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CONSUMER'S DECISION TO PURCHASE VEHICLES VIA DIGITALIZED CHANNELS

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Table of Contents

Abstract

In recent years e-commerce has become one of the most accelerating internet phenomena changing customer behavior and expectation along the way. Investigating the online shopping behavior in various industries moved into focus for research and companies alike. However, as the automotive industry has been slow to adapt to the accelerated e-commerce usage and its customer base only started recently to express interest in purchasing high-priced products such as vehicles via digitalized channels, research in this area is rather scarce. This research seeks to understand the decision-making process of German consumers considering to purchase vehicles online by investigating the influencing variables of such decisions. By analyzing the data of fifteen semi-structured in-depth interviews using the content analysis the factors affecting the consumer's decision could be divided into three categories including individual and external factors as well as minimum requirements. The results of this research contribute and exceed previous research in the automotive industry and the investigation of online consumer behavior by providing qualitative insights and explanations of the interrelated dimensions of influencing factors. As the perception of prestige among customers is among the most driving forces of the online buying decision, automotive brands and car dealership should adapt their online retail website and process accordingly in order to provide an appropriate recognition of prestige during the purchase.

Keywords (E-commerce, Online Consumer Behavior, Online Purchase, Decision-Making Process, Automobiles)

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1. Introduction

After emerging in the 1970s, e-commerce is among the most rapidly increasing internet phenomena and can be defined as “the set of commercial transactions for products and services made through the internet or other digital means” (Oliviera et al., 2021, p. 36). Due to increasing demand of customers, accelerated by the Covid-19 pandemic, e-commerce has become the most important sales channel in many different industry sectors.

Although, the automotive industry has been rather slow to adapt to the increasing e-commerce usage, some trend reports done by renowned consultancies like McKinsey, Deloitte and Accenture point toward a shift in customer behavior and demands (Dau, et. al, 2020; (Bolger, et al., 2019; Accenture, 2019). A large share of customer expect the possibility of purchasing vehicles online in the near future. This is further supported by an increase in online vehicle sales which amounts to twenty-five percent in Germany (Kords, 2021a).

Considering the increasing share of online vehicle sales and findings pointing towards a shift in consumer expectation, there are comparably few studies exploring the online decision-making process and its related influencing factors. On the contrary, research in the context of online retail in the automotive industry has been either focusing on the exploration of barriers to the adoption e-commerce or highlighted only a limited set of online purchase related reasons without providing qualitative insights (Molesworth & Suortti, 2001; Beckmann, et al., 2018)

If one seeks to understand the online purchase decision of high-monetary products like vehicles, one seems to encounter a vast lack of insights in the current body of knowledge. As the topic of online vehicle retail has become significantly more important in the last years, the purpose of this thesis is to understand the driving forces and reasoning behind a customers' online purchase intention and as such the following research question was formed: *What are the influential factors of the online purchase decision of vehicles?*

By answering the research question, qualitative insights into the online decision-making process of vehicles as high-monetary products can be generated and thus enrich the existing knowledge in research and the automotive industry.

To answer the research question the study starts off with a literature review, providing an overview of the automotive industry, specifically elaborating on current trends regarding the transformation of the sales model as well as the customer's readiness and willingness to purchase vehicles online according to various reports. Secondly, the concept of consumer behavior and decision-making processes are explained as currently understood within the literature with the purpose of introducing and analyzing the current consumer-decision making process in the automotive industry. This is followed by the description of the methodological procedure including the research approach, data collection and evaluation according to Kuckartz (2014). After presenting the results, the last chapter concludes the thesis with the discussion of the theoretical and managerial implications of the results.

2. Literature Review

The literature review provides an overview of the retail automotive industry in Germany with focus on its related trends regarding the transformation of the sales model answering the changing customer expectations. In order to understand the consumer-decision making process in the automotive industry, the concept of consumer behavior and decision-making will be introduced first.

2.1 Introducing the Automotive Industry in Germany and its retail sector

With a total revenue of approximately 378 billion euros in 2020 Germany is among the fourth largest automobile producing countries with China, USA and Japan at the top (Kords, 2021c; Kords, 2021b). Due to continuous growth in the past decades the German automotive industry became the largest industry in Europe and one of the most important sectors for Germany itself (MarketLine, 2020b). According to an industry analysis of MarketLine the value chain of the automotive industry is divided into four parts: raw materials, component production, automotive manufacturing and retail. For the purpose of this research paper only the two latter parts of the value chain – automotive manufacturer and retail – will be further explained and defined as companies belonging to those sectors take over the most prominent part in the sale of vehicles to the customer.

Automotive manufacturing includes the assembly and production of motorcycles, and passenger and commercial vehicles, the latter being Germany's largest segment in volume with a share of 87.4% (MarketLine, 2020a). Currently, the industry is dominated by a few large players: Volkswagen, Daimler, Ford and BMW.

The retail sector in the auto industry can be generally divided into wholesaler and rental companies. The most common wholesalers are car dealerships who purchase the vehicle from the manufacturing company and sell them to the consumer (MarketLine, 2020a). In that way they serve as a direct intermediary between the automotive manufacturing company and the final customer. The three-tiered sales model is the traditional and most common sales model in the global automotive industry with only a few exceptions like Tesla, Geely and Hyundai who sell their vehicles directly to the consumer through online channels (Schmitz, et al., 2020).

Apart from car manufacturers and retailers (car dealerships), the end-consumer is the most important stakeholder of the sales process. According to Kords (2021b) two third of vehicle customer are above the age of 50, about 17% are 40-49 years old, 12% are in the range of 30-39 years and the remaining 6% are younger than 29 years. However, some industry sources suggest that millennials will grow to become more than 45% of potential car buyer in 2025 (Fanderl, et al., 2019). Most commonly, customers in the auto industry are neither loyal to car dealerships nor OEMs. Although, vehicles are bought based on recommendations, the final purchase decision is oftentimes feature or price driven (MarketLine, 2020b).

2.1.1 The transformation of the automotive sales model to encompass e-commerce

With the increasing digitization in the past twenty years, e-commerce started to bloom fueling the change of customer expectation of online shopping. As seen in different industries, the purchasing of goods online became the new normal, especially with the Covid 19 pandemic emerging in 2019.

Recent literature argues that the e-commerce is going to continue shaping the retailing industry especially as the younger generation – also called digital natives – grows up to become the primary customer group (Stanowska, 2018). According to research conducted by Bigné et al. (2005), generation who experienced a higher exposure to digital technology growing up, are more likely to adapt faster to changes in the retailing industry. Conclusively, it can be expected that the e-commerce will grow even more as demand increases from digital-savvy customers.

Although, the automotive industry has been slow to adapt to integrating e-commerce in their sales model in the past two decades, car manufacturers and dealerships won't be unaffected by customers changing shopping behaviors and expectations. That is, only one percent of customers in the automotive industry were completely satisfied with their overall car-buying experience due to the current retail model not being able to accommodate the diverse customer expectations, needs and behaviors (Dau, et al., 2020). Various studies from consultancies such as Capgemini Invent, Deloitte, McKinsey and Accenture point towards the automotive industry preparing to transform their sales model in order to encompass e-commerce, answering to the changing customer behavior and expectation for a seamless online and offline purchase experience. Instead of following the traditional franchise sales model, the customer would purchase their new cars directly from manufacturers using mostly online channels. Stakeholder in the automotive industry could either adopt a direct sales strategy or aim for the middle ground and sell vehicles through the agency sales model (Dau, et al., 2020). The major difference between those sales models is the role of the car dealerships. Using a direct sales model, car manufacturers would completely skip car dealers and sell their vehicles directly to the consumer. The agency sales model on the other hand is an integrated offline-online sales model in which the car manufacturer interacts directly with the customers and becomes the contractual partner during transactions. Similar to the direct sales model, the customer purchases their new vehicle directly from the OEM. While car dealerships lose their role as transaction partner, they remain as the face to customers and act as an agent specifically in activities that require physical interactions such as coordinating and executing test drives and handling service appointments and consultation meetings (Tschödrich, et al., 2020). Since customers currently visit a car dealership on average two to three times before buying a new vehicle and value this offline touchpoint as an important factor throughout the whole customer journey, Dau et al. (2020) from McKinsey believes the future sales model in the automotive industry to be similar to an agency sales model. Some known car manufacturing companies that already started to introduce the agency sales model in some of their markets are Volkswagen (VW) and Daimler (Wimmelbücker, 2020; Wutzer, 2021).

2.1.2 Consumer's readiness to purchase new vehicles online

The consumer's readiness to purchase goods online has somewhat changed over the past years since e-commerce was first introduced in the 1970s. While it became common in other industries such as fashion, toys, electronics and media, and food, the adoption of purchasing vehicles online went rather slow even though car manufacturers started to invest strongly in e-commerce as early as 2000 (Statista Research Department, 2021; Molesworth & Suortti, 2001). Research done in 2001 by Molesworth and Suortti highlighted that only five percent of adults would consider buying a vehicle online since most customers don't purchase high-priced products online in general. The vehicle market is a prime example with average prices during the time of this study being a little bit above 19.000 euros in Germany. Average car prices have even drastically changed over the course of the past twenty years in Germany and are currently at about 36.000 euros, which is an increase of ninety percent (Koptyug, 2021).

Findings suggest that consumer's resistance to e-commerce in the automotive industry is rooted in "usage and tradition barriers, [and] risk and image barriers" which occur mostly in the later stages of the customer buying process (Molesworth & Suortti, 2001, p. 161). The resistance attributed to the former barriers is strongest in the evaluation, negotiation and purchase and after-sales stages. During the evaluation stage, consumers indicated they prefer to have a physical experience of the vehicle in order to test the car and decide on its suitability for the customers need. This was especially important due to the "level of perceived risk originating from the high monetary value of the purchase" (Molesworth & Suortti, 2001, p. 163). Apart from the physical experience, customer also valued the social interaction relatively high when purchasing a vehicle. Customers described the car buying process as a social experience which they highly enjoyed. Moreover, the lack of ability to negotiate the vehicle price online plays further into their overall resistance of adopting e-commerce.

The resistance attributed to the risk and image barriers occurs during the stages of negotiation and purchase as well as after sales services. Findings point towards customers questioning the credibility of online seller in general.

Although, the adoption of e-commerce in the auto industry lacked speed, it has been acknowledged by several studies done in the past few years that the consumers' readiness to purchase vehicles through fully or partially digitized sales channels started to increase. Most research tends to focus on the European market or USA with only a few studies investigating the consumer behavior and readiness in context of the German market. However, all studies done in this area recognize that the consumer buying process and specifically how consumers intend to shop for vehicles has changed compared to the past decades and will further develop in the years to come. The results on customers interested in buying a vehicle online ranged from thirty percent up to seventy-five percent (Furcher, et al., 2020; Stanowska, 2018; Bolger, et al., 2019; Accenture, 2019; Tschödrich, et al., 2020). In example, a survey conducted by McKinsey with consumers located in the UK, US, Germany, France, Italy, Japan and China highlighted that half of the respondents show an interest in "online and contactless sales" (Furcher, et al., 2020, p. 2). According to Deloitte (2019) sixty percent of US vehicle customers would be interested in purchasing vehicles online if the sales channel is fully digitized. Moreover, Capgemini highlighted that customers are more keen to buy online directly from car manufacturers or dealerships if a seamless purchase process can be guaranteed and provided (Tschödrich, et al., 2020).

Compared to the global state of research in this area, there were only few studies conducted in German context. However, a survey done by Beckmann et al. (2018) solely focused on the German market with respondents between the age of 18 to 65 and emphasized that the customers' readiness to buy vehicles online is already high compared to the readiness of the current automotive market. That is, sixty-six percent of consumers would consider buying through digitized sales channels (Beckmann, et al., 2018)

2.2 Consumer behavior in the automotive industry

After elaborating on the current level of consumers' readiness to purchase vehicles through digitized sales channel, the remainder of this literature review aims to investigate in more depth the current state of the literature regarding specific influential factors of online purchase decisions. For that purpose, the following chapter has been divided into various subsection to allow for providing a general understanding of consumer behavior and decision-making processes and explain these in the context of the automotive industry.

2.2.1 Importance of research of consumer behavior

Not only research but also practitioners seek to understand the very nature and influential factors of consumer behavior. According to Hazuchová, et. al (2020) companies seeking to maintain their competitiveness in today's market are forced to understand the behavior and expectations of their customers in order to satisfy and retain them. Stankevich (2017) highlights in their elaboration that researching consumer behavior and consequently the decision-making process of customers stems from the goal to understand why customers act and decide in certain manners when acquiring a product or service. Gaining knowledge in this helps to understand what might influence purchase intention and purchase decisions and thus makes it possible for practitioners to adjust their strategy accordingly. This becomes increasingly important in today's society considering the rapid changes in the past two decades that have a significant impact on consumers behavior. Especially in the digital environment people are living nowadays, consumers expectations and needs have shifted, therefore impacting their overall buying behaviors. They became not only more demanding, expecting different touchpoints and a seamless interaction and experience with brands offline and online, they also value individualization and a high degree of efficiency (Stankevich, 2017). Moreover, due to the digital advances that give consumers easy access to all kinds of information, today's customers have become more educated and conscious than ever, making it difficult for companies to easily influence them through marketing strategies. In addition, the large number of products and services offered to customers by many different companies enable consumers to be more selective in their choice with no great need of being loyal towards specific brands (Hazuchová, et al., 2020).

It is understood by current literature that changes in the societal context reflect and impact changes in current consumer behavior. The main forces of society's changes driving changes in consumer behavior are believed to be the rapid grow of technological advances, the economic development and social communication. Changes in society impact individuals in a way that they are forced to reconsider their values and lifestyles which leads to different consumption patterns and behavior.

Consequently, when trying to understand consumer behavior, researcher and practitioners not only seek to gain a compound knowledge of the factors influencing such behavior and its level of impact, but they also focus on changes occurring in the society and the social context of customers (Hazuchová, et al., 2020).

2.2.2 Defining the concept of consumer behavior and consumer decision-making

According to Gupta & Singh (2020), consumer behavior can be defined as the "study of the process of consumption of consumers" (p. 19). Schiffman and Kunak further elaborate this definition by describing consumer behavior as the process of searching, buying, consuming, evaluating and disposing of a good or service in the expectations to fulfil the customer's needs (Schiffman & Kanuk, 1997). This brings the aspect of decision-making to the forefront of research's focus. Similar to that, Stankevich (2017) explains consumer behavior as the process consumers go through when purchasing products including the factors influencing their decision. The buying decision of a customer stems from a process of searching for information, comparing brands and products and evaluating their options. According to Solomon (2009) the research of consumer behavior focuses its study on the process of customer choosing, buying, consuming and disposing of goods. Loudon and Della Bitta (2002) describe consumer behavior as the activity of evaluating, buying, consuming and disposing of products. Another definition given by Engel, Blackwell, and Miniard (1990, p. G4) understands consumer behavior as "those actions directly involved in obtaining, consuming, and disposing of products and services, including the decision processes that precede and follow these actions".

Conclusively, there have been many researchers and authors who tried to describe and define the concept of consumer behavior and consequently the consumer decision-making process. In summary, the research of consumer behavior focuses on the decision-making process in which consumers get involved in different kind of activities that could ultimately lead to purchase and consumption (Hazuchová, et al., 2020; Santos, 2021).

In addition, the research of consumer behavior goes further in to understanding the specific factors influencing the decision-making process and their level of impact on the purchase intention and behavior (Santos, 2021). According to Hazuchová, et al. (2020, p. 5) the broadest level of influence on the consumer's decision is the cultural environment with its values and opinions shared across the same group of people. Moreover, the social class as well as social groups in the cultural environment further shape the individual beliefs, values and attitudes. Naturally, the groups closest to a person have the strongest impact. Personal components like demographics, interests, activities and psychological factors like motivation, perception and experience further affect the consumer's decision (Hazuchová, et al., 2020).

A similar explanation of influencing factors of the decision-making process can be found in the model of consumer behavior by Engel, Blackwell and Kollat. The EKB model is one of the most popular models opting for investigating consumer behavior. The model depicts the various components of consumer behavior and the interrelationships between them and consists of four distinct components, which may be given as information input, information processing, decision-making process and the variables influencing the consumers decision (Santos, 2021). For the purpose of this paper only the decision-making process and its related influencing variables are explained in more detail. The stage of the decision-making can be entered at any given time during the information processing and consists of five phases: the problem recognition, the internal and external search for information, evaluation of product alternatives that are available and finally the purchase and post-purchase behavior. Especially the post-purchase evaluation and behavior will impact the information input in the form of learning and as such play a role in the consumers' future decision-making process. The final component of the model are the variables that influence the decision-making process of the customer and include external influences, such as the consumers' environment and social surroundings, as well as individual characeristics like demographics, values, and lifestyle (Santos, 2021).

Although the offline and online decision-making process and its influencing variables are quite similar, some aspects need to be highlighted. According to Katawetawaraks and Wang (2011) there are several aspects specifically influencing online purchase decisions including convenience, information access, availability of products, cost and time investment, security, social contact, negative experience with online shopping and the triability of products. Since the research has investigated the named aspects only in context of general online shopping, it remains to be seen whether the variables are applicable to purchasing high-monetary products like vehicles online.

2.2.3 Consumer Decision-Making Processes in the Automotive Industry

After introducing the concept of the consumer decision-making process, the following sub-chapter focuses on reviewing studies that tried investigating the customers decision-making in the automotive industry and subsequently its influencing factors. The majority of recent research has focused on the determinants of the decision-making in the context of offline sales as these make up the main share of auto sales. It was "concluded that price, fuel efficiency, design, family and friend's recommendations, and easy financing plans affect car buying decisions" (Dahiya & Gayatri, 2018, p. 75). However, few studies, especially in the German context, have investigated the factors influencing the decision to purchase a vehicle through digitized channels. Moreover, the reports were mostly published by international Consultanies rather than academic researchers and consequently focused more on the customer's readiness and willingness to buy a vehicle online rather than the specific factors influencing such decision (Bolger et al., 2019; Dau et al., 2020; Tschödrich et. al, 2020). While the study conducted by Beckmann, et al. (2018) mostly examined the customers' preferences during the customer journey considering online and offline touchpoints, it also provided some insights regarding reasons for choosing digitized channels over offline channels. In effect, the study found out that incentives to purchase a vehicle online would include a guaranteed price advantage, a faster availability, exclusive online add-ons, easy trade-in of used vehicles and time savings during the purchasing process. Moreover, customers valued the possibility of fully customizing the vehicle by configuring and purchasing it online above all else. Furthermore, customers considered convenience, flexibility, price advantage and product diversity to be the main advantage of buying a vehicle online, whereas concerns about data security, fears of system failures and the request for personal consultation with a salesperson were highlighted as disasdvantage and reasons against online purchasing a vehicle. The study also highlighted that customers set a maximum price limit they were willing to spend online for a car at 35.000 euros in total or 400 euros in monthly payments. This suggests that the vehicle price might play a crucial role when deciding to buy a vehicle online or at the dealership.

Although, the study conducted bei MHP in 2018 gives some insights when trying to understand what touchpoint – digital or non-digital – customers prefer and what specific incentives for using online channels while purchasing vehicles might be, the study doesn't elaborate those findings in much depth.

3. Method

3.1 Research approach

After reviewing the studies conducted in order to investigate the customer decision-making process, it becomes clear that there is a current gap in the body of research. Although, there are studies regarding the decision-making when purchasing vehicles at the dealership, one cannot assume that the same findings can be projected onto the decision-making of purchasing vehicles online. Therefore, this paper aims to explore the matter of decision-making in more depth while focusing on specific factors influencing such decision.

In order to generate more in-depth insights, a qualitative research approach seems to be the most appropriate as it allows to understand subjective opinions and individual experiences "by entering into the 'black box' of how social phenomena are constituted in real time" (Silverman, 2021, p. 5). This makes it more valuable to use in studies where qualitative, psychological insights are key in understanding the topcis at hand as it allows the researcher to draw a hollistic picture and understand dynamics that would otherwise be lost in between numerical results (Walle, 2015). Consequently, a qualitative approach is chosen for the method of data collection and evaluation.

3.2 Data collection

3.2.1 In-depth interviews

The choice of non-standardized in-depth interviews, which is based on a list of questions, ensures that multiple topics are covered but also allows for other unforeseen topics to emerge. The interview guideline was determined in advance based on the research objective and therefore did not result from the answers of interviewees.

The development of the guideline was based on a preliminary category system. The aim was to obtain information on the categories used using various question types. Before obtaining answers regarding the consideration of purchasing a vehicle online, questions were established that aimed at collecting information about the interviewee regarding for example demographics and occupation. Further questions were asked about the general online consumer behavior as well as first experiences with purchasing a vehicle either at a car dealership or online. Based on those answers, information about the lifestyle, values and past experiences that could serve as influencing factors in the decision-making process could be gathered. This allowed for a better understanding and interpretation of the answers related to the topic of purchasing vehicles online.

3.2.2 Data collection

For the data collection a total of fifteen interviewees were acquired. This number of interviews is chosen on the one hand to collect a sufficient amount of data that is saturated in its answer sets and on the other hand to keep to the time frame of the master thesis. To ensure data saturation an interview guideline was developed in order to ask multiple participants the same question (Fusch & Lawrence, 2015). Since the answers of the conducted interviews showed significant similarities and no new information was being collected after fifteen interviews, it can be assumed that results will remain constant if interviews were repeated, thus ensuring the data saturation and validity of the qualitative research (Fusch & Lawrence, 2015).

The participants were vehicle customers considering buying a vehicle online in the near future and were acquired through personal contacts and social media with the aim to create diversity among the interviewees. This was achieved by selecting consumers of different age groups and background regarding occupation and living location. An overview of the interviewees regarding age group, occupation and living location can be found in the appendix.

3.3 Data Extraction and Evaluation

For the purpose of data evaluation, the qualitative content analysis according to Kuckartz (2014) was selected. According to Kuckartz (2014), categories can be deductive and thus derived from the theory but can also be inductive and thus supplemented from the existing interview material. Both methods are combined in order to remain open to unforeseen information during the evaluation process and to form categories inductively in the case of new findings. Building on previous research three main categories and five sub-categories were deductively formed. The remaining six sub-categories were inductively derived from the interview material. An overview of the category system can be found in the appendix.

4. Results

The results of the in-depth interview indicate the relevance of several aspects affecting the decision-making process when purchasing a vehicle online. The influencing factors can be categorized into three interrelated dimensions: individual factors, external factors and specific requirements for the purchase process specifically related to individual companies. The results of the study are presented in detail as follows.

4.1 External factors

Both aspects already mentioned in previous research as well as newly arised factors were discussed in the interviews as relevant in the decision-making process of customers. A detailed explanation of the individual variables follows in the next sub-chapters.

4.1.1 Easy access of information and avoidance of social interaction

Although some respondents agreed that salespeople at car dealerships can offer some value in the decision-making process by providing relevant information, it was mentioned regularly that the same information could also be easily accessed online rendering the consultation and thereby the visit to the car dealership irrelevant for most: “I don't know what they should tell me in the store that I can't just Google. Nowadays, you have access to so much information if you know how to access it.” (Interviewee 3). Due to the easy access to information online, customers are more educated than ever but also recognize their own limit in acquiring required knowledge. Only when noticing the need for consultation during the information search would the interviewees visit a car dealership. However, given the common knowledge of the sales staff receiving a provision for selling a vehicle, the consultation at the car dealership has shown to be a conflicting topic for the interviewees. The provided information is believed to be biased following the purpose of pressuring the customer to make the purchase and as such customers only have access to “neutral information on the internet” (Interviewee 12). Furthermore, a dealership visit is associated with a “sense of finality” (Interviewee 11) in their purchase decision as interviewees experienced guilt as the consequence of not buying a car immediately. Thus, the social pressure leads to the avoidance of visiting the dealership and thus the consideration of online purchase: “I can look at the cars online without any constraints. At the dealership, it feels rather final. Online, I can just go into the store, configure the car and then still decide against it without any consequences.” (Interviewee 5).

4.1.2 Price

The results regarding the price as influential factor were significantly more ambivalent compared to the other categories and support to some degree the findings of Beckmann, et al. (2018) that there is a maximum price limit for customers when engaging in the online purchase of vehicles. However, the limit set by customers is rather associated with the level of prestige than with the price itself since higher priced vehicles carry a different level of prestige than lower priced vehicles which significantly impacts the choice of purchasing channel. Purchasing the vehicle at a car dealerships is associated with class, prestige and celebration due to the “good service with the obligatory coffee and champagne” (Interviewee 6). Thus, interviewees tend to buy more expensive vehicles “rather in a store” (Interviewee 13) than online.

4.1.3 Convenience and time efficiency

Similar to the results of Beckmann et al. (2018), the interviewees took the convenience of the online process as well as the invested time into consideration. Buying a vehicle online is associated with “lean processes that make it easy to buy a car without much effort” (Interviewee 14). Along with that customer have the possibility to “get all the information at a glance” which can be “read through at my own pace” (Interviewee 9) making the online purchasing process inherently flexible.

4.1.4 Product diversity and availability

Another important factor that can influence the decision to purchase a new vehicle through a digitized channel is the product diversity and availability: “I also feel like I have a wider selection to choose from. I feel like a dealership can't draw from the entire lineup. I find it hard to imagine that they always have the car I want in the store.” (Interviewee 7).

4.1.5 Recommendations of others

Lastly, the recommendation of others such as family, friends or peer groups are considered by interviewees in their decision to purchase a vehicle online rather than at the car dealership. The positive word of mouth from people whose opinions are highly valued be the interviewees conveys the feeling of security in the sense that the process of online purchase was already tested and found to be good: “It also matters a lot to me if people around me have already tested it. I mean, that's how it works in today's world. Others mention it and then you know you can trust the process” (Interviewee 1).

4.2 Individual factors

As depicted in previous research individual factors or personal components include the demographics, personality, lifestyle and value of a customer (Engel, Blackwell & Kollat, 1990) as well as psychological factors like motivation, perception and experience (Hazuchová, et al., 2020). The in the interviews regularly discussed variables were especially associated with the value, perception and prior experience of customers. As such, four distinct sub-categories were formed and are explained in detail as follows.

4.2.1 Perception of online shopping in general

The perception of online shopping in general is an important component which needs to be taken into consideration when investigating the online consumer buyer behavior of vehicles. They way interviewees perceive e-commerce, and their own online consumer behavior can be assumed to highly impact their decision to purchase a vehicle online. The results have shown that all interviewees engage quite frequently and excessively in online shopping with average online purchases ranging from monthly to weekly. E-commerce is valued to be “easy and time saving” (Interviewee 14) and described as “the path of least resistance” (Interviewee

2) compared to offline shopping. Respondents consider the “availability of products” (Interviewee 1) and the overall convenience of purchasing at any given time as the most valuable factors.

4.2.2 Comfortability in digital environment

The results have shown that customers regardless of age consider buying vehicles online. Furthermore, the interviewees decision is influenced by their comfortability in the digital environment: “In the meantime, I have become totally accustomed to buying products online. That's a process I know. And of course, it might be strange to buy a car online for many people. But it was also once strange to buy anything online at all. You can get used to anything.” (Interviewee 8).

4.2.3 Perception and importance of prestige

As already highlighted in the previous part, the level of prestige was of significant importance during the decision-making process and as such the individual perception and importance of prestige is connected to the previously described external factor. Depending on how highly the prestige is valued by customers, the selection of purchasing channel is impacted. Respondents who didn’t perceive prestige as something important also didn’t consider the level of prestige of the car in their choice of purchasing channel and vice versa: “This is not something important for me. I don’t need to be seen when buying a Tesla” (Interviewee 5).

4.2.4 Previous experience with the vehicle

Another factor influencing the decision to purchase the vehicle online was the previous experience interviewees had with the desired car. This may include physical experiences made during prior usage and existing knowledge acquired from talking to others who owned the same or a similar vehicle: “It depends on your level of knowledge if you go through the online process. For example, I already owned a VW Golf, therefore I would be comfortable with buying it online.” (Interviewee 10). Thus, respondents felt more comfortable purchasing a vehicle online when they had already past experiences or knowledge of the vehicle prior to the purchase.

4.3 Requirements for purchasing vehicles online

Apart from the abovementioned factors, other company specific components of the online purchase process were regularly discussed as minimum requirements in order to engage in the purchase and as such significantly impacted the decision-making process. These factors conveyed a certain level of security and trust requested by customers given the high monetary value of the purchase.

4.3.1 Structured Website and a lean purchasing process

According to the interviewees a well-structured and modern website is the most important requirement when considering purchasing vehicle online since it conveys trust and security: “If the website looks cheap and is poorly structured, you immediately get a bad feeling and do not feel safe to order there.” (Interviewee 3). This becomes even more important considering the high monetary investment customers are making. Along with a modern and structured website, interviewees expect to find all information necessary about the offered vehicles. Furthermore, price transparency and the availability of customer service is requested. Moreover, an easy to handle and lean purchasing process is expected that provides all information needs since the interviewees “don’t want to spend time trying to understand how to purchase the vehicle” (Interviewee 4).

4.3.2 Possibility of test drive

Besides a well-structured website and lean processes, the interviewees emphasized the importance of the possibility of a test drive regardless of it being required or used in the purchasing process because it improves their trust in the website. Thus, interviewees would not feel comfortable ordering a vehicle online if a test drive wouldn’t be available: “I would never buy the vehicle on a website that doesn't offer me the possibility to test drive because pictures can always lie."

4.3.3 Proof of concept

As many interviewees already emphasized, the recommendation of others impacts their decision to purchase a vehicle online and as such would require the website to provide proof of concept of the buying processes. By doing so the company would ensure that the purchase of the vehicle worked in the past for other customers and thus would be able to further improve their trustworthiness: "I want to see on the website that it has already worked for others in the past. This can be achieved, for example, by sharing reviews from other customers on the website." (Interviewee 15).

5. Discussion

The results of this study have both theoretical and managerial implications which are discussed in the following subchapter.

5.1 Theoretical Implications

Building on the research of Beckmann et al. (2018), the importance of several factors such as flexibility, convenience, time savings, a faster availability of vehicles and the request for consultation in the decision-making process could be confirmed by this research. Moreover, this research supports the results of MarketLine (2020b) emphasizing the relevance of price, features and peer recommendations in the purchase decision-making process. Although the research done by MarketLine was conducted in the context of vehicle purchase decision at car dealership, the results of this research paper demonstrated the applicability to online purchase decision indicating similarities between the offline and online decision process.

Furthermore, this research enriches the existing knowledge gathered by Beckmann et al. (2018) and MarketLine (2020b) by providing an in-depth explanation of these aspects in the decision-making process of customers. In example, according to previous research customers set a maximum price limit when purchasing vehicles online. Contrary to the expectation of the price originating from a concern regarding data and transaction security, the research results rather indicate a connection between price and the vehicle's level of prestige. As described in the interviews, the perceived level of prestige is directly associated with the price of the product. This interpretation is supported (Leibenstein, 1950) who suggested that the value of a product can be directly affected by external factors like the certain price a product bears. Moreover, Vigneron and Johnson (1999, p. 2) concluded in their work that the level of prestige of a product results among other things from the "perceived conspicuous value" of the consumption. To further elaborate on their idea, the purchase of a prestigious perceived brand indicates a certain degree of wealth and status which is enhanced by the price of the product (Vigneron & Johnson, 1999). Thus, the online channels' lacking ability to satisfy the customer's need for prestige recognition during the purchase process of high-priced vehicles consequently leads to customers defining a maximum price limit for online purchases.

Moreover, and in line with previously stated expectations, the results of this research demonstrated that the aspects affecting the consumer's online decision-making process in the automotive industry exceed the findings of previous studies. Based on the conducted interviews new insights regarding external aspects in the online decision-making process could be generated. According to the results of the interviews the easy access to information on the internet as well as the avoidance of social interaction with sales staff turns out to be the most mentioned external motivator in the online decision-making process when purchasing a vehicle. This confirms the applicability of Katawetawaraks and Wang's (2011) findings regarding said motivational factors of general online decision-making. Whereas Katawetawaraks and Wang (2011) depicted the factors as being separate from each other, the results of the in-depth interviews have shown that these external motivators are in fact connected. In the possible case of the customer not being able to collect the required information online a salesperson inevatibly has to be consulted despise the negatively perceived interaction. However, if all necessary information can be accessed on the internet and an educated opinion is formed, the customer can forego the consultation of a salesperson and as such satisfy their need of avoiding the social interaction.

While some motivational aspects mentioned by Katawetawaraks and Wang (2011) could be confirmed by this research, other variables such as the intangibility of certain products as an impeding factor of the decision to purchase online were contradicted by the findings of this study. As described by Katawetawaraks and Wang (2011) customers are less likely to purchase products whose suitability for their respective needs need to be tested before the purchase. Although this is to some extend true for purchasing vehicles online as most of the interviewees requested the possibility of test-drive in order to engage in the purchase, the interviews have also shown that the need for examination of the product is specifically tied to the access of information and the previous experience with the respective product.

The findings of this research add further to existing knowledge by providing insights into the individual motivators of customers and their interrelationship with external aspects of the decision-making process which was not discussed so far by previous research. The general perception of online shopping influences the consideration of purchasing via digitalized channels in the first instances and can therefore be defined as the most important individual aspect in the decision-making process. In the second instance, the decision-making process and consideration of external factors is affected by the general comfortability in digital environment. Based on the evenly distributed interview sample regarding age groups the results might suggest the level of comfortability is experienced regardless of age assuming all generations would equally consider purchasing vehicles online, a more plausible explanation is provided by Bigné et al. (2005) emphasizing the correlation with the level of exposure to digital technology growing up. Thus, it can be assumed that younger generations are more likely to adapt to digital retail in the automotive industry. However, the results have also shown that some customers of the older generation experience a certain level of comfortability in the digital environment after years of getting used to it and as such consider purchasing vehicles online. Third, the individual perception of prestige and the psychological utility derived from it affect the consideration of a maximum price limit in the online purchase process. As such, prestige-seeking customers who value appropriate recognition highly tend to decide to purchase high-priced vehicle at a car dealerhsip.

Finally, the unexpected emergence of minimum requirements in the interviews adds a new perspective to research of online consumer behavior in the automotive industry beyond the mere exploration of individual and external aspects. Whereas the external aspects discussed in the interviews are associated with the general decision process of purchasing a vehicle, the minimum requirements are described as company specific.

5.2 Managerial implications

Based on the findings of this research and in relation to previous reports of consultancies, companies in the automotive industry can derive valuable insights from the results. Similar to the findings of (Dau et al., 2020), the interviews have shown that offline touchpoints are still important for the customer experience. When restructuring the sales model to encompass the changing customer behavior, companies should opt for the middle ground solution provided by the agency sales model. With a hybrid sales model companies will be able to cater towards customers expectation of having offline and online touchpoints in the customer journey.

For the purpose of process architecture, companies can derive insights from all three levels of influencing factors presented by this research. First and foremost, the focus should be on the fulfillment of the minimum requirements requested by customers for a successful purchase experience. In support of the results from Capgemini, a lean purchase process with a seamless integration of online and offline touchpoints is valued highly by customers

(Tschöderich, 2020). Moreover, companies can use the results from this research in order to develop a process that conveys trust and security while being easy-to-handle and to understand.

Furthermore, the exploration of individual and external factors showed that the level of prestige is an important component throughout the purchase process. Based on the review of previous research this turns out to be an unexpected and to date unnoticed factor in the decision-making process. When developing the online purchase process, companies are recommended to focus on delivering a certain recognition of prestige, especially for high-priced vehicles. Another possibility would be to offer online purchase only for lower-priced and lower-prestige vehicles to bypass the lack of prestige in the online purchase process.

5.3 Limitation and Recommendation

The sample size of fifteen interviews has proven to be saturated in its answer-set and was valid for the purpose of answering the previously defined research question. However, it is important to highlight that the research solely focused on the German market and as such no assumption can be made about automotive market in other countries. Therefore, it might be of interest for future research to conduct research focusing on automotive markets from different countries to further enrich the knowledge provided by this study.

Furthermore, since the study solely focused on the decision-making process of purchasing vehicles online and as such was limited to only customers who considered buying a vehicle online, no insights can be derived for the opposite case. Thus, future research could conduct studies which include both perspective in order to compare both cases and the respective decision-making process and derive even more insights from it.

6. References

Walle, A. H. (2015). *Qualitative Research in Business: A Practical Overview.* Newcastle upon Tyne: Cambridge Scholars Publishing.

Silverman, D. (2021). Introducing Qualitative Research . In D. Silverman, *Qualitative Research* (pp. 3-16). London: SAGE.

Stanowska, N. (2018). An investigation into the development of Toyota's e-commerce customer journey. *Journal of Undergraduate Research at NTU, 1*(1), 146-181.

Molesworth, M., & Suortti, J.-P. (2001, November 12). Buying cars online: The adoption of the Web for high-involvement, high-cost purchases. *Journal of Consumer Behavior , 2*(2), 155-168.

Beckmann, D. O., Rjabinin, A., Zellmann, D., Lewalter, M., Kalow, H., Berning, S., & Lössl, L. (2018). *Online Car Sales 2018.* Retrieved October 2021, from MHP A Porsche Company: https://www.mhp.com/fileadmin/www.mhp.com/assets/images/studien/Studie_Online Sales_2018.pdf

Bigné, E., Ruiz, C., & Sanz Blas, S. (2005, January). The impact of internet user shopping patterns and demographics on consumer mobile buying behavior. *Journal of Electronic Commerce Research, 6*(3), 193-209.

Dau, N., Furcher, T., Köstring, J.-C., & Lühr, P. M. (2020, November 3). *A future beyond brick and mortar: Disruption in automotive retail.* Retrieved October 2021, from McKinsey: https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/a-future-beyond-brick-and-mortar-disruption-in-automotive-retail

Fanderl, H., Matthey, A., Pratsch, S., & Stöber, J. (2019, March 7). *Driving the automotive customer experience toward the age of mobility*. Retrieved October 2021, from

McKinsey: https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/driving-the-automotive-customer-experience-toward-the-age-of-mobility

MarketLine. (2020a, March 19). *Global Automotive Manufacturing Industry: Value Chain Analysis*. Retrieved October 2021, from Marketline: https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/details/global-automotive-manufacturing-industry-value-chain-analysis-61408

MarketLine. (2020b, October). *MarketLine Industry Profile: Automotive Manufacturing in Germany*. Retrieved October 2021, from Marketline: https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/germany-automotive-manufacturing-110041

Schmitz, D., Seidel, D., Droste, M., Adolph, C., & Herberts, D. (2020, June). *Arthur D Little.* Retrieved October 2021, from Future of car sales - how to go direct?: https://www.adlittle.de/en/FutureCarSales

Tschödrich, S., Matthies, M., Junge, A., & Kessler, N. (2020). *Agency Sales Model: Accelerating the future of automotive sales.* Retrieved August 2021, from Capgemini Invent: https://www.capgemini.com/wp-content/uploads/2020/11/Automotive-Agency-Sales-Model_POV_Capgemini-Invent.pdf

Wimmelbücker, S. (2020, April 6). *Konzernchef Herbert Diess: VW setzt auf Direktvertrieb.* Retrieved August 2021, from Automobilwoche: https://www.automobilwoche.de/article/20200406/NACHRICHTEN/200409952/konzernchef-herbert-diess-vw-setzt-auf-direktvertrieb

Wutzer, A. (2021, June 23). *Neue Händlerverträge: Mercedes-Benz will echtes Agenturmodell für deutschen Markt.* Retrieved August 2021, from Autohaus: https://www.autohaus.de/nachrichten/autohandel/neue-haendlervertraege-mercedes-benz-will-echtes-agenturmodell-fuer-deutschen-markt-2905020

Kords, M. (2021c, September 8). *Automobilindustrie Deutschland.* Retrieved October 2021, from Statista: https://de-statista-com.eu1.proxy.openathens.net/themen/1346/automobilindustrie/

Kords, M. (2021a, June 15). *Anteil des Online-Absatzes von Pkw in ausgewählten Ländern im Januar und September 2020*. Retrieved September 2021, from Statista: https://de-statista-com.eu1.proxy.openathens.net/statistik/daten/studie/1197873/umfrage/anteil-des-online-absatzes-von-pkw-nach-laendern/

Kords, M. (2021b, June 17). *Alterstruktur von Neuwagenkäufern in Deutschland*. Retrieved October 2021, from Statista: https://de-statista-com.eu1.proxy.openathens.net/statistik/daten/studie/39421/umfrage/altersstruktur-von-neuwagenkaeufern-in-deutschland/

Oliveira, M., Tavares, F., Diogo, A., Ratten, V., & Santos, E. (2021). The Importance of E-Commerce and Customer Relationships in Times of COVID-19 Pandemic. In V. Ratten, & P. Thaichon, *COVID-19, Technology and Marketing: Moving Forward and the New Normal* (pp. 33-58). Singapore: Palgrave macmilan.

Statista Research Department. (2021, July 5). *E-commerce revenue worldwide from 2017 to 2025 by segment*. Retrieved October 2021, from Statista: https://www.statista.com/forecasts/1223973/e-commerce-revenue-worldwide-by-segment

Koptyug, E. (2021, May 25). *Development of average prices for new cars in Germany from 1995 to 2020*. Retrieved October 2021, from Statista: https://www.statista.com/statistics/589607/average-prices-new-cars-germany/

Furcher, T., Grühn, B., Huber, I., & Tschiesner, A. (2020, June 17). *How consumers' behavior in car buying and mobility is changing amid COVID-19.* Retrieved October 2021, from McKisney:

http://dln.jaipuria.ac.in:8080/jspui/bitstream/123456789/3219/1/How%20car%20buying%20and%20mobility%20is%20changing%20amid%20COVID-19.pdf

Dahiya, R., & Gayatri. (2018). A Research Paper on Digital Marketing Communication and Consumer Buying Decision Process: An Empirical Study in the Indian Passenger Car Market. *Journal of Global Marketing, 31*(2), 73-95.

Bolger, D., De Santis, C., Forchette, E., Tummalapalli, S. R., & Robinson, R. (2019). *How digital technologies can elevate the car-buying experience.* Retrieved October 2021, from Deloitte: https://www2.deloitte.com/content/dam/insights/us/articles/4753_Global-Automotive-Insight/DI_Global-Automotive-Insight-Series.pdf

Accenture. (2019). *The Future of Automotive Sales.* Retrieved October 2021, from Accenture: https://www.accenture.com/_acnmedia/PDF-104/Accenture-Excerpt-Customer-Insights.pdf

Stankevich, A. (2017). Explaining the Consumer Decision-Making Process: Critical Literature Review . *Journal of International Business Research and Marketing, 2*(6), 7-14.

Gupta, K., & Singh, N. (2020). *Consumption Behavior and Social Responsibility.* Singapore: Springer.

Hazuchová, N., Stávková, J., Siedlecka, A., & Nagyová, L. (2020). Current Aspects of Consumer Behavior in Central European Countries. In W. Sroka, *Perspectives on Consumer Behavior* (pp. 3-30). Switzerland: Springer.

Schiffman, L. G., & Kanuk, L. L. (1997). *Consumer Behavior.* Pearson Publications.

Kuckartz, U. (2014). *Qualitative Text Analysis: A Guide to Methods, Practice and Using Software.* SAGE Publication Ltd.

Santos, J. (2021). *Consumer Behavior and Culture.* Burlington: Society Publishing.

Vigneron, F., & Johnson, L. W. (1999). A Review and a Conceptual Framework of Prestige-Seeking Consumer Behavior. *Academy of Marketing Science Review*.

Leibenstein, H. (1950). Bandwagon, Snob, and Veblen Effects in the Theory of Consumers' Demand. *Quarterly Journal of Economics, 64*, 183-207.

Katawetawaraks, C., & Wang, C. (2011). Online Shopper Behavior: Influences of Online Shopping Decision. *Asian Journal of Business Research, 1*(2), 66-73.

Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1990). *Consumer behavior.* Chicago: Dryden.

Louden, D. L., & Della Bitta, A. J. (2002). *Consumer behavior.* New Delhi: Tata McGraw Hill Publishing.

Solomon. (2009). *Consumer behavior: Buying, having and being.* New Delhi: PHI Learning Private Limited.

Laudon, K. C., & Traver, C. G. (2009). *E-Commerce Business. Technology. Society.* New Jersy: Prentice Hall .

Fusch, P. I., & Lawrence, R. N. (2015). Are We There Yet? Data Saturation in Qualitative Research. *The Qualitative Report, 20*(9), 1408-1416.

Appendix A

Qualitative interview script for semi-structured in-depth interviews

Demographic facts and lifestyle

- How old are you?
- Where do you currently live?
- What do you do for a living?
- What does your typical day look like? What is your work routine?
- What do you do in your free time?
- What are important values to you?

Introduction to online consumer behavior

- How do you perceive online shopping?
- What role does online consumption play in your life?
- How often do you buy products online per month / per week?
- What kind of products do you purchase online?
- For what reasons do you purchase certain products online?
- What is the difference between online and offline shopping for you?
- In which situation do you rather purchase online and in which situation do you purchase offline?
- What factors do you consider important when shopping online?
- What factors influence your decision to purchase online?
- How do those factors differ from offline shopping?

Previous experience of purchasing a vehicle (at a car dealership)

- Have you ever purchased a vehicle before at a car dealership?
- If yes, could you please describe the purchasing process?

- How did you perceive this process? What was positive and what was negative in your opinion?
- What were the important touchpoints in the purchasing process?

Online car purchase

- What do you know about the process of purchasing a vehicle online?
- Do you have a specific idea of the process?
- Please describe the process of shopping a vehicle online.
- How would this process look like compared to purchasing a vehicle at a car dealership?
- Would you consider purchasing a vehicle online?
- What would be specific factors that you would consider important in your decision to purchase online? Please elaborate this based on the customer journey in automotive.
- Which factors are the same for shopping a vehicle online and what factors are different?
- How important are offline touchpoints in the customer journey when purchasing the vehicle online? (Test-drive, consultation)
- What are the minimum requirements for you to consider purchasing a vehicle online? Which touchpoints and offerings need to be given?
- What are factors that give the online shopping an advantage compared to offline shopping of a vehicle?
- Are there specific situations in which you would rather purchase a vehicle online than offline? How are those situations characterized? What leads to those specific situations?
- Would you overall prefer to purchase a vehicle online or offline? What factors / situation, etc. influence the preference?
- If you need to summarize, why would you consider buying a vehicle online rather than offline?

- How do you perceive purchasing a vehicle online? What are the advantages and disadvantages in your opinion compared to offline shopping?

Appendix B

Sample characteristics

No.	Age	Gender	Occupation	Living Location
1	56	Female	Nurse	Stade, DE
2	24	Male	Consultant	Hamburg, DE
3	22	Male	Student	Hamburg, DE
4	62	Male	Office Manager	Kiel, DE
5	55	Female	Sales Advisor	Stade, DE
6	24	Female	Student	Munich, DE
7	28	Male	Winegrower	Saarbrücken, DE
8	31	Male	COO	Berlin, DE
9	46	Female	Sales Advisor	Osnabrück, DE
10	41	Female	Teacher	Dresden, DE
11	19	Male	Student	Hamburg, DE
12	65	Male	Retired	Stade, DE
13	37	Female	Unemployed	Berlin, DE
14	49	Female	Civil Engineer	Bremen, DE
15	32	Male	Stay-at-Home Parent	Düsseldorf, DE

Note. All participants bought or considered buying a vehicle online

Appendix C

Category System

The following figure shows the main categories (in dark blue) and the respective sub-categories (in light blue).