Tampere University of Applied Sciences

Analysis of the current after sales market for Volkswagen Commercial Vehicles and future trends in Finland

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ABSTRACT

Tampereen ammattikorkeakoulu
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Analysis of the current after sales market for Volkswagen Commercial Vehicles and future trends in Finland

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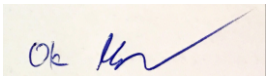
The objective of this study was to gather information about the finnish after sales market of Volkswagen Commercial Vehicles and future trends in the after sales business for the automotive importer K-Auto. Particular focus should be placed on fleet customers. Therefore, the parties involved in the after sales process in Finland were first presented. Then the basics of the after sales process with reference to the automotive industry were introduced. Afterwards, the theoretical basis for the subsequent analyses of the finnish market is presented. Subsequently, the analyses carried out within the framework of this project are described. One of them is a SWOT analysis of the Volkswagen Commercial Vehicles dealer network based on the results of the market and customer analysis. The other one is a benchmark analysis of the turnovers gained with fleet customers of the individual authorised dealers and workshops in the network. The analyses have shown that the after sales market in Finland is a polypol and that competition for customers is therefore fierce. Future trends will also intensify this competition. But the Volkswagen Commercial Vehicles dealer network has a good starting position which must be exploited. In order to further leverage the potential, the benchmark analysis requires further research to explain the reasons for the differences in the individual turnover developments.

Authors statement:

Hereby I, Ole Merwitz, assure that I have prepared the present bachelor thesis independently, have used no aids other than those indicated and have marked the passages of the thesis that were taken in the wording or essential content from other works with exact indication of the source.



Hanover,31.05.2020

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CONTENTS

Glossary

ADAS	Advanced driver assistance systems
B2B	Business to business
B2C	Business to customer
CPB	Customer Paid Business
CRM	Customer Relationship Management
DMS	Document Management System
GDP	Gross domestic product
HSH	Hochschule Hannover
IAM	Independent Aftermarket
MSU	Mobile Service Unit
OEM	Original Equipment Manufacturer
SWOT	Strengths-Weaknesses-Opportunities-Threats
TAMK	Tampereen ammattikorkeakoulu
VW	Volkswagen
VW CV	Volkswagen Commercial Vehicles

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1 Introduction

The strategy of the Volkswagen (VW) Group is to expand the high-revenue and high-earnings after sales business in the automotive industry worldwide (Volkswagen Group, 2019a). This can only be achieved by serving the individual markets professionally and according to customer requirements. For this purpose, the individual group brands of the VW Group work together globally with various importers, authorised dealers and workshops. Since this is very comprehensive and complex, this thesis focuses on the finnish after sales market of Volkswagen Commercial Vehicles (VW CV). Therefore, the cooperation between the manufacturer VW CV and the finnish importer K-Auto is discussed in more detail. In addition, the role of authorised dealers and workshops in the sales process of the automotive industry is described.

The special importance of the after sales business and the individual parties is illustrated by recent events, as the VW Group has lost reputation worldwide due to the diesel gate. In 2015, VW stated that they had delivered approximately eleven million vehicles worldwide equipped with type EA 189 engines with software for manipulating the measurement of nitrogen oxide emissions (Spiegel, 2015). In the course of dealing with this matter, software improvements were made to the vehicles concerned. Those were coordinated by the after sales departments of the respective brands and importers and finally carried out by the authorized dealers and workshops. This is part of an intensive customer relationship management system designed to help regain the trust of customers in the Volkswagen Group and to secure future sales, whether new vehicle sales or after sales.

After all, the golden years of the automotive industry are over and almost every automobile sales market is showing declining sales figures in real terms (E-mobil BW GmbH 2014, 7). For this reason, the profitable after sales business is moving more into focus and new, sustainable business models must be developed in cooperation with the players on the individual markets.

2 Project

This project is a jointly collaboration of Volkswagen Commercial Vehicles, K-Auto, Hochschule Hannover (HSH) and Tampereen ammattikorkeakoulu (TAMK) and is based on their different interests. VW CV and K-Auto want to improve their after sales turnovers in Finland through a well-founded analysis of the finnish fleet customer and general trends in the automotive After Sales sector. Furthermore, the universities of applied sciences, TAMK and HSH, request an independent study performance, where a student demonstrates his capabilities in applying the gained knowledge and skills in practical expert tasks in order to achieve the bachelor's degree (Tampere University of Applied Sciences, 2019).

As the project took place as part of a degree programme abroad, a meeting with the finnish importer of VW CV was arranged by the staff of the business unit "After Sales Operations Europe". The meeting took place on the 13th of January 2020 with Mr. Samuli Aalto, the after sales manager of K-Auto, in order to discuss the general tasks and targets of this project and to emphasise the interests of all participants.

2.1 Project Target Setting

This thesis is going to deal with the finnish after sales market with a special regard to its fleet customers. To ensure a successful implementation of the project, the following objectives were agreed in the meeting described above:

1. The first step is to evaluate and analyse the most important fleet customers in Finland based on the turnovers of the customer paid business (CPB), the maintenance costs and warranty costs which were gained over the last four years from 2016 to 2019. In order to achieve a decent overview, there will be two different analyses. One will focus on each fleet customer and one will focus on each dealer group, which are distributing the products of Volkswagen Commercial Vehicles to the customer.

2. Secondly, the responsible persons of K-Auto requests the development and improvement of the current Qlik dashboard, which should show an evaluated analysis of fleets by the dealer groups, based on the gained results and experiences.
3. Afterwards, as step three, a dashboard with the relevant details for the dealer groups should be developed.
4. The analysed turnovers are the basis for step four, which is the deeper analysis of the behaviour of fleet customer in Finland.
5. To sum up the previous four steps, the final tasks is to give recommendations based on the research and analysis.

2.2 Project Planning and Controlling

The project idea was presented to Dr. Wolfgang Greife and Matti Kivimäki on the 13 of February 2020 at TAMK main campus. After their approval of the project, it was necessary to plan the processing in detail, since a careful project planning is an essential key to the success of a project. Further, the controlling is another important key. Therefore, the planning of each project phase and its targets will be tracked by milestones, which are future events that should be accomplished on a specific appointment (Fiedler, 2020, 14).

Consequently, eleven milestones with their results and their deadlines were set for the project in table 1. The official begin of the project was the 30.03.2020 and the thesis is scheduled to be submitted by the 31.05.2020 after the general processing time of 9 weeks. The project will probably end in the mid of June with the final presentation on the curriculum in the HSH.

No.	Name	Result	Begin	End
1	Project planning and target setting	Definition of goals, delimitation of project tasks	13.01.2020	13.01.2020
2	Familiarization with the topic	Understanding of the topic's relevance	13.01.2020	13.02.2020
3	Project Kick-Off	Start of activity on the relevant topics	30.03.2020	30.03.2020
4	Research on the theoretical background of the topic	Substantiated background knowledge for further project processing	30.03.2020	28.04.2020
5	Documentation of theoretical approaches	Written documentation of results	30.03.2020	25.05.2020
6	Analysis of the fleets and the dealer groups	Highlighting differences between various fleets and dealerships	03.04.2020	08.05.2020
7	Follow Up meeting each two weeks	Exchange of project information with supervisor	17.03.2020	19.05.2020
8	Determination of recommendations for action	Recommendations for action based on research and analyses	11.05.2020	25.05.2020
9	Internal presentation of results	Final presentation of the work results to K-Auto	26.05.2020	26.05.2020
10	Submission of the bachelor thesis	Completion of the scientific documentation	29.05.2020	29.05.2020
11	Colloquium	Presentation of the work results at TAMK and HSH	June 2020	June 2020

Table 1: Project Milestones

After the Kick-Off meeting in march, a phase of familiarization and information gathering, as well as research on the theoretical background of after sales and its market processing started. Afterwards the analysis of the finnish fleet customers and of the finnish dealer network could begin based on the provided data. In order to receive continuous feedback, follow up meetings were arranged every two weeks with Mr. Aalto, to discuss the current status of the analysis. Based on those events and the research beforehand, the recommendations for the collaboration of VW CV, K-Auto and the finnish retailer were elaborated and presented to Mr. Aalto on the 26th of May.

The achievement of the various milestones was continuously monitored and checked simultaneously to the project implementation, to ensure that the project report is submitted on time, deadlines are met and the quality of the project is high. As a general overview and tracking tool the Gantt chart, presented in table 2, is used in order to show the activities displayed against time (Gantt.com, 2020).

	Month	**January**			**February**				**March**				**April**				**May**				**June**	
	Calendar week	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
1	Project planning and target setting																						
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Table 2: Gantt Chart for Project Planning

3 After Sales at Volkswagen Commercial Vehicles and K-Auto

This chapter is intended to provide an overview of the parties involved in the after-sales business. It refers to the sales of VW CVs products on the Finnish market, since they are part of the distribution chain which will be explained in chapter 4.3.3. First of all, the Volkswagen Group, the parent company of the VW Commercial Vehicles brand, will be introduced. Then more specific reference is made to VW CV and its after sales department, as it is the considered Original Equipment Manufacturer (OEM) in this project. Afterwards the same procedure is applied for the Kesko Group and K-Auto, the responsible importer of VW CV in Finland. First the overall group structure is presented, followed by an explicit description of the car trade division K-Auto and its after sales department with regard to the sales of VW CV products. This will be followed by a definition of a dealer and the presentation of the VW CV dealer network in Finland and its locations. Lastly, the customer is presented as the last link in the distribution chain. In this context, the finnish culture is discussed in more detail, which should give the reader an insight into the behaviour of finnish customers. At the end, fleet customers are explicitly defined.

3.1 Volkswagen Commercial Vehicles

3.1.1 Volkswagen Group

An original equipment manufacturer sells finished products under its own brand name. In the automotive industry, the OEM is the car manufacturer (Hundertmark, 2013, 1). They are the last link in the value chain and manufacture the final product from purchased components, modules and systems from their suppliers (Kampker, Vallee & Schnettler, 2013, 36). The OEM considered in this project is Volkswagen Commercial Vehicles which is a subsidiary of the Volkswagen Group.

The Volkswagen Group, whose headquarter is in Wolfsburg (Germany), consists of twelve brands, that are headquartered in seven different European countries,

with individual identities and independent entities on the markets. The following figure 1 (Volkswagen Group, 2020a) presents all twelve brands: By name Volkswagen, Audi, Seat, Skoda, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN:

Figure 1: The Volkswagen Groups range of brands

Those brands are producing all different types of vehicles, such as motorcycles, small cars and luxury cars, but also commercial vehicles, such as light commercial vehicles, trucks and buses. Further business areas of the group are financial services, mobility services, fleet management and components.

Jointly, the whole VW Group delivered 10,97 million vehicles in 2019 to its customers worldwide. They generated thereby a total turnover of 252,6 billion euros and earnings after taxes of 14 billion euros. The group employs 671.205 people worldwide and produces vehicles in 124 manufacturing facilities around the globe. The vehicles are offered in 153 countries (Volkswagen Group, 2019b).

3.1.2 Volkswagen Commercial Vehicles

Since 1995 Volkswagen Commercial Vehicles operates as one of those twelve independent brands and is responsible for the development, construction and sale of light commercial vehicles worldwide. The recent product spectrum of the brand, which is presented left to right in figure 2 (Porsche Austria GmbH & Co OG, 2020), ranges from the Pick-Up “Amarok”, to the large cargo van “Crafter”,

to the “Caddy”, a light-weight city delivery car. Further there is the commercial van or transporter “T6.1”, which can also be produced as a passenger van.

Figure 2: Product portfolio Volkswagen Commercial Vehicles 2020

Based on their product spectrum, VW CV became a leading manufacturer of light commercial vehicles. Nowadays, around 25.000 employees are working with VW CV at its four production plants in Hanover (Germany), Poznan (Poland), Wrzesnia (Poland) and Pacheco (Argentina) in order to produce these models. The main production facility and the headquarter are located in Hanover. In 2019 VW CV delivered 492.000 vehicles and achieved a turnover of 11,5 billion euros and earnings after taxes of 510 million euros (Volkswagen Group, 2020b).

Faced with increasing demands regarding sustainability and environmental aspects, VW Commercial Vehicles also presents compelling solutions for using commercial e-mobility in urban areas, as for instance the e-Crafter or the ABT e-Caddy and ABT e-Transporter (Volkswagen Group, 2020c).

3.1.3 Sales department VW Commercial Vehicles

To ensure that the distribution requirements for the manufacturer are met, VW Commercial Vehicles has the board of management for sales and marketing divided into seven departments. These departments are as follows: Sales Strategy

& Projects, Sales Control, Marketing, Sales Germany, Sales Europe, Sales for Key Accounts and Customized Solutions, International Sales and After Sales.

As this thesis deals with the after sales processes, it is going to be focused on the department After Sales. After Sales is responsible for the business after the purchase of a new car and is divided into six sub-departments for optimal market development. These include the divisions: After Sales Operations International, After Sales Operations Europe, After Sales Workshop Technology and Training, After Sales Business Operations, After Sales Customer Service Workshop, as well as Warranty and Goodwill. Further information about their work can be found in chapter 6.1.2.

3.2 K-Auto

3.2.1 Kesko-Group

In order for an OEM's products to be sold internationally, importers in the respective target country are required. An importer is a company that purchases goods from a foreign country to resell them (Cambridge University Press, n.d.a).

Kesko is a finnish company, headquartered in Helsinki, which operates in three trading sectors, which are the grocery trade, the building and technical trade and the car trade. The group has around 1.800 stores in Finland, Sweden, Norway, Estonia, Latvia, Lithuania, Belarus and Poland, including online stores and digital services and employs around 43.000 people. In 2019 the net sales pro forma totalled approximately 10,72 billion euros with an operating profit of 462 million euros. Figure 3 (Kesko, 2020a, 4) demonstrates the shares of divisions regarding net sales and its operating income. The grocery trade division has a 52% share with 5.531,2 million euros net sales, the building and technical trade division has a share of 40% with net sales of 4.331,1 million euros and the car trade division has a share of 8% with a total net sale of 863,9 million euros. Concerning the operating profit, the grocery trade division has a share of 66% with an operating profit of 327,9 million euros, the building and technical trade division has a share

of 29% with an operating profit of 142,8 million euros and the car trade division has a share of 5% with an operating profit of 26,8 million euros. The operating profit is minimised by common functions and eliminations of 35,9 million euros (Kesko, 2020a).

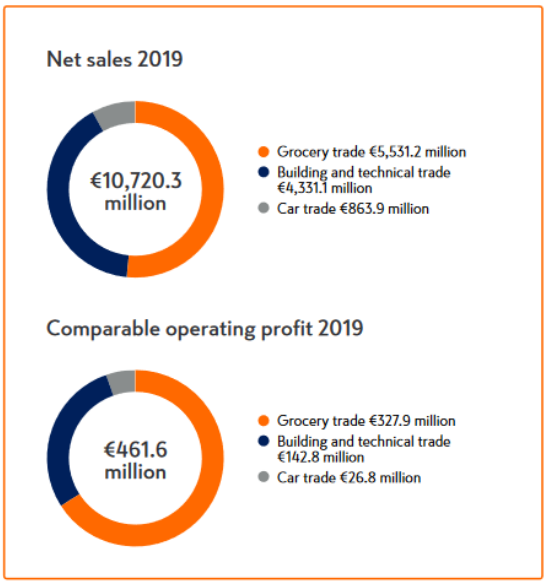

Figure 3: Net sales and Operating Profit Kesko Group divisions

3.2.2 K-Auto

As the smallest of the three Kesko division, K-Auto is operating in the car trade business. It imports and markets both the passenger car brands Volkswagen, Audi, Seat, Porsche and the commercial vehicle brands Volkswagen Commercial Vehicles and MAN trucks in Finland. Further, the board of K-Auto develops car-related multichannel services. This broad offer enabled a market share of 16,9% in the finnish passenger cars and vans sector and a market share of 3,1% in the finnish trucks over six tons markets in 2019. Expressed in total numbers, there have been 114.199 first registrations of passenger cars, 14.0702 first registrations of vans and 4.020 first registrations of trucks in Finland in 2019. From those 21.505 of the passenger cars and vans and 100 trucks have been imported by K-Auto. In the light commercial vehicle segment the share of VW CV imported by K-Auto is 23,0%.

In addition, K-Auto has its own dealer group called K-Caara, in order to sell new and used vehicles straight to the customer and to offer servicing and after-sales services at its own outlets in the greater Helsinki area, Turku and Tampere. It also distributes the imported cars to further retailer and retailer groups (Kesko, 2020b).

Further, K-Auto develops many services, for example the online leasing service K-Caara Leasing for corporate customers or the used car trading platform K-Caara Vaihtoautot. This platform offers used car selections of Volkswagen, Audi and Seat centres to be bought either online or at their stores. Additionally, the K-Group invests in a nationwide network of electric car charging stations including nearly 80 charging stations located at K-stores with around 270 basic charging points and over 100 fast charging points by the end of 2019. The K-charge network hosts around 40% of all public fast charging points in Finland (Kesko, 2020a, 25).

3.2.3 K-Auto Sales for VW Commercial Vehicles

Each of the above-mentioned vehicle brands has its own department responsible for the sale of the respective brand. In order to be able to carry out a reasonable after sales business and customer management after the sale of a new vehicle there is the “After Sales Department”. It takes care of after sales and customer service issues and manages the dealer network. There are four further subdivisions which are by name: Service, Parts Accessories, Training and Network Development. The service department is responsible for customer services and deals with warranty services, technical services, customer care and translation services. The parts accessories department is responsible for supplying retailers and workshops with parts and coordinates the logistics accordingly. In order to proceed, the training department is responsible for training the authorized dealer and workshop staff in customer service and technical requirements. The last department takes care of the network development and monitors the quality of processes and corporate identity standards in dealerships and workshops. Same as

in the sales department, there is also a responsible department or at least a responsible after sales manager for all after sales issues for each individual brand. Depending on the requirements, the after sales department or manager can draw on the aforementioned competencies of the four after sales departments and provide optimal support for the respective brand in terms of after sales business. The after sales business of VW Commercial Vehicles is managed by one after sales manager (Aalto, 2020a).

3.3 Volkswagen Commercial Vehicles Dealer Network Finland

3.3.1 Dealer

Dealer or Dealerships are independent traders. They are integrated into the sales organisation of a manufacturer and sell their products in their own name and on their own account in order to promote the manufacturer's sales. A distinction can be made between a single-level and a multi-level system. In the one-level system, there is only one retail level; all dealership partners have a dealership contract with the manufacturer. In the multi-level system, in addition to those, there are also downstream sales levels known as sub-dealers (Schiller, 2014, 13). Further information about the distribution in the automotive industry can be found in chapter 4.3.3. Typical tasks of a dealership are product sales, customer service, warehousing and consulting.

By purchasing on their own account, authorized dealers bear an increased risk. They must have their own capital in order to be able to buy and sell, advertise and offer services. In addition, due to the distribution and sales promotion obligation, they are required to constantly strive to sell the manufacturer's products and are therefore not in a position to decide freely which case they would like to take on. Furthermore, they bear the risks associated with the handling tasks of the retailer, which include advance planning, transport risk and warehousing (Emde, 2014, 274).

In return for these risks, dealers often benefit from "area coverage", which generally promises them a secure customer base. Furthermore, authorized dealers benefit from the manufacturer's typically strong brand. For the manufacturer himself, authorised dealers offer the advantage that hardly any investment is required and the sales risk is low. On the other hand, they have less control over sales (Henning & Schneider, 2018). Since authorised dealers are usually tied to the manufacturer's products, they cannot rely on cheaper product alternatives from suppliers and can only adjust the sales price of the manufacturer’s original parts.

3.3.2 Volkswagen Commercial Vehicles Dealer Network

The licensed dealer network of VW in Finland consists out of 15 different dealer groups, which are responsible for different regions within Finland. The dealer groups are namely the Alppilan Autohuolto Oy, Lohja Oy, Bifa Ab Bilfirma, BN Bilservice AB Oy, Jyväskylän Autotarvike Oy, Käyttöauto Oy, KK-Autoteam Oy, Lehtonen Motorsport Oy Ltd, Niskan Auto Oy, Pörhön Autoliike Oy, Raskone Oy, Suomen Authuolto Oy, Tamperen AutoCenter Oy, Traktoauto Oy and the already mentioned dealer group K-Caara. Jointly they are running 36 sales and service points, from which twelve are additionally specialised in VW Commercial Vehicles. Also, the one in Lapland has a Mobile Service Unit (MSU) (Aalto, 2019a). MSUs are mobile service workshops, that means a large delivery van is converted to be able to carry out certain repairs and services on the move (Wölfle, 2018, 5). Furthermore, there are ten locations only offering services without sales (Aalto, 2019a).

Figure 4 (Hemilä, n.d.) shows the six provinces of Finland and its capital Helsinki. The provinces are: Southern Finland, Western Finland, Eastern Finland, Oulu, Lapland and Aland. Furthermore, figure 5 (Aalto, 2019a) shows an overview of the dealer network of VW in Finland. The blue and yellow boxes are referring to sales and service points, while the yellow boxes are indicating only service points. In Helsinki, the Alppilan Autohuolto Oy is running two service points, and K-Caara runs a sales and service location. In Southern Finland there are the following dealer groups located Lohja Oy, with one sales and service point, the Niskan Auto

Oy and the BN Bilservice Ab Oy with one service point each and the K-Caara Group with 14 sales and service points. Some of those K-Caara Group retailers are additionally located in Western Finland. Also located in Western Finland are Jyväskylän Autotarvike Oy, Raskone Oy and Traktoauto with one sales and service point each, Käyttöauto Oy with six sales and service points and KK-Autoteam and Lehtonen Motorsport Oy Ltd with one service point each. The Tampereen Auto Center Oy and the Suomen Autohuolto Oy have a service point each in the western area. Additionally, the Suomen Autohuolto Oy has a service point in the province of Oulo, where also the Pörhön Autoliike Oy has three sales and service points. In general, Pörhön Autoliike Oy is present in the north with three sales and service locations in Lapland, one of which has an MSU. It also has one sales and service point in the northern part of Eastern Finland and two additional sales and service locations in Western Finland near the Oulu area. Further, the south of the eastern Finland part is covered by the Jyväskylän Autotarvike Oy with two sales and service points. Last but not least, the Bifa Ab Bilfirma distributes sales and service in Aland.

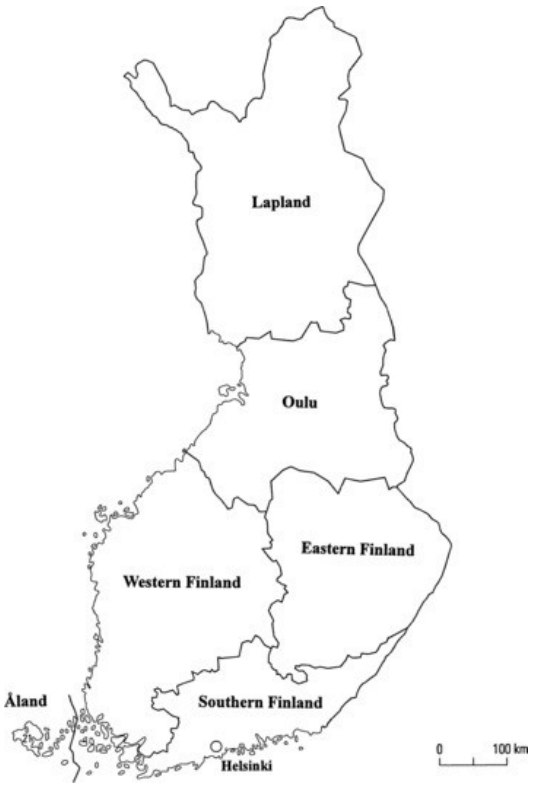

Figure 4: Provinces of Finland

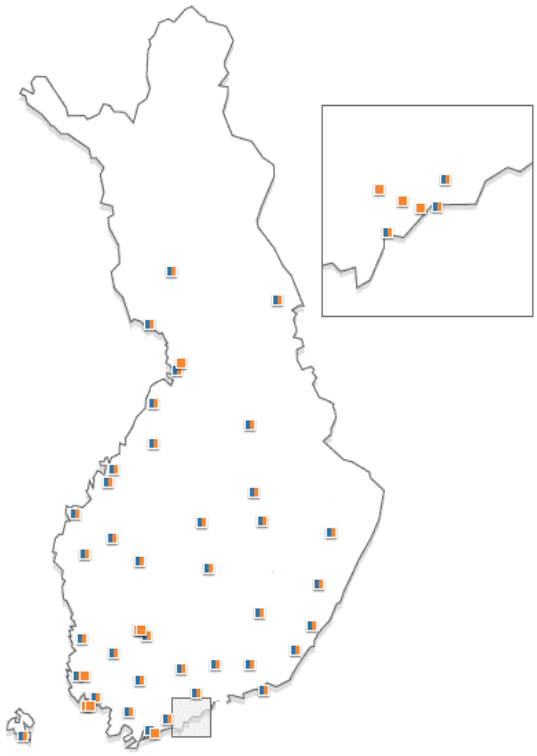

Figure 5: Volkswagen dealer network Finland

For a more detailed overview see table 7 (Aalto, 2019a) in Appendix 1, in which the dealer and service partner are listed with their exact location. Column one states the names of the retailer or service point. These are always including the name of the Dealer group, except for K-Caara whose retailers are called Volkswagen Center and the retailer Savilahden Auto Oy belongs to the Jyväskylän Autotarvike Oy. Column two indicates whether it's a sales and service point or just a service point. If there is an additional statement "Team" it refers that those sales and service points are especially trained for VW Commercial Vehicles. The statement "MSU" stands for the Mobile Service Unit. Column three locates the city of the retailer and column four locates the province.

3.4 Customer

3.4.1 Customer

Customers are individuals or businesses who are buying goods or services of a company (Dillerup & Stoi, 2013, 244). Therefore, they are driving the revenues of a company. The old adage "the customer is always right" is an important aspect in a company's business model, since they are financing the company and satisfied customers are more inclined to purchase products and services from companies that meet or exceed their expectations (Bloomenthal, 2020). Customer in the automotive industry are private customers, small business customers and fleet customers (Reindl, 2017, 44).

3.4.2 Finnish Customer

In order to understand and meet the expectations of the finnish customer, it is necessary to understand the finnish culture. Based on this knowledge, companies can adjust their products and sales decisions towards the actual needs and desires of their customers. Therefore, the finnish culture will be analysed and described by the six dimensions of Gerard Hofstede, who defined the following

six culture defining categories: Power Distance Index, Collectivism vs. Individualism, Femininity vs. Masculinity, Uncertainty Avoidance Index, Short Term vs. Long Term Orientation and Restraint vs. Indulgence (CFI Education Inc, n.d.). Figure 6 (Hofstede Insights, 2020) shows the estimated scores of Finland for each dimension:

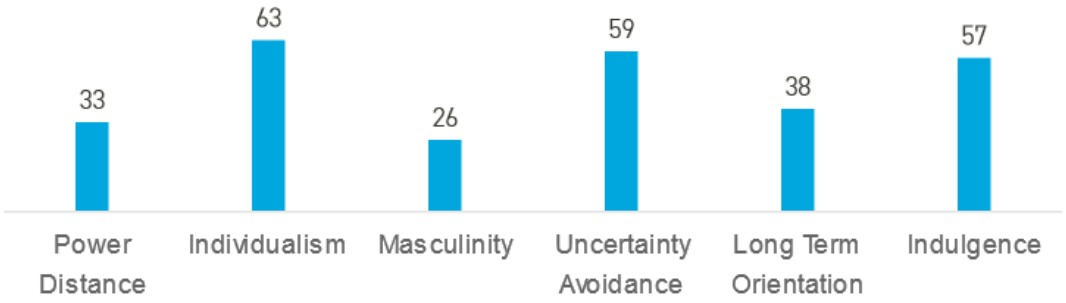

Figure 6: Estimated scores six cultural dimensions of Hofstede in Finland

The Power Distance Index measures the extent of inequality within a society, that is socially accepted. Accordingly, the power distance can be described as “the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed” (Hofstede Insights, 2020). A high index indicates that a culture is tolerating inequality and power differences. Additionally, the culture fosters bureaucracy and prioritizes clearly defined ranks and authority. On the other hand, a culture with a low power distance index has flat organizational structures with a decentralized decision-making responsibility and a participative style of management. Furthermore, this culture type attaches importance to power distribution (CFI Education Inc, n.d.). The finnish culture has a low score of 33 in this category, which indicates that the power is decentralized and they use a direct and participative communication in their society. The members are independent and equal and they are using hierarchies only for convenience. In business relationships, Fins expect management and business partners to facilitate work and to operate in a relaxed working atmosphere on an informal and first name basis (Hofstede Insights, 2020).

The Individualism vs. Collectivism indicates “the degree of interdependence a society maintains among its members” (Hofstede Insights, 2020). Consequently,

this category measures the extent to which members of societies define themselves as “I” or “We”. In individualistic societies, in which people define themselves as “I”, people are giving greater importance on achieving their personal and direct family members goals. In collectivist societies on the other hand people see themselves as “We” and are giving greater importance on the goals and the well-being of a whole group. With a score of 63, Finland is an individualistic society, thus people tend to take care of themselves more. The business relationships are based on mutual advantages for all parties.

The Masculinity vs Femininity category indicates the tendency of a culture to be either performance-oriented or socially minded. “The fundamental issue here is what motivates people, wanting to be the best (Masculine) or liking what you do (Feminine)”. Higher scores show the preferences of a culture to be driven by competition, achievement and success and indicate that a society is masculine. A feminine society receives a low score, as its key aspects of social life are caring for others and experiencing a high quality of life. In this category, Finland has a low score of 26 and can therefore be considered as a feminine society. The business relations are striving for consensus, the participants value equality, solidarity and quality, which means that conflicts can be solved by reasonable negotiations and compromises. Another important aspect is that leisure and flexibility are preferred in society (Hofstede Insights, 2020)

The Uncertainty Avoidance Index express “the extent to which the members of a culture feel threatened by ambiguous or unknow situations and have created beliefs and institutions that try to avoid these” (Hofstede Insights, 2020). A society with a high Uncertainty Avoidance Index tries to eliminate the unknown through strict rules, regulations and further steps, since the society tolerates uncertainty, ambiguity and risk taking very little. On the other hand, a low Uncertainty Avoidance Index describes societies with high tolerance for those aspects, which leads to a higher acceptance of the unknown and lax rules and regulations. (CFI Education Inc, n.d.). The finnish score is 59 in this category, which indicates that Fins are more likely to avoid uncertainty. The acceptance of unorthodox ideas and behaviour is low, which decelerates innovations but fosters the desire of security of each individual (Hofstede Insights, 2020).

The Long Term vs. Short Term Orientation describes the impact of a societies own past, present and future on their decision-making processes. Long term horizons are chosen by societies with a pragmatic approach focusing on the future with consideration of persistence, perseverance and long-term growth. More normative societies choose the short-term approach, which maintains in the present and the near future and emphasizes quick results and respect for time-honoured traditions. Societal change is monitored with suspicion (CFI Education Inc, n.d.). Finland has a Short Term Orientation with a low score of 38. The society is focusing on achieving quick results, tries to show great respect for their traditions and has a relatively small tendency to care about the future.

The sixth category, Restraint vs. Indulgence, deals with the self-control of societies regarding their impulses and desires, which is mainly influenced by the socialization and education of children. Indulgence is based on weak control and an easy handling with life, while Restraint is based on regulations and norms. Based on the relatively high score of 57 for the finnish society, it can be said that Finland is an indulgent country, which means that the finnish citizens try to realise their impulses and desires with regard to a free gratification of their desire to enjoy life and to have fun. Therefore, they are generally more optimistic and prioritise leisure time in their lives (Hofstede Insights, 2020).

3.4.3 Fleet Customer

According to the Volkswagen Groups definition, a fleet customer operates a fleet of 15 or more vehicles and should have more than 20 employees. Furthermore, the customer procures at least five factory-new vehicles per year from one of the groups brand portfolios. Additional specifications are that the vehicles have to be verifiably acquired for the use in a customer’s fleet and the customer must held the car at least for six months after the delivery. Fleet customers place particularly complex demands on their vehicle fleet, ranging from compact cars to commercial vehicles, from procurement and financing to leasing and an extremely broad

spectrum of mobility services. To this end, they have the opportunity to take advantage of the huge brand portfolio, specially customized equipment or features packages and intelligent fleet services.

The VW Group offers special benefits for fleet customers. These benefits are manifold. Firstly, the model portfolio from VW Passenger Cars, Audi, Skoda, Seat and VW Commercial Vehicles offers the perfect vehicle for a company's widely varying needs. Further, the VW Group and its partner are granting a volume discount on the annual order volume and an additional model-specific special discount. Additionally, specially trained fleet managers are supporting fleet customer in all fleet-related matters. Regarding the after sales, fleet customer can also take advantage of discounts on original parts at all participating retail partners and they also benefit from a dense service network (Volkswagen Group. 2020d).

4 After Sales

This chapter is intended to provide the reader with an insight into the general after sales business with a focus on the automotive industry. First of all, a general definition of after sales is given. Then the after sales business in the automotive industry is presented with an outlook on the market development. This is supplemented by the subsequent chapter, which explains the general distribution and its distribution channels and then goes into detail about distribution in the automotive industry as well as its after sales market. This is followed by a brief explanation of the key figures for the OEM and importer and the price elasticity of demand. Finally, the emerging trends in after sales are discussed in more detail.

4.1 After Sales

”After Sales service is a critical element in the successful marketing of many products.” (Szwejczewski, Goffin & Anagnostopoulus, 2015). Both Business to Business (B2B) customers as Business to Customer (B2C) customers require associated after sales services such as maintenance and repair in order to receive the maximum value from the purchased products. The understanding is that customers do not only buy a product but a product-service package. On this occasion, there are different requirements from B2B and B2C customers. On the one hand, B2B customers are seeking for the least Cost of Ownership and try to prevent downtimes and loss of revenues. They also want to improve the efficiency and effectiveness of their processes including the service and support affairs over time (Szwejczewski, Goffin & Anagnostopoulus, 2015). The Total Cost of Ownership are “all costs, direct and indirect, incurred throughout the life cycle of an asset, including acquisition and procurement, operations and maintenance, and end-of-life management” (Dressel & Schweiger, 2011, 31). On the other hand, B2C customers focus more on their satisfaction and the least disruption of their routines than on revenues (Szwejczewski, Goffin & Anagnostopoulus, 2015).

4.2 After Sales in the Automotive Industry

The After-Sales business area can be divided into two large sub-areas. On the one hand, there is all maintenance and repair work that has to be done after the purchase of a new car. These are essentially predictable workshop events based on and intended by the specifications of the automobile manufacturers. This area falls within the liability of authorized dealers. On the other hand, there is the second section, which relates to the sales market for spare parts and accessories. This area is influenced by the work of all levels of distribution, which means the manufacturer, the importers and the dealers. Both areas are closely linked, since spare parts are used directly or indirectly in most maintenance and repair work (E-mobil BW GmbH 2014, 7).

The after sales market size in the automotive industry was estimated by McKinsey to 800 billion euros in 2017. Based on their expectations the After Sales market will increase around 3% per annum to approximately 1.200 billion euros in 2030. However, there are trends, such as the electrification of vehicles and autonomous vehicles, which might have a negative impact on the development. The share of after sales in total turnovers of the automotive industry is 25% and is expected to decrease to around 19% (Kempf, 2018, 8). Besides the market potential, the importance of the After Sales business is illustrated by a study run by Deutsche Treuhand GmbH, which states that 88% of German car owners insist that their vehicle is in a technically perfect condition at all times. Furthermore, almost one in five would have their car repaired, although this would be uneconomical (Deutsche Automobil Treuhand GmbH, 2019, 8). Parallels to this can also be seen in other countries. Even in difficult economic times, customers show a willingness to spend money on their own car, as their own claim or understanding of the car as a status symbol demands to do so.

4.3 Distribution

4.3.1 Distribution Overview

Distribution deals with the task to supply customer with goods. The distribution policy describes the way in which the product reaches the customer. There is also talk of sales organs and sales channels (Spindler, 2016, 134). The distribution channel must be chosen very well since it has to satisfy the seven rights of supply chain management, which are by name: The right product or service which has to be delivered to the right customer in the right place at the right time and in the right condition. Furthermore, the quantity has to be the right amount and the distribution has to be for the right costs (Morga, 2020).

In order to achieve the goals of the distribution and the supply chain management, there are two types of distribution. On the one hand, there is the direct distribution, in which the manufacturing company itself assumes the sales function and interacts with the customers regarding the sales process of their product. This form of distribution is very common in the capital goods sector, as it is particularly suitable for products requiring advice, explanation and demonstration. Within direct sales, a further distinction can be made between internal sales, field sales and external own operations. The internal sales force includes telephone sales, counter sales (primarily at banks and insurance companies), direct marketing and e-commerce. Direct sales, as it is the case with capital goods, for instance, are included in field sales. External own operations include sales branches, trading and subsidiary companies and factory branches (Bürli & Friebe, 2012, 117).

Especially sales via e-commerce have gained a lot of recognition and acceptance in recent years. For the manufacturer, e-commerce offers the advantage of saving the margin, while it enables convenient shopping from home for the consumer (Amonat, 2000, 9). It also makes products automatically available to a large group of customers without the need for intermediaries. Additional advantages are the limitation of the storage required and also the method of data analysis allows for

the prediction and optimization of inventory management and shipment (Belyh, 2018).

Apart from the e-commerce, the direct distribution channel also offers other advantages. For example, the OEM is less dependent on the sales channels, so that he can establish a better or direct relationship with the customer. The flow of information between manufacturer and customer is direct, customer advice can be provided with greater expertise and the quality of the work of the employees can be influenced by the OEM itself (Bürli & Friebe, 2012, 117).

However, this must be weighed against the fact that in the case of the direct distribution channel, the manufacturer is responsible and accountable for all stages. Moreover, this method often only allows for smaller order sizes with a smaller assortment size. In addition, higher infrastructure costs must be accepted. These advantages and disadvantages must be considered when choosing the distribution channel. In general, direct distribution is suitable if the manufacturer has only a few large customers (Bürli & Friebe, 2012, 117), production and consumption are not far away and the products to be sold are of consistent quality and manufactured in such quantities that they can be sold directly to the customer without further treatment (Mellerowicz, 1959, 140).

On the other hand, there is the indirect distribution, which is also known as multi-level distribution. In this type of distribution, a distinction can be made between single-level sales and two-level sales. As long as the manufacturing company sells to a trading partner who offers the product straight to the end customer, this is referred to as an one-step distribution or single-level sales. A two-step distribution or two-level sales is used when the product is first sold to wholesalers by the manufacturer and then from the respective wholesaler to the retailers. The retailer then takes over the marketing and sale to the end customer (Spindler, 2016, 138 et seq.). These different types of distribution with the respective distribution levels are illustrated in the following figure 7 (Spindler, 2016, 140):

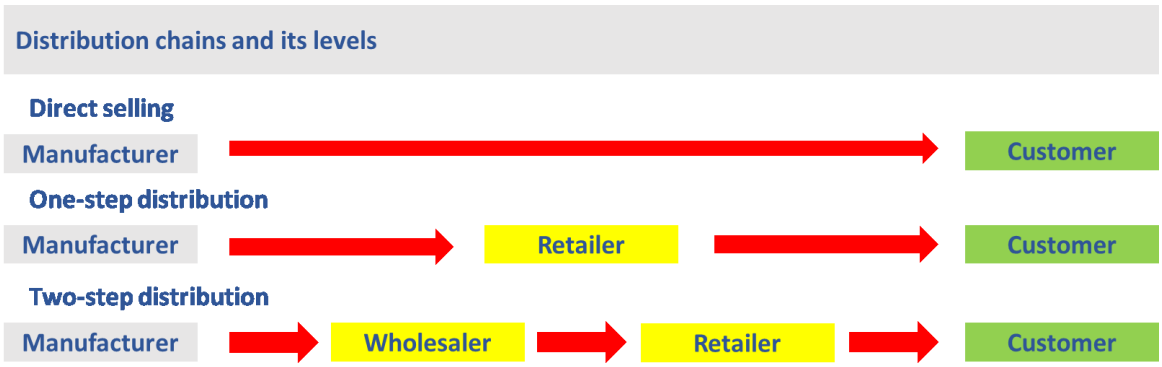

Figure 7: Distribution types with the respective distribution levels

Generally, a direct distribution channel is preferred. However, there are also some reasons for using an intermediate in the distribution channel. These include, among others, if the manufacturer himself is not able to supply the customers for various reasons, or if he cannot perform tasks such as consulting, customer service or marketing himself. It is also possible that individual products can only be sold through the joint product range. Another reason for indirect trade is the possibility for the manufacturer to reduce the number of contacts with the customers and to minimize work in that way. Just as with direct sales, the advantages and disadvantages of indirect sales must be weighed up. One of the advantages is that the dealer knows the market and the target group and can therefore address them in a much more specific and targeted manner. Furthermore, such dealers often work in particular geographical areas where they can enjoy local advantages. On the other hand, there is the dependency of manufacturers on their trading partners. This can lead to conflicts of interest or strategy between the two sides. In addition, implementation times can be longer than with the direct sales channel (Bürli & Friebe, 2012, 78).

4.3.2 Distribution Channel

In general, there are three different traditional distribution channels: brick and mortar, e-commerce and multi-channel retailing. To start with brick and mortar models, the manufacturer has a fixed location over which he runs his business. In contrast to this, in e-commerce the products are sold exclusively via the Internet. Both business models offer customers different advantages. They also have

disadvantages, which often result from the advantages of the other model. One of the advantages of brick and mortar is that the customer is able to see, touch and test the products (Dach, 2002, 119). By eliminating delivery times, the customer is able to purchase the product immediately, which may make shopping faster. In addition, "face-to-face" contact is guaranteed, which can help to strengthen customer loyalty and to build trust (Heinemann, 2010, 41).

The disadvantages of brick and mortar retailing show the advantages of e-commerce. For example, it is difficult for the customer at brick and mortar to gain a comprehensive overview of the products, whereas this is easily possible when selling over the Internet. In stationary trade the assortment has to be limited by the storage and space costs. In e-commerce, on the other hand, the presentation of all available products is achieved at no additional cost (Clement, 2013, 292).

Convenience is an important factor in the shopping experience. This term refers to the different characteristics that describe the process of shopping. These include the convenience of shopping, the ease with which products can be found and the time required to obtain them (Dach, 2002, 140). In the area of convenience, e-commerce predominates. The convenience of shopping is very high with the Internet, as it can be operated from home with only one device, whereas brick and mortar shopping requires transportation. E-commerce also simplifies the effort of finding the products by presenting them in a bundled way and, if necessary, using functions such as "search". Another disadvantage of brick and mortar is that the customer could run the risk that the desired product is not available in the store and that he would have to go to another store. Only in terms of the time required to obtain the product can brick and mortar retail, as already described, outweigh online retail, where the customer has to wait a certain amount of time for his product due to delivery times (Heinemann, 2010, 41). Other disadvantages of e-commerce include the difficulty of providing information about the products, a lack of trust in online payment and a more complicated complaints and exchange management system.

The multi-channel retailing describes a distribution concept in which two or more distribution channels are used simultaneously. These can be brick and mortar

stores, traditional catalogues or e-commerce. It is important that a purchase can be made via each of the channels used. Channels for the pure transmission of information are therefore not included. Depending on the composition of the channels, three forms can typically be distinguished. Firstly, Bricks & Clicks, which describes the composition of brick & mortar trade (bricks) and online trade (clicks). Secondly, Clicks & Sheets used in multi-track retail trade. Here, an online shop is combined with a catalogue delivery (sheets). Thirdly, Bricks, Clicks & Sheets as the name suggests, this form combines all three channels (online, brick & mortar & catalogue) (Rittinger, 2014, 3 et seq.). In multi-channel retailing it is important that all channels communicate the same retail brand in order to convey a consistent image of the company to the customer (Zentes, 2012, 82). If this is not the case, it can lead to customer disorientation. This can lead to cognitive dissonance, as customers are overwhelmed by the different information on the channels. Another risk of multi-channel retailing is the possibility that cannibalization effects could occur between the channels, which would have a counterproductive effect on overall sales. Additional risks can arise in the internal coordination and adaptation of the sales channel structure when it comes to bringing the channels together and anchoring them organizationally.

These risks are offset by a large number of opportunities that justify the use of multi-channel retailing. These include the possibility of offering customers a broader range of sales channels. In this way, new consumers can be acquired and the loyalty to existing customers can be increased. If used correctly, an improvement in the company's image can also raise in relation to the competition (Schramm-Klein, 2003, 44).

4.3.3 Distribution in the Automotive Industry

The distribution through authorized dealers in the automotive industry was already introduced in the early 1920s. Even nowadays most of the cars and original parts are still sold through these distribution systems. Due to the complexity of the product, a dense network with qualified workshops or sales outlets is required, which is why the existing system has been established with authorized dealers.

The advantage of authorized dealers is that they are assumed to know the local market conditions better than the manufacturer and therefore can potentially sell more vehicles and products. The idea is that a strong local retailer strengthens the brand of the manufacturer, while the brand strengthens a retailer who sells it (Spindler, 2016, 85 et seq.).

Since the introduction, however, the obligations of the retailers towards the manufacturers have increased qualitatively and quantitatively. This can be seen, for instance in terms of obligations towards marketing, customer care, systems and product presentations (Parment, 2016, 80 et seq.). Therefore, the dealers had to implement many improvements over time. These include, among other, clean and carefully designed exhibition rooms and workshops, well-trained sales staff, clear pricing for services and workshop work, short waiting times and generous guarantees. Nevertheless, manufactures are demanding more and more, which on the one hand has led to improvements, but on the other hand has caused frustration among retailers (Parment, 2016, 83).

Based on this, it was the focus of the manufacturers interests to strive for efficiency, at the expenses of the interests of suppliers, dealers and also its customers for a long time. A matter of fact is, all parties are interdependent and all perspectives must be taken into account. Consequently, these tense conditions and the industry in general are currently changing. Therefore, the industry is forced to deal with questions such as: Which new business ideas can be realized, or who best converts the spirit of the times and current trends into profitable and sustainable business strategies? (Parment, 2016, 80 et. seq.).

In order to facilitate the cooperation between the distribution levels Document Management Systems are used. The DMS enable automatic collection, classification, processing, archiving and distribution of documents, which creates potential benefits, such as the reduction of search, process and throughput times or the saving of printing and archiving costs (Bröhl, Mertens & Schlick, 2015, 8).

4.3.4 After Sales Market Structure

In general, there are two different after sales market structures in the automotive sector. On the one hand, there is the OEM network and on the other hand there is the independent aftermarket. Both competing with each other. Both structures consist of five distinct but interacting stakeholder groups: parts manufacturers, parts distributors, workshops, intermediaries and end customers. To start with the OEM network, the OEM acts as parts manufacturer and parts distributor as they have either their own sales units or authorized distributors. The workshops are run by authorized dealers, which sell the products to the end customers or to intermediaries. On the contrary, the parts are manufactured by suppliers or generic manufacturers in the IAM. They distribute the parts either to OEM sales units, buying groups, independent distributors or online distributors. These in turn supply independent workshops and system chains. Such system chains trade with spare parts and operate workshops that are connected to the sales outlets. They are offering the products again to the end customers. Figure 8 (Kempf, 2018, 13) simplifies the networks and their different players relations.

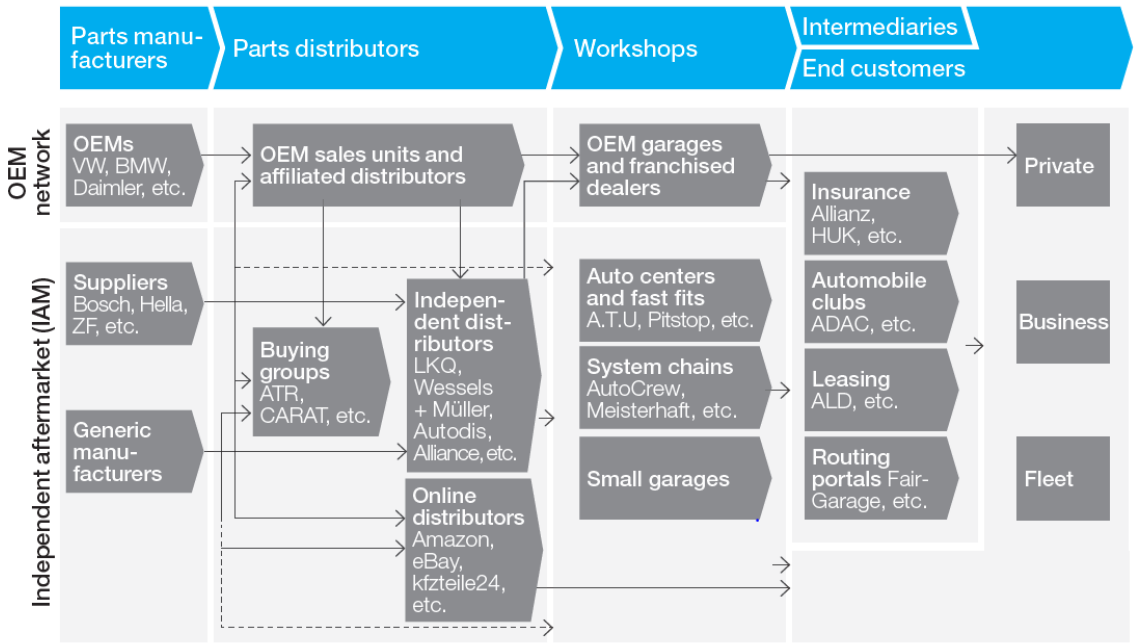

Figure 8: Automotive After Sales network

Depending on the age of the vehicle, customers either prefer the OEM network or the IAM. In general, customers with vehicles in the vehicle segment I or II are more likely to use the OEM network and customers with vehicles in the vehicle segment III and older prefer the IAM. Vehicle segment I includes all new vehicles up to an age of two years, segment II consists of all vehicles between two and five years. Segment III contains all vehicles over five years up to ten years (Kuder, 2005, 2). Revenues from after-sales business with customers from the older segments represent a large share of operating profit. While in segment I many repairs are warranty and guarantee cases that are financially borne by the manufacturer or dealer, segments II and III are the "cash cows", as here the customer actually pays the bill (Deloitte, 2019, 52).

4.4 After Sales Measures

In accordance with Simon (1993), the after sales business consists of the following components: Warranty services, maintenance, repair and user training. Accordingly, there are three types of costs of after sales business which concern the OEM and the importer. First of all, in order that a product remains in good condition and to ensure the functionality over the entire working cycle, ongoing maintenance is inquired. Thus, one of the main aspects of maintenance are the incurred maintenance costs. For vehicles maintenance costs occur for instance for gas, oil changes, engine repair and tire replacements (Chen, 2019). Therefore, it is, inter alia, part of the second measured costs the customer paid business. The CPB are costs that a customer pays directly to a company and that are occurring for all further work in addition to the maintenance costs, such as general wear and tear repairs and services, accident repairs and spare parts distribution.

Thirdly, there is a warranty, which is “a written promise from a company to repair or replace a product that develops a fault within a particular period of time, or to do a piece of work again if it is not satisfactory.” (Cambridge University Press, n.d.b). Further, it is a kind of guarantee that a product is in a defined condition and clarifies the terms and situations in which repairs or exchanges are made.

As a rule, a warranty case will only apply if the product in question contains problems caused by defective parts or faulty workmanship and was not altered or modified after the purchase. As the manufacturer warranties are in general very limited, retailer meet the needs of customers and offer extended warranties (Kenton, 2019). To sum up, if a warranty case occurs, the provider of the warranty must bear the costs incurred. The importer, dealership or workshop can therefore get paid for the distributed products either by the manufacturer itself who covers the warranty costs or by the customer who pays the CPB.

In order to evaluate the responsiveness of demand to a change in its price the price elasticity of demand can be calculated (Tremblay & Tremblay, 2012, 31). "The price elasticity of demand is defined using the derivation of the demand function as follows:

$$\varepsilon_{x,p_x} = \frac{\delta_x}{\delta_{p_x}} \times \frac{p_x}{x}$$

ε_{x,p_x} can be understood as a multiplier, so that it can be interpreted by what percentage (δ_x/δ_{p_x}) the quantity of x demanded changes if the price of x (p_x) is changed by 1%." (Wölfle, 2014, 59). As demand is negatively inclined, the price elasticity of demand is converted to a positive value therefore the price elasticity will be described as $\eta = -\varepsilon_{x,p_x}$ (Tremblay & Tremblay, 2012, 31).

The calculation of the price elasticity of demand is a simple instrument to optimize the profit. Three scenarios can be used to adjust the price and the associated demand quantity:

1. If $\eta > 1$, the demand is elastic or responsive to a changed price. A price changes the demand of a company's goods and services.
2. If $\eta = 1$, the demand is unit elastic. Price changes have no influence on the proportional relationship to the sales volume, which means that no changes in the demand occur.
3. If $\eta < 1$, the demand is inelastic or relatively unresponsive to a changed price. Price changes hardly lead to changes in the demand situation of

a companys goods and services (Tremblay & Tremblay, 2012, 31 & Wölfle, 2014, 60).

4.5 After Sales Trends

Since After Sales has a huge impact on the turnover of automotive companies, future trends should be considered by OEMs regarding their strategies. According to the study “Ready for inspection – the Automotive Aftermarket in 2030” of McKinsey (Kempf, 2018) there are the following trends, which affect the automotive industry fundamentally:

1) “Digitalization of channels and interfaces
2) Big data and analytics becoming new sources of value generation
3) Increasing importance of professionally managed fleets […]
4) Electrification shrinking the profit pool
5) Increasing importance of software requiring new competencies
6) Autonomous driving leading to fewer accidents but shorter maintenance intervals
7) Connected vehicles enabling predictive maintenance
8) New players entering the market
9) Further acceleration of industry consolidation and integration.”

The first three trends consider changes in customer expectations and value generation, followed by the next four trends, which take technical developments and new-generation vehicles into account and the last two trends, which deal with the challenges in the competition of the After Sales market (Kempf, 2018,8).

4.5.1 Customer Expectations and Value Generation

First of all, customers experience multichannel offerings in different areas of their lives, whether it is shopping of groceries, fashion or general utilities. Therefore, they have corresponding expectations regarding the automotive business

(Capgemini, 2019, 6). Although the aforementioned types of shopping are not comparable due to the large price difference and the complexity of cars and spare parts, the automotive industry has to prepare for a change in order to meet the new expectations of the customers. Those regard their freedom to explore the products of a company at any time, regardless if it is in a digital or physical place. (McEwan, 2020). This results in customers being more informed and the automotive after sales business becoming more transparent. On the one hand, the price transparency is going to increase as customers are able to achieve a deeper insight of cost and quality of offered goods and services. On the other hand, workshops still use traditional sales channels, such as B2B platforms and brick and mortar sales points, for 85% to 95% of the parts business, although a shift towards distributor-independent B2B platforms is expected. Also, the private customers tend to buy parts from suppliers like amazon online (Kempf, 2018, 18 et seq.). The distribution channel of OEMs has to be revised and adapted as the business environment is more complex and customer requirements are changing ever faster (Capgemini, 2019, 12). Accordingly, the automotive distribution chains are fostering the development of their online participation and offer partly already complete customer journeys online. (Kempf, 2018, 19).

As Kempf (2018) stated, big data and advanced analytics of field and customer data are becoming new sources of value generation. Big data means the processing of large, complex and rapidly changing volumes of data (Provost & Fawcett, 2017, 31). The analytics of big data has become an increasingly important competitive factor as it contributes significantly to a rapid use of market, customer and user data as the analysis is based on behavioural schemata or prognosis models. This leads to new strategic insights into the markets and enables a company to stand its ground against the competition (Lang & Müller, 2020, 119 et seq.). The automotive industry can use big data collection on the one hand for the better understanding of customers behaviour, preferences and needs to adopt their product and service offerings and on the other hand to use the collection of vehicles data in order to predict workshop visits and improve the warehouse management. The problem is that the data collection by vehicles is technically feasible but is not sufficiently used by the parties of the after sales market (Aalto, 2020c).

To continue, the importance of professionally managed fleets is especially important for the OEM after sales network, as their customer base is mainly set in vehicle segment I and II. Therefore, this network has to develop full-service offerings, which are highly customized and fully integrated in the processes of each fleet customer. The requirement is to decrease the Total Cost of Ownership for the customer and to reduce the service complexity as well as the downtime so that the customer can actually earn money with the use of a vehicle (Deloitte, 2019, 53). In addition to the traditional commercial fleet customers, shared mobility fleets are entering the market. Fleet vehicles and above all shared mobility vehicles are in principle driven more often, which leads to greater wear and tear of the vehicles (Kempf, 2018, 21).

4.5.2 Technical Developments and new Generations

The electrification of vehicles is probably shrinking the profit pool as electric engines have fewer moving parts (Kempf, 2018, 22). Previous experience with maintenance and wear and tear shows that the after sales business of current e-vehicles is between 20 and 30 percent below those of a comparable conventional vehicle. Since e-vehicles only have 3,000 parts instead of 4,000 parts and are less complex than internal combustion engines, e-vehicles cause less maintenance costs. (Volkswagen, 2019a). This means, the workshop effort for electric vehicles is reduced, as a result of eliminating work on the conventional drive train. For instance, the amount of the previously quite lucrative oil changes will decrease (ecomento.de, 2015).

Similar to electrification, the next trend will also require special know-how. Experts guess that the after sales services become more important than the parts sales and therefore the future after sales market requires new competencies such as remote services (Kempf, 2018, 22). Remote services are defined as remote and partially remote-controlled services. These enable manufacturers to offer their services through telecommunications networks regardless of their location (Wünderlich, 2010, 24). In the automotive industry, remote services are becoming increasingly popular for remote software maintenance. Due to the increasing

complexity of the software installed in the vehicles, it is becoming more and more common for it to contain bugs which need to be improved. Thanks to remote services, this can also happen outside the workshops. In addition, remote services offer the possibility of collecting information in advance via remote diagnosis in the event of a malfunction or damage in order to reduce the time required in the garage (Mattern, 2003, 74). For the importer or dealer, this saves time and money and at the same time offers the possibility of achieving higher customer satisfaction through additional customer benefits. For the customer, too, the use of remote services saves time and money, while being more flexible and productive, which increases their satisfaction. The risks involved are primarily of a legal nature, the extent to which attention is paid to data protection and the extent to which security and personal data are protected (Wünderlich, 2010, 24). The next step of remote services would be to offer virtually guided services or to remotely replace modules (Kempf, 2018, 22).

To continue with connected vehicles. Connected cars can communicate and share their status with other vehicles in a network and the network itself thanks to their communication technology (Calvo & Angel, 2018, 9). “Connected vehicles are equipped with advanced software which enables new technologies creating a new label of applications, platforms, and infrastructures. The on-board equipment in vehicles has grown from basic technology, such as lighting systems, to cruise control or collision avoidance systems, where several types of sensors provide the vehicle with knowledge about the internal and external environment” (Calvo & Angel, 2018, 9 et seq.). They also enable new services for customers such as route tracking, park and find, accident and breakdown assistance, dealer search and vehicle status information. However, data can also be collected for the OEM or a dealer, such as the analysis of the customer's driving behaviour. Also, with regard to the remote service, upcoming repairs can also be tracked and communicated to the responsible dealer. Thus, the vehicle status is checked and analysed at any time. If a malfunction is detected, the customer of the vehicle can be called to the workshop proactively. Additionally, if the maintenance services are based on the actual vehicle usage and the driving behaviour, personalized maintenance recommendations can be issued, which would lead to higher

customer loyalty, especially in the older vehicle segments (Kempf, 2018, 24 et seq.).

Also, autonomous driving will affect the automotive after sales business in the future. Autonomous driving is the trend for vehicles to drive autonomously without human intervention. It has developed from advanced driver assistance systems (ADAS) for active safety, which can be classified into six various levels. The levels are indicating a range from fully manual driving at level 0 to fully autonomous driving at level 5 (Deloitte, 2019, 22). The more precise gradation of the ADAS levels can be seen in figure 9 (Deloitte, 2019, 23).

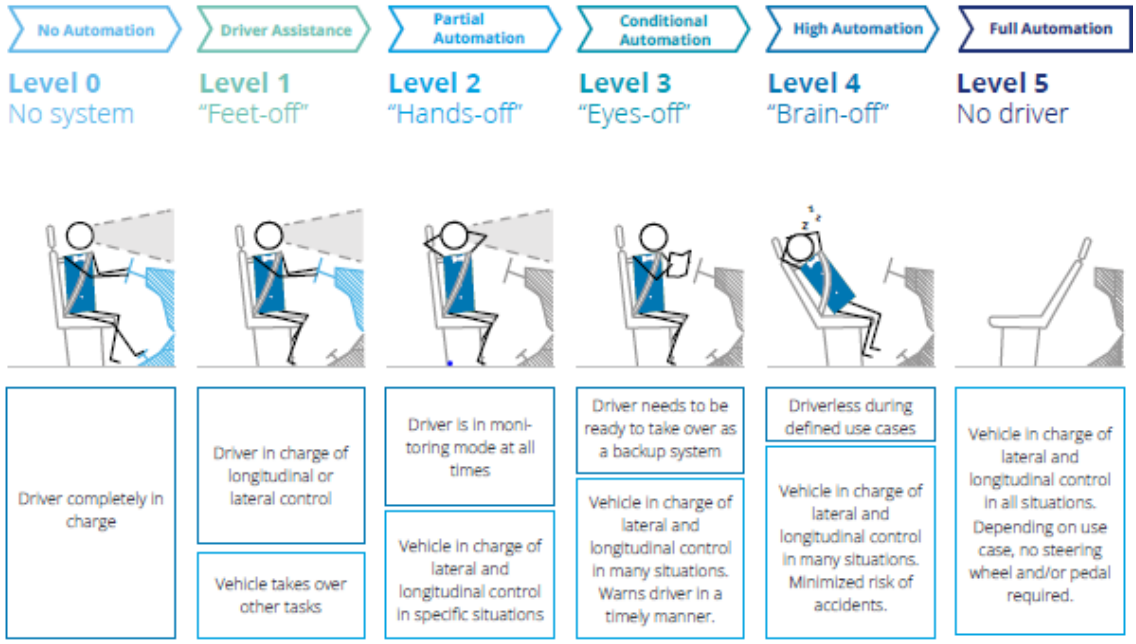

Figure 9: ADAS levels overview

The technical progress of the ADAS and autonomous driving also affects the after sales business. First of all, it leads to fewer accidents, as the human is the main error element in traffic and is therefore substituted by the systems. Furthermore, the service requirements are changing, as the autonomous driving results in fewer wear and tear work, since it is adjusted to optimal and efficient driving. But to ensure proper functionality at all times, the susceptible system components, such as sensors, must be checked more frequently which results in shorter maintenance intervals (Kempf, 2018, 23). Another aspect of autonomous driving is that autonomous vehicles could drive to the workshop on their own and the

workshop visit itself may no longer require customer interaction. (Klamet & Nadler, 2019,7)

4.5.3 Competition of the After Sales market

Not only the established after sales players are interested in the after sales business but also e-commerce players and therefore new players will probably enter the market. Companies as Amazon, Google and Facebook have a huge source of customer data, which they could also use for car sales. Amazon for instance is already operating in the automotive industry, by selling spare parts online and providing a car buying research website called Amazon Vehicles. Further, they sell vehicles in France and Italy through cooperation with automakers (Burke, 2017). The tendency might be, that digital and e-commerce companies are only trying to enter market segments that are economically attractive. Experts think that those companies might gain a huge share of revenues and profits in the future automotive after sales market, which fosters the competitive pressure (Kempf, 2018, 26).

Further, the acceleration of industry consolidation and integration of dealer and workshops in interest networks might be fostered. This is a consequence of the attempt to achieve a critical mass and benefit of economies of scale. Additionally, bigger dealer groups are purchasing smaller dealer and workshops in order to integrate them into their organisation network. Also, the increasing average vehicle age will probably remain a difficulty for OEM networks. To counteract the declining share of serviced vehicles in segments II and III, OEMs and their importer and dealer network have developed adapted service formats. Second brands such as VW Direct Express, offer economy parts in order to be more competitive with the IAM and to increase the customer loyalty (Kempf, 2018, 27). At VW Direct Express, authorised dealers and workshops offer services and parts at lower prices, as the workshop equipment is specially designed for quick repairs such as oil changes, brakes, tyres or shock absorbers (Direkt Express Tettnang, n.d.). Further, economy parts are used. They have a current value-oriented specification and are designed for use for vehicles in segment III. The pricing of Original

parts and economy parts differ by about 25 percent (Volkswagen, 2010, 6) This leads to favourable fixed prices, which make repair and maintenance work on older Volkswagen vehicles in particular worthwhile (Direkt Express Tettnang, n.d.). Suppliers might also become potential competitors as they are offering more complete vehicle subsystems and are therefore able to address the customers themselves (Kempf, 2018, 27).

5 Theoretical Approaches

In this chapter, the reader is given an overview of the theoretical approaches regarding the treatment of after sales markets. In the first step, the market analysis is explained in more detail. This includes first of all the acquisition of information about the market. Then the structure of a market and the allocation of power is explained in more detail. This is followed by a more detailed description of the market segmentation, which indicates the extent to which a company can select a certain homogeneous sub-market for processing. This leads over to the next chapter, the customer analysis, which refers to different needs and desires of various customers towards a company. To sum up the market and customer analysis the SWOT chapter concludes how to use the gained information in order to develop a strategy. This is followed by the presentation of benchmarking. A benchmark is intended to highlight the potential for improvements in a company's own processes by comparing them with internal or external business units. In the following step the customer relationship management is presented. It is an important part of the after sales business and the basis for long-term business relationships.

5.1 Market Analysis

5.1.1 Market Research

A market research deals with the attractiveness and dynamics of the markets of an industry. Companies have to figure out, which markets are profitable and bear a potential for their business models, how a specific market can be described and divided into market segments and which structures prevail in a market segment (Dillerup & Stoi, 2013, 238). Further, they have to deal with the current market situation and the probable future development and environmental factors that influence the current and future market development. All this serves to gain a clear overview of the current and future market situation and to create a good starting position for a successful strategic sales management (Scheed & Scherer, 2019).

Regarding the right measures to be taken as part of the after sales strategy in a respective market, it is necessary to systematically collect, process, analyse and interpret the data of an individual market in advance. On the basis of the collected findings, a company can adapt its strategy and the associated activities to the actual conditions in the market. Market research can thus again be considered as the basis of a successful business (Homburg, 2017, 60).

5.1.2 Market Structure

The market structure is made up of three main participants: Demanders or customers, competitors and the own company. The customers determine the market structure by their number, procurement volume, behaviour and price sensibility. To understand their desires and needs companies have to analyse their customers properly, further details on customer analysis in chapter 5.2. The own company and the competitors are providing goods or services for a specific customer need. They are competing with those goods and services for the same customers. All the providers of a good or service form an industry. Customer and companies interact with each other. First of all, the customer informs a supplier about his needs. Afterwards, the supplier brings its goods and services to the market and informs their customer about it. When a supplier sells its offered product, they normally receive something in return from the customer, usually money (Dillerup & Stoi, 2013, 238).

According to the number of providers, there are three different market forms a monopoly, an oligopoly and a polypol. In theory, the offered goods in a market are considered as homogeneous goods. Homogeneous goods are considered to be perfectly interchangeable by potential buyers. Firstly, a monopoly occurs when there is a dominant company that acts as the sole supplier on a market and can thus dictate prices. Secondly, an oligopoly market is defined by the fact that few suppliers offer a homogenous good and still have room for setting and adjusting prices. They have the restriction to take into account the likely reactions of their competitors. Thirdly, a polypol occurs when there are several suppliers competing with each other. Consequently, supplier assume that they cannot influence

the price and therefore have to take a market price. This is considered a market with full competition, which is perfectly competitive (Kolmar, 2017).

5.1.3 Market Segmentation

The market segmentation aims at the identification and definition of homogenous markets of the overall heterogeneous market, which have comparable structures and therefore similar customer requirements. They are referred to as market segments. Each company should focus its activities on its relevant market segment, which should be homogenous in itself. But compared to other segments, however, it should differentiate as much as possible as an effective basis of a differentiated market cultivation (Dillerup & Stoi, 2013).

In order to define market segments, which enable targeted segment processing with the help of segment-specific marketing programs, companies need clearly defined demarcation criteria such as geographical, sociodemographic, psychographic and behavioural criteria. The geographical segmentation divides the market into different regional units. There are different cultures and general conditions including climatic conditions which influence the buying pattern of customers. Further, within the sociodemographic segmentation a distinction is usually made between demographic and socio-economic criteria. Demographic criteria take aspects such as gender, age, marital status and number and age of children of the customers into account. Whereas, socio-economic criteria consider aspects such as education, profession and income of the customers. Since those criteria are only covering a formal-statistical equality of persons, the psychographic aspects deal with characteristics of customers that lead to the formation of similar, psychologically related groups. They have similar behaviour and preferences. The criteria refer to the personal social orientation, the general attitude and the risk appetite of each individual customer. To continue with behavioural segmentation, which is the result of a purchase decision process. The analysis is based on the preferences of customers regarding the product choice, the media use, the price behaviour and the choice of shopping facilities. To sum up, all seg-

mentations and their criteria serves the development of special marketing strategies (Rennhack & Opresnik, 2016). The market segmentation is the basis for a customer analysis.

5.2 Customer Analysis

The customer analysis focuses on the customer as a key success factor. On the one hand, the analysis focuses on the identification of profitable long-term customer. On the other hand, it aims for an individual customer processing based on a well-founded understanding of the target customers. The better you know and understand your customers, the better you can adapt your products and services as well as your marketing strategy to their requirements. Therefore, companies are using customer analyses as a tool to gain precisely this insight. The analyses should answer questions regarding customer needs, expectations of the company and its products and services. Furthermore, it should give further information about customer purchasing habits, prioritization of customer groups and the current customer structure of a company (Scheed & Scherer, 2019).

Similar to the market segmentation, there are also segmentations of customers with different needs and requirements. The customer segmentation and therefore, the achievement of homogeneous customer groups is based on product related criteria. Depending in whether the customer buys consumption or capital goods, there are different criteria. If a customer buys a consumer good, which are goods and services for personal use, companies characterize customers based on their age, gender, income and lifestyle. Further, they are focusing on the customers purchasing habits and discuss topics such as brand loyalty, decision criteria and purchase quantity. Additionally, the customer needs and preferences are considered by aspects such as price and brand preference, desired functions and quality.

On the other hand, if a customer buys a capital good, there are other factors that are taken into account. Capital goods are goods and services which are purchased by companies in order to use them to create their goods and services.

Consequently, the customer segments are defined by characteristics such as operating industry, product and service range, location and company size of the customer. Their purchasing habits are analysed based on their purchase volume, frequency of purchase, purchasing behaviour and their decision criteria. Lastly, the needs and preferences of capital goods customers are considering aspects regarding the product performance requirements, the brand preference, the desired functions and the service requirements.

Based on the examining of customer segments, the company's management knows the identified customer requirements and can therefore adapt its customer processing strategy to lucrative customer segments (Dillerup & Stoi, 2013). To sum up, a company can gain valuable information about the structure, needs, expectations and behaviour of its customer and can determine the actual value of a customer segment for the own company. Measures to improve the performance of the company can be derived from this.

5.3 SWOT Analysis

The Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis is a strategic analysis tool of the business environment of a company. It helps to identify trends and factors for the achievement of goals by identifying strengths, weaknesses, opportunities and threats. These are divided into two areas: The internal analysis including strengths and weaknesses, and the external analysis including opportunities and risks (Wollny & Paul, 2015, 189). Both together provide important strategic factors as a basis for the situational analysis. An overview of the situational analysis is shown in figure 10 (FME, 2013, 11) and will be described in detail in the subsequent section.

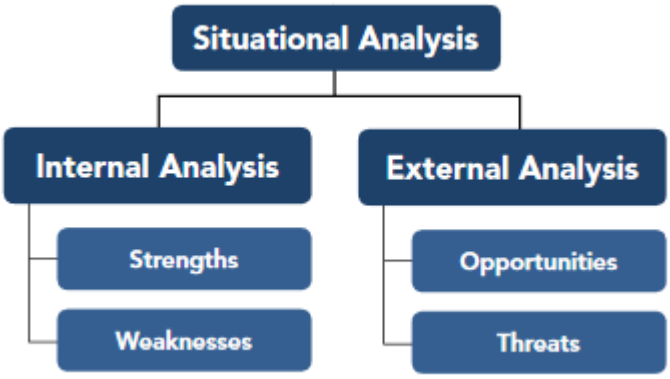

Figure 10: Internal and external aspects of a SWOT analysis

The internal analysis is used to analyse the company. Here, the internal strengths and weaknesses of the company are elaborated. Factors considered in this analysis are sales, procurement, production, personnel, capital and technologies. The external analysis focuses on a company's environment. For this purpose, opportunities and risks that the immediate, but also the global environment has on the company are considered. For the immediate environment, the Five Forces according to Porter are used as support. The Five Forces analysis looks at the rivalry between market participants, the threat from new suppliers, the use of substitute products, the increasing supplier power and the consumer (Witzel, 2003, 273). The current market overview prepared on this basis allows conclusions to be drawn about the opportunities and risks facing the company. Additionally, political, technological, social and economic factors are considered in order to analyse the global environment (Gläser, 2010, 681 et seq.).

Based on the SWOT analysis, the management has to decide which possible strategic approaches should be derived. Therefore, the management has to choose whether they want to focus on their strengths or on their weaknesses. The first strategy approach is based on the use of internal strengths in order to realize external opportunities. Business expansion and the development of new services are traditional strategies used in praxis. Secondly, the Weaknesses-Opportunities strategies are focusing on the transformation of internal weaknesses, which are currently unable to take advantage of external opportunities, into strengths in the medium term. In order to achieve this transformation, companies

establish alliances and develop their human resources. The third strategy is focusing on the reduction or avoidance of external threats by using the own strengths of a company. For instance, if the business model is threatened by external influences such as legal regulations, a diversification of the business model into another industry could be considered. The fourth and last strategy approach, deals with the minimization of internal weaknesses in order to lessen external threats. This is the worst scenario for a company and therefore needs a prioritisation in the strategical decision-making process in order to adopt defensive strategies such as sale, liquidation and a general turnaround (Baldegger, 2012, 134 et seq.). Figure 11 (Brunger, 2016) displays the four strategy possibilities and sums up this section.

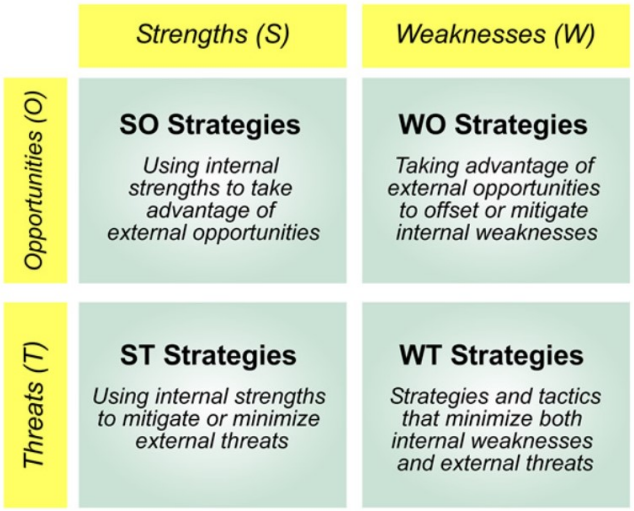

Figure 11: SWOT strategies matrix

To sum up the SWOT analysis and the whole strategy decision making process a company has to start first of all with the collection of external and internal information. Afterwards, the process continues with the identification of the strengths, weaknesses, opportunities and threats. In the end, the development and implantation of an appropriate strategy is done (Ferrell & Hartline, 2011, 128).

5.4 Benchmarking

"If you want to survive in competition, you must not only be as good as the average in your industry - top performance is required. Being different alone is no longer enough, being better is the motto" (Reinecke & Tomczak, 2006, 197).

After a successful assessment of the economic situation of a market, a tool is requested determining the position of a company in the market. For this purpose, benchmarking is used as an instrument to point out the possibilities of optimising business processes as well as a tool to support decision-making in questions of the strategic orientation of a company. The basis of benchmarking is a cross-company comparison of key figures. The aim of these comparisons is not to determine the differences to other companies, but to identify specifically best practices. The central question of benchmarking is therefore, what exactly do other companies do better and why? (Reinecke & Tomczak, 2006, 198 et seq.). The basic principle for effective benchmarking is the constant willingness of the organisation to improve steadily. Further, a company has to address and implement necessary measures. Thus, it is not only a diagnostic tool, but much more a basis for efficient change (Iskan & Staudt, 2015, 245).

There are different benchmarking approaches depending on the needs. One is internal benchmarking. This involves a comparison between one's own performance and the best performers within one's own company. The advantage of the comparison within your own company is that it is much easier to obtain information. After information gathering, the analysis of the processes and success factors of the high-performance business units opens up the possibility of advancing the realization of significant improvement potentials already through the own cross comparison. It can therefore be said that internal benchmarking is an important instrument for continuous improvement that makes use of already existing knowledge.

However, since this information is very limited, internal benchmarking alone is not enough to remain competitive. Therefore, it must be supplemented by a comprehensive external view. This is where external benchmarking is requested. There

are two approaches available to a company for external benchmarking. One is the Business Benchmarking and the other is the best of best Benchmarking.

The aim of business benchmarking is to determine the cost or profitability gap towards competitors and to identify concrete levers and measures to improve one's own competitive position. It focuses on cost reduction as well as growth levers but also potentials for time and quality management. In order to receive significant results, the industry leader is used as a reference. Usually, one or two other competitors are also used. Among the competitors, there is typically a so-called "emerging competitor". This is intended to help anticipate future market situations and competitive threats. Business benchmarking is therefore primarily concerned with the question of how much better the competition is and why. The differences to the competition are analysed and goals are derived from this.

If a company is already the market leader, an approach based on best-of-best benchmarking is appropriate. In order to implement this approach, the focus is on selected processes that are decisive for differentiation from the competition. The processes are compared with benchmark partners from other industries who are among the best in their respective industries. For them, this particular process is crucial to success. This enables a company to learn from the best outside the boundaries of its own industry and also enables completely new approaches to optimize its own performance (Iskan & Staudt, 2015, 246 et seq.).

5.5 Customer Relationship Management

Customer Relationship Management (CRM) is the holistic processing of a company’s relationship with its customers by aligning communication, distribution and offer policies with regard to the needs of the customer (Helmke, Uebel & Dangelmaier, 2008, 7). The CRM deals with the development and improvement of existing customer relationships. Therefore, the overarching objective is to build a long-term customer loyalty to the company by taking the various customer-specific life situations and phases into account. Accordingly, the customer experiences an individual approach and receives a need-based service performance.

That means, that the CRM requests managers to turn away from the shaping of the transaction level to the shaping of the relationship level (Hünerberg & Mann, 2009, 377).

Current discussions show that there is enormous potential in CRM, regarding the positive effects on costs and sales. This is based on the assumption, that compared to new customers, regular customers generally generate higher sales. Not least because companies can estimate the desires of regular customers more easily based on their existing relationship. The accompanying collection of information causes less service costs than new customers consequently. In addition, regular customers are also often less price-conscious and offer a free word-of-mouth advertising. Thus, they represent a reference for the company and at the same time make it more difficult for competitors to open up a larger market share or even to enter the market (Hünerberg & Mann, 2009, 376).

The benefit of the customer orientation is, however, dependent on the resulting return. They have to overcompensate the costs incurred from the effort that was made with regard to customer orientation in order to be economically successful (Helmke, Uebel & Dangelmaier, 2008, 6). Regarding the automotive after sales, the car industry has to overthink their actual car-orientated business and change it towards a person-orientated business, where they offer new service solutions to customers (Aboltins & Rivza, 2014).

6 Project

This chapter describes the project implementation and refers to the objectives described in chapter 2.1. First, the cooperation between the OEM Volkswagen Commercial Vehicles and the importer K-Auto with regard to the after sales market in Finland is presented. The structure of the distribution chain for the sale of VW CV products is described and then the after sales processes in both companies are described. Afterwards the general conditions of the finnish market and the customers in Finland are presented. This serves as a preparation for analysing the strengths, weaknesses, opportunities and threats of the automotive after sales market in Finland with the use of a SWOT analysis. Then the idea of benchmarking of dealer groups and the for this project considered finnish fleet customers is presented and illustrated with an example of a dealer group analysis. The development of the dashboard for both the importer K-Auto and the dealer groups is presented and a proposal for implementation is provided. In conclusion, recommendations for action are given on the basis of the collected findings and analyses.

6.1 Collaboration Volkswagen Commercial Vehicles and K-Auto

6.1.1 Distribution Chain Finland

As a matter of principle, VW CV generally sells its vehicles and original parts indirectly with a two-step distribution as an OEM network. VW CV is considered the manufacturer in the distribution chain and sells its vehicles to the respective importer in the country, which is K-Auto in Finland, that acts as the wholesaler. As it is typical in the automotive industry, the importer resells the products to the authorised dealers and workshops, who then act as retailers. The dealer groups with their dealerships and workshops responsible for the sales of VW CV products can be found in chapter 3.3.2. At the final distribution stage, the authorised dealers and workshops then offer the products to the finnish customer as traditional brick and mortar retail locations.

6.1.2 After Sales Processing in Finland

This thesis is focusing on the collaboration of VW Commercial Vehicles and K-Auto regarding the after sales of VW CV products. Therefore, the primary focus is on the work of the department After Sales Operations Europe, which is responsible for the support and coordination of the european after sales markets of VW CV and the associated After Sales Department of K-Auto.

The field of activity of After Sales Operations Europe ensures that after sales strategies, standards, products and programs of VW CV are implemented and offered in the european markets. In addition, the importers are supported to ensure that they can realize the annual target agreements in terms of securing service and repair quality, customer satisfaction and loyalty as well as spare parts sales. This is complemented by the analysis and evaluation of the markets with regard to the introduction of new market projects, the development of measures in crisis situations and compliance with pre-defined qualitative service standards. For this purpose, the importers are supported in close cooperation by the individual district managers from the headquarters of VW CV in Hanover. Furthermore, the markets are visited by the district managers to check the required standards of VW CV and randomly selected authorized dealers are audited. To ensure that the dealers can also give feedback to the manufacturer and not just communicate with the importer, annual dealer conferences are organised (Schreiber-Kraft, 2019, 1).

On the other hand, the work of After Sales Department of K-Auto ensures, that the annual target given is realizable and that the measures discussed are implemented. In addition to the proposed and general VW CV marketing campaigns, the after sales department develops further measures to address the finnish customers. They also provide training for the staff of the dealerships and workshops and support the dealer network with their work. Additionally, there is a trend towards the special support of fleet customers being increasingly supported and coordinated by the importer itself. That means that there is also direct customer contact. This is necessary as the vehicles in the fleets are in some cases managed or maintained by different dealer groups (Aalto, 2020c).

The work of both departments has a positive effect on the change in the relationship between manufacturers and authorised dealers described in chapter 4.3.3, as open communication is practised. The cooperation enables the development of more explicit measures for the individual markets, in this case for the finnish market, from the perspective of the manufacturer and the importer to support the market as much as possible. Not only communication has changed, but also the self-image of the manufacturers has changed. It is recognised that a strong dealer strengthens the brand image. As a result of this change, manufacturers are working proactively on optimal market development. And further, as it was often the case in the past, the manufacturers do not wait until the business has completely collapsed in crisis situations. Instead they develop measures that reduce their own profits in the short term but having a positive effect on the company's turnovers in the long term. A rethinking is taking place which requires new programmes and measures. There are monetary supports for the markets as well as other market support measures such as marketing measures and product training.

6.2 Analysis Finnish Market and Customer

6.2.1 Finnish Market

In order to understand the current market situation and probable future developments and environmental factors of the after sales market in Finland, an overview of the general economic situation in Finland is reported first. This is already part of the geographical segmentation, since this gives an insight into the general conditions in Finland influencing the buying pattern of customers. Finland’s economy is highly industrialized and has a free-market economy, which is important because a third of the Gross Domestic Product (GDP) is generated with exports (Central Intelligence Agency, 2020). The GDP, which is a measure of an economy’s output or production within a country’s borders in a specific time period (Picardo, 2020), is high compared to other European countries. Finland's per capita GDP of 43.480 € is above the European Union average of 31.080 € and the German per capita GDP of 41.340 € (Statista, 2020a) indicating a good purchas-

ing power of customers. The development of the GDP in Finland after the financial crisis in the years 2007 to 2009, shown in figure 12 (Statista, 2020b), was affected by the crisis even though the finnish banks and financial markets avoided the worst during the crisis. For instance, during 2012 to 2014 the GDP shrinked compared to the previous years. From 2015 onwards, the GDP rose continuously. Probably affected by the corona virus the economy is expected to shrink again in 2020 by around six percent compared to 2019, which probably influences the purchasing behaviour of the customers.

Figure 12: GDP development Finland 2010-2021

The main challenges facing Finland are to reduce high labour costs and boosting the demand for its export. A first step in this direction was taken in 2016 when a Competitiveness Pact was adopted, aimed at reducing high labour costs, increasing working hours and providing more flexibility in the collective bargaining system. Furthermore, the finnish government seeks for reforms in the health care system and in social services, since they have to deal with a rapidly aging population on the one hand and a decrease in productivity in traditional industries in the long term, which will affect the competitiveness, fiscal sustainability and economic growth of Finland (Central Intelligence Agency, 2020).

With regard to the automotive industry, the development of new registrations matched the development of the GDP. Figure 13 (Autotalan Tiedotuskeskus,

2020a) shows the new registrations of all vehicles in Finland from 2010 to 2019. As in the GDP development mentioned, the financial crisis did not affect the finnish economy immediately and therefore the vehicles new registrations increased until 2011. The GDP decrease in the years 2012 to 2014 affected the new registrations as well and led to a decline in the years 2012 and 2013. From then on, new registrations increased until 2018. In 2019 the sales decreased around five percent caused by a weaker GDP development (Autotalan Tiedotuskeskus, 2020a). According to the negative GDP development in 2020, the new registrations might decrease further in Finland.

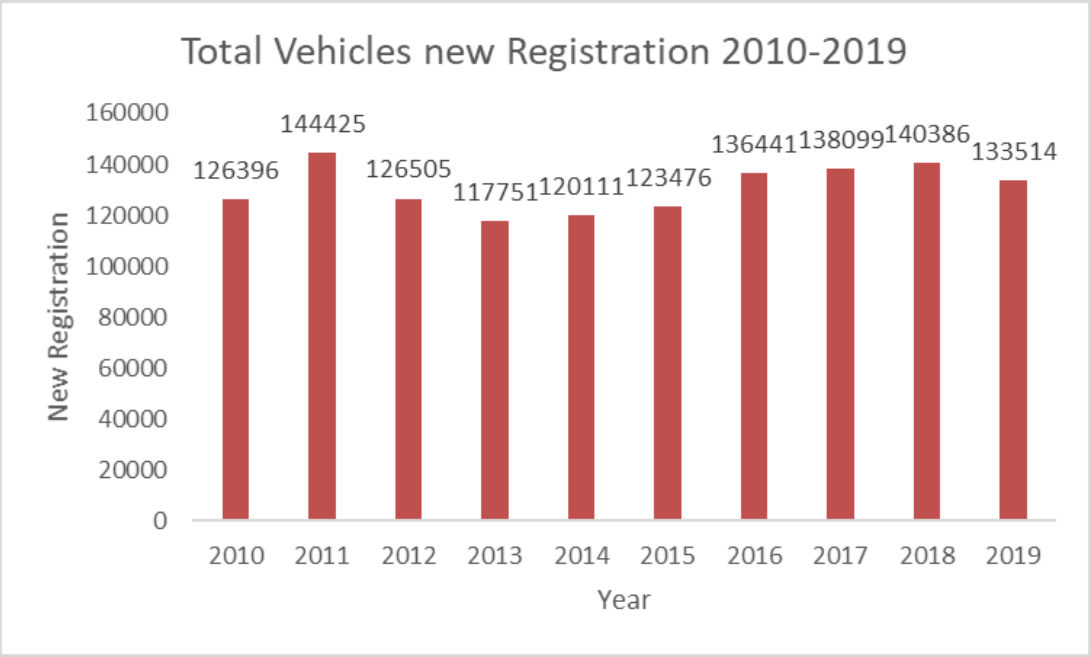

Figure 13: Total Vehicles New Registrations in Finland 2010-2019

Since this thesis is dealing with a main focus on light commercial vehicles, figure 14 (Autotalan Tiedotuskeskus, 2020a) presents the development of new registrations of vans in Finland from 2010 to 2019. The new registration trends are similar to the total new registrations.

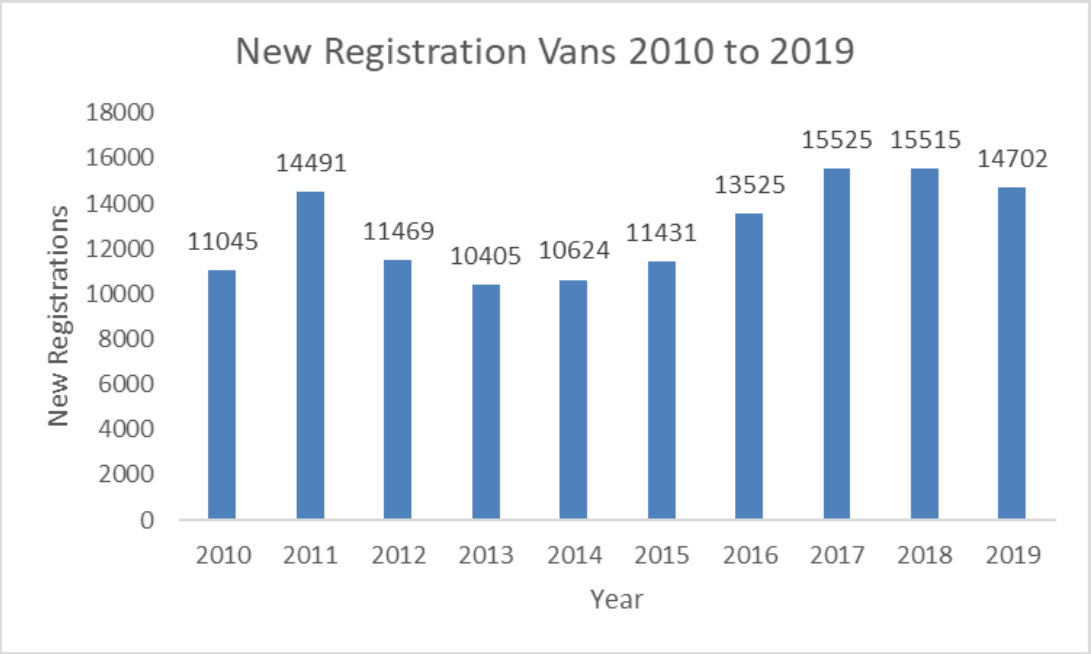

Figure 14: New Registrations Vans in Finland 2010-2019

But the share of vans in total new registrations has increased over the years as displayed in figure 15 (Autotalan Tiedotuskeskus, 2020a). The share increased from 8,7% in 2010 to 11,0% in 2019, which should have a positive effect on the after sales business for light commercial vehicles and in particular for the VW dealer network, as their share was 23% in 2019 in this category.

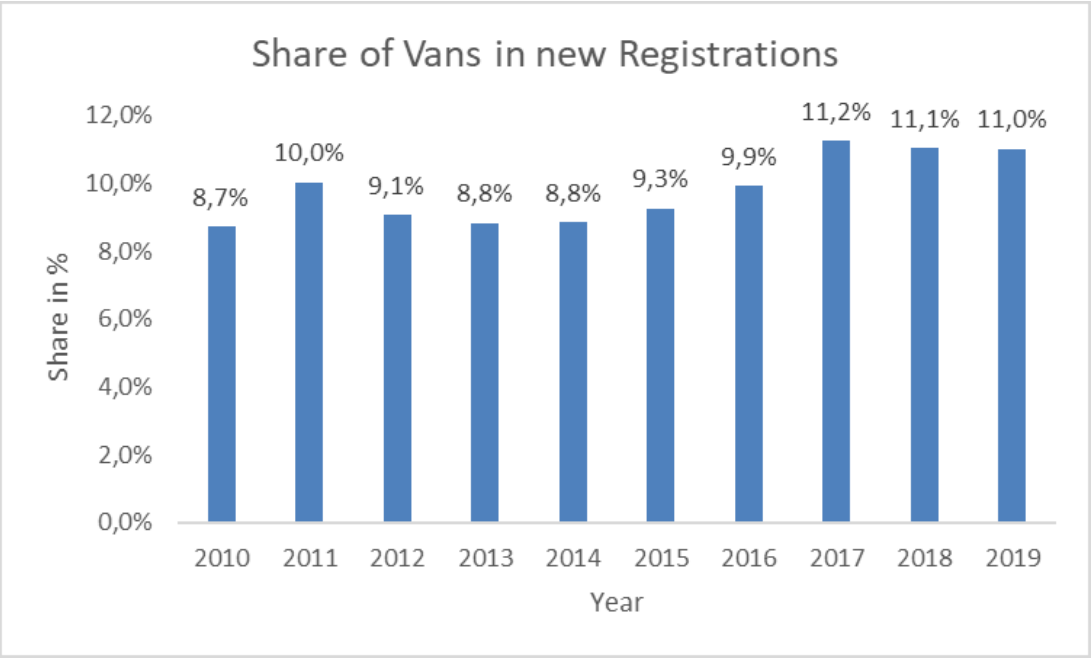

Figure 15: Share of Vans in new Registrations in Finland 2010-2019

The finnish government and the finnish automotive sector have agreed on the participation of a voluntary Green Deal on 22 November 2018.They are aiming to reduce carbon dioxide in the transport sector, since one fifth of the total greenhouse gas emissions comes from the transport sector. Therefore, the idea is to achieve zero or low emissions in the finnish vehicle fleet by mainstreaming alternative fuel vehicles and renewing the vehicle fleets or lowering the average vehicle ages, as emissions of old vehicles are higher than those of new ones (Autotuojat Ja-Teollisuus, 2018). The average of vehicles in Finland is 12,3 years (Autotalan Tiedotuskeskus, n.d.). To achieve their goals, the finnish government reforms the tax structure for transport in order to foster acquisitions of low and zero emission cars. Accordingly, the government promotes initiatives for purchasing electric and gas vehicles. Therefore, financial steering instruments, such as aid for the acquisition of fully electric cars, as well as public procurement and campaigns and the development of advisory services and materials are used. All this serves the objective achieving their goal by the end of 2025 to increase the share of alternative fuel vehicles to 25% of the newly registered vehicles and that Finland has a zero-emission transport by 2045. (Autotuojat Ja-Teollisuus, 2018)

The following assessments regarding the after sales market situation are based on the statements of Mr. Aalto from the interview on 22.05.2020. The current situation on the finnish after sales market is very competitive. The after sales market can be seen as a polypol, as the pool of vehicles has increased steadily over the last years and the after sales business has grown. This has also increased the number of independent workshops, which, thanks to good process standards, can provide similarly good quality work as the authorised dealers at lower prices. This has further intensified the fierce competition in a market for almost homogeneous after-sales products and processes. As Finland has one of the oldest car parks in Europe, customers are very price sensitive, as the willingness to spend money on old cars is decreasing.

The after sales business was also affected by a mild winter, as it resulted in fewer warranty claims. Additionally, the current Covid-19 situation had a negative impact on the business in March and April, although the dealers were still on hold. This is because short-time work and redundancies have occurred on the Finnish

labour market. Consequently, people tend to save money or have no financial means left for consumption. On the positive side, however, marketing campaigns of the VW dealer network designed to counteract this negative trend have been successful. For example, a discount has been granted when customers book a workshop visit online for a limited period. This leads to an increase in the number of workshop visits and thus boosts parts sales. Another campaign is a lottery, where a customer who has a service carried out in one of the workshops during a certain week is drawn by lottery from all workshop visits and receives his visit free of charge if he is drawn.

6.2.2 Finish Customer

In order to accomplish the sociodemographic, psychographic and behavioural segmentation of the market, a more precise understanding of the customer is required. Therefore, the finnish customer is analysed below regarding their number, procurement volume, behaviour and price sensibility. A rough socio-demographic segmentation can be provided by the general data on the finnish population. Finland has 5,5 million inhabitants, with an average age of 43,1 years. The age structure is shifting more and more, so that the population share of 0 to 14 year olds decreased from 16,82% in 2008 to 16,15% and the share of 15 to 64 year olds also decreased by 4,5% within this time period, while the share of those over 65 increased from 16,55% in 2008 to 21,72% in 2018 *(Plecher, 2020).*

Each citizen has an annual purchasing power of 22.626 euros, which is the nominal net disposable income of each citizen, including state transfer payments such as pensions, unemployment and child benefits (Jerzy, 2020). With regard to the psychographic segmentation, the cultural aspects written in chapter 3.4.2 can be used since a shared culture leads to the formation of similar behaviour and preference patterns. To sum up the cultural behaviour preferences, the finnish people are independent and equal and expect a relaxed business atmosphere with a direct and participative communication. Each member takes care of their own business. Business relationships are established when there are mutual advantages for all parties. Furthermore, Fins are striving for consensus and they

value equality, solidarity and quality. Therefore, they appreciate reasonable negotiations. Another aspect that has to be considered is that the finnish citizens on the one hand prefer flexibility and leisure, but on the other more likely avoid uncertainty and remain loyal regarding old ways of thinking, which achieve quick results.

With regard to the customers of the after sales business in the automotive industry in Finland, there were 3.574.570 registered passenger cars at the end of 2019, of which 2.745.074 were used in traffic. The stock of all registered automobiles can be roughly estimated to 4.300.000 cars (Official Statistics of Finland, 2020). Of these, (…) vehicles are from VW Commercial Vehicles and those vehicle owners are potential customers of K-Auto's after sales business. Additionally, there are imported used cars from Sweden for instance which have never been serviced in an authorized workshop in Finland and therefore, they are not tracked in the importers system. These are further potential customers (Aalto, 2020c). The customers' vehicles can be grouped into segments depending on the age of the vehicle as described in chapter 4.3.4 (…).

Figure 16: VW Commercial Vehicles Car Pool Segments (K-Auto, 2020)

Considering that the average age of a vehicle in Finland is 12,3 years and that there are more used vehicles than new vehicles on the market, it is not surprising that this distribution has been achieved. According to a study by TNS Gallup, 67% of vehicles in vehicle segment II are serviced by authorised dealers, while

only around 40% of customers in vehicle segment III go to authorised workshops to have their cars serviced (Autotalan Tiedotuskeskus, n.d.). It is alarming that this is not the case with vehicles from VW CV. (…).

Because segments II and III are very price sensitive and also have the greatest revenue potential. Thus, it is important to adapt the business model and increase the proportion of loyal customers, or at least maintain them. Three different customer groups can be distinguished in the automotive industry: Private customers, small business customers and fleet customers. Since it is more costly to address private customers and small business customers, fleet customers are the most important customer group for K-Auto. The aim is to serve them in the long term across all segments. They are therefore identified as profitable long-term customers, as they use the vehicle as a capital good and are dependent on it working properly. For them not only the price of the services but also the flexibility and quality of the services are important. Very important fleet customers are for instance government institutions (…) as well as large companies with big fleets and leasing companies (Aalto, 2020c).

6.2.3 SWOT Analysis Finnish Market

In order to complete the analysis of the Finnish market, the SWOT analysis summarises the strengths, weaknesses, opportunities and threats, whereby the five forces are considered.
The following internal analysis shows the strengths and weaknesses of K-Auto in relation to the after sales business concerning customers with vehicles of VW CV. The strength of the authorized Volkswagen dealer network and therefore of K-Auto is the existing brand VW CV and the existing customer base. In principle, this grows more and more through new car sales. Further, the actual database regarding the customer relationship management is a competitive advantage, which connects all authorized dealerships and workshops in Finland. In addition, the dealer network in Finland is also very well developed with good service capabilities and is therefore easily accessible to potential customers. This strength can be maintained and expanded by a determined and well-implemented CRM.

On the other hand, the dependence of the importer and dealer network on the OEM is also one of the weaknesses, as the distribution chain requires a high degree of communication. Additionally, bureaucratic processes are imposed by the OEM. Furthermore, the brand perception of VW through the diesel gate is currently rather negative. There is also lack of capacity for intense fleet management at both the importer and the dealer.

The external analysis focuses on the direct environment of K-Auto and the finnish authorised workshops of VW CV and presents the opportunities and threats in terms of political, technological, social and economic factors. The five forces which refer to the rivalry between market participants, the threat from new suppliers, the use of substitute products, the increasing supplier power and the consumer are also taken into account.

To start with the opportunities. National regulations regarding Covid 19 are expected to be relaxed from mid-June and the Finnish population is showing interest in travelling nationally in their own cars, as the virus continues to create uncertainty about public transportation and traveling abroad. This might result in a boost of after sales business. In the long term, fleet customers, battery repairs and service contracts are seen as opportunities and key issues in the after sales business. They are seen as a starting point for the development of new services, such as remote services. Further, connected cars bring many advantages and opportunities for all customer groups. In addition, the integration of K-Auto into the Kesko Group offers potential, as cross selling can be used to combine the businesses of the group departments car trade and grocery shopping. Cross selling aims to offer or sell consumers additional services from the company's own service or product range in addition to the already purchased goods or services. This results in additional revenues for the company and greater customer loyalty, as the cross selling offer makes the customer's everyday life easier and thus customers may be discouraged from considering offers from the competition (Maitzen, 2016). In addition, the expansion of the nationwide network of electric car charging stations by the Kesko Group offers potential for new service opportunities.

To continue with the threats, the electrification of cars is a challenge for the after-sales business, as cars are less complex to maintain and there are fewer wearing parts. Therefore, the after sales business faces probably new suppliers and substitute products. Autonomous cars and ADAS are also challenging the after sales business as there will be less accidents and wear and tear. The current negative GDP development in Finland also poses a challenge for K-Auto and the dealer network, as there is a general reluctance to buy. In addition, the dealers and importers are bound by their contracts to the OEM's product range. That means they can generally only include compared to the spare parts from suppliers the more expensive OEM original parts in their service offers. Thus, they have a generally higher price level due to the price of the original parts themselves, which is particularly disadvantageous in vehicle segments II and III. Economy parts might be the right answer to this threat. Furthermore, the general competition between the individual vehicle brands of new vehicles and the related servicing of future vehicles and fleets remains.

Another opportunity arises from the structure of K-Auto, which imports several Volkswagen Group brands. As electrification in the first wave tends to affect small vehicles, the K-Autos After Sales department which is responsible for the VW CV market support has the chance to learn from mistakes the other Volkswagen Group brands that produce passenger cars might make. Furthermore, VW CV can directly adapt and integrate the best practices of the other brands in their after sales processes.

6.3 Analysis Finnish Fleet Customer and Dealer Groups

6.3.1 Development of Analysis

In order to evaluate and analyse the most important fleet customers in Finland, the project team decided to analyse ten fleet customers to whom the most vehicles of VW CV have been delivered within the years 2016 to 2019. Leasing companies are excepted, as those are providing the purchased vehicles to customers, who do not want to own the cars but have to take care about the maintenance

and car management themselves. Furthermore, three more fleet customer were selected as they have a huge carpool of older cars. (…).

Afterwards, the key figures, which meant to be analysed, were decided. By name the turnovers of the CPB, the maintenance costs and warranty costs, gained each year from 2016 to 2019, were chosen to be compared. The difficulty was that the dealers and workshops manage car pools of different sizes and have different location conditions. That is why it is not possible to make a direct comparison of the achieved turnovers. Hence, it was decided to adopt an additional basis of comparison. Accordingly, the average value should be taken for all the workshop visits where the above-mentioned costs are incurred in order to compensate for the unequal proportion. Accordingly, the following key figures came out: CPB per visit, maintenance cost per visit, warranty cost per claim and CPB plus warranty cost per vehicle in the serviced carpool. Additionally, the amount of the serviced cars in total and the average age of the vehicles have been tracked. The analysis was carried out on the basis of this decision.

The raw data has been distributed by the reporting tool and platform Qlik (Further information on Qlik in chapter 6.4.1). In order to obtain a proper overview, there are two different analyses. The one analysis focuses on the elaboration of differences regarding the performance of dealer groups within specific fleet customers. The other one focuses on the differences between the dealer locations within the individual dealer groups distributing the products of VW Commercial Vehicles to the customer. The dealer group analysis is further refined in the final step by combining both previous analyses. Both approaches are based on the idea of benchmarking as an opportunity of optimising business processes by understanding what other business units do better and why. Further, it is a tool that supports the decision-making in questions of the strategic orientation of a company. Both the approach of internal benchmarking ant the approach of business benchmarking is used. On the one hand, the internal benchmarking is used for the dealer group analysis as it is a comparison between the performance of each of their own dealerships. On the other hand, the business benchmarking is used for the fleet customer analysis as the dealer groups and their dealerships can be

considered as competitors in the finnish market, as they are independent companies.

In general, there are roughly three possible development trends expected: stagnation, growth and reduction. A distinction can be made between sustained and continuous growth and erratic and irregular growth, as well as the reverse cases of negative growth. Cyclical patterns can also be identified. These developments and patterns form the basis of the analysis and are intended to highlight the need for action.

6.3.2 Analysis of Finnish Dealer Groups

This analysis is focusing on the performance of the finnish dealer groups of VW CV, regarding the differences between their dealer locations. The dealer groups and their locations are presented in chapter 3.3.2. In order to present the results of the analysis, the dealer group K-Caara is used as an example. K-Caara is chosen as it is the biggest dealer group in Finland with its 15 Volkswagen Centres and has the servicing responsibility of the largest car pool of all dealer groups with (…) vehicles in 2019 (…).

In order to proceed with the actual analysis, the raw data provided were screened and then processed into the key figures presented in the previous chapter. The individual dealers in a dealer group are compared in terms of their performance in relation to the thirteen selected fleet customers with each other. For a clear presentation, excel was used. On the one hand the key figures for the individual years and the percentage development in comparison to the previous year were shown in tables for each dealer location. On the other hand, bar diagrams were created, regarding a better visualization of the results in order to recognize differences faster. Additionally, the average performance of each dealer group and the average performance of all dealer groups regarding the fleets considered was calculated and used for comparison and as a benchmark.

To start with the actual analysis, the following tables 3 to 6 present the calculated key figures for K-Caara, which have been described in the previous chapter. They are the basis of the analysis and were made according to this scheme for each dealer group. The tables are structured so that the first line of content presents the average performance of the respective key figure across all dealer groups under consideration of all fleets selected for this project. This is followed by the second line showing the average performance of all dealerships of a dealer group regarding the fleets considered. Afterwards, all dealerships are listed alphabetically. To achieve further highlighting of striking results, the bottom twenty percent of the respective key figure under consideration of each year are marked light red, while the top twenty percent are marked light green. Furthermore, the percentage development compared to the previous year is shown in green or red, depending on whether it was positive or negative. Each of those tables is completed by a bar diagram, which indicates the trends for each dealer group regarding the average of the respective key figure for the entire period 2016-2019. Regarding the CPB per visit the corresponding figure is figure 17, for the maintenance cost per visit it is figure 20, for the warranty cost per claim it is figure 21 and for the CPB and the warranty cost per vehicle it is figure 23. The basis for the calculation of the adjusted key figures, tables 8 to 11 can be found in Appendix 2. They are showing all performance data including the total amounts of all key figures of K-Caara.

Table 3: CPB per Visit Amounts and Development K-Caara 2016-2019

Table 4: Maintenance Cost per Visit Amounts and Development K-Caara 2016-2019

Table 5: Warranty Cost per Claim Amounts and Development K-Caara 2016-2019

Table 6: Customer Paid Business and Warranty Costs per Vehicle Amounts and Development K-Caara 2016-2019

To start the comparison of all dealerships of K-Caara with the CPB per visit, the bar diagram in figure 17 shows the associated development of each dealership from 2016 to 2019. Additionally, the first bars with the identification “Average Fleets” present the average of all for this project considered fleets, followed by the average performance of the entire dealer group and then from the performance of the respective locations.

Figure 17: Customer Paid Business per Visit Trends K-Caara 2016-2019

(…). Contrary to expectations, there is not at all a common trend at the individual locations. As expected, there is not quite a common trend among the individual locations and the three general developments can be seen. (…). Those dealers with continuous and sustainable growth in this category are marked with a dark green circle in the diagram. The locations with an erratic and irregular growth with a light green circle. The ones with a static development with a yellow circle and those dealers with negative developments were marked with a red circle. Based on this knowledge, the focus is now on the dealers marked in red and yellow, since this is where action is most likely to be needed. (…).

Therefore, the next step is to compare the development of the CPB per visit with the total values of the CPB and the customer visits in order to identify possible reasons. Here, the trends of the dealer group and the entire fleet cannot be shown in the diagram, as these would drastically shift the scales and thus the clear presentation would be lost. Therefore, these diagrams are displayed separately to compare the average trends of the selected fleets and the dealer group with those of the individual dealers. These diagrams can be found in Appendix 3. (…). To come back to the anomalies among the mentioned dealers, one should now look at the overall development of the CPB turnover shown in figure 18 and the number of workshop visits shown in figure 19. (…)

Figure 18: Customer Paid Business Turnover Development K-Caara 2016-2019

Figure 19: Customer Paid Business Turnover Development K-Caara 2016-2019

If these diagrams are now examined, further tendencies that show potential for action become noticeable. (…). Therefore, the price elasticity of demand has to be considered. It seems that the demand is responsive to a changed price.

The next task was to observe the development of the maintenance cost per visit. After reviewing all the data, it was found that the trends were quite similar to the CPB values, as the maintenance costs are part of the CPB. In general, however, the costs of the maintenance cost per visit are higher than the average of the whole CPB. This represents the importance and profitability of maintenance services as part of the CPB. Figure 20 shows the development of the maintenance cost per visit at the K-Caara dealerships from 2016 to 2019. The total comparison of all key figures, including the total turnover and the visits of the maintenance costs, which is figure 30, are illustrated in Appendix 4, in order to support this statement.

Figure 20: Maintenance Cost per Visit Trends K-Caara 2016-2019

Afterwards, the warranty costs per claim were examined. Hardly any continuous trends could be identified in the diagram presented in figure 20. Also, on further examination (as presented in appendix 4, Figure 31), no meaningful trends could be identified either in warranty cost revenues or in the number of claims, because there is often an irregular outlier in each dealer group, as can also be seen in the diagram below. This evaluation is indicating more the product quality of new vehicles from VW CV. The individual warranty cases are not necessarily comparable and are neither regular nor predictable: Therefore, the development of a strategy for the importer regarding the warranty costs based on the warranty turnovers is not necessarily possible.

Figure 21: Warranty Cost per Claim Trends K-Caara 2016-2019

After this investigation, the total turnover generated by either CPB or warranty costs was considered per vehicle in the car pool of the respective dealership. As not all dealerships are the same size within a dealer group, it is important to consider the results in relation to the car pool size. Therefore, the diagram in figure 22 gives an overview of the development of the number of vehicles at K-Caara's individual dealer locations from 2016 to 2019. (…).

Figure 22: Car Pool Development K-Caara 2016-2019

(…)

Looking at the actual turnover per managed vehicle in figure 23, it is striking that the trend for K-Caara is again similar to the overall average of the fleets considered across all dealer groups(…).

Figure 23: CPB+Warranty Cost per Vehicle Trends K-Caara from 2016-2019

As an additional information the average age of the managed fleets was determined and presented in figure 24. This can provide further information about the trends of the diagrams and information on the customer behaviour. (…).

Figure 24: Avg. Fleet Age K-Caara Dealer

6.3.3 Finnish Fleet Customer Analysis

First of all, the key figures are the same as for the dealer group analysis. In the fleet customer analysis, the dealer groups with all their locations are compared with each other in terms of their average performance with regard to a particular fleet customer. Now, the average turnover performance of all dealer groups regarding the fleets considered and the selected, particular fleet are examined. Afterwards, those amounts are compared with the average performances of each dealer group regarding a particular fleet. As the vehicles of a fleet are owned by the same company, it is considered that each vehicle needs almost similar expenses as they are maintained for similar purposes. Therefore, the comparison and subsequent analysis and interpretation of possible deviations is important.

The importance of the fleet customer analysis will again be illustrated using one particular example the fleet (…). This example presents the immense importance of fleet customers in the after sales business.

Because (…) is operating in all areas of Finland, the entire fleet is managed by different dealer groups with their individual dealers and workshops. Figure 25 (K-Auto, 2020) shows the shares of each dealer group.

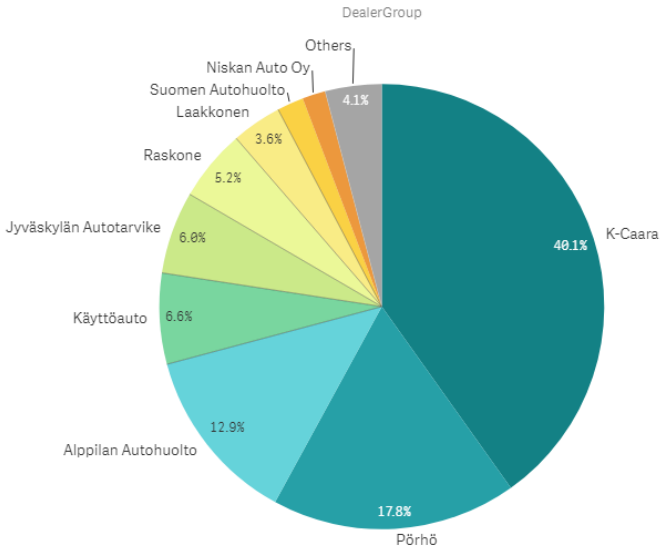

Figure 25: Shares of (…) Fleet per Dealer Group

To name the dealer groups with the largest shares, the subsidiary company of K-Auto, the dealer group K-Caara has a share of 40,1%, Pörhön Autoliike Oy has a share of 17,8% and Alppilan Autohuolto Oy 12,9%. It is important to keep this knowledge in mind discussing the results of the analysis.

Since the fleet customer analysis follows, as described above, the same pattern as the dealer group analysis, only excerpts are shown in Appendix 5 to illustrate the differences to the dealer group analysis. Therefore, the example of the CPB per visit and the corresponding bar chart for the considered fleet are shown. The individual developments are not discussed in detail. Table 12 presents the calculated key figures for the fleet of the considered fleet regarding the customer paid business. Again, the first line of content presents the average of the CPB per visit under consideration of all fleets selected for this project. The first change compared to the dealer analysis is that the second line of the table shows the average turnover of the examined fleet customer. Afterwards, all dealer groups are listed alphabetically instead of the different locations of a dealer group. The same specification applies to the diagram in figure 33.

Since the example of the considered fleet shows how important individual fleet customers are for the after sales business of VW CV, the next step is to analyse a specific fleet customer within a dealer group in order to make more precise statements. Therefore, there is a separate analysis for each of the selected fleet customers, which only refers to one specific dealer group. As (…) and the dealer group K-Caara have been used as examples in the other two analyses, the same should now be done for the refinement. For this purpose, a filter is applied which specifies the data of a fleet customer with regard to a dealer group. As for the fleet customer analysis the changes are described compared to the dealer group analysis. The CPB per visit is distributed in Appendix 6 as an example. The individual developments are not discussed in detail. Table 13 presents the calculated key figures for the fleet of the (…) regarding the customer paid business, but in more detail. Due to the fact that the values and developments are now issued for the individual locations of the dealer group K-Caara. The first line of content shows the average turnover performance of all considered fleets regarding the CPB per visit across all dealer groups. The second line provides the values and

trends for the average turnover of the dealer group. Then, the average turnover performance of the dealer group in regard to a particular fleet customer is indicated. Finally, all dealer group locations are listed alphabetically. The same order and specification apply to the diagram in figure 34.

6.4 Qlik Dashboard

6.4.1 Qlik Sense

Qlik Sense is a data analytics platform provided by the software company Qlik. The platform revolutionized the data usage in enterprises by intuitive visual data discovery. Therefore, Qlik distributes a company with a business intelligence solution, based on the combination of an associative analytics engine, sophisticated Augmented Intelligence (AI) and scalable multi-cloud architecture. The associative analytics engine enables that a user can combine its data sources regardless the amount, the size and the status of the data source. Further, it indexes all possible data relationships. The AI improves the potential of human intuition through a combination with the power and speed of machine intelligence. Accordingly, the platform offers suggested insights understood without being an IT specialist, automates processes and interacts in the natural language of its users. The scalable multi-cloud architecture means that the platform can be rearranged by its users regarding their requirements and further, that the information and analyses can be provided on different cloud solutions such as Google Cloud, Amazon AWS, Microsoft Azure (Qlik, n.d.).

6.4.2 K-Auto Dashboard

Secondly, the responsible persons of K-Auto request the development and improvement of the current Qlik dashboard showing an evaluated analysis of the average performance of dealerships regarding fleet customers, based on the gained results and experiences. Additionally, they request as a third part of the project to foster the development of a Qlik dashboard for each dealer group. The

idea is to create one common dashboard for all applications to allow easy communication through the same structure of importer and dealer group dashboards. Accordingly, the dashboard should present the mentioned key figures in an understandable way and show an evaluated analysis of the customers and fleets for each dealer group. To have a benchmark, the average key figures of all dealer groups should also be compared to the ones of the dealer group, as well as the overall average of the own dealer group. Based on those requirements, the dashboard can be structured as shown in Figure 26.

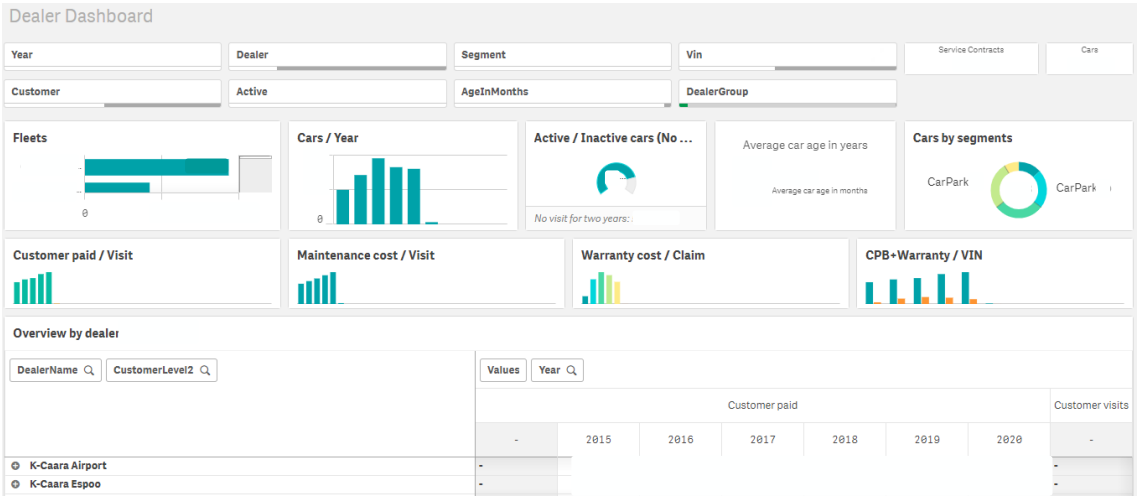

Figure 26: Dealer Dashboard Proposal (All numbers are covered)

This dashboard was developed under consideration of the specifications of K-Auto and serves as a proposal for the implementation in practice. The Qlik dashboard is used as a basis for a target-oriented use with fast output of clearly arranged diagrams. Under the heading dealer dashboard, there are currently eight filter options "Year, Customer, Dealer, Active, Segment, Age in Months, Vin and Dealer Group", which can quickly refine the preselected settings. The filter option “Dealer Group” would be eliminated for the dealer group dashboard, as each individual dealer group would have its own dashboard without access to the data of the other groups. For K-Auto as the importer this filter would still be available. This would be the only difference to the dealer group dashboard. The individual fiscal years are hidden under the filter “Year”. If you select one or more, you will get the explicit data for these years. The filter “Customer” displays the data for specific customers. The filter “Dealer” can be used to select the individual dealerships of a dealer group. To see the share within a fleet customer’s car pool of

the vehicles serviced within the last two years, the filter “Active” can be used. The filter “Segment” and “Age in Month” are both used to filter by vehicle age. The segment filter outputs the defined vehicle segments and the age filter can be used to determine the age more precisely. The filter “Vin” can be used when a dealer group explicitly searches for a vehicle and asks for its after sales history.

Below the filters you can see pre-set diagrams. The first one entitled “Fleets“ shows the individual customers with their respective amount of vehicles. The following diagram “Cars/Year” shows how many cars of the entire fleet have actually been serviced in a particular year. This is supplemented by the loyalty graphic "Active/Inactive cars", which shows how many cars of the entire car pool of a dealer group have been serviced within the last two years and how many have not. The “Average car age in years” of the entire fleet serviced is shown in years and months, which is supplemented by the ring chart “Cars by segments” showing the shares of the individual segments in the total car pool. In the row below are the diagrams which were developed within the context of this project. First the development of the customer paid business per visit, then the development of the maintenance costs per visit, followed by the development of the warranty costs per visit and finally the development of the customer paid business and the warranty costs per vehicle. In order to keep the dashboard clear, only the key figures downscaled to visits, claims or vehicles were shown as diagrams, as this allows a direct comparison with the average sales of the entire fleet and the average performance of the company's own locations with regard to these figures. The overall numerical performance for each key figure, including also the total amounts, can be seen in the table below the diagrams for each dealer group, with a breakdown by dealer location.

6.5 Recommendation

To sum up the previous steps, the final task is to give recommendations based on the research and analyses. First of all, the analysis of the key figures and the output of the bar charts gives the after sales manager of K-Auto an overview of the developments in the individual dealer groups. However, there is no explicit

recommendation for any dealer group, since even in these supposedly homogeneous structures there are different trends among the individual dealers in terms of their performance regarding a particular fleet customer. Thus, the next step should be to focus on investigating the trends among dealers and fleet customers. Since there is a lot of data, capacities should be focused on certain developments where there is an urgent need for action. For this purpose, different trends require different prioritisation. First of all, the main focus should be on the development of the CPB, as this key figure can be influenced by the work of the importer and the responsible service point. The maintenance costs can be taken into account in a further step, if the CPBs revenues need to be broken down in more detail. The tracking of the warranty costs is informative for the importer, but cannot be used as a performance indicator for them. This is due to the fact that the development of warranty costs rather reflects the product quality of VW CV and is not predictable. The combination of CPB and warranty costs is interesting, but does not give any more precise information on the performance of implemented importers' measures. The tracking of the development of the share of CPBs or warranty costs in total sales would be interesting in this context. The car pool development is also important to consider, as it provides information about the actual customer base. In addition, it is important to look at the development of the age fleets, as this provides information on the adjustment of CRM measures and price management.

In order to prioritise dealer locations in need of action, the trends should be examined. First of all, negative trends should be considered. Sudden negative developments should be given priority over continuous negative developments, as such developments are probably based on recent events. Therefore, a countermeasure might still be possible. Nevertheless, the reasons for continuous negative developments must also be questioned and combated in the long term. Also, in the event of stagnation, action is required and the importer or dealer group should question whether the turnover maximum has been reached or whether there is still potential left. The reasons for positive developments at dealerships should be analysed. These should then be shared as best practices with other dealers in order to achieve higher turnovers.

Regarding the implementation of the dashboard, K-Auto should try to implement it partially at selected dealerships. As K-Caara is K-Autos own dealer group, their dealerships are ideal for a pilot project. During the pilot period, experience and feedback should be gathered. Through the feedback the dashboard should then be modified and finally be made available to all dealers and workshops.

Further K-Auto should consider the results of the SWOT analysis in order to adapt an after sales business strategy of VW CV. Concerning the after sales trends described in chapter 4.5, new services have to be designed. Based on the strengths, such as the actual customer database or the good existing service capabilities of the VW dealer network in Finland, new external opportunities can be realized. In order to be competitive in areas such as electrification of vehicles, remote services and autonomous driving, measures should be implemented at an early stage to develop the competence and infrastructure to provide new services. However, when developing these services, the mentality of the finnish customers and the age development must be taken into account, as according to Hofstede the acceptance for innovations takes time.

Mr. Aalto stated that the three most important trends for K-Auto regarding VW CV are the increasing importance of professionally managed fleets, connected vehicles and predictable maintenance visits, as well as the electrification of vehicles (Aalto, 2020c). As the actual fleet management was considered a weakness, a reasonable fleet management taking customized requirements into account should be implemented. This can be accomplished by creating personnel capacities for this issue and also using the existing CRM database with its huge amount of customer information. Technical capacities should also be created to process the data volumes of connected vehicles and to use the results for instance for predictive maintenance. With regard to the electrification of VW CV vehicles, K-Auto has to prepare the dealer network but as commercial vehicles are probably the last ones to be electrified, this topic is not urgent.

In principle, CRM needs to be improved in general, and explicitly for customers with older vehicles. Since loyalty in the vehicle segments II and III is declining drastically, services as VW Direct Express have to be fostered. The customer has

to experience an individual approach optimally adapted to his needs in his specific life situation. This serves the purpose of changing to customer-oriented selling and servicing. As a result, multi-channel options must also be offered to meet the changing daily lives of customers as well as the standards of e-commerce companies like Amazon and Google.

7 Summary

In the context of this thesis the finnish after sales market of Volkswagen Commercial Vehicles is described in more detail. For this purpose, the individual links of the distribution chain are presented. Furthermore, the cooperation between the OEM VW CV and the importer K-Auto is discussed aiming at the best possible support of the VW dealer network in Finland. Finally, the collaboration of all parties should lead to an optimal support of the finnish customers in the after sales business, resulting in higher revenues for the OEM network.

Afterwards, the after sales business is presented and its processes in the automotive industry are described. The trends that will change the after sales business in the long term are also discussed. These include changes in the distribution channel, the further processing of customer-specific big data, the increasing importance of fleet customers, the electrification of vehicles, the development of both connected and autonomous vehicles, and the entry of new competitors into the market. All of these trends require new or at least adapted after sales service models.

In order to gain initial ideas for the optimization of after sales services in Finland, the theoretical basis for a market analysis as well as for a customer analysis and a SWOT analysis are explained. In the next step, the theoretical principles are applied. On the one hand a SWOT analysis based on the market and customer analysis is made. On the other hand, a benchmarking analysis is conducted to determine the turnover figures of the individual authorised dealers and workshops in the period 2016 to 2019 with regard to selected fleet customers. This analysis provides a good overview of the individual dealer groups in terms of their performance with particular customers. It indicates the extent to which the dealer groups generate different turnovers with the same customer, at least superficially. Even within the dealer groups there are differences in performance between the individual dealer locations. All differences need to be investigated further. The analyses should give the importer K-auto and the authorized dealers and workshops a strategic advantage compared to the competition. Based on the analyses recommendations are given in chapter 6.5.

Furthermore, a better understanding of the market and the customers in Finland through the analysis is intended to optimize the CRM in order to bind customers to the products and services of the VW dealer network in the long term and to increase customer loyalty even in older vehicle segments. Another aspect of this intense CRM is to secure the future sales. As customers tend to be convenient, they remain loyal to a brand if they are satisfied with the service and products of a company and abandon the search for competing products. Further, the brand perception of VW can be improved.

In order to evaluate the project, a good overview of the finnish after sales market and the future trends was obtained. Further, all objectives described in chapter 2.1 are achieved. Unfortunately, the analysis of the behaviour of fleet customers in Finland could not be dealt with in more detail, as the corona topic hindered the communication of the project team due to short-time work at the finnish importer. As described in the recommendations, the investigation of the reasons for the different turnover trends should be continued after completion of this project. To sum up, the VW dealer network is well positioned to continue generating profitable revenues on the finnish after sales market, despite the highly competitive market. In the long term, however, on the basis of the results of this project, a strategic change in the after sales business must be prepared.

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Appendices

Appendix 1. Dealer Group Locations Overview

Dealer/Service	Services	City	Provinces
Alppilan Autohuolto Oy	Service only	Helsinki	Southern Finland
Alppilan Autohuolto Oy	Service only	Helsinki	Southern Finland
Autotalo Lohja Oy, Lohja	Sales&Service	Lohja as.	Southern Finland
Bifa Ab Bilfirma	Sales&Service	Mariehamn	Aland
Jyväskylän Autotarvike Oy	Sales&Service/Team	Jyväskylä	Western Finland
Käyttöauto Oy	Sales&Service	Alavus	Western Finland
Käyttöauto Oy	Sales&Service	Kauhajoki	Western Finland
Käyttöauto Oy	Sales&Service	Pori	Western Finland
Käyttöauto Oy	Sales&Service	Rauma	Western Finland
Käyttöauto Oy	Sales&Service/Team	Seinäjoki	Western Finland
Käyttöauto Oy	Sales&Service	Vaasa	Western Finland
KK-Autoteam Oy	Service only	Laitila	Western Finland
Lehtonen Motorsport Oy Ltd	Service only	Turku	Western Finland
Niskan Auto Oy	Service only	Imatra	Southern Finland
Oy BN Bilservice Ab	Service only	Tammisaari	Southern Finland
Pörhön Autoliike Oy	Sales&Service	Iisalmi	Eastern Finland
Pörhön Autoliike Oy	Sales&Service	Keminmaa	Lapland
Pörhön Autoliike Oy	Sales&Service	Kuusamo	Lapland
Pörhön Autoliike Oy	Sales&Service+MSU	Rovaniemi	Lapland
Pörhön Autoliike Oy	Sales&Service	Kajaani	Oulu
Pörhön Autoliike Oy	Sales&Service/Team	Oulu	Oulu
Pörhön Autoliike Oy	Sales&Service	Ylivieska	Oulu
Pörhön Autoliike Oy	Sales&Service	Pietarsaari	Western Finland
Pörhön Autoliike Oy	Sales&Service	Kokkola	Western Finland
Raskone Oy	Service only	Turku	Western Finland
Savilahden Auto Oy	Sales&Service	Mikkeli	Eastern Finland
Savilahden Auto Oy Savonlinna	Sales&Service	Savonlinna	Eastern Finland
Suomen Autohuolto Oy	Service only	Oulu	Oulu
Suomen Autohuolto Oy	Service only	Tampere	Western Finland
Tampereen AutoCenter Oy	Service only	Tampere	Western Finland
Traktoauto Oy	Sales&Service	Salo	Western Finland
Volkswagen Center Airport	Sales&Service/Team	Vantaa	Southern Finland
Volkswagen Center Espoo	Sales&Service/Team	Espoo	Southern Finland

Volkswagen Center Forssa	Sales&Service	Forssa	Southern Finland
Volkswagen Center Hämenlinna	Sales&Service	Hämeenlinna	Southern Finland
Volkswagen Center Helsinki	Sales&Service/Team	Helsinki	Southern Finland
Volkswagen Center Huittinen	Sales&Service	Huittinen	Western Finland
Volkswagen Center Hyvinkää	Sales&Service/Team	Hyvinkää	Southern Finland
Volkswagen Center Joensuu	Sales&Service/Team	Joensuu	Eastern Finland
Volkswagen Center Kotka	Sales&Service	Kotka	Southern Finland
Volkswagen Center Kouvola	Sales&Service	Kouvola	Southern Finland
Volkswagen Center Kuopio	Sales&Service/Team	Kuopio	Eastern Finland
Volkswagen Center Lahti	Sales&Service/Team	Lahti	Southern Finland
Volkswagen Center Lappeenranta	Sales&Service	Lappeenrant	Southern Finland
Volkswagen Center Tampere	Sales&Service/Team	Tampere	Western Finland
Volkswagen Center Turku	Sales&Service/Team	Turku	Western Finland

Table 7: Volkswagen Dealer Network 2020

Appendix 2. K-Caara Dealer Group Analysis Tables

Table 8: Overview CPB Key Figures K-Caara

Table 9: Overview Maintenance Key Figures K-Caara

Table 10: Overview Warranty Key Figures K-Caara

Table 11: Overview CPB+Warranty Key Figures K-Caara

Appendix 3. K-Caara Dealer Group Trend Diagrams

Figure 27: Overall Turnover Trends of Fleets considered and K-Caara (DG)

Figure 28: Overall Trends Car Pool and Visits of Fleets considered and K-Caara (DG)

Appendix 4. Diagrams Key Figures of K-Caara

Figure 29: Key Figure Customer Paid Business K-Caara

Figure 30: Key Figure Maintenance Cost K-Caara

Figure 31: Key Figure Warranty Cost K-Caara

Figure 32: Key Figure CPB+Warranty Cost K-Caara

Appendix 5. (…) Fleet Customer Analysis Excerpt

Table 12: CPB per Visit Amounts and Development (…) 2016-2019

Figure 33: Customer Paid Business per Visit Trends (…) 2016-2019

Appendix 6. Combined Analysis Excerpt K-Caara & (…)

Dealer Group and Fleet Customer Analysis

Table 13: CPB per Visit Amounts and Developments K-Caara & (…) 2016-2019

Figure 34: Customer Paid Business per Visit Trends K-Caara & (…)2016-2019