfurt am Main: UBS AG.

Gao, Y./Liu, Z./Song, S./Zheng, J. (2013): Technological Capacity, Product Position, and
        Firm Competitiveness – An Empirical Analysis, in: The Chinese Economy, Vol. 46. (1),
        pp. 55-74.

Gebauer, H./Ren, G.-J./Valtakoski, A./Reynoso, J. (2012): Service-driven manufacturing:
        provision, evolution and financial impact of services in industrial firms, in: Journal of
        Service Management, Vol. 23 (1), pp. 120-136.

Gebauer, H./Tennstedt, F./Elsässer, S./Betke, R. (2010): The Aftermarket in the Automotive
        Industry – How to Optimize Aftermarket Performance in Established and Emerging
        Markets, available online at http://www.capgemini.com/resource-file-access/resource
        /pdf/tl_The_Aftermarket_in_the_Automotive_Industry.pdf, accessed 26/3/2014.

Gebauer, H./Fleisch, E./Friedli, T. (2005): Overcoming the service paradox in manufacturing
        companies, in: European Management Journal, Vol. 23 (1), pp. 14-26.

Gefen, D./Straub, D. (2005): A Practical Guide to Factorial Validity Using PLS-Graph: Tutori-
        al and Annotated Example, in: Communications of the Association for Information
        Systems, Vol. 16, pp. 91-109.

Geinitz, C. (2013): Deutsche Hersteller fahren in China weiter an der Spitze, in: FAZ Online,
        22.4.2013, available online at http://www.faz.net/aktuell/wirtschaft/chinesen-fahren-
        volkswagen-deutsche-hersteller-fahren-in-china-weiter-an-der-spi tze-12157084.html,
        accessed 27/9/2013.

Gerischer, C. A. (2010): Der Zusammenhang zwischen Händler- und Kundenzufriedenheit in
        der Automobilwirtschaft – Am Beispiel eines Premium-Automobilherstellers, available
        online at http://publikationen.ub.uni-frankfurt.de/frontdoor/index/index/docId/21149,
        accessed 6/9/2013.

German Industry & Commerce (n. a.) (Pub.) (2009): BusinessFocus China – Automo-
        bilindustrie, Karlsruhe: German Industry and Commerce Verlag.

Gerth, K. (2011): As China goes, so goes the world – How Chinese consumers are trans-
        forming everything, New York: Hill and Wang.

Gerth, K. (2003): China made: Consumer Culture and the Creation of the Nation, in: Harvard
        East Asian Monographs, Vol. 224, Cambridge et al.: Harvard University Press.

Goffin, K. (1999): Customer support – A cross-industry study of distribution channels and strategies, in: International Journal of Physical Distribution and Logistics Management, Vol. 29 (6), pp. 374–397.

Goffin, K./New, C. (2001): Customer support and new product development – An exploratory study, in: International Journal of Operations & Production Management, Vol. 21 (3), pp. 275-301.

Gong, W. (2003): Chinese consumer behavior: a cultural framework and implications, in: Journal of American Academy of Business, Vol. 3 (1/2), pp. 373-380.

Gottschalk, B./Kalmbach, R. (Pub.) (2007): Mastering automotive challenges, London/Philadelphia: Kogan Page.

Gouthier, M. H. J. (2013): Die Produkte und Dienstleistungen aufwerten und weiterentwickeln, in: Esch, F.-R. (Pub.), Strategie und Technik des Automobilmarketing, pp. 129-147, Wiesbaden: Springer/Gabler.

Green, N. (2009): Die Entwicklung des Gebrauchtwagenmarktes in China, in: German Industry & Commerce (Pub.), BusinessFocus China – Automobilindustrie, pp. 262-264, Karlsruhe: German Industry and Commerce Verlag.

Gregori, C. (2006): Instrumente einer erfolgreichen Kundenorientierung – Eine empirische Untersuchung, in: Hübner, H. et al. (Pub.), Gabler Edition Wissenschaft: Kasseler Wirtschafts- und Verwaltungswissenschaft, Vol. 22, Wiesbaden: Deutscher Universitätsverlag/GWV Fachverlage.

Gregory, A. M./Parsa, H. G. (2013): Kano's Model: An Integrative Review of Theory and Applications to the Field of Hospitality and Tourism, in: Journal of Hospitality Marketing & Management, Vol. 22 (1), pp. 25-46.

Greving, B. (2009): Messen und Skalieren von Sachverhalten, in: Albers et al. (Pub.), Methodik der empirischen Forschung, 3. ed., pp. 65-78, Wiesbaden: Springer Fachmedien.

Großkurth, B. (2004): Markenloyalität im Premiumsegment des Automobilmarktes – Determinanten und Wirkbeziehungen, in: Hünerberg, R./Töpfer, A. (Pub.), Gabler Edition Wissenschaft – Forum Marketing, Wiesbaden: Deutscher Universitäts-Verlag.

Grönroos, C. (1984): A Service Quality Model and its Marketing Implications, in: European Journal of Marketing, Vol. 18 (4), pp. 36-44.

Gudergan, S. (2010): Adoption of technologies in industrial after-sales services across cultures, in: International Journal of Services Technology and Management, Vol. 14 (2/3), pp. 250-258.

Gunasekaran, A./Lai, K.-H. /Cheng, T. C. E. (2008): Responsive supply chain: a competitive strategy in a networked economy, in: Omega, Vol. 36 (4), pp. 549-564.

Guo, G. (2013): Consumer Behaviour in China, in: Paliwoda, S. et al. (Pub.), Marketing Management in Asia, pp. 20-32, New York/London: Routledge.

H

Ha, H.-Y/Janda, S./Park, S.-K. (2009): Role of satisfaction in an integrative model of brand loyalty Evidence from China and South Korea, in: International Marketing Review, Vol. 26 (2), pp. 198-220.

Haenecke, H. (2002): Methodenorientierte Systematisierung der Kritik an der Erfolgsfaktorenforschung, in: Zeitschrift für Betriebswirtschaft, Vol. 72 (2), pp. 165-182.

Hair, J. F. Jr./Sarstedt/Hopkins, L./ Kuppelwieser, V. G. (2014a): Partial least squares structural equation modeling (PLS-SEM) – An emerging tool in business research, in: European Business Review, Vol. 26 (2), pp. 106-121.

Hair, J. F. Jr./Hult, G. T. M./Ringle, C. M./Sarstedt, M. (2014b): A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), Los Angeles et al.: Sage Publications.

Hair, J. F./Ringle, C. M./Sarstedt, M. (2011): PLS-SEM: Indeed a silver bullet, in: The Journal of Marketing Theory and Practice, Vol. 19 (2),pp. 139-152.

Hättich, H. (2009): Markenloyalität im Aftersales-Marketing – Konzept zur Erhöhung der Markenloyalität in der deutschen Automobilbranche durch Optimierung eines herstellerinitiierten Aftersales-Marketing, in: Zerres, M./Zerres, C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 73, München/Mering: Rainer Hampp Verlag.

Han, P.-C. (2013): Confucian Leadership and the Rising Chinese Economy – Implicaions for Developing Global Leadership, in: The Chinese Economy, Vol. 46 (2), pp. 107-127.

He, H./Mukherjee, A. (2007): I am, ergo I shop: does store image congruity explain shopping behaviour of Chinese consumers? in: Journal of Marketing Management, Vol. 23 (5/6), pp. 443-460.

Hecker, F./Hurth, J./Seeba, H. G. (Pub.) (2012): Strategisches Management im Aftersales-Service, 2. ed., München: Autohaus Buch und Formular.

Heider, U. H. (2001): Markenbewertung – die Marke als Quelle der Wertschaffung: Eine empirische Analyse am Beispiel der deutschen Automobilindustrie, in: Zerres, M. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 16, München/Mering: Rainer Hampp Verlag.

Henseler, J./Chin, W. W. (2010), A Comparison of Approaches for the Analysis of Interaction Effects Between Latent Variables Using Partial Least Squares Path Modeling, in: Structural Equation Modeling, Vol. 17, pp. 82-109.

Henseler, J./Ringle, C. M./Sinkovics, R. R. (2009): The use of partial least squares path modeling in international marketing, in: Advances in International Marketing, Vol. 20, pp. 277–319.

Hernandez, M. D./Wang, Y. J./Minor, M. S./Liu, Q. (2008): Effects of superstitious beliefs on consumer novelty seeking and independent judgment making: Evidence from China, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 424-435.

Herzberg, F. (1965): The New Industrial Psychology, in: Industrial/Labour Relations Review, Vol. 18 (3), pp. 364-376.

Hesse, J. (2004): Erfolgsfaktoren im Vertrieb – Empirische Analysen von Herstellerunternehmen schnelldrehender Konsumgüter, Wiesbaden: Deutscher Universitäts-Verlag.

Heymann, E./Koppel, O./Puls, T. (2011): Elektromobilität – Sinkende Kosten sind conditio sine qua non, in: Deutsche Bank Research (Pub.), Aktuelle Themen 526, available online at http://www.dbresearch.de/MAIL/DBR_INTERNET_D E-PROD/PROD0000000000277 861.pdf, accessed 9/6/2012.

Hoffmeister, M. (2011): Herausforderungen internationaler Geschäftsbeziehungen aus Sicht deutscher Unternehmen, in: Mann, A. (Pub.), Herausforderungen der internationalen marktorientierten Unternehmensführung, pp. 135-149, Wiesbaden: Gabler.

Hofstede, G. (2001): Culture's consequences: Comparing values, behaviors, institutions and organizations across nations, 2. ed., Thousand Oaks et al.: Sage Publications.

Hofstede, G. (1997): Lokales Denken, globales Handeln: Kulturen, Zusammenarbeit und Management, München: Deutscher Taschenbuch Verlag.

Hofstede, G. (1980): Motivation, Leadership, and Organization: Do American Theories Apply Abroad?, in: Organizational Dynamics, pp. 42-63.

Hofstede, G./Hofstede, G. J. (2005): Cultures and Organizations – Software of the Mind, 2. ed., New York et al.: McGraw-Hill.

Hofstede, G./Hofstede G. J./Minkov, M (2010): Cultures and organizations: Software of the mind, 3. ed., New York: McGraw-Hill.

Hogreve, J. E./Toennjes F./Iseke, A./Derfuss, K. (2013): Does the Service-Profit Chain Hold True? A Meta-Analysis, in: AMA Winter Educators' Conference Proceedings Vol. 24, pp. 179-180.

Holzmüller, H. H. (1989): Konsumentenforschung, interkulturelle, in: Macharzina, K./Welge, M. K. (Pub.), Handwörterbuch Export und Internationale Unternehmenstätigkeit, pp. 1143-1157, Stuttgart: Schäffer-Poeschel.

Homburg, C./Krohmer, H. (2009): Marketingmanagement: Strategie – Instrumente – Umsetzung – Unternehmensführung, 4. ed., Wiesbaden: Gabler.

Homburg, C./Krohmer, H. (2006): Marketingmanagement: Strategie – Instrumente – Umsetzung – Unternehmensführung, 3. ed., Wiesbaden: Gabler.

Holtbrügge, D./Puck, J. F. (2008): Geschäftserfolg in China – Strategien für den größten Markt der Welt, 2. ed., Berlin/Heidelberg: Springer.

Horn, G. A. (2013): Abwrackprämie, available online at http://wirtschaftslexikon.gable r.de/Archiv/89412/abwrackpraemie-v8.html, accessed 5.9.2013.

Huber, F./Herrmann, A. (2001): Achieving brand and dealer loyalty: the case of the automotive industry, in: The International Review of Retail, Distribution and Consumer Research, Vol. 11 (2), pp. 97-122.

Hull, D./Cox, J. (1994): The field service function in the electronics industry: Providing a link between customers and production/marketing, in: International Journal of Production Economics, Vol. 37 (1), pp. 115-126.

Hünecke, P. (2012): Einfluss von After-Sales-Service Determinanten auf die Markenloyalität im Premiumautomobilsektor – eine empirische Analyse in drei Märkten, in: Audi Dissertationsreihe, Vol. 68, Göttingen: Cuvillier Verlag.

Hünerberg, R./Heise, G./Hoffmeister, M. (Pub.) (1995): Internationales Automobilmarketing – Wettbewerbsvorteile durch marktorientierte Unternehmensführung, Wiesbaden: Gabler.

Hsu, J. L./Nien, H. (2008): Who are ethnocentric? Examining consumer ethnocentrism in Chinese societies, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 436-447.

I, J

IBM (n. a.) (2011): IBM SPSS Modeler 14.2 – Anwendungshandbuch, available online at ftp://public.dhe.ibm.com/software/analytics/spss/documentation/modeler/14.2/de/ApplicationsGuide.pdf, accessed 12/11/2013.

Ishia, K. (2009): Nationalistic sentiments of Chinese consumers: the effects and determinants of animosity and consumer ethnocentrism, in: Journal of International Consumer Marketing, Vol. 21 (4), pp. 299-308.

Janovsky, J./Khashabian, B./Pilarek, D./Pulg, C. (2011): Marktexpansion in Schwellenländern – Mit Service-Innovationen zum Geschäftserfolg, Wiesbaden: Gabler Verlag/Springer Fachmedien.

Janssen, J./Laatz, W. (2013): Statistische Datenanalyse mit SPSS – Eine anwendungsorientierte Einführung in das Basissystem und das Modul Exakte Tests, 8. ed., Berlin/Heidelberg: Springer Gabler.

Jarvis, C. B./MacKenzie, S.B./Podsakoff, P. M. (2003): A critical review of construct indicators and measurement model misspecification in marketing and consumer research, in: Journal of Consumer Research, Vol. 30 (2), pp. 199-218.

Jen-Kai, L. (2011): Jia You – Gib Gas! Chinas Automobilindustrie startet durch, in: GIGA - German Institute of Global and Area Studies (Pub.), GIGA Focus Vol. 9, pp. 1-8.

Jianye, W. (2013): Is the Chinese Economy Slowing down?, in: China today, The China Welfare Institute (Pub.), Vol. 62 (8), pp. 40-41.

Joas, A. (2009): Marke, Vertrieb und Service entscheiden den Wettbewerb in China, in: German Industry & Commerce (Pub.), BusinessFocus China – Automobilindustrie, pp. 155-158. Karlsruhe: German Industry and Commerce Verlag.

Jönke, R. (2012): Managing after-sales services: strategies and interfirm relationships, available online at http://dx.doi.org/10.3929/ethz-a-007307425, accessed 17/5/2013.

K

Kaerner, H./Kasper, M./Mattmüller, R. (Pub.) (2004): After-Sales – Der Service macht den Gewinn; wie sie Produkte erfolgreich mit Dienstleistungen verbinden, Frankfurt am Main: FAZ-Institut für Management-, Markt- und Medieninformationen.

Kahneman, D./Tversky, A. (1979): Prospect theory: An analysis of decision under risk, in: Econometrica: Journal of the Econometric Society, Vol. 47 (2), pp. 263-291.

Kano, N./Seraku, N./Takahashi, F./Tsuji, S. (1984): Attractive quality and must-be quality, in: The Journal of the Japanese Society for Quality Control, Vol. 14 (2), pp. 39-48.

Kasperk, G./Woywode, M./Kalmbach, R. (2006): Erfolgreich in China – Strategien für die Automobilzulieferindustrie, Berlin et al.: Springer.

Keller, K. L. (1993): Conceptualizing, measuring, and managing customer-based brand equity, in: Journal of Marketing, Vol. 57 (1), pp. 1-22.

Kaya, M. (2009): Verfahren der Datenerhebung, in: Albers, S. et al. (Pub.), Methodik der empirischen Forschung, 3. ed, pp. 49-64, Wiesbaden: Gabler.

Kim, S.-H./Cohen, M. A./Netessine, S. (2007): Performance contracting in after-sales service supply chains, in: Management Science, Vol. 53 (12), pp. 1843-1858.

Kirkman, B.L./ Lowe, K. B./Gibson, C. B. (2006): A quarter century of Culture's Consequences: A review of empirical research incorporating Hofstede's cultural values framework, in: Journal of International Business Studies, Vol. 37 (3), pp. 285-320.

Klarmann, M. (2008): Methodische Problemfelder der Erfolgsfaktorenforschung – Bestandsaufnahme und empirische Analysen, Wiesbaden: Gabler.

Knörle, C. (2011): Markenloyalität in China – Kulturelle und markenbeziehungstheoretische Determinanten, Berlin: Logos.

Koch, J. (2012): Marktforschung – Grundlagen und praktische Anwendungen, 6. ed., München: Oldenbourg.

Kotler, P./Bliemel, F. (2005): Marketing-Management – Analyse, Planung, und Verwirklichung, 9. ed, Stuttgart: Schäffer-Poeschel.

Kotler, P./Berger, R./Bickhoff, N. (2010): The Quintessence of Strategic Management – What You Really Need to Know to Survive in Business, Heidelberg et al.: Springer-Verlag.

Kotler, P./Keller, K. L./ Bliemel, F. (2007): Marketing-Management – Strategien für Wertschaffendes handeln, 12. ed. München et al.: Pearson Studium.

Köll, E. (2009): JWT China: Advertising for the New Chinese Consumer, in: HBS Case 9-809-079, pp. 1-26.

Krafft, M./Götzt, O./Liehr-Gobbers, K. (2005): Die Validierung von Strukturgleichungsmodellen mit Hilfe des partial-Least-Squares (PLS)-Ansatzes, in: Bliemel, F. et al. (Pub), Handbuch PLS-Pfadmodellierung – Methode, Anwendung, Praxisbeispiele, pp. 71-86, Stuttgart: Schäffer-Poeschel Verlag.

Kremlicka, R. et al. (2011): Megatrends in der Automobilindustrie und ihre Auswirkungen auf den AC Centrope, available online at http://www.clusterwien.at/files/mobility/Jahresevent2012/STUDIE_Megatrends-in-der-Automobilindustrie.pdf, accessed 16/6/12, Wien: Wirtschaftsagentur Wien.

Kroeber, A. L./Kluckhohn, C. (1952): Culture: a Critical Review of Concepts and Definitions, in: Anthropological Papers, Vol. 47 (1), Cambridge: The Museum.

Kroeber-Riel, W./Gröppel-Klein, A. (2013): Konsumentenverhalten, 10. ed., München: Verlag Franz Vahlen.

Krogh, H. (2009), VW aims to be 'top player' in aftermarket service, in: Automotive News Europe (Pub.), E-Mail Newsletter from 19.10.2009.

Kroll, F./Chudziak, F./Decker, R. (2011): Der (Urbane) Chinesische Konsument – Eine Metaanalytische Betrachtung, working paper series, in: SSRN – Social Science Research Network, pp. 1-14, available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1843048, accessed 1/6/2013.

Kubicek, H. (1977): Heuristische Bezugsrahmen und heuristisch angelegte Forschungsdesigns als Elemente einer Konstruktionsstrategie empirischer Forschung, in: Köhler, R. (Pub.), Empirische und handlungsorientierte Forschungskonzeption in der Betriebswirtschaftslehre, pp. 3-36, Stuttgart: Poeschel.

Kuenzel, S./Halliday, S. V. (2010): The chain of effects from reputation and brand personality congruence to brand loyalty: The role of brand identification, in: Journal of Targeting, Measurement and Analysis for Marketing, Vol. 18 (3/4), pp. 167-176.

Kumara, S./Canhua, K. (2010): Perceptions of country of origin: An approach to identifying expectations of foreign products. in: Journal of Brand Management, Vol. 17 (5), pp. 343-353.

Kurata, H./Nam, S. H. (2010): After-sales service competition in a supply chain: Optimization of customer satisfaction level or profit or both?, in: International Journal of Production Economics, Vol. 127 (1), pp. 136-146.

Kurek, R. (2004): Erfolgsstrategien für Automobilzulieferer – Wirksames Management in einem dynamischen Umfeld, Berlin/Heidelberg: Springer Verlag.

Kuß, A. (2012): Marktforschung – Grundlagen der Datenerhebung und Datenanalyse, 4. ed., Wiesbaden: Springer Gabler.

Kuß, A. (2011): Marketing-Theorie – Eine Einführung, 2. ed., Wiesbaden: Gabler.

Kühlwein, R./Ponssen, H./Lück, A. (1999): Ersatzteillogistik als Erfolgsfaktor des globalen Af-
tersales in der Automobilindustrie, in: Distribution: Logistik im Warenfluß und Vertei-
lung, Vol. 9, pp. 16-19, Mainz/Stuttgart: EuroTransportMedia-Verlag.

Kwok, S./Uncles, M./Huang, Y. (2006): Brand Preferences and Brand Choices among Urban
Chinese Consumers: An Investigation of Country-of-Origin Effects, in: Asia Pacific
Journal of Marketing and Logistics, Vol. 18 (3), pp. 163-172.

L

Laakmann, K. (1995): Value Added Services als Profilierungsinstrument im Wettbewerb –
Analyse, Generierung und Bewertung, in: Meffert, H. (Pub.), Schriften zu Marketing
und Management, Vol. 27, Frankfurt am Main et al.: Peter Lang – Europäischer Ver-
lag der Wissenschaften.

Lai, F./Griffin, M./Babin, B. J. (2009): How quality, value, image, and satisfaction create loyal-
ty at a Chinese telecom, in: Journal of Business Research, Vol. 62, pp. 980-986.

Lam, D. (2007): Cultural Influence on Proneness to Brand Loyalty, in: Journal of International
Consumer Marketing, Vol. 19 (3), pp. 7-21.

Laroche, M./Ueltschy, L. C./Abe, S./Cleveland, M./Yannopoulos, P. P. (2004): Service Quali-
ty Perceptions and Customer Satisfaction: Evaluating the Role of Culture, in: Journal
of International Marketing, Vol. 12 (3), pp. 58-85.

Law, D. (2013): Initial assessment of two questionnaires for measuring service quality in the
Hong Kong post-secondary education context, in: Quality Assurance in Education,
Vol. 21 (3), pp. 231 - 246.

Law, K. S./Wong C./Mobley, W. H. (1998): Toward a Taxonomy of Multidimensional
Constructs, in: Academy of Management Review, Vol. 23 (4), pp. 741-755.

Lee, H./Lee, Y./Yoo, D. (2000): The determinants of perceived service quality and its rela-
tionship with satisfaction, in: Journal of Services Marketing, Vol. 14 (3), pp. 217-231.

Lehmann, H. (2006): Internationale Rankings der Wettbewerbsfähigkeit von Volkswirtschaf-
ten: geringer diagnostischer und prognostischer Aussagehalt, in: Halle Institute for
Economic Research (Pub.), Wirtschaft im Wandel, Vol. 12 (10), pp. 296-302, availab-
le online at http://ideas.repec.org/a/iwh/iwhwiw/10-06-4.html, accessed 29/4/2013.

Lele, M. M. (1997): After-sales service-necessary evil or strategic opportunity?, in: Managing
Service Quality, Vol. 7 (3), pp. 141-145.

Lele, M. M. (1986): How service needs influence product strategy, in: Sloan Management Review, Vol. 28 (1), pp. 63-70.

Lerchenmüller, M. (2007): Die Distributionspolitik im After Sales Service, in: Pepels, W. (Pub.), After Sales Service – Geschäftsbeziehungen profitable gestalten, 2. ed., pp. 157-188, Düsseldorf: Symposium Publishing.

Lennartowicz, T./Roth, K. (2001): Does Subculture Within a Country Matter? A cross-Cultural Study of Motivational Domains and Business Performance in Brazil, in: Journal of International Business Studies, Vol. 32 (2), pp. 305-325.

Leung, K./Bhagat, R. S./Buchan, N. R./Erez, M./Gibson, C. B. (2005): Culture and international business: recent advances and their implications for future research, in: Journal of International Business Studies, Vol. 36 (4), pp. 357-378.

Levitt, T. (1983a): After the sale is over, in: Harvard Business Review, Vol. 61 (5), pp. 87-93.

Levitt, T. (1983b): The globalization of markets, in: Harvard Business Review, Vol. 61 (3), pp. 92-102.

Levitt, T. (1972): Production-line approach to service, in: Harvard Business Review, Vol. 50 (5), pp. 41-52.

Li, D./An, S./Yang, K. (2008): Exploring Chinese consumer repurchasing intention for services: an empirical investigation, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 448-460.

Liersch, A. (2012): Neukundenakquisition als Herausforderung für Premiumautomobilmarken – Eine Analyse des Nutzungs- und Wirkungsverhaltens von Kommunikationsinstrumenten unter besonderer Berücksichtigung des Premiumsegments der Automobilwirtschaft, Wiesbaden: Springer Fachmedien.

Liljander, V./Roos, I. (2002): Customer-relationship levels – from spurious to true relationships, in: Journal of Services Marketing, Vol. 16 (7), pp. 593-614.

Lin, C.A. (2001): Cultural values reflected in Chinese and American television advertising, in: Journal of Advertising, Vol. 30 (4), pp. 83-94.

Lin, H.-H./Wang, Y.-S. (2006): An examination of the determinants of customer loyalty in mobile commerce contexts, in: Information & Management, Vol. 43, pp. 271-282.

Lindeman, M./Verkasalo, M. (2005): Measuring Values With the Short Schwartz's Value Survey, in: Journal of Personality Assessment, Vol. 5 (2), pp. 170-178.

Lindridge, A. M./Wang, C. (2008): Saving "face" in China: modernization, parental pressure, and plastic surgery, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 496-508.

Liu, Y./Cohen, A. (2010): Values, commitment and OCB among Chinese employees, in: International Journal of Intercultural Relations, Vol. 34, pp. 493 ff.

London Economics (n. a.) (2006): Developments in car retailing and after-sales markets under regulation No 1400/2002 – Volume 1 – final report to EC DG Competition, Luxembourg: Office for Official Publications of the European Communities.

Löffler, M./Decker, R. (2012): Service Satisfaction With Premium Durables: A Cross-Cultural Investigation, in: Diamantopoulos, A. et al. (Pub.), Quantitative Marketing and Marketing Management – Marketing Models and Methods in Theory and Practice, pp. 401-422, Wiesbaden: Springer Gabler.

Loomba, A. (1998): Product distribution and service support strategy linkages, in: International Journal of Physical Distribution and Logistics Management, Vol. 28 (2), pp. 143–161.

Loomba, A. (1996): Linkages between product distribution and service support functions, in: International Journal of Physical Distribution and Logistics Management, Vol. 26 (4), pp. 4–22.

Loukmidis, G./Luczak, H. (2006): Lebenszyklusorientierte Planungsstrategien für den Ersatzteilbedarf, in: Barkawi, K. et al. (Pub.), Erfolgreich mit After Sales Services – Geschäftsstrategien für Servicemanagement und Ersatzteillogistik, pp. 251-270, Berlin/Heidelberg: Springer.

Lowry, P. B./Gaskin, J. (2014): Partial Least Squares (PLS) Structural Equation Modeling (SEM) for Building and Testing Behavioral Causal Theory: When to Choose It and How to Use It, in: IEEE Transactions on Professional Communication, Vol. 57 (2), pp. 123-146.

M

Maddison, A. (2007): Chinese Economic Performance in the Long Run – 960-2030 AD, 2. ed., n. p.: OECD – Organisation for Economic Co-operation and Development.

Mäder, R. (2005): Messung und Steuerung von Markenpersönlichkeit – Entwicklung eines Messinstruments und Anwendung in der Werbung mit prominenten Testimonials, in: Bauer, H. H./Homburg, C. (Pub.), Schriften des Instituts für Markenorientierte Unternehmensführung Universität Mannheim, Wiesbaden: Deutscher Universitätsverlag/GWV Fachverlage.

Makris, S./Chryssolouris, G. (2013): Web-services-based supply-chain-control logic: an au-
tomotive case study, in: International Journal of Production Research, Vol. 51 (7),
pp. 2077-2091.

Mann, A. (1995): Grundlagen der Service-Politik im internationalen Automobil-Wettbewerb,
in: Hünerberg, R. et al. (Pub.), Internationales Automobilmarketing – Wettbewerbsvor-
teile durch marktorientierte Unternehmensführung, pp. 443-474, Wiesbaden: Gabler.

Mann, A. (1998): Erfolgsfaktor Service: strategisches Servicemanagement im nationalen und
internationalen Marketing, in: Hünerberg, R./Töpfer, A. (Pub.), Gabler Edition Wis-
senschaft – Forum Marketing, Wiesbaden: Deutscher Universitäts-Verlag.

Marcoulides, G. A/Chin, W. W./Saunders, C. (2009): A Critical Look At Partial Least Squares
Modeling, in: MIS Quarterly, Vol. 33 (1), pp. 171-175.

Mathieu, V. (2001): Service strategies within the manufacturing sector: benefits, costs and
partnership, in: International Journal of Service Industry Management, Vol. 12 (5), pp.
451-475.

Mayring, P. (2002): Einführung in die qualitative Sozialforschung – Eine Anleitung zu qualita-
tivem Denken, 5. ed., Weinheim/Basel: Beltz.

McEwen, W./Fang, X./Zhang, C./Burkholder, R. (2006): Inside the Mind of the Chinese Con-
sumer, in: Harvard Business Review, Vol. 84 (3), pp. 68-76.

Meffert, H. (1994): Marketing-Management – Analyse, Strategie, Implementierung, Wiesba-
den: Gabler.

Meffert, H./Burmann, C./Kirchgeorg, M. (2012): Marketing – Grundlagen marktorientierter
Unternehmensführung, 11. ed., Wiesbaden: Gabler.

Meffert, H./Burrmann, C./Becker, C. (2010): Internationales Marketing-Management – Ein
markenorientierter Ansatz, 4. ed., Stuttgart: Kohlhammer.

Meffert, H./Bruhn, M. (2009): Dienstleistungsmarketing – Grundlagen – Konzepte – Metho-
den, Wiesbaden: Gabler.

Mels, G./Boshoff, C./Nel, D. (1997): The Dimensions of Service Quality: The Original Euro-
pean Perspective Revisited, in: Service Industries Journal, Vol. 17 (1), pp. 173-189.

Mennicken, C. (2000): Interkulturelles Marketing – Wirkungszusammenhänge zwischen Kul-
tur, Konsumverhalten und Marketing, Wiesbaden: Deutscher Universitäts-Verlag.

Mercedes-Benz China (n. a.) (2014a): After-Sales Training and Certification, available online at http://www.mercedes-benz.com.cn/content/china/mpc/mpc_china _ website/enng/home_mpc/passengercars/home/services_accessories/after_s al es_services/After-Sales_Service_Highlights/AfterSales_Service_Training_and _Certification.html, accessed 4/4/2014.

Mercedes-Benz China (n. a.) (2014b): After-Sales Research Projects, available online at http://www.mercedes-benz.com.cn/content/china/mpc/mpc_china_w ebsite/enng/home_mpc/passengercars/home/services_accessories/after_sales_services/research_projects.html, accessed 4/4/2014.

Merten, C. F. (2012): Den Servicekunden auf der Spur – Die Wünsche der unterschiedlichen Kundensegmente, in: Jürgensen, K./Meunzel, R. M. (Pub.), Service Studie 2012, München: Autohaus.

Merten, C. F. (2011): Erfolgsfaktoren After Sales – versteckte Potenziale bei Gebrauchtwagen heben, in: Meunzel, R. M. (Pub.), Eine Autohaus-Studie in Zusammenarbeit mit Volkswagen Financial Services, München: Autohaus.

Meyr, H. (2004): Supply chain planning in the German automotive industry, OR Spectrum, Vol. 26 (4), pp. 447-470.

Meyring, N. (2009): Chinas nationaler Automobilmarkt, in: German Industry & Commerce (Pub.), BusinessFocus China – Automobilindustrie, pp. 30-35, Karlsruhe: German Industry and Commerce Verlag.

Mittal, V./Kumar, P./Tsiros, M. (1999): Attribute-Level Performance, Satisfaction, and Behavioral Intentions over Time: A Consumption-System Approach, in: Journal of Marketing, Vol. 63, pp. 88-101.

Mohr, D./Müller, N./Krieg, A./Gao, P./Kaas, H.-W./Krieger, A./Hensley, R. (2013): The road to 2020 and beyond – What's driving the global automotive industry?, in: McKinsey&Company (Pub.), Automotive & Assembly – Latest thinking, available online at http://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/Automotive%20and%0Assembly/PDFs/McK_The_road_to_2020_and_beyond.ashx, accessed 28/3/2014.

Morschett, D./Schramm-Klein, H./Swoboda, B. (2008): Entry Modes for Manufacturers' International After-Sales Service – Analysis of Transaction-specific, Firm-specific and Country-specific determinants, in: Management International Review, Vol. 48 (5), pp. 525-549.

Moser, R./Migge, T./Lockstroem, M./Neumann, J. (2011): Exploring Chinese cultural standards through the lens of German managers: A case study approach, in: IIMB Management Review, Vol. 23 (2), pp. 102-109.

Möhlen, M. (2007): Automobilmarketing – Entwicklung eines Kommunikationskonzeptes für Premiumanbieter auf dem deutschen Automobilmarkt im Hinblick auf die Zielgruppe Senioren 50plus, in: Zerres, M. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 47, München/Mering: Rainer Hampp Verlag.

Müller, D. (2009): Moderatoren und Mediatoren in Regressionen, in: Methodik der empirischen Forschung, Albers, S. et al. (Pub.), 3. ed, pp. 237-252, Wiesbaden: Gabler.

Müller, S./Gelbrich, K. (2004): Interkulturelles Marketing, München: Verlag Franz Vahlen.

Müller-Stewens, G./Lechner, C. (2005): Strategisches Management – Wie strategische Initiativen zum Wandel führen, 3. ed., Stuttgart: Schäffer-Poeschel Verlag.

N

n. a. (2014): Enterprise Feedback Suite – EFS Survey, German Manual, Version 10.4/1.0, Questback GmbH.

n. a. (2013a): China ist wichtigster Markt für deutsche Autobauer, in: N24 Nachrichten, 20/01/2013, available online at http://www.n24.de/n24/Nachrichten/Wirtschaft/d/1743 952/china-ist-wichtigster-markt-fuer-deutsche-autobauer.html, accessed 23/5/2013.

n. a. (2013b): Finanzkennzahlen 2012, in: Autohaus online, 17/01/2013, available online at http://www.autohaus.de/finanzkennzahlen-2012-kfz-gewerbe-erreicht-nur-1-5-prozent -umsatzrendite-1191791.html, accessed 24/5/2013.

n. a. (2013c): Chinese officials favor Audis despite government's buy-local policy, in: Bloomberg News, 6/3/2013, available online at http://www.bloomberg.com/ne ws/2013-03-05/audis-trump-patriotism-for-china-s-elite-as-local-bran ds-falter.html, accessed 27/5/2013.

n. a. (2013d): "China stinkt der deutsche Erfolg", in: Automobilwoche, 1/4/2013, available online at http://www.automobilwoche.de/article/20130401/NACHRIC HTEN/13032991 8/1098/china-stinkt-der-deutsche-erfolg#.UZz_3ZXKhC8, accessed 27/5/2013.

n. a. (2013e): Quality watchdog keeps eye on VW, in: ChinaDaily, 7/1/2013, available online at http://www.chinadaily.com.cn/business/2013-01-07/content_16092396.htm, accessed 27/5/13.

n. a. (2013f): Sino-Foreign Joint Ventures, in: ChinaAuto Web, available online at http://chinaautoweb.com/auto-companies/, accessed 16/10/2013.

n. a. (2012a): Dealerships too dependent on new-car sales for profits, study says, in: Automotive News China, 11/9/2012, available online at http://www.autonewschina.com/en/article.asp?id=9175, accessed 27/5/2013.

n. a. (2012b): Foreign cars may be shut out of govt fleet, in: ChinaDaily, 28/2/2012, available online at http://www.chinadaily.com.cn/business/2012-02/28/content _14715011.htm, accessed 27/5/2013.

n. a. (2012c): Luxury int'l car brands running over Chinese trust, in: ChinaDaily, 14/12/2012, available online at http://www.chinadaily.com.cn/business/2012-12/14/content_16018 333.htm, accessed 27/5/13.

n. a. (2012d): After-Sales Dealer Service Satisfaction in China Plateaus After Six Consecutive Years of Increases, in: J.D. Powers Asia Pacific Reports, 30/7/2012, available online at https://pictures.dealer.com/jdpower/d5b3f0b60a0d02b70145bb9db890c18 0.pdf, accessed 28/5/2013.

n. a. (2012e): Bevölkerung und Haushalte, in: Bundeszentrale für politische Bildung – Soziale Situation in Deutschland, 24/10/2012, available online at http://www.bpb.de/n achschlagen/zahlen-und-fakten/soziale-situation-in-deutschland/61584/bevoelkerung-und-haushalte, accessed 11/10/2013.

n. a. (2012f): Daimler bündelt Vertrieb, in: Auto Motor und Sport, DPA Pressemeldung, 17/12/2012, available online at http://www.auto-motor-und-sport.de/ne ws/mercedes-in-china-daimler-buendelt-vertrieb-6326564.html, accessed 25/10/2013.

n. a. (2012g): Mercedes strauchelt auf Chinas Automarkt, in: Handelsblatt-Online, 21/9/2012, available online at http://www.handelsblatt.com/unternehmen/indus trie/schlechte-absatzzahlen-mercedes-strauchelt-auf-chinas-automarkt/71652 38.html, accessed 25/10/2013.

n. a. (2011a): Bejing dealers shift focus from new car sales, in: Automotive News China, 1/3/2011, available online at http://www.autonewschina.com/en/articl e.asp?id=6605, accessed 27/5/2013.

n. a. (2011b): Noch ein Mini für Magna, available online at http://www.automobil-produktion.d e/2011/01/noch-ein-mini-fuer-magna/, accessed 10/5/2012.

n. a. (2010): Alltagsverkehr in Deutschland – Struktur - Aufkommen - Emissionen - Trends, updated version (March 2010) of the project presentation, 19/8/2009, available online at http://www.mobilitaet-in-deutschland.de/pdf/MiD2008_Pra esentation_Abschlussve ranstaltung_August2009_FassungMaerz2010.pdf, accessed 6/9/2013, Bonn: infas – Institut für angewandte Sozialwissenschaft GmbH.

n. a. (2008): Mobilität in Deutschland 2008 Ergebnisbericht – Struktur - Aufkommen - Emissionen - Trends, online Verfügbar unter http://www.mobilitaet-in-deutschland.de/pdf/M iD2008_Abschlussbericht_I.pdf, accessed 6/9/2013, Bonn/Berlin: infas – Institut für angewandte Sozialwissenschaft GmbH/DLR – Deutsches Zentrum für Luft und Raumfahrt e. V.

National Bureau of Statistics of China (n. a.) (2013): News & Events, available online at http://www.stats.gov.cn/english/newsandcomingevents/t20130222_402874607.htm, accessed 9/10/2013.

National Bureau of Statistics of China (n. a.) (2012): XI. Population, Living Conditions and Social Security, available online at http://www.stats.gov.cn/english/newsa ndcom-ingevents/t20130222_402874607.htm, accessed 7/6/2013.

Newman, D. A. (2014): Missing Data: Five Practical Guides, in: Operational Research Methods, Vol. 17 (4), pp. 372-411.

Nguyen, N./Leblanc, G. (2001): Corporate image and corporate reputation in customers' retention decisions in services, in: Journal of Retailing and Consumer Services, Vol. 8 (4), pp. 227-236.

Nicolai, A./Kieser, A. (2002): Trotz eklatanter Erfolglosigkeit: die Erfolgsfaktorenforschung weiter auf Erfolgskurs, in: Die Betriebswirtschaft, Vol. 62 (6), pp. 579-596.

Nordin, F. (2005): Searching for the optimum product service distribution channel: Examining the actions of five industrial firms, in: International Journal of Physical Distribution and Logistics Management, Vol. 35 (8), pp. 576–594.

Nunnally, J. C./Bernstein, I. H. (1994): Psychometric Theory, 3. ed., New York: McGraw-Hill.

O

Ogba, I.-E./Tan, Z. (2009): Exploring the impact of brand image on customer loyalty and commitment in China, in: Journal of Technology Management in China, Vol. 4 (2), pp. 132-144.

Oh, L.-B./Zhang, Y. (2010): Understanding Chinese users' preference for domestic over for-
      eign internet services, in: Journal of International Consumer Marketing, Vol. 22 (3), pp.
      227-243.

Oliva, R./Kallenberg, R. (2003): Managing the transition from products to services, in: Inter-
      national Journal of Service Industry Management, Vol. 14 (2), pp. 160-172.

Oliver, R. L. (2010): Satisfaction – A Behaviorl Perspective on the Consumer, 2. ed., Armonk
      et al.: Sharpe.

Oliver, R.L. (1999): Whence Consumer Loyalty? in: Journal of Marketing Management, Vol.
      63, pp. 33-44.

Oliver, R. L. (1980): A Cognitive Model of the Antecedents and Consequences of Satisfaction
      Decisions, in: Journal of Marketing Research, Vol. 17 (4), pp. 460-469.

Oliver Wyman (n. a.)/VDA – Verband der Automobilindustrie e. V. (n. a.) (2012): FAST 2025
      – Massiver Wandel in der automobilen Wertschöpfungsstruktur, available online at
      http://www.oliverwyman.de/5771.htm, accessed 6/9/2013

Osgood, C. E. (1951): Culture: its empirical and non-empirical character, in: Southwestern
      Journal of Anthropology, Vol. 7 (2), pp. 202-214.

                                                    P, Q

Parasuraman, A./Zeithaml, V. A./Berry, L. L. (1988): SERVQUAL: A multiple-item scale for
      measuring consumer perceptions of service quality, in: Journal of retailing, Vol. 64 (1),
      pp. 12-40.

Parasuraman, A./Zeithaml, V. A./Berry, L. L. (1985): A Conceptual Model of Service Quality
      and Its Implications for Future Research., in: Journal of Marketing, Vol. 49, pp. 41-50.

Parker, R. S./Haytko, D. L./Hermans, C. M. (2011): Ethnocentrism and its effect on the Chi-
      nese consumer: A threat to foreign goods?, in: Journal of Global Marketing, Vol. 24
      (1), pp. 4-17.

Pepels, W. (2007): Die Bedeutung von Dienstleistungen, in: Pepels, W. (Pub.), After Sales
      Service – Geschäftsbeziehungen profitable gestalten, 2. ed., pp. 11-28, Düsseldorf:
      Symposium Publishing.

Peter, S. I. (1998): Beziehungsmanagement – Kundenbindung als Marketingziel, Absatzwirt-
      schaft, Vol. 7, pp. 74-81.

Peter, S. I. (1997): Kundenbindung als Marketingziel – Identifikation und Analyse zentraler
      Determinanten, Wiesbaden: Gabler.

Petter, S./Straub, D./Rai, A. (2007): Specifying Formative Constructs in Information System Research, in: MIS Quarterly, Vol. 31 (4), pp. 623-656.

Pflaum, D. (2007): Die Kommunikationspolitik im After Sales Service, in: Pepels, W. (Pub.), After Sales Service – Geschäftsbeziehungen profitable gestalten, 2. ed., pp. 191- 223, Düsseldorf: Symposium Publishing.

Pollack, B. L. (2009): Linking the hierarchical service quality model to customer satisfaction and loyalty, in: Journal of Services Marketing, Vol. 23 (1), pp. 42-50.

Pötzsch, O. (2011): Entwicklung der Privathaushalte bis 2030: Ende des Ansteigenden Trends, in: Statistisches Bundesamt Wiesbaden (Pub.), Wirtschaft und Statistik, available online at https://www.destatis.de/DE/Publikationen/Wirtscha ftStatistik/Bevo elkerung/Privathaushalte2030_32011.pdf?__blob=publicationFile, accessed 25/9/2013.

Porter, M. E. (1980), Competetive Strategy: Techniques for Analyzing Industries and Copetitors, New York: Macmillian.

Pretzlaff, H. (2012), Daimler will mit China-Vorstand Vollgas geben, in: Stuttgarter-Zeitung.de, 20/11/2012, available online at http://www.stuttgarter-zeitung.de/in halt.mercedes-pro bleme-in-china-daimler-will-mit-dem-china-vorstand-vollgas-geben.e57b3eab-7b1d-4 8cf-a373-87425e4f05df.html, accessed 25/10/2013.

PwC – PricewaterhouseCoopers (n. a.) (2011): Automobilindustrie und Mobilität in China: Plan, Wunsch und Realität, – Strategien und Perspektiven für den größten Automobilmarkt der Welt, n. p.: PwC.

Qin, H./Prybutok, V.R./Zhao, Q. (2010): Perceived service quality in fast-food restaurants: empirical evidence from China, in: International Journal of Quality Reliability Management, Vol. 27 (4), pp. 424-437.

R

Raajpoot, N. (2004): Reconceptualizing Service Encounter Quality in a Non-Western Context, in: Journal of Service Research, Vol. 7 (2), pp. 181-201.

Radtke, P./Abele, E./Zielke, A. E. (2004): Die smarte Revolution in der Automobilindustrie, Frankfurt/Wien: Wirtschaftsverlag Carl Ueberreuter.

Ralston, D.A./Egri, C.P./Stewart, S./Terpstra, R.H./Kaicheng, Y. (1999): Doing business in the 21st century with the new generation of Chinese managers: a study of generational shifts in work values in China, in: Journal of International Business Studies, Vol. 30 (2), pp. 415–428.

Reichhuber, A. W. (2010): Strategie und Struktur in der Automobilindustrie – Strategische und organisatorische Programme zur Handhabung automobilwirtschaftlicher Herausforderungen, in: Ringlstetter, J. (Pub.), Schriften zur Unternehmensentwicklung, Wiesbaden: Gabler.

Reimann, M./Lünemann, U. F./Chase, R. B. (2008): Uncertainty Avoidance as a Moderator of the Relationship between Perceived Service Quality and Customer Satisfaction, in: Journal of Service Research, Vol. 11 (1), pp. 63-73.

Rennert, C. (1993): Dienstleistungen als Elemente innovativer Betreibungskonzepte im Automobilhandel – Eine theoretische und empirische Fundierung, Ottobrunn: Autohaus.

Ringle, C. M./Sarstedt, M./Straub, D. W. (2012): A Critical Look at the Use of PLS-SEM in MIS Quarterly, in: MIS Quarterly, Vol. 36 (1), pp. iii-xiv.

Rindfleisch, A./Heide, J. B. (1997): Transaction Cost Analysis: Past, Present, and Future Applications, Journal of Marketing, pp. 30-54.

Rosenbloom, A./Haefner, J./Lee, J.-w. (2012): Global Brands in the Context of China: Insights into Chinese Consumer Decision Making, in: International Journal of China Marketing, Vol. 3 (1), pp. 20-43.

Rybnikova, I. (2011): Erfolgsfaktorenforschung auf den Zahn gefühlt, in: Rybnikova, I. (Pub.), Schriften zur Organisationswirtschaft – Berichte aus der Forschung, Vol. 17, pp. 1-3, available online at http://www.tu-chemnitz.de/wirtschaft/bwl5/forschung/schriften/doc/17.pdf, accessed 22/6/2013.

S

Saccani, N./Johansson, P./Perona, M. (2007): Configuring the after-sales service supply chain: A multiple case study, in: International Journal of Production Economics, Vol. 110 (1), pp. 52-69.

Saccani, N./Songini, L./Gaiardelli, P. (2006): The role and performance measurement of after-sales in the durable consumer goods industries: an empirical study, in: International Journal of Productivity and Performance Management, Vol. 55 (3/4), pp. 259-283.

Saidi, S./Mohiuddin, M./Su, Z./Chrysostome, E. (2010): Challenges and Strategies of Luxury Goods Marketing in Advanced Emerging Countries: A Case Study of Chinese Luxury Consumers, in: Benefits and Pitfals of Relocation Business in Emerging and Developing Countries, pp. 1-38, Routledge, available online at http://ssrn.com/abstract=199 2753, accessed 3/6/2013.

Sánchez, A.M./Pérez, M.P. (2005): Supply chain flexibility and firm performance: a conceptual model and empirical study in the automotive industry, in: International Journal of Operations & Production Management, Vol. 25 (7), pp. 681-700.

Sass, B. (2012), Erfolgsfaktoren des Aftersales Service im Investitionsgütermarketing – Eine Analyse am Beispiel deutscher Offsetdruckmaschinenhersteller, in: Zerres, M./Zerres, C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 78, München/Mering: Rainer Hampp Verlag.

Saueressig, W. (2009): Der nationale Werkstattmarkt in China, in: BusinessFocus China – Automobilindustrie, German Industry & Commerce (Pub.), pp. 268-271, Karlsruhe: German Industry and Commerce Verlag.

Sarstedt, M./Henseler, J./Ringle, C. M. (2011): Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results, in: Measurement and Research Methods in International Marketing Advances in International Marketing, Vol. 22, pp. 195-218.

Schanz, G. (2009): Wissenschaftsprogramme der Betriebswirtschaftslehre, in: Bea, F. X./Schweitzer, M. (Pub.), Allgemeine Betriebswirtschaftslehre, Vol. 1, 10. ed., Stuttgart: Lucius & Lucius.

Schmidt, P./Bamberg, S./Davidov, E./Herrmann, J./Schwartz, S. H. (2007): Die Messung von Werten mit dem "Portraits Value Questionnaire", in: Zeitschrift für Sozialpsychologie, Vol. 38 (4), pp. 261-275.

Schoeneberg, K-P. (2012): Predictive Analytics und Data Mining – Einführung, Material for the lectures at the FH Wedel University of Applied Science, not published.

Schoeneberg, K-P. (2011): Kritische Erfolgsfaktoren von IT-Projekten – Eine empirische Analyse von ERP-Implementierungen am Beispiel der Mineralölbranche, in: Zerres, M. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 77, München/Mering: Rainer Hampp Verlag.

Schwaninger, M. (2009): Was ist ein Modell?, in: Dubs, R. et al. (Pub.), Einführung in die Managementlehre, Vol. 1, 2. ed., pp. 53-62., Bern et al.: Haupt.

Schwartz, S. H. (2014a): Scoring Key for 19 Values in the PVQ-RR Value Scale, submitted via personal E-Mail, 27/9/2014.

Schwartz, S. H. (2014b): Scoring Key for PVQ IV Value Scale, submitted via personal E-Mail (including Chinese versions), 27/9/2014.

Schwartz, S. H. (2011a) Values: cultural and individual, in: van de Vijver, F. J. R. et al. (Pub.), Fundamental Questions in Cross-Cultural Psychology, pp. 463-493, Cambridge: Cambridge University Press.

Schwartz, S. H. (2011b): Studying Values: Personal Adventure, Future Directions, in: Journal of Cross-Cultural Psychology, Vol. 42 (2), pp. 307-319.

Schwartz, S. H. (2008): Cultural Value Orientations: Nature and Implications of National Differences, in: The Hebrew University of Jerusalem (Pub.), No. 921/02, available online at http://blogs.helsinki.fi/valuesandmorality/files/2009/09/Schw artz-Monograph-Cultur al-Value-Orientations.pdf, accessed 2/10/2014.

Schwartz, S. H. (2007): Value orientations: measurement antecedents and consequences across nations, in: Jowell, R. et al. (Pub.), Measuring Attitudes Cross-Nationally, pp. 169-204, Los Angeles et al.: Sage Publications.

Schwartz, S. H. (2006): A Theory of Cultural Value Orientations: Explication and Applications, in: Comparative Sociology, Vol. 5 (2/3), pp. 137-182.

Schwartz, S. H. (2003): A Proposal for Measuring Value Orientations Across Nations, in: The European Social Survey (ESS), available online at http://www.europea nsocialsurvey. org/docs/methodology/core_ess_questionnaire/ESS_core_ques tionnaire_human_val ues.pdf, accessed 01/10/2014, pp. 259-319.

Schwartz, S. H. (1999): A Theory of Cultural Values and Some Implications for Work, in: Applied Psychology, Vol. 48 (1), pp. 23-47.

Schwartz, S. H. (1996): Value Priorities and Behavior: Applying a Theory of Integrated Value Systems, in: Erlbaum, L. (Pub.), The Psychology of Values, The Ontario Symposium, Vol. 8, pp. 119-144.

Schwartz, S. H. (1994): Are There Universal Aspects in the Structure and Contents of Human Values?, in: Journal of Social Issues, Vol. 50 (4), pp. 19-45.

Schwartz, S. H. (1992): Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries, in: Zanna, M. (Pub.), Advances in Experimental Social Psychology, Vol. 25 (1), pp. 1-65.

Schwartz, S.H./Bardi, A. (2001): Value Hierarchies Across Cultures Taking a Similarities Perspective, in: Journal of Cross-Cultural Psychology, Vol. 32 (3), pp. 268-290.

Schwartz, S. H./Bilsky, W. (1990): Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications, in: Journal of Personality and Social Psychology, Vol. 58 (5), pp. 878-891.

Schwartz, S. H./Bilsky, W. (1987): Toward A Universal Psychological Structure of Human Values, in: Journal of Personality and Social Psychology, Vol. 53 (3), pp. 550-562.

Schwartz, S. H./Boehnke, K. (2004): Evaluating the Structure of Human Values with Confirmatory Factor Analysis, in: Journal of Research in Personality, Vol. 38 (3), pp. 230-255.

Schwartz, S. H./Cieciuch, J./Vecchione, M./Davidov, E./Fischer, R./Beierlein, C./Ramos, A./Verkasalo, M./Lönnqvist, J.-E./Demirutku, K. Dirilen-Gumus, O./ Konty, M. (2012): Refining the Theory of Basic Individual Values, in: Journal of Personality and Social Psychology, Vol. 103 (4), pp. 663-688.

Sha, S./Huang, T./Gabardi, E. (2013): Upward Mobility: The future of China´s Premium Car Market, in: McKinsey Automotive & Assembly Practice in Greater China, available online at http://www.mckinseychina.com/2013/03/07/upward-mobility-the-future-of-chinas-premium-car-market/, accessed 10/6/2013.

Sheth, J. N./Parvatlyar, A. (1995): Relationship Marketing in Consumer Markets: Antecedents and Consequences, in: Journal of the Academy of Marketing Science, Vol. 23 (4), pp. 255-271.

Shook, C. L./Ketchen, D. J./Hult, G. T. M./ Kacmar, K. M. (2004): An Assessment of the use of structural equation modelling in strategic management research, in: Strategic Management Journal, Vol. 25, pp. 397-404.

Shuqin, W./Gang, L. (2012): An Empirical Study of After-sales Service Relationship in China's Auto Industry, in: Atlantic Press, Proceedings of 2012 International Conference on Mechanical Engineering and Material Science (MEMS), pp. 175-178.

Simon, H. (1993): Industrielle Dienstleistungen, Stuttgart: Schäffer-Poeschel Verlag.

Sivadas, E./Backer-Prewitt, J. L. (2000): An examination of the relationship between service quality, customer satisfaction, and store loyalty, in: International Journal of Retail and Distribution Management, Vol. 28 (2), pp. 73-82.

Soares, A. M./Farhangmehr, M./Shoham, A. (2007): Hofstede's dimensions of culture in international marketing studies, Journal of Business Research, Vol. 60 (3), pp. 277-284.

Sobotta, R. (2012): Strategische Erschließung von Emerging Markets im Investitionsgüter-marketing – Eine empirische Erfolgsfaktorenforschung am Beispiel des deutschen Maschinenbaus in Indien, in: Zerres, M./Zerres C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 80, München/Mering: Rainer Hampp Verlag.

Sopha, W. (2012): Herausforderung Globalisierung: Rahmenbedingungen einer ganzheitli-chen Strategie für Automobilhersteller, in: Diez et al. (Pub.), Grundlagen der Automo-bilwirtschaft – Das Standardwerk der Automobilbranche, pp. 93-112, 5. ed.,München: Autohaus Buch und Formular.

Splett-Henning, C. (2004): Key-Account-Management im Automobilhandel – Entwicklung und Evaluierung eines adaptiven und innovativen Key-Account-Management-Konzeptes für den Großkundenvertrieb im deutschen Automobilhandel, in: Zerres, M. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 26, München/Mering: Rainer Hampp Verlag.

Srivastava, M./Rai, A. K. (2014): An investigation into service quality–customer loyalty rela-tionship: the moderating influences, in: Decision, Vol. 41 (1), Indian Institute of Man-agement Calcutta (Pub.), pp. 11-31.

Srnka, K. (2005): marketing.ethik.&kultur, München/Mering: Rainer Hampp Verlag.

Statistisches Bundesamt Wiesbaden (n. a.) (2015a): Beschäftigte und Umsatz der Betriebe im Verarbeitenden Gewerbe: Deutschland, Jahre, Wirtschaftszweige (WZ2008 2-/3-/4-Steller), available online at https://www-genesis.destatis.de/genesis/online;jsession id=48CF98D293FD89F3A8DE222A3B73EDED.tomcat_GO_1_2?operation=previous &levelindex=3&levelid=1440687193301&step=3, accessed 27/8/2015.

Statistisches Bundesamt Wiesbaden (n. a.) (2015b): Verbraucherpreisindex: Deutschland, Jahre, Klassifikation der Verwendungszwecke des Individualkonsums (COICOP 2-/3-/4-/10-Steller/Sonderpositionen), available online at https://www-genesis.destatis.de/g enesis/online;jsessionid=48CF98D293FD89F3A8DE222A3B73EDED.tomcat_GO_1_ 2?operation=previous&levelindex=3&levelid=1440689144546&step=3, accessed 27/8/2015.

Statistisches Bundesamt Wiesbaden (n. a.) (2013a): Bevölkerung, available online at https:// www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/Bevoelkerung/Bevoelkerung.ht ml, accessed 25/9/2013.

Statistisches Bundesamt Wiesbaden (n. a.) (2013b): Kraftfahrer-Preisindex, available online at https://www.destatis.de/DE/Publikationen/STATmagazin/Preise/2010_02/Tabelle2. html, accessed 25/9/2013.

Statistisches Bundesamt Wiesbaden (n. a.) (2013c): Verbraucherpreisindex: Deutschland, Jahre, Klassifikation der Verwendungszwecke des Individualkonsums (COICOP 2-/3-/4-/10-Steller/Sonderpositionen), available online at https://www-genesis.destatis.de/genesis/online;jsessionid=513974CBEC5C6DEA941EBD75EEF266E8.tomcat_GO_2_1?operation=previous&levelindex=2&levelid=1380119 541332&step=2, accessed 25/9/2013.

Statistisches Bundesamt Wiesbaden (n. a.) (2013d): Beschäftigte und Umsatz der Betriebe im Verarbeitenden Gewerbe: Deutschland, Jahre, Wirtschaftszweige (WZ2008 2-/3-/4-Steller), available online at https://www-genesis.destatis.de/ genesis/online;jsessionid=E8A1E121A06F9B3495990897C3EAA7B3.tomcat_ GO_2_2, accessed 26/9/2013.

Statistisches Bundesamt Wiesbaden (n. a.) (2009): Bevölkerung Deutschland bis 2060 – 12. koordinierte Bevölkerungsvorausberechnung, available online at https://www.destatis.de/DE/Publikationen/Thematisch/Bevoelkerung/VorausberechnungBevoelkerung/BevoelkerungDeutschland2060Presse5124204099004.pdf?__blob=publicationFile, accessed 25/9/2013.

Stauss, B./Neuhaus, P. (2000): Das Qualitative Zufriedenheitsmodell (QZM), in: Hinterhuber, H. H./Matzler, K. (Pub.), Kundenorientierte Unternehmensführung – Kundenorientierung, Kundenzufriedenheit, Kundenbindung, 2. ed., Wisebaden: Gabler Verlag.

Stauss, B. (1999): Kundenzufriedenheit, Marketing ZFP, Vol. 19 (1), pp. 6-7.

Steffenhagen, H. (1997): Erfolgsfaktorenforschung für die Werbung – Bisherige Ansätze und deren Beurteilung, in: Marktorientiertee Unternehmensführung – Reflexionen – Denkanstöße – Perspektiven, Bruhn, M./Steffenhagen, H. (Pub.), pp. 323-350, Wiesbaden: Gabler Verlag.

Steinmetz, H./Schmidt, P./Tina-Booh, A./Wieczorek, S./ Schwartz, S. H. (2009): Testing measurement invariance using multigroup CFA: Differences between educational groups in human values measurement, in: Quality & Quantity, Vol. 43 (4), pp. 599-616.

Stoebe, M. J. (2013): Consumer attitudes toward foreign versus local brands in emerging markets – A study based on the consumer goods industry in brazil, in: Zerres, M./Zerres C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 90, München/Mering: Rainer Hampp Verlag.

Stobbe, A. (2013): German industry: China market growing moderately, in: Research Briefing, 10.4.2013, available online at http://www.dbresearch.com/PROD/DBR_INTERNET_E N-PROD/PROD0000000000303900/German+industry%3A+China+market+growing+ moderately.PDF, accessed 8/10/2013, Frankfurt am Main: Deutsche Bank Research.

Straub, D./Bodreau, M.-C./Gefen, D. (2004): Validation Guidelines for IS Positivist Research, in: Communications of the Association for Information Systems, Vol. 13, pp. 380-427.

Sun, T./Wu, G. (2004): Consumption patterns of Chinese urban and rural consumers, in: Journal of Consumer Marketing, Vol. 21 (4), pp. 245-253.

T

Taifi, N./Passiante, G. (2012): Speeding up „new products and service development" through strategic community creation: case of automaker after-sales services partners, in: The Service Industries Journal, Vol. 32 (13), pp. 2115-2127, Abingdon: Routledge.

Tian, R. G./ Rhee, E. (2010): Editorial Commentary – China Marketing, Marketing China: A Relatively New But Fast Growing Field Of Study, in: International Journal of China Marketing, Vol. 1 (1), pp. 11-13.

Thaler, R. H. (1985): Mental Accounting and Consumer Choice, in: Marketing Science, Vol. 4, pp. 199-214.

Thaler, R. H. (1999): Mental Accounting Matters, in: Journal of Behavioral Decision Making, Vol. 12, pp. 183-206.

Thalhofer, R. (2003): Markt – Werbung – Umsetzung, in: Thalhofer, R. (Pub.), Das 1x1 für den Servicevertrag – Standards, Chancen, Strategien, pp. 37-66, Ottobrunn: Auto Business Verlag.

Thiebes, F. (2012): Kundenintegriertes Innovationsmanagement – Eine Erfolgsfaktorenfor- schung am Beispiel des deutschen Kunststoffmaschienenbaus, in: Zerres, M./Zerres, C. (Pub.), Hamburger Schriften zur Marketingforschung, Vol. 79, München/Mering: Rainer Hampp Verlag.

Thompson, F. M./Newman, A./Liu, M. (2014): The moderating effect of individual level collec- tivist values on brand loyalty, in: Journal of Business Research, Vol. 67, pp. 2437- 2446.

Töpfer, A. (2012): Erfolgreich forschen – Ein Leitfaden für Bachelor-, Master-Studierende und Doktoranden, 3. ed., Wisebaden: Springer/Gabler.

Towill, D.R./Childerhouse, P./Disney, S.M. (2002): Integrating the automotive supply chain: where are we now?, in: International Journal of Physical Distribution & Logistics Management, Vol. 32 (2), pp. 79-95.

Triandis, H. C. (1994): Culture and Social Behaviour, New York et al.: McGraw Hill.

Trommsdorff, V. (2009): Konsumentenverhalten, 7. ed., Stuttgart: Kohlhammer.

Trotter, D. L./Lijuan, W. (2012): A Descriptive Analysis of the Contents and Origins of Research on China Marketing in English, in: International Journal of China Marketing, Vol. 3 (1), pp. 44-70.

Tu, Y.-T./Liu, W.-C./Chang, Y.-Y. (2014): Customer Commitment as a Mediating Variable between Corporate Brand Image and Customer Loyalty, in: Journal of Education and Vocational Research, Vol. 5 (1), pp. 17-27.

Tversky, A./Kahneman, D. (1991): Loss aversion in riskless choice: A reference-dependent model, The Quarterly Journal of Economics, Vol. November, pp. 1039-1061.

U

Ueltschy, L .C./Laroche, M./Zhang, M./Cho, H./Yingwei, R. (2009): Is there really an Asian connection? Professional service quality perceptions and customer satisfaction, in: Journal of Business Research, Vol. 62 (10), pp. 972-979.

Ueltschy, L. C./Laroche, M./Eggert, A./Bindl, U. (2007): Service quality and satisfaction: an international comparison of professional services perceptions, in: Journal of Services Marketing, Vol. 21 (6), pp. 410-423.

Ulrich, H. (1985): Betriebswirtschaftslehre als Management- und Führungslehre, in: Wunderer, R. (Pub.), Betriebswirtschaftslehre als Management- und Führungslehre, pp. 3-32, Stuttgart: C. E. Poeschel Verlag.

Ulrich, H. (1984): Management, in: Dyllick, T./Probst, G. J. B. (Pub.), Schriftenreihe Unternehmung und Unternehmensführung, Vol. 33, Bern/Stuttgart: Verlag Paul Haupt.

Ulrich, H. (1981): Die Betriebswirtschaftslehre als anwendungsorientierte Sozialwissenschaft, in: Geist, M. N./Köhler, R. (Pub.), Die Führung des Betriebes – Herrn Professor Dr. Dr. h. c. Curt Sandig zu seinem 80. Geburtstag, pp. 1-26, Stuttgart: C. E. Poeschel Verlag.

Ulrich, H./Krieg, W. (1974): St. Galler Management-Modell, 3. ed., Bern: Verlag Paul Haupt.

Usunier, J.-C./Walliser, B. (1993): Interkulturelles Marketing: mehr Erfolg im internationalen Geschäft, Wiesbaden: Gabler Verlag.

Unsöld, J. (2013): Langsamer Abschied von einem Statussymbol, in: tagesschau.de, 24.4.2013, available online at http://www.tagesschau.de/wirtschaft/autobranche-zuku nft100.html, accessed 8.10.2013.

V

van Birgelen, M./de Ruyter, K./de Jong, A./Wetzels, M. (2002): Customer evaluations of af-ter-sales service contact modes: an empirical analysis of national culture's con-sequences, International Journal of Research in Marketing, Vol. 19 (1), pp. 43-64.

Vargo, S. L./Lusch, R. F. (2008): Service-dominant logic: continuing the evolution, in: Journal of the Academy of Marketing Science, Vol. 36, pp. 1-10.

Vargo, S. L./Lusch, R. F. (2004): Evolving to a New Dominant Logic for Marketing, in: Journal of Marketing, Vol. 68 (1), pp. 1–17.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2015a): Jahresbericht 2015, available online at https://www.vda.de/de/services/Publikationen/jahresbericht-2015.html, ac-cessed 26/8/2015.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2015b): Neuzulassungen, available online at https://www.vda.de/de/services/zahlen-und-daten/jahreszahlen/neuzulassun gen.html, accessed 26/8/2015.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2015c): Export, available online at https://www.vda.de/de/services/zahlen-und-daten/jahreszahlen/export.html, accessed 26/8/2015.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2013a): Export, available online at http://www.vda.de/de/zahlen/jahreszahlen/export/, accessed 23/5/2013.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2013b): Jahresbericht 2013, available online at http://www.vda.de/de/publikationen/jahresberichte/index.html, accessed 23/5/2013.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2013c): Automobilproduktion, available online at http://www.vda.de/de/zahlen/jahreszahlen/automobilproduktion/, accessed 26/9/2013.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2013d): Neuzulassungen, available online at http://www.vda.de/de/zahlen/jahreszahlen/neuzulassungen/, accessed 26/9/2013.

VDA – Verband der Automobilindustrie e. V. (n. a.) (2012): Jahresbericht 2012, available online at http://www.vda.de/de/publikationen/jahresberichte/index.html, accessed 26/9/2013.

VDA − Verband der Automobilindustrie e.V. (n. a.) (2011): Jahresbericht 2011, available online at http://www.vda.de/de/publikationen/jahresberichte/index.html, accessed 27/9/2013.

Verhoef, P. C./Langerak, F./Donkers, B. (2007): Understanding brand and dealer retention in the new car market: The moderating role of brand tier, in: Journal of Retailing, Vol. 83 (1), pp. 97-113.

W

Wallentowitz, H./Freialdenhoven, A./Olschewski, I. (2009): Strategien in der Automobilindustrie – Technologietrends und Marktentwicklungen, Wiesbaden: Vieweg+Teubner|GWV Fachverlage.

Wang C. L. (1996): The Evolution of International Consumer Research: A Historical Assessment from the 1960s to Mid-1990s, in: Journal of Euromarketing, Vol. 5 (1), pp. 57-81.

Wang, C.-Y. (2010): Service Quality, Perceived Value, Corporate Image, and Customer Loyalty in the Context of Varying Levels of Switching Costs, in: Psychology & Marketing, Vol. 27 (3), pp. 252-262.

Wang, Q. (2011): Development and trends of China's automobile market: evidence from urban household ownership of cars, bicycles, motorcycles and motorbikes, in: International Journal of Automotive Technology and Management, Vol. 11 (2), pp. 99-113.

Wang, C. L./Cui, G. (2008): Understanding the rising Chinese consumer: an introduction, in: Journal of Consumer Behaviour, Vol. 7 (6), pp. 421-423.

Wang, A./Liao, W./Hein, A.-P. (2012): Bigger, better, broader: A perspective on China´s auto market in 2020, in: McKinsey&Company (Pub.), Automotive & Assembly Practice, available online at http://csi.mckinsey.com/knowledge_by_region/asia/china/chinas_auto_market_in_2020, accessed 15/10/2013.

Wang, X./Yang, Z. (2010): The Effect of Brand Credibility on Consumers' Brand Purchase Intention in Emerging Economies: The Moderating Role of Brand Awareness and Brand Image, in: Journal of Global Marketing, Vol. 23, pp. 177-188.

Weiber, R./Mühlhaus, D. (2014): Strukturgleichungsmodellierung – Eine anwendungsorien-tierte Einführung in die Kausalanalyse mit Hilfe von AMOS, SmartPLS und SPSS, 2.ed, Springer Gabler.

Westbrook, R. A./Oliver, R. L. (1991): The Dimensionality of Cconsumption Emotion Patterns and Consumer Satisfaction, in: Journal of Consumer Research, Vol. 18, pp. 84-91.

Wetzels, M./Oderkerken-Schröder, G./van Oppen, C. (2009): Using PLS Path Modeling For Assessing Hierachical Construct Models: Guidelines And Empirical Illustration, in: MIS Quarterly, Vol. 33 (1), pp. 177-195.

Wise, R./Baumgartner, P. (1999): Go downstream – The New Profit Imperative in Manufac-turing, in: Harvard Business Review, Vol. 77 (5), pp. 133-141.

Wissmann, M. (2013): Deutsche Automobilindustrie weiter auf Wachstumskurs, available online at www.vda.de/de/meldungen/news/20130422-1.html, accessed 27/9/2013.

Wong, K. K. (2013): Partial Least Squares Structural Equation Modeling (PLS-SEM) Tech-niques Using SmartPLS, in: Marketing Bulletin, Vol. 24, pp. 1-32.

Wong, A./Zhou, L. (2005): Consumers' Motivations for Consumption of Foreign Products: an Empirical Test in the People's Republic of China, in: U21Global working paper, Vol. 4, pp. 1-11, available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=160 6345, accessed 3/6/2013.

Wong, C. Y./Polonsky, M. J./Garma, R. (2008): The impact of consumer ethnocentrism and country of origin sub-components for high involvement products on young Chinese consumers' product assessments, in: Asia Pacific Journal of Marketing and Logistics, Vol. 20 (4), pp. 455-478.

World Bank (n. a.) (2015): GDP growth, available online at http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG, accessed 27/8/2015.

World Bank (n. a.) (2013): Unemployment, available online at http://search.worldbank.org/data?qterm=unemployment%20china&language=EN, accessed 10/10/2013.

World Factbook (n. a.) (2015): China, Central Intelligence Agency (CIA) (Pub.), available online at https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html, ac-cessed 27/8/2015.

World Factbook (n. a.) (2013): China, Central Intelligence Agency (CIA) (Pub.), available online at https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html, ac-cessed 30/9/2013.

Woywode, M. (2004): Wege aus der Erfolglosigkeit der Erfolgsfaktorenforschung, in: KfW-Bankengruppe (Pub.), Was erfolgreiche Unternehmen ausmacht: Erkenntnisse aus Wissenschaft und Praxis, pp. 15-48, Heidelberg: Physica Verlag.

X, Y

Xiao, G./Kim, J. (2009): The Investigation of Chinese Consumer Values, Consumption Values, Life Satisfaction, and Consumption Behaviors, in: Psychology & Marketing, Vol. 26 (7), pp. 610-624.

Xin-an, Z./Grigoriou, N./Ly, L. (2008): The myth of China as a single market – The influence of personal value differences on buying decisions, in: International Journal of Market Research, Vol. 50 (3), pp. 377-402.

Yaprak, A. (2008): Culture study in international marketing: a critical review and suggestions for future research, in: International Marketing Review, Vol. 25 (2), pp. 215-229.

Yim, C. K./Tse, D. K./Chan, K. W. (2008): Strengthening Customer Loyalty Through Intimacy and Passion: Roles of Customer-Firm Affection and Customer-Staff Relationships in Services, in: Journal of Marketing Research, Vol. 45 (6), pp. 741-756.

Yoo, B. (2009): Cross-national invariance of the effect of personal collectivistic orientation on brand loyalty and equity –The United States versus South Korean consumers, in: Asia Pacific Journal of Marketing and Logistics, Vol.21 (1), pp. 41-57.

Z

Zackariasson, P./Wilson, T. (2004): Internetworked after-sales service, in: Industrial Marketing Management, Vol. 33 (2), pp. 75-86.

Zhang, J./Beatty, S. E./Walsh, G. (2008): Review and future directions of cross-cultural consumer services research, in: Journal of Business Research, Vol. 61, pp. 211-224.

Zeithaml, V. A. (1988): Consumer Perceptions of Price, Quality, and Value: A Means-end Model and Synthesis of Evidence, in: Journal of Marketing, Vol. 52 (3), pp. 2-22.

Zeithaml, V. A./Bitner, M. J./Gremler, D. D. (2013): Services Marketing – Integrating Customer Focus Across the Firm, 6. ed., New York: McGraw-Hill.

Zeithaml, V. A./Bitner, M. J. (1996): Services Marketing, New York: McGraw-Hill.

Zerres, C. (2010): Preis-Promotions im Automobilverkauf, in: Hünerberg, R. et al. (Pub.), Gabler Research – Forum Marketing, Wiesbaden: Gabler Verlag/GWV Fachverlage.

Zerres, M./Zerres, C. (2006): Marketing – Die Grundlagen, 2. ed., Stuttgart: Verlag W. Kohl-hammer.

Zielke, A./Cornet, A./Grüntgens, V. (2008): CARE – Creating higher After-sales Revenues and Earnings, Düsseldorf: McKinsey.

Zilling, M.P. (2006): Effizienztreiber innovativer Prozesse für den Automotive Aftermarket – Implikationen aus der Anwendung von kollaborativen und integrativen Methoden des Supply Chain Managements, in: Biethan, J./Schumann, M. (Pub.), Göttinger Wirtschaftsinformatik, Vol. 52, Göttingen: Cuvillier.

Zins, A. H. (2001): Relative attitudes and commitment in customer loyalty models: some experiences in the commercial airline industry, in: International Journal of Service Industry Management, Vol. 12 (3), pp. 269-294.

Zhou, N./Belk, R.W. (2004): Chinese consumer readings of global and local advertising appeals, in: Journal of Advertising, Vol. 33 (3), pp. 63-76.

Zollikofer-Schwarz, G. (1999): Die Entwicklung des After-Sales-Managements, Bamberg: Difo-Druck.

Appendix

Appendix 1: English Version of the Questionnaire

Druckversion

Fragebogen

1   Welcome Page

Questionnaire

Hochschule für Angewandte
Wissenschaften Hamburg
Hamburg University of Applied Sciences

UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA

Dear Sir or Madam,

In the context of a scientific study within the universities UPV Valencia and HAW Hamburg, we are conducting a survey to explore workshop satisfaction and consumer behaviour in China.
As part of this, we would like to ask you some questions. It should take less than 10 minutes to complete. There are no right or wrong answers. Please read the instructions and questions carefully, then answer the questions spontaneously. When all questions have been answered, please click the "Continue" button to proceed.

All information will be treated confidentially and you will not be identified in any way. The data will be used for scientific purposes only.

Thank you very much for your help!

To start, please cklick the "Continue" button on the right-hand side.

2   Filter Page

Which brand of car do you drive?

○ Audi

○ BMW

○ Mercedes-Benz

○ BYD

○ I don´t use a car.

○ Other: [＿＿＿＿＿＿]

Do you have any service experience with a workshop of the brand you selected above?

○ Yes

○ No

Gender

Are you male or female?

○ Male

○ Female

What is your nationality?

○ Chinese

○ Other.

3   Workshop Section

Block A: First of all, we would like to gain insight into your experience with your #v_18# #v_183# workshop.

  A.1 Based on your experience, please rate the workshop on the following measures.

Please rate each of the following aspects on a scale from 1 to 5.
1 means "Very Poor" and 5 "Very Good". With the values between them, you can grade your rating accordingly.

	Very poor 1	2	3	4	Very Good 5
Cost	○	○	○	○	○
Convenience (e.g.: reachability, parking spaces, comfortable waiting area, etc.)	○	○	○	○	○
Ease of getting an appointment	○	○	○	○	○
Knowledge about your car	○	○	○	○	○
Honesty and integrity	○	○	○	○	○
Ability to do the job right	○	○	○	○	○
Cleanliness and appearance of facility	○	○	○	○	○
Friendliness of personnel	○	○	○	○	○

A.2

Please rate in the same manner as above from 1 to 5 how unsatisfied or satisfied you are.

	Not satisfied at all 1	2	3	4	Extremely satisfied 5
Overall, how satisfied were you with the workshop?	○	○	○	○	○
How satisfied are you overall with the service quality you received from the workshop?	○	○	○	○	○

A.3

Please rate in the same manner as above from 1 to 5 how unwilling or willing you are.

	Very unwilling 1	2	3	4	Very willing 5
How willing would you be to recommend this workshop to others?	○	○	○	○	○
How willing would you be to return to a #v_18# #v_183# workshop in the future?	○	○	○	○	○

A.4 In your opinion, what is the maximum distance (in minutes) you would be willing to drive to reach a workshop?

Please fill in below.

Minutes

[   ]

4   Loyalty Section

Block B: The next couple of questions are about your brand preferences.

B.1 Please rate the extent to which you disagree or agree with the following statements.

Please rate each of the following aspects on a scale from 1 to 5.
1 means "I strongly disagree" and 5 "I strongly agree". With the values between them, you can grade your rating accordingly.

	I strongly disagree 1	2	3	4	I strongly agree 5
My next car will also be #v_18# #v_183# again.	○	○	○	○	○
I will recommend #v_18# #v_183# to my friends and relatives.	○	○	○	○	○
Even if close friends recommended another brand, my preference for #v_18# #v_183# would not change.	○	○	○	○	○

B.2

	I strongly disagree 1	2	3	4	I strongly agree 5
#v_18# #v_183# is a strong brand.	○	○	○	○	○
#v_18# #v_183# is a well-known brand.	○	○	○	○	○
#v_18# #v_183# is a unique brand.	○	○	○	○	○

B.3

	I strongly				I strongly agree

	disagree 1	2	3	4	5
Switching to a non #v_18# #v_183# workshop would cause too many problems.	○	○	○	○	○
Switching to a non #v_18# #v_183# workshop would be too expensive.	○	○	○	○	○

5 Value Section 1/2

Block C: Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Tick the box to the right that shows how much the person in the description is like you.

HOW MUCH LIKE YOU IS THE PERSON?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	○	○	○	○	○	○
It is important to him to be rich. He wants to have a lot of money and expensive things.	○	○	○	○	○	○
He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life.	○	○	○	○	○	○
It's very important to him to show his abilities. He wants people to admire what he does.	○	○	○	○	○	○
It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	○	○	○	○	○	○
He thinks it is important to do lots of different things in life. He always looks for new things to try.	○	○	○	○	○	○
He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching.	○	○	○	○	○	○
It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	○	○	○	○	○	○
It is important to him to be humble and modest. He tries not to draw attention to himself.	○	○	○	○	○	○
Having a good time is important to him. He likes to "spoil" himself.	○	○	○	○	○	○
It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.	○	○	○	○	○	○

Block C: Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. Tick the box to the right that shows how much the person in the description is like you.

HOW MUCH LIKE YOU IS THE PERSON?

	Very much like me	Like me	Somewhat like me	A Little like me	Not like me	Not like me at all
Thinking up new ideas and being creative is important to her. She likes to do things						

in her own original way.	○	○	○	○	○	○
It is important to her to be rich. She wants to have a lot of money and expensive things.	○	○	○	○	○	○
She thinks it is important that every person in the world be treated equally. She believes everyone should have equal opportunities in life.	○	○	○	○	○	○
It's very important to her to show her abilities. She wants people to admire what she does.	○	○	○	○	○	○
It is important to her to live in secure surroundings. She avoids anything that might endanger her safety.	○	○	○	○	○	○
She thinks it is important to do lots of different things in life. She always looks for new things to try.	○	○	○	○	○	○
She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching.	○	○	○	○	○	○
It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them.	○	○	○	○	○	○
It is important to her to be humble and modest. She tries not to draw attention to herself.	○	○	○	○	○	○
Having a good time is important to her. She likes to "spoil" herself.	○	○	○	○	○	○
It is important to her to make her own decisions about what she does. She likes to be free to plan and to choose her activities for herself.	○	○	○	○	○	○

6   Value Section 2/2

The last questions of Block C.

HOW MUCH LIKE YOU IS THE PERSON?

	Very much like me	Like me	Somewhat like me	A little like me	Not like me	Not like me at all
It's very important to him to help the people around him. He wants to care for their well-being.	○	○	○	○	○	○
Being very successful is important to him. He likes to impress other people.	○	○	○	○	○	○
It is very important to him that his country be safe. He thinks the state must be on watch against threats from within and without.	○	○	○	○	○	○
He likes to take risks. He is always looking for adventures.	○	○	○	○	○	○
It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	○	○	○	○	○	○
It is important to him to be in charge and tell others what to do. He wants people to do what he says.	○	○	○	○	○	○
It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	○	○	○	○	○	○
He strongly believes that people should care for nature. Looking after the environment is important to him.	○	○	○	○	○	○
Tradition is important to him. He tries to follow the customs handed down by his	○	○	○	○	○	○

religion or his family.

He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.   ○   ○   ○   ○   ○   ○

The last questions of Block C.

HOW MUCH LIKE YOU IS THE PERSON?

	Very much like me	Like me	Somewhat like me	A Little like me	Not like me	Not like me at all
It's very important to her to help the people around her. She wants to care for their well-being.	○	○	○	○	○	○
Being very successful is important to her. She likes to impress other people.	○	○	○	○	○	○
It is very important to her that her country be safe. She thinks the state must be on watch against threats from within and without.	○	○	○	○	○	○
She likes to take risks. She is always looking for adventures.	○	○	○	○	○	○
It is important to her always to behave properly. She wants to avoid doing anything people would say is wrong.	○	○	○	○	○	○
It is important to her to be in charge and tell others what to do. She wants people to do what she says.	○	○	○	○	○	○
It is important to her to be loyal to her friends. She wants to devote herself to people close to her.	○	○	○	○	○	○
She strongly believes that people should care for nature. Looking after the environment is important to her.	○	○	○	○	○	○
Tradition is important to her. She tries to follow the customs handed down by her religion or her family.	○	○	○	○	○	○
She seeks every chance she can to have fun. It is important to her to do things that give her pleasure.	○	○	○	○	○	○

7   Demographics

Block D: You are almost finished, only a few statistical questions are left.

D.1 What is your annual _household_ net income?

○ Less 37,500 RMB (Less 5,600 €)

○ 37,500 – 99,000 RMB (5,600 € – 15,000 €)

○ 99,001 – 212,000 RMB (15,001 € – 31,500 €)

○ 212,001 RMB – 435,000 RMB (31,501 € – 75,000 €)

○ Above 435,000 RMB (Above 75,000 €)

D.2 Age

Please fill in your age.

[   ]

D.3 Home Province

Please fill in the name of your current home province.

[   ]

8.1   Filter Abbruch-Kriterium

STOP

Participant is not part of the targeted group.

(Text follows)

9   Endseite

Well Done

Hochschule für Angewandte
Wissenschaften Hamburg
Hamburg University of Applied Sciences

UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA

Thank you very much for answering this questionnaire.

Have a nice day!

Note: This illustration of the questionnaire is a pdf-export, which slightly differs from the online version, because latter is programmed in a responsive design; which adapts to each terminal device or monitor. Additionally this illustration shows the final pre-test version. The final version of the Chinese questionnaire does not contain the question to nationality, as this is already regarded by the chosen sample.

Appendix 2: Final Version of the Chinese Questionnaire

Druckversion

Fragebogen

1 Welcome Page

问卷

Hochschule für Angewandte
Wissenschaften Hamburg
Hamburg University of Applied Sciences

UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA

尊敬的先生或女士，

我们正在进行一次调研，这次调研是基于瓦伦西亚理工大学和汉堡应用技术大学的科研背景下，探究中国的消费者行为以及顾客对于汽修保养服务站的满意程度。

作为调研的其中一部分，我们想问你一些问题。它应该在 10 分钟内即可完成。这些问题没有正确或错误的答案，请仔细阅读说明，然后轻松地作答。当完成所有问题后，请点击"继续"的按钮进行下一步。

所有信息都将被严格保密，您的身份在任何情况下都不会被泄露。这些数据仅作科学研究用。

非常感谢您的帮助!

要开始请点击右侧的"继续"按钮。

2 Filter Page

请问您开哪个厂牌的汽车?

○ 奥迪

○ 宝马

○ 梅赛德斯-奔驰

○ 其他

○ 我不使用汽车

您有没有体验过您上题所选择的厂牌提供的汽修保养服务站?

○ 有

○ 没有

性别

您是男性还是女性?

○ 男

○ 女

3   Workshop Section

A 区: 首先，我们想进一步了解您的 #v_18# 汽修保养服务站体验。

A.1   请以下列标准评价您的汽修保养服务站经验。

请用 1 至 5 的分数来评价此经验。
1 表示"非常差"，5表示"非常好"。请以相应的评级来评价位于它们之间的分数。

	很差 1	2	3	4	非常好 5
费用	○	○	○	○	○
方便程度（比如: 可达性，停车位，舒适的等候区等等）	○	○	○	○	○
容易取得预约	○	○	○	○	○
工作人员关于您的车的知识	○	○	○	○	○
诚实和正直	○	○	○	○	○
有能力正确地完成工作	○	○	○	○	○
能够准时地完成工作	○	○	○	○	○
清洁度和设施的外观	○	○	○	○	○
工作人员的友好程度	○	○	○	○	○

A.2

请以上述评价相同的方式, 从 1 到 5, 评价您不满意或满意的程度。

	完全非常不满意 1	2	3	4	非常满意 5
总体来说，您对汽修保养服务站的满意程度如何?	○	○	○	○	○
总体来说，您对从汽修保养站获得的服务质量的满意程度为何?	○	○	○	○	○

A.3

请从 1 到 5，以上述相同的方式评价您的意愿: 不愿意或愿意。

	非常不愿意 1	2	3	4	非常愿意 5
您愿不愿意推荐这个汽修保养服务站给别人?	○	○	○	○	○
您未来愿不愿意再回到 #v_18# 汽修保养服务站?	○	○	○	○	○

A.4 在您看来，您最多愿意花多久开车去一个汽修保养服务站?（以分钟为计）

请在下面填写。

分钟 _____

4   Loyalty Section

B 区: 接下来的问题是关于您的品牌偏好。

B.1   请评价您同意或不同意下面的语句的程度。

请从 1 到 5 评价下列几个方面。
1 表示"我完全不同意"，5 表示"我非常同意"。您可以依据相应的评级来评价位于它们之间的值。

	我完全不同意 1	2	3	4	我非常同意 5
我的下一辆车也会是 #v_18#。	○	○	○	○	○
我会建议我的朋友和亲戚使用 #v_18#。	○	○	○	○	○
即使好朋友推荐另一个品牌，我对 #v_18# 的偏爱仍然不会改变。	○	○	○	○	○

B.2

	我完全不同意 1	2	3	4	我非常同意 5
#v_18# 是个非常好的品牌。	○	○	○	○	○
#v_18# 是个知名的品牌。	○	○	○	○	○
#v_18# 是个独特的品牌。	○	○	○	○	○

B.3

	我完全不同意 1	2	3	4	我非常同意 5
转换到一个非 #v_18# 的汽修服务站会可能会造成很多问题。	○	○	○	○	○
转换到一个非 #v_18# 的汽修服务站可能会很昂贵。	○	○	○	○	○

5　Value Section 1/2

C 区：我们在此描述一些人物。请详细阅读每一段描述人物的句子后，再决定这个人是否与您相似。请在最符合您的空格内画**X**。

		这个人跟你有多像?				
	非常像我	像我	有些像我	有一点点像我	不像我	一点都不像我
有新的点子和有创意对他来说很重要。他喜欢做很多新的事。	○	○	○	○	○	○
富有对他来说很重要。 他想要有很多钱和很多贵重东西。	○	○	○	○	○	○
他觉得人人平等很重要，也相信每个人应该有平等的机会。	○	○	○	○	○	○
自我表现对他来说很重要。 他想要每个人都能欣赏他的才华。	○	○	○	○	○	○
生活在安全的环境里对他来说很重要。 他会尽量避免危及他生命安全的任何事。	○	○	○	○	○	○
他觉得尝试生活上不同的事物对他来说很重要。他总是想要尝试新的事物。	○	○	○	○	○	○
他相信我们应该照别人说得来做, 遵守规则就算是没人在旁监看。	○	○	○	○	○	○
聆听与他不同的意见对他来说很重要。 就算他不同意别人所说的, 他也会试着去了解别人的意见。	○	○	○	○	○	○
谦虚对他很重要。他尽量不去引起别人的注意。	○	○	○	○	○	○
享受人生的快乐对他来说很重要。他宠爱自己。	○	○	○	○	○	○
自己做决定对他来说很重要。 他喜欢选择自己想做的事而不是照别人的计划来做。	○	○	○	○	○	○

C 区：我们在此描述一些人物。请详细阅读每一段描述人物的句子后，再决定这个人是否与您相似。请在最符合您的空格内画**X**。

		这个人跟你有多像?				
	非常像我	像我	有些像我	有一点点像我	不像我	一点都不像我
有新的点子和有创意对她来说很重要。她喜欢做很多新的事。	○	○	○	○	○	○
富有对她来说很重要。 她想要有很多钱和很多						

贵重东西。	○	○	○	○	○	○
她觉得人人平等很重要，也相信每个人应该有平等的机会。	○	○	○	○	○	○
自我表现对她来说很重要。 她想要每个人都能欣赏她的才华。	○	○	○	○	○	○
生活在安全的环境里对她来说很重要。 她会尽量避免危及她生命安全的任何事。	○	○	○	○	○	○
她觉得尝试生活上不同的事物对她来说很重要。她总是想要尝试新的事物。	○	○	○	○	○	○
她相信我们应该照别人说得来做，遵守规则就算是没人在旁监看。	○	○	○	○	○	○
聆听与她不同的意见对她来说很重要。 就算她不同意别人所说的，她也会试着去了解别人的意见。	○	○	○	○	○	○
谦虚对她很重要。她尽量不去引起别人的注意。	○	○	○	○	○	○
享受人生的快乐对她来说很重要。她宠爱自己。	○	○	○	○	○	○
自己做决定对她来说很重要。 她喜欢选择自己想做的事而不是照别人的计划来做。	○	○	○	○	○	○

6 Value Section 2/2

C 区的最后一个问题。

这个人跟你有多像?

	非常像我	像我	有些像我	有一点点像我	不像我	一点都不像我
照顾他周围的人对他来说很重要。 他想要关心他们的身心健康。	○	○	○	○	○	○
当一个事业有成的人对他来说很重要。 他喜欢给别人一个好的印象。	○	○	○	○	○	○
国家的安危对他来说很重要。 他认为一个国家必须防范外来威胁和维持国家安定。	○	○	○	○	○	○
他喜欢也经常在寻找冒险的活动。	○	○	○	○	○	○
行为端庄对他来说很重要。 他尽量避免去做别人认为是不对的事。	○	○	○	○	○	○
主管别人对他来说很重要。 他喜欢别人照他的想法去做。	○	○	○	○	○	○
对朋友忠心对他来说很重要。 他想要将自己奉献给和他很亲近的人。	○	○	○	○	○	○
他相信每个人都应该关心大自然。 照顾生态环境对他来说很重要。	○	○	○	○	○	○
他认为最好是遵从传统的方法做事。 遵照习俗对他来说很重要。	○	○	○	○	○	○
他把握每一个享乐的机会。 做能带给他快乐的事对他来说很重要。	○	○	○	○	○	○

C 区的最后一个问题。

这个人跟你有多像?

	非常像我	像我	有些像我	有一点点像我	不像我	一点都不像我
照顾她周围的人对她来说很重要。 她想要关心她们的身心健康。	○	○	○	○	○	○
当一个事业有成的人对她来说很重要。 她喜欢给别人一个好的印象。	○	○	○	○	○	○
国家的安危对她来说重要。 她认为一个国家必须防范外来威胁和维持国家安定。	○	○	○	○	○	○
她喜欢也经常在寻找冒险的活动。	○	○	○	○	○	○
行为端庄对她来说很重要。 她尽量避免去做别人认为是不对的事。	○	○	○	○	○	○
主管别人对她来说很重要。 她喜欢别人照她的想法去做。	○	○	○	○	○	○

对朋友忠心对她来说很重要。 她想要将自己奉献给和她很亲近的人。	○	○	○	○	○	○
她相信每个人都应该关心大自然。 照顾生态环境对她来说很重要。	○	○	○	○	○	○
她认为最好是遵从传统的方法做事。 遵照习俗对她来说很重要。	○	○	○	○	○	○
她把握每一个享乐的机会。 做能带给她快乐的事对她来说很重要。	○	○	○	○	○	○

7   Demographics

D 区: 您差不多快完成问卷了，只剩下一点点关于统计的问题。

D.1 您的家庭年度净收入有多少?

○ 低于 37,500 人民币

○ 介于 37,500 和 99,000 人民币之间

○ 介于 99,001 和 212,000 人民币之间

○ 介于 212,001 和 435,000 人民币之间

○ 超过 435,000 人民币

D.2 年龄

请填写您的年龄。

[   ]

D.3 居住的省份

请填写您目前的居住所在地的省份的名称。

[   ]

8.1   Filter Abbruch-Kriterium

对不起!

您不属于我们汽车客户的目标群体，因此，你已完成了此份问卷。

9   Endseite

非常好   Hochschule für Angewandte   UNIVERSITAT
                                                            Wissenschaften Hamburg   POLITÈCNICA
                                                            Hamburg University of Applied Sciences   DE VALÈNCIA

非常感谢您回答这份问卷。

祝您今天愉快!

Note: This illustration of the questionnaire is a pdf-export, which slightly differs from the online version, because latter is programmed in a responsive design.

Appendix 3: Table of Cross Loadings of Reflective Measuring Items

Reference: Author´s table.

Cross Loadings	ACH	ASSS	BEN	BI	BL	CON	HED	POW	PWSC	SE-D	SEC	STI	TRA	UNI	WL
ACH_1_v_81	**0,885**	0,305	0,54	0,446	0,412	0,499	0,54	0,499	0,267	0,574	0,466	0,522	0,328	0,571	0,395
ACH_2_v_153	**0,874**	0,296	0,522	0,522	0,425	0,389	0,438	0,582	0,42	0,184	0,604	0,479	0,405	0,233	0,537
ASSS_1_v_26	0,287	**0,898**	0,326	0,525	0,531	0,279	0,303	0,232	0,363	0,329	0,313	0,273	0,205	0,391	0,667
ASSS_2_v_27	0,329	**0,912**	0,395	0,581	0,555	0,321	0,375	0,212	0,336	0,394	0,289	0,291	0,186	0,425	**0,717**
BEN_1_v_152	0,557	0,352	**0,88**	0,467	0,42	0,498	0,524	0,373	0,174	0,336	0,666	0,486	0,502	0,596	0,419
BEN_2_v_158	0,467	0,328	**0,823**	0,343	0,339	0,612	0,511	0,388	0,223	0,223	0,436	0,516	0,485	0,449	0,295
BI_1_v_64	0,453	0,565	0,488	**0,869**	0,567	0,402	0,481	0,329	0,348	0,348	0,426	0,416	0,303	0,544	0,557
BI_2_v_65	0,437	0,447	0,338	**0,812**	0,486	0,396	0,476	0,24	0,319	0,319	0,407	0,391	0,208	0,552	0,474
BI_3_v_66	0,318	0,475	0,335	**0,761**	0,526	0,315	0,253	0,248	0,368	0,368	0,296	0,408	0,216	0,358	0,503
BL_1_v_59	0,321	0,444	0,317	0,497	**0,846**	0,281	0,314	0,342	0,547	0,373	0,421	0,359	0,312	0,301	0,528
BL_2_v_60	0,416	0,541	0,397	0,588	**0,822**	0,404	0,406	0,35	0,373	0,47	0,47	0,348	0,27	0,446	0,62
BL_3_v_61	0,405	0,521	0,412	0,542	**0,844**	0,41	0,361	0,34	0,53	0,53	0,434	0,404	0,406	0,485	0,516
CON_1_v_84	0,42	0,279	0,472	0,334	0,355	**0,821**	0,384	0,418	0,252	0,252	0,421	0,345	0,345	0,485	0,261
CON_2_v_156	0,481	0,285	0,61	0,431	0,384	**0,871**	0,461	0,455	0,223	0,223	0,575	0,467	0,451	0,509	0,336
HED_1_v_87	0,555	0,278	0,478	0,4	0,41	0,408	**0,878**	0,384	0,184	0,184	0,386	0,503	0,451	0,598	0,341
HED_2_v_161	0,57	0,384	0,591	0,475	0,351	0,477	**0,887**	0,366	0,247	0,247	0,426	0,521	0,402	0,606	0,378
POW_1_v_79	0,483	0,213	0,303	0,323	0,362	0,351	0,371	**0,867**	0,279	0,279	0,505	0,366	0,366	0,381	0,26
POW_2_v_157	0,405	0,203	0,463	0,248	0,337	0,537	0,351	**0,834**	0,211	0,211	0,363	0,479	0,239	0,225	0,199
PWSC_1_v_44	0,245	0,363	0,22	0,427	0,545	0,24	0,217	0,256	**0,887**	0,208	0,241	0,239	0,17	0,176	0,319
PWSC_2_v_45	0,197	0,3	0,175	0,296	0,447	0,243	0,206	0,245	**0,841**	0,179	0,315	0,266	0,304	0,156	0,302
SE-D_1_v_78	0,589	0,369	0,584	0,49	0,482	0,411	0,513	0,499	0,208	**0,87**	0,411	0,525	0,525	0,542	0,414
SE-D_2_v_88	0,58	0,332	0,565	0,468	0,434	0,492	0,68	0,402	0,228	**0,877**	0,451	0,535	0,359	0,592	0,391
SEC_1_v_82	0,405	0,265	0,476	0,388	0,337	0,538	0,357	0,328	0,24	0,413	**0,826**	0,29	0,488	0,471	0,257
SEC_2_v_154	0,482	0,284	0,491	0,361	0,381	0,432	0,404	0,385	0,285	0,403	**0,827**	0,456	0,329	0,354	0,342
STI_1_v_83	0,494	0,303	0,549	0,461	0,388	0,464	0,59	0,427	0,218	0,605	0,438	**0,905**	0,456	0,329	0,322
STI_2_v_155	0,425	0,235	0,454	0,404	0,389	0,374	0,404	0,44	0,302	0,438	0,342	**0,84**	0,389	0,339	0,27
TRA_1_v_86	0,304	0,198	0,456	0,285	0,324	0,49	0,381	0,26	0,175	0,368	0,446	0,319	**0,885**	0,466	0,17
TRA_2_v_160	0,233	0,165	0,423	0,22	0,351	0,446	0,338	0,424	0,295	0,245	0,39	0,336	**0,811**	0,233	0,193
UNI_1_v_80	0,538	0,392	0,547	0,513	0,417	0,467	0,568	0,261	0,131	0,32	0,391	0,407	0,319	**0,884**	0,458
UNI_2_v_85	0,58	0,41	0,552	0,542	0,411	0,574	0,642	0,377	0,21	0,404	0,493	0,458	0,435	**0,891**	0,407
WL_1_v_54	0,375	**0,726**	0,376	0,572	0,61	0,316	0,343	0,245	0,32	0,32	0,333	0,319	0,226	0,421	**0,903**
WL_2_v_55	0,393	0,643	0,385	0,556	0,575	0,321	0,389	0,242	0,324	0,324	0,316	0,291	0,151	0,453	**0,888**
Key:	above 0,7		above 0,8												

Appendix 4: Measure Assessment by the Fornell-Larcker-Criterion

Reference: Author´s table.

Fornell-Larcker Criterion	ACH	AWD	ASSS	BEN	BI	BL	CON	Culture1	Culture2	Culture3	Culture4	HED	POW	PSQ	PWSC	SE-D	SEC	STI	TRA	UNI	WL
ACH	**0,879**																				
AWD	-0,066	n.a.																			
ASSS	0,341	0,057	**0,905**																		
BEN	0,604	0,028	0,4	**0,852**																	
BI	0,495	0,009	0,612	0,48	**0,815**																
BL	0,455	0,041	0,6	0,449	0,648	**0,837**															
CON	0,534	0,002	0,332	0,644	0,455	0,437	**0,846**														
Culture1	0,643	0,055	0,476	0,774	0,562	0,64	0,747	n.a.													
Culture2	0,692	0,04	0,5	0,811	0,641	0,586	0,674	**0,96**	n.a.												
Culture3	0,79	0,027	0,487	0,783	0,644	0,55	0,674	**0,94**	**0,982**	n.a.											
Culture4	0,754	0,035	0,438	0,743	0,743	0,615	0,723	**0,925**	**0,888**	**0,902**	n.a.										
HED	0,637	0,017	0,376	0,607	0,607	0,496	0,502	0,793	0,763	0,752	0,713	**0,883**									
POW	0,524	0,009	0,245	0,385	0,445	0,411	0,516	0,518	0,497	0,501	0,68	0,424	**0,85**								
PSQ	0,383	0,087	0,785	0,461	0,659	0,648	0,445	0,601	0,574	0,564	0,555	0,472	0,309	n.a.							
PWSC	0,257	0,068	0,385	0,23	0,577	0,424	0,279	0,308	0,266	0,271	0,352	0,245	0,29	0,382	**0,864**						
SE-D	0,669	0,043	0,401	0,658	0,548	0,524	0,518	**0,841**	**0,812**	**0,85**	**0,867**	0,684	0,515	0,501	0,249	**0,874**					
SEC	0,537	0,019	0,332	0,585	0,453	0,434	0,587	0,687	0,674	0,669	0,719	0,46	0,431	0,409	0,318	0,493	**0,826**				
STI	0,528	0,042	0,312	0,579	0,497	0,394	0,485	0,748	0,632	0,63	0,733	0,58	0,494	0,446	0,291	0,607	0,452	**0,873**			
TRA	0,32	0,021	0,216	0,518	0,301	0,301	0,394	0,506	0,437	**0,911**	0,652	0,425	0,39	0,301	0,268	0,367	0,494	0,383	**0,849**		
UNI	0,63	0,026	0,452	0,619	0,595	0,466	0,587	**0,845**	**0,917**	**0,898**	0,772	0,682	0,361	0,503	0,193	0,65	0,499	0,488	0,426	**0,888**	
WL	0,428	0,071	0,766	0,425	0,63	0,662	0,355	0,514	0,535	0,552	0,495	0,408	0,272	0,75	0,359	0,461	0,363	0,341	0,341	0,212	**0,896**

Key: **bold** = values above 0,8; **bold+grey background** = Fornell-Larcker Criterion (square root of AVE); n.a. = Test is not applicable, because the measurement model is formative.

Appendix 5: VIF Assessment of the Structural Model

Reference: Author´s table.

VIF Assessment of the Structural Model						
Predictor Variable	**Dependent Variable**	**Culture1–4**	**PSQ**	**ASSS**	**WL**	**BL**
BI				2,172	2,272	2,165
PSQ				1,919		
AWD				1,012	1,008	
ACH		2,513				
ASSS					1,696	
BEN		2,679				
BL						
CON		2,366				
Culture1			1			
Culture2				1,825		
Culture3					1,754	
Culture4						1,68
HED		2,595				
POW		1,748				
PWSC					1,264	1,255
SE-D		2,82				
SEC		1,898				
STI		1,931				
TRA		1,691				
UNI		2,563				
WL						1,731

Appendix 6: Evaluation of f^2 on First- and Second-Order Constructs

Reference: Author´s table.

Evaluation of f^2 on First- and Second-Order Constructs	
f^2	**Linked Construct: →** **Requirement Level: Min. >0.02; >0.15; >0.35**
Culture1–4	→PSQ: 0.566 →ASSS: 0.000 →WL: 0.039 →BL: 0.099
Self-Direction	→Culture1: 10,292 →Culture2: 3.880 →Culture3: 5.196 →Culture4: 11.002
Universalism	→Culture1: 13.587 →Culture2: 33.881 →Culture3: 16.824 →Culture4: 3.098
Benevolence	→Culture1: 0.379 →Culture2: 6.904 →Culture3: 2.093 →Culture4: 0.258
Tradition	→Culture1: 0.997 →Culture2: 3.423 →Culture3: 2.721 →Culture4: 5.776
Conformity	→Culture1: 5.711 →Culture2: 0.046 →Culture3: 0.021 →Culture4: 0.185
Security	→Culture1: 5.747 →Culture2: 5.193 →Culture3: 2.971 →Culture4: 2.712
Power	→Culture1: 0.076 →Culture2: 0.357 →Culture3: 0.001 →Culture4: 2.399
Achievement	→Culture1: 6.032 →Culture2: 1.447 →Culture3: 1.034 →Culture4: 0.674
Hedonism	→Culture1: 3.318 →Culture2: 0.649 →Culture3: 0.010 →Culture4: 0.412
Stimulation	→Culture1: 8.291 →Culture2: 0.188 →Culture3: 0.067 →Culture4: 2.715

Appendix 7: Total Effects of the Path Model

Reference: Author´s table.

Total Effects of the Path Model								
	ASSS	**BL**	**Culture1**	**Culture2**	**Culture3**	**Culture4**	**PSQ**	**WL**
ACH	-0,092	0,011	-0,225	-0,116	0,118	0,093	-0,135	-0,035
AWD	-0,003	0,01						0,029
ASSS		0,191						0,578
BEN	0,026	0	0,058	0,261	0,174	-0,06	0,035	0,042
BI	0,162	0,247						0,259
BL								
CON	0,086	0,029	0,212	0,02	0,016	0,048	0,127	0,052
Culture1	0,405	0,078					0,601	0,234
Culture2	0,01	0,002						0,006
Culture3		0,052						0,157
Culture4		0,242						
HED	0,069	-0,004	0,169	0,079	0,012	-0,074	0,102	0,042
POW	-0,008	0,034	-0,021	0,048	0,003	0,147	-0,013	-0,004
PSQ	0,673	0,129						0,389
PWSC		0,312						0,022
SE-D	0,128	0,136	0,311	0,2	0,281	0,4	0,187	0,118
SEC	0,079	0,064	0,19	0,19	0,174	0,163	0,114	0,073
STI	0,094	0,059	0,231	0,036	0,026	0,164	0,139	0,058
TRA	-0,032	0,04	-0,075	-0,146	-0,157	0,224	-0,045	-0,043
UNI	0,143	0,101	0,34	0,565	0,482	0,202	0,205	0,158
WL		0,331						