Customer Loyalty in High-Dynamic Markets: Electric Vehicle Loyalty and Customer Switching Patterns

Bachelor's Thesis



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Table Of Content

List of Figures	IV
List of Abbreviations	V
Abstract	VI
1 Introduction	1
2 Theory behind Customer Loyalty and Consumer Switching	2
2.1. Motivation, Definitions, and Literature Heterogeneity of Customer Loyalty	2
2.2. Influencing Factors and Types of Customer Loyalty	4
2.3. Consumer Dynamics and Switching between Loyalty Types	8
3 Specifics of CL and Consumer Switching in High-Dynamic Markets	9
3.1. Definition and General Characteristics of Dynamic Markets	9
3.2. Specialized Theories on Customer Loyalty in Dynamic Markets	11
4 Meaning for Passenger Vehicle Markets in the light of the Transition from ICE to BE	V 16
4.1. Framework Development	16
4.2. Influencing Factors of Customer Loyalty in the EV Market	18
5 Discussion	24
5.1. Key Findings	24

5.2. Managerial Implications	25
5.3. Future Research	25
Appendix2	26
References2	28
Literature Review Table	37
Comparative Literature Table4	44
Affidavit4	45

List of Figures

Figure 1: A framework for customer loyalty)
Figure 2: Conceptual framework for customer loyalty in the EV market	,

List of Abbreviations

EV/ BEV	Battery Electric Vehicle
ICE	Internal Combustion Engine
HEV/ HBEV	Hybrid Electric Vehicle
CL	Customer Loyalty

Abstract

This thesis examines customer loyalty and consumer switching in dynamic markets, with a particular focus on the electric vehicle market. A new conceptual framework for customer loyalty in the EV market is developed by combining findings from research on customer loyalty, dynamic markets and electric vehicles. The framework adds to the existing literature by explaining how characteristics of dynamic markets affect customer loyalty. The hypotheses proposed suggest that customer loyalty is more variable and tends to be reduced in dynamic markets and the EV market. With respect to EV loyalty, extant literature indicates that the most important reason for the initial purchase of EVs is environmental performance, while operational cost savings are particularly important for repurchasing behavior.

1 Introduction

"As more car makers roll out electric vehicles, they are discovering an important trait among early customers: They are far more apt to try new brands." (*The Wallstreet Journal* 2022)

Over the past decade, the automotive industry has undergone tremendous change, driven by technological breakthroughs in the field of electric mobility, rapidly changing consumer preferences and the emergence of new market players. The transition from internal combustion engines (ICEs) to battery electric vehicles (BEVs) is expected to contribute significantly to the decarbonization of the transportation system and the reduction of local air pollution (Bickert, Kampker, and Greger 2015, p. 138; Mersky et al. 2016, p. 56). To further accelerate the EV diffusion process and to consequently achieve these sustainability goals, consumers of traditional ICEs need to be convinced to adopt EVs and existing customers need to remain loyal to them (Hasan 2021, p. 2). Among the various drivers influencing the adoption of EVs, the increase in consumers' environmentally conscious purchasing behavior is the most important one (Degirmenci and Breitner 2017, p. 1). However, recent research has shown that the main drivers of EV adoption differ from those of EV disadoption. For example, as noted above, environmental factors are the greatest motivator behind EV adoption, but they are poor predictors of potential disadoption (Parthasarathy and Lassar 2023, p. 549). While EV adoption has already received much academic attention, the area of EV loyalty has been largely neglected. Therefore, more research in this area is needed to better understand the various factors influencing customer loyalty and switching patterns in the dynamic EV market. In addition to the importance of understanding vehicle type loyalty from a social and environmental perspective, brand loyalty is of great economic interest to vehicle manufacturers to further increase their sales and consequently their market shares.

The purpose of this thesis is to conduct a literature review on the antecedents and moderators of customer loyalty in the context of dynamic markets in general and in the electric vehicle market in particular. Based on these findings, I will develop a conceptual framework to better understand customer loyalty and customer switching in the electric vehicle market. This framework addresses a gap in the existing literature by incorporating EV-specific industry and customer characteristics.

The following chapter first provides an insight into the relevant theory on the definition, drivers and consequences of customer loyalty. Second, the influence of dynamic market conditions on customer loyalty will be explained. In the third chapter, I combine the findings from the previous chapters with the EV-specific literature to develop a unique framework for customer loyalty in the EV market. Finally, I summarize the key findings of the paper, discuss their relevance for practitioners, and provide a recommendation for future research.

2 Theory behind Customer Loyalty and Consumer Switching

2.1. Motivation, Definitions, and Literature Heterogeneity of Customer Loyalty

The concept of customer loyalty has received considerable attention in both academic and practical contexts. Customer loyalty is regarded as the "central thrust of the marketing activities of a firm" (Dick and Basu 1994, p. 99), and ideally leads to increased profits and consequently higher shareholder value (Homburg, Wieseke, and Hoyer 2009, p. 38). The idea is that loyal customers tend to make repeat purchases, have a higher willingness to pay and could recommend the product to others (Ngobo 2017, p. 229). Nevertheless, customer loyalty alone does not necessarily imply profitability and loyalty-building efforts often fail to meet their financial return expectations (Henderson, Beck, and Palmatier 2011, p. 257; Watson et al. 2015,

p. 790). Therefore, Reinartz, Thomas and Kumar suggest that companies need to focus on both loyal and profitable customers at the same time to realize higher profits (2005, p. 77).

Despite its importance, however, there is still no single definition of customer loyalty. Jacoby and Chestnut (1978) cited more than 50 definitions of it (Dick and Basu 1994, p. 99; Watson et al. 2015, p. 791). This implies that customer loyalty is a multidimensional phenomenon, which can range from simple repeat purchases to cross-buying and the recommendation of a particular product or service by existing customers. Oliver defines customer loyalty as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior" (1999, p. 34). The authors Dick and Basu refer to it in a similar manner as "the strength of the relationship between an individual's relative attitude and repeat patronage" (1994, p. 99). Besides these multidimensional definitions, other academics define it more singularly, meaning that they just focused on either an attitudinal or behavioral construct (East et al. 2005, p. 11).

However, most recent theories attribute customer loyalty to attitudinal and behavioral components (Chaudhuri and Holbrook 2001, p. 81; Watson et al. 2015, p. 791). Attitudinal loyalty is defined as the degree to which customers have developed a positive attitude or preference towards a particular brand. As such, it is a purely psychological construct. Behavioral loyalty, on the other hand, is the readiness of customers to act, which can be seen as analogous to repeat purchases (Oliver 1999, pp. 35, 36). In a meta-analysis, Watson et al. examined 163 customer loyalty studies with regard to their definition of loyalty and found that the different conceptual approaches of the research were partly responsible for the heterogeneous results (2015, p. 790).

2.2. Influencing Factors and Types of Customer Loyalty

As introduced in the previous chapter, customer loyalty is a very complex construct, with many influencing factors involved. One of the most relevant and widely recognized theories in terms of explaining the formation of customer loyalty is the conceptual framework (Figure 1) of Dick and Basu (1994, p. 100). The authors were among the first to not only quantify the static outcomes of customer loyalty (e.g. repeat purchases, word-of-mouth, cross-selling etc.), but also to explain the dynamic process of customer loyalty development. Although the authors themselves do not provide any empirical evidence for their framework, subsequent studies have substantiated many of the theories presented (Bove and Johnson 2009, p. 187; Chacon and Mason 2011, p. 271; Ngobo 2017, p. 230). In the following chapter, I will use Dick and Basu's framework to explain different types of customer loyalty and the many different influencing factors affecting loyalty development. In doing so, I validate and extend the authors' theories by adding complementary and new theories from other authors.

Insert Figure 1 about here

2.2.1. Relative attitude-behavior relationship. As previously mentioned, Dick and Basus definition of customer loyalty includes both components, the preferred attitude towards a brand or firm and the actual behavior (i.e. repeat purchasing) of customers. This is crucial, as a positive attitude towards a brand does not necessarily lead to its purchase. In a study by Futerra, 30% to 50% of customers said they intended to buy green products, but only 3% actually did (2005, p. 92; Carrington, Neville, and Whitwell 2010, p. 139). The framework of Dick and Basu explains a potential attitude-behavior gap by incorporating "social norms" and "situational influences" as two moderators of the attitude-behavior relationship (1994, p. 105). In addition, it should be noted that the framework of Dick and Basu includes specifically the concept of "relative attitude". It differs from pure attitude because the positive or negative attitude towards a brand is created by comparing it to other brands and should therefore have a significantly

stronger effect on repeat purchases. According to the authors, the degree of relative attitude is determined by "attitude strength" and "attitudinal differentiation" (Dick and Basu 1994, p. 101). Consequently, consumers have a high relative attitude, when they have a strong mental perception of the brand and if the brand differs significantly from others from the customer's point of view (Dick and Basu 1994, p. 101).

2.2.2. Loyalty types. Depending on the strength between relative attitude and repeat patronage, Dicks and Basu state that customers can be in four loyalty conditions: "loyalty" (high relative attitude/ high repeat patronage), "latent loyalty" (high relative attitude/ low repeat patronage), "spurious loyalty" (low relative attitude/ high repeat patronage) and "no loyalty" (low relative attitude/ low repeat patronage) (1994, p. 101). However, these loyalty categories are only partially documented by authors and can vary from industry to industry (Chacon and Mason 2011, p. 271; Ngobo 2017, p. 231). For example, Ngobo empirically tests the four loyalty, latent loyalty, true loyalty (2017, p. 229). The author assumes that he probably couldn't prove the spurious loyalty condition due to the non-existent switching costs in the retailing industry. This explanation makes intuitive sense, since spurious loyalty describes customers who exhibit repeat-purchasing behavior without having a high degree of positive relative attitude towards a brand. This is often the case when there are switching costs in place, which tie customers to their current supplier.

2.2.3. Cognitive, affective and conative antecedents. Dick and Basu categorize the influencing factors that determine the relative attitude into three antecedents: "cognitive", "affective" and "conative" (1994, p. 102). This categorization is based on the well-known three-component attitude theory model (Møller 2011, p. 335). Cognitive antecedents describe how and what information customers absorb and process with regard to the respective brand (Dick and Basu 1994, p. 102), affective antecedents refer to how customers feel about the brand ("I buy it

because I like it.") (Oliver 1999, p. 36) and conative antecedents refer to the behavioral intentions of customers ("I'm committed to buying it.") (Oliver 1999, p. 36). Each of these antecedents is subject to its own learning process, whereby they can also affect each other (Dick and Basu 1994, p. 102). It is of particular importance to note that all three antecedents exert an influence on the loyalty relationship.

Cognitive antecedents refer to the rational evaluation and assessment of brandinformation by customers, such as functionalities, price or performance (Oliver 1999, p. 36). The degree to which customers can process and access this information is determined by specific learning characteristics such as clarity or confidence of their respective developed opinions (Dick and Basu 1994, pp. 103-4). In the context of evaluating products or services, three attributes have been particularly emphasized in the literature: perceived quality, price and value (Bolton and Drew 1991, p. 375; Johnson, Herrmann, and Huber 2006, p. 123; Zeithaml 1988, p. 2). According to Ngobo, price in particular is a decisive factor in the sense that a high price tends to lead to lower customer loyalty and tends to keep customers in the "no loyalty" condition (2017, p. 247). Zeithaml defines perceived value as "the customer's overall assessment of the utility of a product based on perceptions of what is received and what is given." (1988, p. 14). This definition implies that the perceived value of a product or service is determined by the assessment of its quality ("what is received") and price ("what is given"). Moreover, it is important to mention that consumers' assessment of product or service attributes is not objective, but depends on their individual perception of them (Dowling et al. 2020, pp. 454-58; Parasuraman, Zeithaml, and Berry 1985, pp. 42, 46-47). In summary, product and service attributes such as quality, price or value as well as the learning process characteristics such as clarity or confidence determine the cognitive antecedents and consequently the loyaltyrelationship.

Affective antecedents describe all emotional states of customers in regard to a specific brand (Dick and Basu 1994, p. 102). In this context, the concept of customer satisfaction is probably the one most often associated with customer loyalty in the literature (Anderson and Sullivan 1993, p. 125; Kumar, Pozza, and Ganesh 2013, p. 246; Luo and Homburg 2007, p. 133; Oliver 1980, p. 460; Olsen 2002, p. 240). The majority of researchers define customer satisfaction as the outcome of consumer's comparison between their prior expectations of the product and the actual perceived performance (Oliver 1977, pp. 460, 485, 1980, p. 480; Tse and Wilton 1988, p. 204). Accordingly, the authors distinguish three states that differ in how far the customers are satisfied. First, if customers' expectations were lower than the actual perceived performance, customers are positively surprised and consequently, have a high level of satisfaction. Second, if customer expectations were higher than the actual perceived performance, customers are disappointed and consequently dissatisfied ("negative disconfirmation"). The final state is when customer expectations and performance perceptions are in line ("confirmation"), which implies a medium satisfaction outcome (Oliver 1977, p. 480).

Conative antecedents refer to a "behavioral disposition" (Dick and Basu 1994, p. 104) or a "behavioral intention" (Oliver 1999, p. 35). Dick and Basu distinguish between three conative antecedents: switching costs, sunk costs and expectations (1994, p. 104). Because of its relevance for my later application to dynamic markets and the EV market, I will discuss the concept of switching costs in more detail here. Porter defines switching costs as the "one-time costs facing the buyer of switching from one supplier's product to another's" (1998, p. 10). The authors Burnham, Frels and Mahajan further categorize these switching costs in three types: "procedural", "financial" and "relational" switching costs (2003, p. 112). Procedural switching costs are all costs related to losses of time and effort, financial switching costs are losses that can be quantified and relational switching costs refer to emotional relationship losses with the

current provider. The authors find support for the impact of all three types of switching costs in the sense that they increase customer loyalty (Burnham, Frels, and Mahajan 2003, p. 117).

2.3. Consumer Dynamics and Switching between Loyalty Types

In the previous chapter, I have introduced the four different loyalty types of Dick and Basu's loyalty framework: loyalty, latent loyalty, spurious loyalty and no loyalty. However, I have not yet explained how customers can switch between loyalty conditions.

2.3.1. Switching dynamics and customer loyalty. According to Chang and Zhang, a fundamental principle of marketing is the fact that consumers' preferences and behaviors are always changing, meaning "consumers are dynamic" (2021, p. 165). The authors define consumer dynamics as "temporal changes in consumer attitudes and behaviors" (Zhang and Chang 2021, p. 167). Regarding Dick and Basu's framework, changes in customer attitude (relative attitude) are triggered by changes in the antecedents, while changes in customer behavior (repeat patronage) in turn is triggered by changes in relative attitude, social norms or situational influences (1994, pp. 100–101). Customer switching in either attitude or behavior has then a direct impact on their loyalty type. More recent research by Ngobo suggests that customers evolve dynamically over the loyalty stages, whereby their transition can be influenced by marketing measures (2017, pp. 246–47). The study, which was conducted in a retailing context, also finds support that customers start in different loyalty conditions and tend to switch over time to lower loyalty conditions more easily.

2.3.2. Switching triggers. According to Edvardsson, Gustafsson and Roos, "triggers represent the reasons why customers begin to consider switching at all" (2004, p. 258). They propose three different types of switching triggers: influential, situational and reactional triggers (Roos, Edvardsson, and Gustafsson 2004, pp. 257–58). First, influential triggers reflect the influence of competitors on consumer switching (e.g. switching caused by a price discount). Second,

situational triggers describe how well a company reacts to changing customer preferences and behaviors. Finally, reactional triggers refer to "the inside ability the company has to handle critical incidents and complaint situations" (Roos, Edvardsson, and Gustafsson 2004, p. 261). Other authors have also provided a broader perspective on switching triggers. Particular interesting is the work of Chang and Zhang, who list several macro and micro factors as causes behind consumer dynamics, including market characteristics (2021, pp. 167, 169, 170). Ngobo also points out that Dick and Basu's loyalty framework differs significantly depending on the level of market conditions (2017, p. 231). Therefore, to be able to understand customer loyalty in dynamic markets and the EV-market, I will analyze the effect of such market characteristics on customer loyalty in the next chapter.

3 Specifics of CL and Consumer Switching in High-Dynamic Markets

3.1. Definition and General Characteristics of Dynamic Markets

Markets are often subject to constant change. Consumer preferences and behavior change, new market participants alter the competitive situation, and political decision-makers change the legal environment. The numerous and diverse dynamics exhibit significant variation in intensity across different markets (Porter 2006, p. 1). To further explore the specific effects of dynamic market characteristics on customer loyalty and customer switching, this section first introduces the concept of dynamic markets.

3.1.1. Definition of dynamic markets. Sirmon, Hitt, and Ireland define dynamism as "the regularity and amount of change occurring in the environment" (2007, p. 275). This fits the prior definition of dynamism of the authors Baum and Wally, who referred to it as "the variance in the rate of market and industry change and the level of uncertainty about forces that are beyond the control of individual businesses" (2003, p. 1110). Furthermore, extant literature also

undertakes a specification in so-called "high velocity environments" (Baum and Wally 2003, p. 1110; Eisenhardt 1989, p. 544; Eisenhardt and Bourgeois III 1988, p. 738; Judge and Miller 1991, pp. 449, 450). High velocity environments are also dynamic markets, but they are more narrowly defined, as the change itself occurs at an even higher speed. High-velocity markets are typically characterized by the rapid introduction of new technology, fast changes in the competitive situation and the fast adoption of regulations (Eisenhardt and Bourgeois III 1988, p. 738), e.g. the information technology industry. In contrast, even a low-growth market can be a dynamic market, as long as the growth is varying (Baum and Wally 2003, p. 1110).

3.1.2. Characteristics of dynamic markets. Sirmon, Hitt, and Ireland propose three areas that are the source of high uncertainty in dynamic markets: changes in industry structure, instability of market demand and the likelihood of environmental shocks (2007, pp. 275–78).

According to Porter, every market has a unique structure that has a direct impact on the competitive rivalry among competitors (2006, p. 1). He posits that if market entry barriers are low, competition is typically higher. This high competition leads to a fast changing industry structure, which in turn creates high uncertainty in the market (Sirmon, Hitt, and Ireland 2007, p. 275). Although industry recipes as "intra- and inter-organizational ways of working" (Matthyssens, Vandenbempt, and Berghman 2006, p. 752) can reduce the uncertainty produced by competition, high levels of innovation can make industry recipes redundant (Sirmon, Hitt, and Ireland 2007, p. 276). Moreover, as I noted at the end of the last chapter, consumer behavior and attitudes are constantly changing (Zhang and Chang 2021, p. 165), leading to relative instability in market demand. This is especially true in dynamic markets, where firms may influence consumer preferences by offering innovative products and services. Finally, Ireland, Hitt and Sirmon mention environmental shocks as a driver of uncertainty (2007, p. 278). Environmental shocks can arise from a variety of sources, such as the development of disruptive technologies (e.g. substitutes) from outside of the industry or the introduction of comprehensive

policies. In addition, the authors include the concept of environmental munificence in their paper, but don't refer to it directly as a driver of uncertainty. Environmental munificence is defined as "the scarcity or abundance of critical resources needed by (one or more) firms operating within an environment" (Castrogiovanni 1991, p. 542). With regard to this definition, I suggest that this scarcity of resources can also lead to increased uncertainty in a market by directly affecting competitive rivalry among these critical resources. Therefore, this aspect should be listed as a characteristic of dynamic markets.

In summary, (high) dynamic markets are typically characterized by high uncertainty, which is caused by high competition, the fast introduction of innovations, the instability of market demand, the high probability of environmental shocks and the limited availability of critical resources.

3.2. Specialized Theories on Customer Loyalty in Dynamic Markets

In the last part of this chapter, I have introduced the concept of dynamic markets and explained their general characteristics. In this section, I will examine how customer loyalty differs in dynamic markets compared to other markets. Customer loyalty and customer switching patterns in the context of dynamic markets are largely unexplored in the literature. Nevertheless, several authors have highlighted that both concepts differ across industries (Anderson 1994, p. 29; Fornell 1992, p. 16; Roos, Edvardsson, and Gustafsson 2004, p. 256; Zhang and Chang 2021, pp. 167–68). Anderson point out that this variation depends on specific market characteristics (1994, p. 29). He cites the degree of product differentiation relative to customer heterogeneity, competition, frequency of usage, and switching costs as influencing factors (Anderson 1994, p. 22). However, in addition to market characteristics, individual customer characteristics also differ between markets. Homburg and Giering find, based on a multiple-group causal analysis, that the relationship between customer satisfaction and loyalty is moderated by customer

characteristics such as income or variety seeking (2001, p. 49). Therefore, to understand customer loyalty in its entirety, both relevant market characteristics and customer characteristics of dynamic markets have to be considered.

3.2.1. Influence of industry characteristics: competition. One of the most significant industry characteristics that affects customer loyalty and customer switching patterns is the competitive intensity within a market. The effect of competition on customer loyalty has been demonstrated by numerous authors (Anderson 1994, p. 29; Chen 2015, p. 107; Ou, Verhoef, and Wiesel 2017, p. 340; Seiders et al. 2005, p. 34; Zhang and Chang 2021, p. 168). Extant literature indicates that competition can have two opposing effects. On the one hand, as competition increases, firms are compelled to provide higher quality products and services to customers in order to maintain their competitive edge. This, in turn, leads to an increase in customer satisfaction over time (Anderson 1994, p. 22) and consequently, to a positive effect on customer loyalty. On the other hand, several authors find evidence for the moderating effect of competition on the relationship between customer satisfaction (or similar variables) and customer loyalty in the sense that high competition reduces the impact of satisfaction on loyalty (Chen 2015, p. 114; Ou, Verhoef, and Wiesel 2017, p. 351; Fornell 1992, p. 16; Seiders et al. 2005, pp. 31, 32, 38). Fornell, for example, states that the effect of satisfaction on loyalty is more sensitive in competitive industries (1992, p. 16). The negative effect could be explained by the fact that, as competition increases and more companies enter the market, customers have a greater number of alternatives to choose from, which is why the effect of customer satisfaction on customer loyalty is reduced. This implies that even if competition has a positive effect on customer satisfaction, overall customer loyalty could be still reduced under certain market conditions. Since, as already explained, dynamic markets are characterized by intense competition, customer loyalty varies more and tends to be lower compared to other markets.

3.2.2. Influence of industry characteristics: innovation. A similar double-sided effect on customer loyalty can be seen by the degree of innovation in a market, which is closely correlated with competition. On the one hand, it can increase customer loyalty at the firm level by offering products that might be better suited to customers preferences (Hauser, Tellis, and Griffin 2006, pp. 687, 707). On the other hand, innovation is likely to reduce customer loyalty at the market level. This is because other companies will also introduce new products or services that may be an attractive alternative to existing offerings (Hauser, Tellis, and Griffin 2006, p. 708). In the context of dynamic markets, which are characterized by a high degree of innovation (see 3.1.2), it can be stated that customer loyalty should be reduced on the whole market level. Nevertheless, as literature suggests, innovation can have a positive impact on customer loyalty at the firm level.

3.2.3. Influence of industry characteristics: substitutes. In the introduction, I listed substitutes and government policies as two examples of how environmental shocks can impact a market from outside. Porter argues that "a substitute performs the same or a similar function as an industry's product but by a different mean" (2006, p. 6). He incorporates the concept of substitutes into his famous "five-forces model" as one of the five forces, suggesting that a high amount of available substitutes intensifies the competitive situation in a market (Porter 2006, pp. 6–7). As with innovations, substitutes may be attractive alternatives to customers and therefore reduce customer loyalty. In dynamic markets, the risk of substitutes is typically high (see 3.1.2). Consequently, customer loyalty is more uncertain and tends to be reduced.

3.2.4. Influence of industry characteristics: government policies. Finally, I want to highlight the impact of newly adopted policies as environmental shocks on customer loyalty in dynamic markets. Zhang and Chang point out that government policies have an immediate impact on consumer switching, but can also change consumers' attitudes in the long term (2021, pp. 170, 171). The authors share examples of trade wars and tariffs, which could make products more

expensive and therefore trigger customer switching (Zhang and Chang 2021, p. 171). Moreover, Baumann et al. find support that the perception of regulation has a mediating role on the relationship between several factors (such as competitive productivity or service quality) and attitudinal/ behavioral loyalty (2017, p. 69). In the context of dynamic markets, where the likelihood of such policies is typically higher, they are the cause of increased uncertainty in customer loyalty. Whether customer loyalty is increased or decreased depends on the respective law though.

3.2.5. Influence of customer characteristics: innovativeness. To understand the dynamic ecommerce market, Swaminathan, Anderson and Song, developed a unique framework for eloyalty (2018, p. 27). One particularly noteworthy aspect of this framework is its incorporation of specific customer attributes as an influencing factor on loyalty, namely "innovativeness" and "aggressiveness" (Swaminathan, Anderson, and Song 2018, p. 22). The authors find support for the direct impact of the degree of customers' innovativeness on loyalty, but not for aggressiveness (Swaminathan, Anderson, and Song 2018, p. 28). Steenkamp, ter Hofstede and Wedel define consumer innovativeness as "the predisposition to buy new and different products and brands rather than remain with previous choices and consumption patterns" (1999, p. 56). Since customers switch in dynamic markets more frequently (see 3.1.2), it can be assumed that customers in such markets have a relatively high degree of innovativeness. This means that they are more open to products from the competition compared to customers in other markets, which in turn reduces customer loyalty.

3.2.6. Influence of customer characteristics: aggressiveness. The other included customer characteristic, aggressiveness, is referred to as the degree to which consumers "react more radically against even the slightest product or service failures, making them cautious and reluctant to develop bonds" (Swaminathan, Anderson, and Song 2018, p. 25). Although the authors don't find support for the effect of aggressiveness on customer loyalty (Swaminathan,

Anderson, and Song 2018, p. 28), it makes intuitive sense and could apply also for other dynamic markets, apart from the e-commerce sector. It can be hypothesized that, given their increased switching frequency in dynamic markets, customers have probably a higher degree of aggressiveness and consequently, lower customer loyalty.

3.2.7. Influence of customer characteristics: perceived switching costs. I have already explained in the second chapter that switching costs usually lead to higher levels of customer loyalty. In the context of dynamic markets, the study by Burnham, Frels and Mahajan is particularly interesting (2003, p. 109). The results of the study suggest that perceived switching costs are higher when customers perceive a greater provider heterogeneity and product complexity (Burnham, Frels, and Mahajan 2003, pp. 118–19). According to the authors, product complexity may increase switching costs, because customer may find it more difficult to search for information and to evaluate the alternatives (Burnham, Frels, and Mahajan 2003, pp. 112–13). Also, when supply is more heterogeneous in markets, customers may perceive that their current supplier is less likely to substitute due to its differentiation, and previously acquired knowledge may not be transferable (Burnham, Frels, and Mahajan 2003, p. 113). Since many dynamic markets offer complex products (e.g. the technology industry), and customers tend to be heterogeneous due to high competition and innovation, switching costs should be relatively high, thereby increasing customer loyalty in such markets.

To conclude this chapter, it can be stated that customer loyalty is actively influenced by industry and customer characteristics. Compared to other industries, customer loyalty typically varies more in dynamic markets, depending on the characteristics mentioned above. If customer loyalty is relatively higher or lower, has to be explored in each market individually. However, since most of the characteristics lead to decreased customer loyalty, I assume that many dynamic markets tend to have lower customer loyalty. In the next chapter, I will explore customer loyalty in the EV market and present the developed unique framework for EV loyalty, by including all the mentioned market and customer characteristics.

4 Meaning for Passenger Vehicle Markets in the light of the Transition from ICE to BEV

4.1. Framework Development

The worldwide diffusion process of EVs is still in its early stages. However, consumer adoption has increased rapidly in the last decade (Li et al. 2021, p.1), accelerating the transition from ICE to BEV. The emerging EV market fulfills all the characteristics of a high dynamic market, which I have introduced last chapter: There is a high level of uncertainty in the market due to intense competition, the rapid introduction of new innovations, rapidly changing market demand (Talay, Calantone, and Voorhees 2014, p. 61), a high probability of environmental shocks such as government policies and substitutes, and the limited nature of critical resources such as Lithium or Cobalt for battery production (Jetin 2020, pp. 2, 5).

Insert Figure 2 about here

To fully understand customer loyalty in the context of the dynamic electric vehicle market, I have developed a descriptive conceptional loyalty framework (Figure 2), which incorporates findings from prior research on customer loyalty, dynamic markets and electric vehicles. In particular, the work of the following authors played a role in the development of the framework.

Hur, Kim and Park were one of the few researchers who investigated customer loyalty in an EV context (2013, p. 146). The authors find empirical evidence for the positive correlation between the three consumer value dimensions ("hedonic value", "social value", "functional value") and customer satisfaction (Hur, Kim, and Park 2013, p. 152). However, it should be noted that their study was based on data from consumers of HBEVs, so the findings can probably only partially be applied to consumers of BEVs. Nevertheless, I have included the consumer value dimensions in my framework due to the lack of other BEV-specific literature in relation to customer loyalty.

To understand customer loyalty through the lens of dynamic markets, I included several EV-relevant industry and customer characteristics as moderators on the relationship between customer satisfaction and relative attitude. The inclusion is based on the previously introduced findings of numerous authors that the effect of customer satisfaction on loyalty varies across industries, depending on industry and customer characteristics (see chapter 3.2). To illustrate the moderating effect, we can assume a market situation which is characterized by low competition and a customer with a low degree of innovativeness. Under these conditions, a customer who is moderately satisfied with a previous electric car would be more inclined to have a more positive relative attitude than under the opposite conditions. Consequently, he would tend to stay with his current provider. The example shows that the impact of EV satisfaction about a specific brand on relative attitude is dependent on the industry conditions and customer characteristics of the EV market. In this context, the work of Ou, Verhoef and Wiesel is particularly important, as they are one of the few to explicitly integrate such characteristics as influencing factors of loyalty in their framework (2017, p. 341).

Finally, I incorporated the loyalty relationship by Dick and Basu in the framework, because of its significance in the literature. Furthermore, the distinction by the authors between attitudinal and behavioral loyalty as well as the moderating variables social norms and situational influences allow for a holistic view of customer loyalty through the framework.

Most of the proposed processes and effects of the framework have already been introduced in previous chapters. In the following, however, I will explain the antecedents and moderating variables of the framework by applying it to an EV-context. Although there is almost no research on customer loyalty for electric vehicles due to the recent development of the EV market, many of the findings from EV adoption can be applied to EV loyalty. Still, I have to set up EV-specific hypotheses:

H1: The positive correlation between consumer value dimensions on customer satisfaction also applies to consumers of BEVs.

H2: The proposed industry- and customer characteristics have a moderating role on the relationship between customer satisfaction and relative attitude in a BEV context.

H3: The loyalty relationship between relative attitude and repeat patronage, moderated by social norms and situational influences, also applies to consumers of BEVs.

H4: The consequences of the loyalty relationship also apply to consumers of BEVs.

4.2. Influencing Factors of Customer Loyalty in the EV Market

4.2.1. Antecedents of customer satisfaction: functional value. I already noted in chapter 2.2.3 that consumer value cannot be assessed objectively by the provider but varies depending on the perception of each individual consumer. Functional value, as one of the three consumer value dimensions, is referred to as "the practical or technical benefits consumers can obtain by using a product or service" (Hur, Kim, and Park 2013, p. 148). In the context of EVs, in particular price, driving range and eco-friendliness may play a role in the (re-) purchasing decision of consumers.

The prices of BEVs and their effect on customer satisfaction and loyalty must be viewed in a differentiated way. On the one hand, BEVs have typically a higher purchasing price than ICEs (Li et al. 2021, p. 1), mainly due to high battery costs. In the context of adoption, literature suggests that the purchasing price is negatively correlated with consumer EV adoption (Rehman et al. 2024, p. 9). On the other hand, BEVs have typically lower operating costs due to significantly lower maintenance and potentially lower recharging costs (Parthasarathy and Lassar 2023, pp. 553–54). Consequently, BEVs can have a cost advantage in the long term. In this context, the authors Kwon, Son and Jang find, based on surveys of 160 BEV owners in South Korea, that the intention for operational cost-saving is the most influential driver of BEV user satisfaction (2020, p. 9). It is important to note that electricity costs vary greatly from country to country, which could impact this long term financial advantage.

Besides the high upfront costs for EVs, another disadvantage is the limited driving range and charging ability of BEVs, which is closely related to user satisfaction (Kwon, Son, and Jang 2020, pp. 9–10). Once again, EV-satisfaction depends on the respective country and region, as the charging infrastructure is still very differently developed (Li et al. 2021, p. 3). Furthermore, technological advances, such as high-capacity batteries or fast chargers, are likely to increasingly offset the range and charging disadvantage in the future, thereby increasing customer satisfaction and loyalty (Kwon, Son, and Jang 2020, p. 10). Also in the context of adopting EVs, consumers' "range anxiety" significantly increases the perceived risk of purchasing an EV (Zang, Qian, and Jiang 2022, pp. 12–13).

Degirmenci and Breitner find that environmental performance is even more important than price and range confidence in driving positive first-time purchase intentions (2017, p. 8). Environmental performance refers to the degree to which the EV contributes towards sustainability goals such as significantly reducing pollution or conserving natural resources. However, a Japanese study on EV owners suggests that environmental awareness has only an indirect effect on post-purchase satisfaction (Okada, Tamaki, and Managi 2019, p. 503). Moreover, I want to highlight a very recent study of Parthasarathy and Lassar, which has particularly interesting findings. The authors find evidence that both continuers (EV adopters who didn't switch back to ICEs) and disadopters (EV adopters who switched back to ICEs) bought their EVs primarily for environmental reasons. Also, continuers and disadopters were both satisfied with the environmental performance of their EVs post-adoption. This implies that disadopters switch back because of other reasons than environmental performance. According

20

to the authors, the reasons are "low satisfaction with the financial realities of owning an EV and disappointment with its performance/functional characteristics" (Parthasarathy and Lassar 2023, p. 566).

4.2.2. Antecedents of customer satisfaction: hedonic value. Besides the functional benefits of an EV, also the consumers' emotional and psychological needs are an important factor for determining customer satisfaction and consequently customer loyalty (Hur, Kim, and Park 2013, p. 153). This emotional state of consumers refers to the experience with the product, for example positive feelings such as driving pleasure or excitement when using the EV. Also, environmentally conscious consumers in particular can feel morally good while driving an EV since they don't produce direct CO2 emissions when driving (Hur, Kim, and Park 2013, p. 148). 4.2.3. Antecedents of customer satisfaction: Social value. The last dimension of customer value is social value, which is obtained when customers feel connected to others, for example to other EV consumers or environmental groups (Hur, Kim, and Park 2013, p. 148). According to the authors, positive social value should significantly increase satisfaction of EV-customers and therefore increase customer loyalty. Esteem-needs, one step of Maslow's well-cited hierarchy of needs, are correlated to social value and have found resonance by some authors in the context of EV adoption (Cui et al. 2021, pp. 3-4, 6; Rehman et al. 2024, p. 1). Accordingly, self-esteem has a positive impact on consumers' EV purchase satisfaction if they feel positively affirmed and more respected by others as a result of the purchase.

4.2.4. Moderating effect of industry characteristics. In terms of industry characteristics, I included the degree of competition, innovation, the availability of substitutes and government policies into the EV-loyalty framework. As already explained in chapter 3.2, high competition tends to increase customer satisfaction but decreases customer loyalty. In general, the (US) automotive industry is very competitive due to shortened development cycles and fast changing consumer preferences such as the preference for zero-emission vehicles (Talay, Calantone, and

Voorhees 2014, p. 61). Automakers are now engaged into an "arms race" and have shifted their efficiency-driven manufacturing strategy towards product development and innovation (Talay, Calantone, and Voorhees 2014, pp. 61–62). As a result of this high degree of innovation and competition, customers are being offered an ever wider range of EVs at increasingly affordable prices. This means that despite a relatively high level of customer satisfaction with their current EV, customers may receive a better offer from an alternative EV provider and therefore switch to them. Therefore, I propose the following hypotheses for the framework:

H2a: Competition has a negative moderating effect on the relationship between BEV satisfaction and relative attitude.

H2b: Innovation has a negative moderating effect on the relationship between BEV satisfaction and relative attitude.

In addition to switching the brand, consumers have also the choice to disadopt BEVs, meaning that they switch the vehicle type. For example, they can switch to substitutes such as ICEs, hydrogen vehicles or can abandon a personal vehicle and use public transportation (Parthasarathy and Lassar 2023, p. 550). If many of these substitutes are available and they are an adequate option to consumers, I suspect that the likelihood of consumer switching is higher. Therefore, I suggest:

H2c: Substitutes have a negative moderating effect on the relationship between BEV satisfaction and relative attitude.

Government policies are a relatively well-researched topic in the context of EV adoption (Hasan 2021, p. 3; Figenbaum, Assum, and Kolbenstvedt 2015, p. 29; Higueras-Castillo et al. 2019, p. 389). Since policy-makers generally want to promote the diffusion process of EVs because of their positive social outcome, they are usually designed to increase adoption and EV loyalty (Hasan 2021, p. 1). Norway, for example, has the highest diffusion of EVs worldwide partially due to their aggressive incentive policies such as subsidies (Li et al. 2021, p. 2). In

general, the literature distinguishes between financial (e.g. subsidies) and non-financial incentives (e.g. "right to use bus lanes") (Hasan 2021, p. 3). Apart from incentives, governments can probably also actively influence customer loyalty to EVs with restrictive regulations, such as a ban on ICEs. Rehman et al. find support that financial and non-financial incentives positively moderate between satisfaction towards BEVs and adoption for BEVs (2024, p. 10). However, extant literature provides mixed results here (Hasan 2021, p. 3). Therefore, a further hypothesis is needed:

H2d: EV-enhancing government policies such as financial and non-financial incentives have a positive moderating effect on the relationship between BEV satisfaction and relative attitude.

4.2.5. Moderating effect of customer characteristics. Regarding customer characteristics, I included the already introduced concepts of customer innovativeness, customer aggressiveness and perceived switching costs into the EV-loyalty framework. In contrast to conventional cars, consumers may perceive higher uncertainty when purchasing EVs, because they are so-called "really new products" (Hoeffler 2003, p. 406). However, customer innovativeness could offset this effect and could reduce the risk aversion of customers. Accordingly, customers with a high degree of innovativeness would be more likely to try out new models and/or providers. A recent study in China, which found significant correlation between openness to experience and EV purchase motivation, supports this assumption (Cui et al. 2021, pp. 4, 6). Highly similar to customer innovativeness is customer "technophilia", which is the degree to which customers are attracted to technology (Rehman et al. 2024, p. 3). Researchers have shown a direct link between technophilia and EV adoption (Rehman et al. 2024, p. 7). In addition to innovativeness, customers with a high degree of aggressiveness should tend to react more strongly to competitive offers due to the lack of closeness to their provider (see 3.2.6). Lastly, perceived switching costs should significantly increase customer loyalty. Since the EV market can be characterized by high provider heterogeneity and product complexity, it can be assumed that customers perceive relatively high switching costs (see 3.2.7). EV switching could be accompanied by financial switching costs such as investments in new charging stations, procedural switching costs due to loss of time and effort (e.g. driving behavior or brand-specific software settings) and relational switching costs such as emotional discomfort (e.g. loss of relationship with firm). Unfortunately, I couldn't find any literature on switching costs for EVs. In context of the included customer characteristics, I hypothesize:

H2e: Customer innovativeness has a negative moderating effect on the relationship between BEV satisfaction and relative attitude.

H2f: Customer aggressiveness has a negative moderating effect on the relationship between BEV satisfaction and relative attitude.

H2g: Perceived switching costs have a positive moderating effect on the relationship between BEV satisfaction and relative attitude.

4.2.6. Moderators of the loyalty relationship: social norm and situational influences. In addition to the described antecedents and proposed industry and customer characteristics, I have inserted the loyalty relationship between relative attitude and repeat patronage, moderated by subjective norms and situational influences (see 2.2). Studies have found that social norms, such as the expectations of friends or family, can change consumers opinions about EV adoption (Rehman et al. 2024, pp. 3, 7; Zhang, Yu, and Zou 2011, p. 7023). This can be also applied to customer loyalty. For instance, a consumer who is dissatisfied with EVs and thus has a negative attitude may remain loyal because he or she fears the negative judgement of others. Furthermore, situational influences such as stock-outs of preferred EV models can lead to an inconsistency in the developed relative attitude and actual repurchasing behavior.

4.2.7. Consequences. Finally, I also included the consequences of the relationship (see chapter 2.2) into the EV loyalty framework. Even though there are few findings from the EV literature, a positive effect of BEV customer satisfaction on their intention to recommend BEVs to others

was found (Kwon, Son, and Jang 2020, p. 9). Furthermore, the authors Hur, Kim and park find that customer satisfaction with HBEVs reduces price consciousness (2013, pp. 149, 153). This implies that loyal EV customers are less price sensitive and less easily persuaded by promotional offers from competitors.

In summary, consumer value dimensions should determine the degree of customer satisfaction of each customer and can therefore only be determined individually. Most of the proposed hypotheses suggest that customer loyalty tends to be reduced by industry and customer characteristics of the EV market. Therefore, I assume that customers in the EV market tend to be less loyal than in other markets. Furthermore, based on our findings from the previous chapter, I assume that customer loyalty varies greatly in the dynamic EV market.

5 Discussion

5.1. Key Findings

In this paper, relevant literature on customer loyalty is combined with research on dynamic markets and EV-specific literature. In doing so, several findings are presented. First, customer loyalty varies widely across markets. Loyalty seems to depend on specific market characteristics such as competition or government policies, but also on customer characteristics such as innovativeness or perceived switching costs. Second, with respect to dynamic markets, it can be stated that customer loyalty is more variable and probably tends to be lower than in other markets due to the characteristics mentioned above. The developed hypotheses suggest that this also applies to the EV market. Finally, main drivers of EV satisfaction were explained, such as operational cost savings or environmental performance. Literature points out that while environmental performance is the biggest driver of EV adoption, the biggest post-purchase satisfaction driver is the operational cost saving potential of EVs.

5.2. Managerial Implications

Based on the findings, important implications for practitioners can be derived. In general, companies in dynamic markets such as the EV market need to be aware of greater variations in customer loyalty and increased consumer switching. Loyalty can be stabilized and increased by identifying and enhancing effective satisfaction drivers in the respective markets. In addition, switching costs can be increased to make it more difficult for customers to switch providers. In an EV-specific loyalty context, firms should particularly ensure customer satisfaction with the operational cost savings of EVs, among other satisfaction drivers, to prevent customers from disadopting. This could be achieved by increasing the efficiency of EV propulsion (e.g. battery technology), reducing maintenance requirements, improving charging infrastructure, or providing low-cost electricity from renewable sources.

5.3. Future Research

This paper identifies several gaps in the literature that can be filled by future research. Customer loyalty itself is one of the most researched topics in marketing, but the impact of market conditions such as competition or the degree of government policies on loyalty is still largely unexplored. Therefore, it is difficult to identify the reasons behind differences in customer loyalty across markets. Furthermore, due to the recent development of the EV market, there is almost no research on customer loyalty in an EV context (e.g. on EV switching costs). The framework presented can serve as a basis for further research on EV loyalty, as the hypotheses put forward need to be tested empirically. In addition, the framework can be applied to and tested in other dynamic markets, as the general industry and customer characteristics presented are well suited to explain loyalty influences in different markets.

Appendix

Figure 1: A Framework for Customer Loyalty

Source: Dick and Basu (1994)



Figure 2: Conceptual Framework for Customer Loyalty in the EV-Market

Source: Own development

Significant contribution by: Dick and Basu (1994); Hur, Kim and Park (2013); Ou, Verhoef

and Wiesel (2017)



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In my thesis, I used the tool DeepL for translations, which is partially AI-enabled. However, the tool did not provide any help on content-related topics.

Author/s (Year) [Journal]	Research Focus	Theoretical Background	Sample	Method/ Analysis	Main Findings
Dick, Alan S. and Basu, Kunal, (1994), [Journal of the Academy of Marketing Science]	Development of a conceptual framework about customer loyalty	Customer loyalty		Conceptual research; uses extant literature of customer loyalty and consumer behavior	 Propositions are derived from the framework: Definition of loyalty as the strength of relative attitude and repeat-patronage Cognitive, affective and conative antecedents determine relative attitude Moderator variables on the loyalty relationship are social norms and situational influences Consequences of the loyalty relationship are search motivation, resistance to counter persuasion and word-of-mouth Proposes four loyalty, spurious loyalty, latent loyalty true loyalty
Ngobo, Paul, (2017), [Journal of the Academy of Marketing Science]	Test of Dick and Basu's loyalty framework	Customer loyalty, consumer switching	 6,109 households and 23 stores Retailing 	Hidden Markov Model (HMM)	 Only three loyalty conditions found: no loyalty, latent loyalty, true loyalty Consumers tend to switch more easily to lower loyalty

Oliver, Richard L., (1999), [Journal of Marketing]	Exploration of the effect of satisfaction on	Customer loyalty, customer	context -	Conceptual research; uses extant literature of customer loyalty	•	conditions Marketing can actively influence consumer switching between loyalty conditions Satisfaction is a necessary step in loyalty formation but becomes less significant with
	loyalty	Saustaction		behavior		nigher loyally stages
Ou, Yi-Chun; Verhoef, Peter and Wiesel, Thorsten, (2017), [Journal of the Academy of Marketing Science]	Exploration of the moderating effect of industry and firm characteristics on the relationship between customer equity drivers (CEDs) and loyalty intention	Loyalty intention, customer equity	 Three types of data: 8924 customer responses of 95 companies across 18 service industries Expert survey with 88 respondents (managers and business consultants) External sources (ACNielsen, annual reports) 	Use of Generalized Linear Model (GLM) to test conceptual model	•	Effect of customer equity drivers on loyalty intention varies across industries, depending on industry and firm characteristics as moderators (not all characteristics supported) Firm-level advertising expenditures most crucial moderator (influence on effect of all three CEDs)

Baumann, Chirs; Hoadley, Susan; Hamin, Harnin and Nugraha, Albert, (2017), [Journal of Retailing and Consumer Services]	Analysis of drivers of customer loyalty and its mediators (regulation and stability) in the financial service industry	Service quality, customer loyalty, competitive productivit y, regulation	 Survey of Greek bank customers, 109 respondents Survey of Australian bank customers, 97 respondents 	Partial Least Squares Path Modelling (PLSPM)	•	Service quality alone does not explain customer loyalty in the financial service industry Mediating role of perceived regulation between several factors (e.g. service quality, competitive productivity) and behavioral loyalty supported Competitiveness explains customer loyalty in both steady and volatile markets (financial service industry)
Homburg, Christian and Giering, Annette, (2001), [Psychology & Marketing]	Exploration of personal characteristics as moderators on the relationship between customer satisfaction and loyalty	Customer characterist ics, customer loyalty	Questionnaire sent to German car manufacturer, 943 usable responses	LISREL 8 (confirmatory factor analysis)	•	Support for the moderators of customer characteristics (variety seeking, age, income) on the strength of the relationship between customer satisfaction and loyalty
Chen, Shu-Ching, (2015), [Journal of Retailing & Consumer Services]	Exploration of the role of competition on the link between customer value and customer loyalty	Competitio n, customer loyalty, customer value	• 96 responses from customers of a Taiwanese hairdressing company	ANOVA, ordinary least squares, and logistic regression	•	Competition is a moderator of the relationship between customer value and customer loyalty Competition is a predictor of customer loyalty from the employee perspective

Watson, George; Beck, Joshua; Henderson, Conor and Palmatier, Robert, (2015), [Journal of the Academy of Marketing Science]	Examination of the consequences of literature heterogeneity of customer loyalty	Customer loyalty	Based on 163 studies of customer loyalty	 First: "What is customer loyalty?" (describing data collection process) Second: "How is loyalty measured?" & "What actually matters?" (structural path analysis, multivariate moderating analysis to test hypotheses) 	 Categorization of analyzed papers in (understanding and measurement of customer loyalty): Aspects of loyalty: behavioral loyalty or attitudinal loyalty Temporal orientation of loyalty: forward-looking loyalty or backward- looking loyalty Target of loyalty: individual, brand or firm Heterogeneity in literature research settings partially responsible for mixed customer loyalty outcomes
Fornell, Claes, (1992), [Journal of Marketing]	Examining the relationship between market share and customer satisfaction across different industries	Customer satisfaction	Based on Customer Satisfaction Barometer (CSB) of Sweden, measurement of satisfaction in more than 30 industries and 100 corporations	Location Model	 Satisfaction should be lower in markets where supply is homogeneous and demand heterogeneous Satisfaction should be higher when heterogeneity/ homogeneity of demand is matched by supply Industries have a high level of customer satisfaction if they are highly dependent on satisfaction for repeat business (opposite in more captive markets)

Anderson, Eugene	Exploration of	Customer	Also based on	Two models:	• P	erceived quality, expectations,
W., (1994),	cross-category	satisfaction	Customer	• Customer	c	ustomer satisfaction are found to
[Marketing Letters]	variation in	and	Satisfaction	satisfaction is a	b	e higher for products than for
	customer	retention	Barometer (CSB)	function of	S	ervices
	satisfaction, as		of Sweden	quality,	• If	f competition/ differentiation/
	a well as its			expectations,	ir	nvolvement/ experience is high:
	antecedents and			positive	R	Repurchase intention lower,
	consequences			confirmation/	р	erceived quality higher,
	(here:			disconfirmation	Sa	atisfaction higher, sensitivity of
	repurchase			and negative	re	epurchase likelihood higher
	likelihood)			confirmation/	• If	f switching costs/ difficulty in
				disconfirmation	st	tandardization/ ease of
				Repurchase	e	valuating quality are high:
				likelihood is a	re	epurchase intention higher,
				function of	р	erceived quality lower,
				satisfaction	e	xpectations lower, sensitivity of
					re	epurchase likelihood lower
Seiders, Kathleen;	Effect of	Satisfaction	886 sample of	Series of regression	• C	Convenience, competitive
Voos, Glenn B.;	satisfaction on	, behavioral	customers of a	analysis	ir	ntensity, customer involvement,
Grewal, Dhruv and	repurchase	loyalty,	specialty retail		a	nd household income have
Godfrey, Andrea L.,	behavior,	repurchase	chain, 276 usable		n	noderating effect on relationship
(2005), [Journal of	moderated by	intention	responses, 99% of		b	etween satisfaction and
Marketing]	customer,		sample was female		re	epurchase behavior
	relational and				• S	ignificant difference between
	marketplace				e	ffect of moderating variables, if
	characteristics				10	oyalty measured as repurchase
					b	ehavior or intention
					• H	lighlights importance of
					n	noderators on satisfaction –
					10	oyalty relationship

Hur, Won-Moo; Kim, Yeonshin and Park, Kyungdo, (2013), [Corporate Social Responsibility and Environmental Management]	Assessment of satisfaction drivers and effect of satisfaction on customer loyalty for green products, especially for HEVs	Customer satisfaction , loyalty, HEVs	Cross-sectional data from 517 consumers (USA)	Confirmatory Factor Analysis (CFA)	 Hedonic, social and functional value are a driver of customer satisfaction in a HEV context Support of link between customer satisfaction and customer loyalty in a HEV context
Kwon, Yeongmin; Son, Sanghoon and Jang, Kitae, (2020), [Transportation Research: Part D: Transport and Environment]	Evaluation of drivers and consequences of BEV user satisfaction	Customer satisfaction , loyalty, EVs	160 actual BEV owners in Korea, who drove the BEV at least 6 months	Partial Least Squares Structural Equitation Model (PLS-SEM)	 Operating cost-saving during operation major driver behind user satisfaction User satisfaction with range and charging positive effect on overall BEV satisfaction BEV user satisfaction positive correlated with actual repurchase and word-of-mouth
Parthasarathy, Madhavan and Lassar, Walfried, (2023), [Marketing Letters: A Journal of Research in Marketing]	Exploration of the motives behind EV adoption and disadoption	Disadoptio n, customer satisfaction , EVs	 Pilot test: 51 EV users in Colorado and California (USA) 252 valid responses in later survey 	SPPS Discriminant Regression, Average Variance Extracted (AVE) scores	 Motives of adoption and disadoption differ Environmental performance for both adopters and disadopters important, both are satisfied Disadopters are characterized by a low satisfaction with financial realities and performance/ functional attributes of their EVs

Hasan, Saiful,	Assessment of	Repurchase	Dataset of 278	Structural equation	•	Influence of attitudes, perceived
(2021),	EV repurchase	intention,	Norwegian EV	model (SEM)		functional barriers and subjective
[Transportation	intention	EVs,	owners			norms on consumer repurchase
Research		customer				intention
Interdisciplinary		loyalty			•	Economic and environmental
Perspectives]						value of EV use stronger impact
						on repurchase intention than
						subjective norms and perceived
						functional barriers

Comparative Literature Table

				Studies on Custo	omer Loyalty				
	Context	Loyalty Drivers				Mod	erators	Loyalty I	Relationship
Study	Electric Vehicles	Functional Loyalty or Similar Driver	Hedonic Loyalty or Similar Driver	Social Loyalty or Similar Driver	Effect of Satisfaction on Loyalty	At least one Market Characteristic as Moderator	At least one Customer Characteristic as Moderator	Attitudinal Loyalty	Behavioral Loyalty
This study	x	х	x	x	x	x	х	x	x
Dick and Basu (1994)		х	х	х	Х			х	Х
Ngobo (2017)								х	х
Oliver (1999)		х	х	х	х			х	х
Ou, Verhoef and Wiesel (2017)		х	х	х		х	х	х	
Baumann et al. (2017)		х						х	х
Homburg and Giering (2001)		х			х		х	х	х
Chen (2015)		х		х		х		х	х
Watson et al. (2015)								х	х
Fornell (1992)					Х	х		х	х
Anderson (1994)					х	х	х	х	х
Seiders (2005)					х	х	х	х	х
Hur, Kim and Park (2013)	х	х	х	х	х			х	
Kwon, Son and Jang (2020)	х	х	х		х			х	
Parthasarathy, Lassar (2023)	х	х			х				х
Hasan (2021)	Х	х	х	х	х			х	

Affidavit

I hereby declare that I have written the enclosed Bachelors thesis myself and that I have not used any outside help that is not apparent from the information I have provided. I also assure that this thesis or parts thereof have not been submitted by myself or by others as a performance record elsewhere. Literal or analogous adoptions from other writings and publications in printed or electronic form are marked. All secondary literature and other sources are identified and listed in the bibliography. The same applies to graphical representations and images as well as to all internet sources and answers generated by AI-based applications. I further agree that my work may be sent and stored anonymously in electronic form for the purpose of plagiarism checking. I am aware that correction of the work may be waived if this declaration is not given.

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