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**PERCEPTIONS OF EV ADVERTISEMENTS THROUGH THE EYES OF
GENERATIONS X, Y AND BABY BOOMERS IN DIFFERENT MEDIA
CHANNELS**

Examiners: Associate Professor Anssi Tarkiainen

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ABSTRACT

Lappeenranta–Lahti University of Technology LUT

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Salla Pietilä

Perceptions of EV advertisements through the eyes of generations X, Y and baby boomers in different media channels

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Previous research about the topic suggests that print media is the best way for consumers to remember advertisements, although the channel is used less nowadays. Also advertising cars is a challenge. A car being a high-involvement product, the best way would be to advertise it in print media, but different generations have different preferences in media consumption. The younger they are, the less they use traditional media channels. Thus, this creates a research gap: how to advertise EVs in such surroundings?

My research consisted of a Qualtrics survey, which gathered all in all over 200 answers, consisting of each generation. They reviewed an advertisement about an electric vehicle in one of the following media channels; social media, digital channel or newspaper. The advertisements were shown randomly, one per each answerer. The results of the analysis showed that there is no difference between different generations and the interest they had towards the advertisement in different channels. Surprising results were found, too. People living in city areas had a more positive view about EVs than people living in rural areas. Also younger answerers viewed EVs more positively than older answerers.

TIIVISTELMÄ

Lappeenrannan–Lahden Teknillinen Yliopisto LUT

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Havaintoja sähköautomainoksista eri mediakanavissa sukupolvien X, Y, ja suuren ikäluokan silmin

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Avainsanat: Sähköauto, mediakanava, sosiaalinen media, perinteinen media, digitaalinen kanava, mainonta

Aiemmat tutkimukset aiheesta kertovat, että mainostaminen printtimediassa on paras tapa saada kuluttajat muistamaan mainokset. Tätä mediaa kulutetaan kuitenkin vähemmän kuin ennen. Lisäksi autot ovat korkean osallisuuden tuotteita (high-involvement product), jolloin paras tapa mainostaa olisi printtimedia, mutta eri sukupolvilla on erilaisia preferenssejä käyttää eri medioita. Mitä nuorempi sukupolvi, sitä vähemmän he käyttävät perinteisiä mediakanavia. Tämä siis luo tutkimusaukon; kuinka mainostaa sähköautoja tällaisessa ympäristössä?

Tutkimukseni koostui kyselystä Qualtrics-työkalussa, johon vastasi yhteensä yli 200 henkilöä kattaen jokaisen sukupolven. Kyselyssä he arvioivat sähköautomainosta, joka oli yhdessä seuraavista mediakanavista; sosiaalisessa mediassa, digitaalisessa kanavassa tai sanomalehdessä. Mainokset näytettiin satunnaisesti vastaajille yhdessä näistä kanavista. Analyysin vastaukset paljastivat, että eri sukupolvien ja heidän kokemansa kiinnostuksen sähköautomainoksia kohtaan välillä eri kanavissa ei ollut eroa. Myös yllättäviä tuloksia löytyi. Ihmisillä, jotka asuvat kaupunkialueilla, oli positiivisempi kuva sähköautoista kuin ihmisillä, jotka asuvat maaseudulla. Lisäksi nuoremmilla vastaajilla oli positiivisempi kuva sähköautoista kuin vanhemmilla vastaajilla.

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Making this thesis has not been easy. My research plan took another turn, when COVID-19 -pandemic started, which resulted in most of us working remotely and avoiding social contacts (on top of many, many other things). In addition to this, my initial plan to do the research face-to-face was not possible anymore. Despite these obstacles, I am very glad that I managed to do this thesis.

I have always been fascinated how people view the world and my job in advertising refined the topic of my research. Generational differences in media usage, and how this affects advertising, is a thrilling topic to dive into. On top of that, I decided that the object of the advertisements needed to be something quite new in order to see how these differences affect the advertisements. The result of this research is something to look forward to.

I would like to thank each one of them, who took part in my survey – your answers are valuable. I would also like to thank my workplace for providing the advertising materials used in this research. Thank you to LUT, which offered me unforgettable memories that I will cherish the rest of my life. Last, but not least, I would like to thank my supervisor, who was patient and encouraging during this journey finalizing my thesis. It would not have happened without all of you.

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1. Introduction

The aim of this chapter is to describe why I made this research and with which methods. I am also going to tell you what I want to accomplish with this research. First, I focus on the background of my research topic. Then, I go through literature review of the field of topic and finally find research gaps. Afterwards, I form my research questions as well as sub questions and present the theoretical framework of the study. Further, I move forward to present the definitions and delimitations of this work. Finally, I present the research methodology of my study and the structure of the whole paper.

1.1. Background of the research

While new and coming channels to advertise are popping up frequently, many marketers and advertisers might face problems. Different generations have a completely different understanding about these channels, which can also be called a generation gap, since these people have grown in different times, different environments and with different channels. Thus, the amounts they use these channels are varying (Dentsu Aegis Network 2019) and the likelihood of choosing a specific channel are not settled. Fast-pacing environment and changes in it do not make the dilemma any easier. Something that you think you know for sure now, can be a lie tomorrow. How can a marketer know which channel is the most natural to a target audience? How can a marketer know, which channel the consumer trusts? Therefore, research needs to be made about the cause-and-effect relationship between different generations and different marketing channels.

I chose to research this with electric vehicles advertisements. This kind of product is comparatively new to the audience and in this point, it is not the car of the rich people anymore (Market Line 2020). The likelihood of middle-class purchasing it is growing. This makes it a fantastic product to make research with, due to the fact, that in the results we can see both, true colours of channel preferences of the respondents and the attitudes and perceptions between respondents and generations. In the future, electric vehicles market is

likely to rise due to climate issues which makes it an important market to do research with. Due to its nature of being a new product for the public, it might arise big emotions in the public, perhaps generationally. This brings valuable data to the field about the demographics of people who will likely purchase an electric vehicle and what channel preferences generations experience now, when Internet is settled to be a trustworthy channel between generations.

1.2. Literature review and research gaps

Media channels are on a verge of a break-down. Print media – a channel that has had multiple decades of success – has suffered great losses.

The amount of expenditure put into advertising both in magazines and newspapers has decreased from 38.4 percent to 18 percent during the time between 1960 to 2008 in US (Nyilasy, King, Reid & McDonald 2011). During the same time period, the number of newspapers has decreased from 1763 (U.S. Census Bureau, 1971) to 1408 in US. On top of that, the number of advertisements compared to the amount of editorial content in the papers has dropped from 61 percent advertisements and 39 percent editorial content in 1960 to 44 percent advertisements and 56 percent editorial in 2009. (Nyilasy et al. 2011) Now, in 2019, it is the first time ever that it is estimated that the spending used on advertising in digital media bypasses the spending used on traditional media – and it is estimated that the trend seems to continue in the upcoming years (Wagner, 2019). The change is inevitable, and it might be because of the shift in generational consumer behaviour of these channels.

Some studies have shown that consumers, who are younger of age, are prone to be more active online (Campbell & Frei 2010). The habits of media usage in Finland differ a lot in different age groups. Under 25-year-olds are mostly using Internet via a mobile phone (average of 2 hours 19 minutes per day) and using Internet in another device (1 hour 31 minutes per day). Watching television (52 minutes per day) and reading newspapers and magazines (16 minutes per day) are far less popular. (Dentsu Aegis Network 2019)

25- to 34-year-olds use Internet via a mobile phone (1 hour and 30 minutes per day) less in a day than younger generation, but it is the second most popular habit in this group. On the other hand, Internet usage via another device, which is the most popular way of media usage in this group, (1 hour and 55 minutes per day) and watching television (1 hour 7 minutes per day) is more popular than with under 25-year-olds. Interesting is, that reading newspapers and magazines (14 minutes per day) is less popular than among younger people. (Dentsu Aegis Network 2019)

35 to 44-year-olds watch more TV than younger people, 1 hour and 25 minutes per day. This is one of the most popular ways of using media in this age group. Using Internet via a mobile phone was less popular (1 hour 11 minutes/day) than with younger people. This age group still uses Internet via another device (1 hour 35 minutes/day) more than under 25-year-olds but less than age group 25-34. Newspaper and magazine reading gained the same result: this age group read (15 minutes/day) one minute more than 25–34-year-olds and one minute less than under 25-year-olds, but still quite the same amount. (Dentsu Aegis Network 2019)

The oldest age group of the study – 45-year-olds and over – had a significant increase in television watching (2 hours 10 minutes/day) and newspaper and magazine reading (37 minutes/day) compared to other age groups. Internet usage was also decreasing in this age group – they used Internet via a mobile phone approximately 32 minutes per day and via another device 1 hour and 28 minutes per day. In this age group, the consumption of media was higher than in other groups. They used almost 400 minutes per day, while other age groups used approximately 350 minutes per day. (Dentsu Aegis Network 2019)

This fact is stated also in another research. It has been stated by Lissitsa & Kol (2016) that young generations X (born 1965-1980 according to Strauss and Howe 1991, referenced in Engelman 2009, 17) and Y (born 1981-2000 according to Strauss and Howe 1991, referenced in Engelman 2009, 17) are more involved on the Internet than Baby Boomers (born 1946-1964 according to Strauss and Howe 1991 referenced in Engelman 2009, 17). Syrett and Lammiman (2003) stated that Gen Y is handy with technology and according to Reisenwitz and Iyer (2009) this generation is also the most used to using technology of these

generations. This generation thinks, that when the advertising they get is pertinent for them, they appreciate the advertisement's information more and vice versa (Wolburg & Pokrywczynski 2001).

One reason why some channels are more popular than others in some generations can be media richness. The more media channels hold information and knowledge, the richer it is, according to Lipowski & Bondos (2018). The more media rich a channel is perceived, the more it is used by those who perceive it media rich. (Lipowski & Bondos 2018)

Online channel is seen to be richer in holding a lot of information and knowledge, according to generation Y. This is due to the fact, that this generation knows how to use this channel in various ways in comparison to older generation. For example, voice messages can be used, which is something this generation knows how to do. (Lipowski & Bondos 2018)

The more media rich Baby Boomers consider the offline channel to be, the less they will use the online channel. On the other hand, generation X has no significant difference how media rich they see offline or phone channel and their aim to use the Internet. Generation Y does not treat offline channel as an information source, but their aim to use the online channel increases when the phone channel is considered media rich. (Lipowski & Bondos 2018)

It seems that the way how different generations perceive different channel's media richness is correlated with how much they use this precise channel. Both media richness and usage of channel are also influenced by the fact how well different generations can use that particular channel.

Different media channels obtain different characteristics. Multiple studies have been made about comparing television and print advertisements, concluding, that television advertisements tend to be more "emotional" (Krugman 1971) and they contain less information than print advertisements (Stern, Krugman & Resnik 1981). TV is said to be a

good channel for advertising hedonic (Wells 1980 referenced in Stewart, Kammer-Kerwick, Auchter, Hyeseung, Dunn & Cunningham 2019, 2469) and low-involvement products (Krugman 1965). Thus, print is considered to be more preferred channel of advertising by consumers (Soley & Reid 1983). Print advertisements are also read using the left, “more rational”, side of the brain. (Krugman 1971; Weinstein, Appel, & Weinstein 1980) Other studies have found that print does have more emotional responses from consumers, too (Chowdhury, Olsen & Pracejus 2008; Poels & Dewitte 2008). This might be due to the visual and verbal cues in advertisements, which are intertwined – also in tv (Mukherjee 2002; Rossiter 1980 referenced in Nyilasy et al. 2011, 172; Nyilasy et al. 2011, 172).

Environmentally conscious consumer behaviour seems to be linked with distress and empathy towards others environmentally bad situations. These two characteristics also had an effect towards own environmental actions instead of others. (Lee & Holden 1999) A few problems can be seen overall in the print and television industry, especially in the young generation. According to Wolburg & Pokrywczynski (2001) those, who are more extroverted in generation Y, can relate to television commercials more whereas to less introverted consumers magazine commercials are more meaningful. It seems that introverted people do not have much content to relate to. (Wolburg & Pokrywczynski 2001) This could mean that advertisements which are more emotional, could work to environmentally conscious consumers, if they are extroverted. This could be a problem in Finland, where people are known to be introverted.

There are differences in recalling advertisements and their characteristics in different channels. Consumers were more likely to remember the brand and information about the product from having read it from a print advertisement instead of an advertgame or website (Huh, Suzuki-Lambrecht & Lueck 2015). On the other hand, specific content presented in an advertgame was remembered and it affected the actions consumers made (Huh et al. 2015). When comparing print and online advertisements, print wins again. Consumers might lose their navigation, perception of time and place, while surfing on the Internet, due to the fact that advertisements, like everything else on the Internet, is not static, but passing. Print advertisements are static and provide longer exposure time than the ones on the Internet.

These results resonate with the more positive attitude towards advertisements in print media. These might be the reasons why consumers recall print advertisements better. (Cho, Santana & Livingstone 2012) According to research, print is the best way to get consumers recall advertisements. What to do when people read less and less print media?

According to literature review, it seems that advertising electric cars is a challenge. To extroverted environmentally conscious consumers, television could be a better channel for advertising, but a car is a high-involvement product, which would have a better channel in print media. On top of this, different generations have different preferences in media channels; Gen Y uses online channels via phone and other devices, Gen X uses Internet with a desktop computer or tablet or watches TV, but also uses phone to use Internet. Baby Boomers watch TV a significant amount and use Internet via a desktop or a tablet.

1.3. Research questions and theoretical framework

In order to understand not only media preferences of different generations but also their perceptions of a relatively new high-end product, electric cars, I conduct my main research question. My research question is based on this literature review and research gap:

”What are the differences between generations in perceiving EV advertisements in different media channels?”

Based on the previous, and theoretical framework, I conduct 4 sub questions which I study in my research.

SQ1: How different generations perceive electric vehicles?

SQ2: Does place of living affect the perception about EVs?

SQ3: How generations X and Y perceive advertisements about electric vehicles in different media channels?

SQ4: How baby boomers perceive advertisements about electric vehicles in different media channels?

Theoretical framework of the study is presented in the figure 1 below and it takes into consideration different aspects of this study, which are generations' perceptions of electric vehicles, how place of living affects perceptions of electric vehicles and how different generations perceive advertisements in a media channel. This helps to find out the answers to my main research question as well as my sub questions.

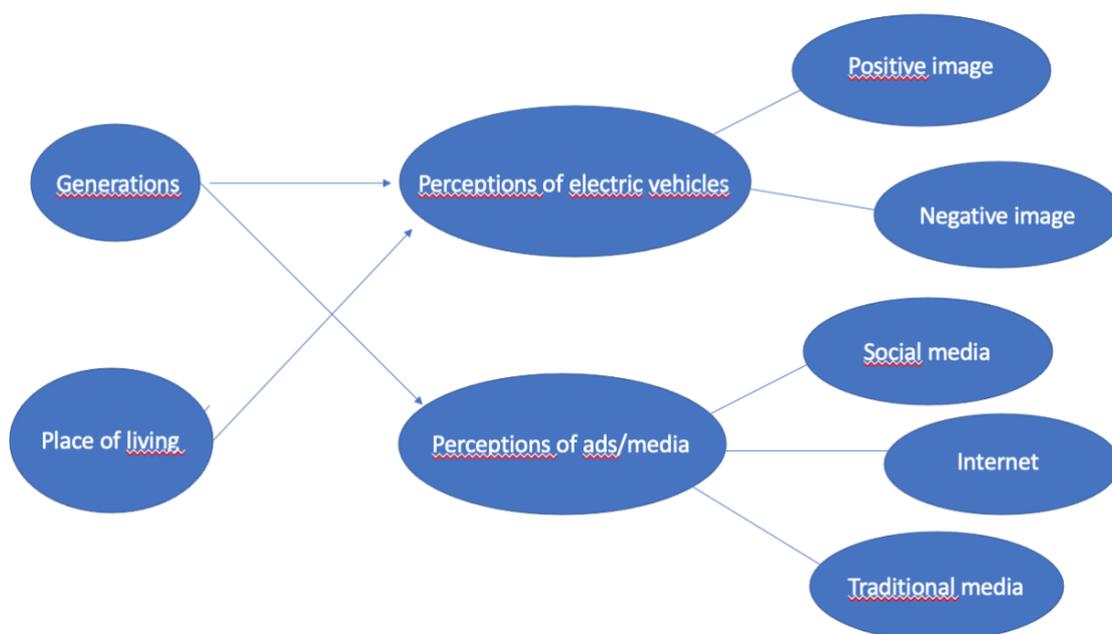


Figure 1. Theoretical framework of the study.

Theoretical framework consists of generations perceptions towards electric vehicles, which is my sub question 1. How place of living affects perceptions of electric vehicles is also studied, which is visible in sub question two. Different generations perceptions about EV

advertisements in different media channels is studied, as can be seen in sub questions 3 and 4 and figure one.

1.4. Definitions and delimitations

In this part, I go through definitions relating to my research topic. These definitions are the most essential ones to be understood in order to understand my research. Finally, I go through delimitations of this study.

Baby boomers is a generation born during years 1946-1964 (Strauss and Howe 1991 referenced in Engelman 2009, 17).

BEV is a subcategory to EV, an electric vehicle, which has only a powerful electric battery, which is rechargeable. It can go 100 miles with one charge. (Egbue & Long 2012)

CV is a traditional car, which uses inner combustion engines (Egbue & Long 2012).

Generation X is a generation born during years 1965-1980 (Strauss and Howe 1991 referenced in Engelman 2009, 17).

Generation Y is a generation born during years 1981-2000 (Strauss and Howe 1991 referenced in Engelman 2009, 17).

EVs represent all the vehicles, which use only or partially electricity as a power source (Egbue & Long 2012).

HEV is a short term for Hybrid Electric Vehicle and a subcategory to EVs. It is an electric vehicle, which has also an internal combustion engine in addition to an electric motor. (Egbue & Long 2012)

ICE is an inner combustion engine, which uses gas as a fuel (Egbue & Long 2012).

PHEV is a short-term for Plug-in Hybrid Electric Vehicle, and a subcategory to EVs (Egbue & Long 2012). It is an electric vehicle similar to HEV (Egbue & Long 2012), except its ICE is smaller and it has more powerful battery (Sovacool and Hirsh 2009), which is rechargeable (Egbue & Long 2012). PHEVs battery can go up to 20 to 60 miles (Sovacool and Hirsh 2009).

In this study I only focused on three generations; X, Y and baby boomers to find out how they perceive EVs. I chose these three generations to keep this study in limits of time and page numbers, but also due to the reason that they are of the age of owning a driver's license, even perhaps a car. Younger groups could be too young to even consider a car and older generations could be too old. It could also be very hard to reach older generations during COVID-19, because I needed to do this study via a survey instead of face-to-face study. In the future, it would be interesting to find out in case there is a drastic change in the views of younger generations compared to earlier generations. Therefore, younger and older generations have been excluded. There were also complications in gathering answers from the generation of baby boomers, mainly due to the fact that the survey was electronic and COVID-19 put a strain on how to reach people. Thus, I needed to share the link of the study in available digital channels and tell people to move it forward.

1.5. Research methodology

This empirical research uses quantitative methods because the data is described in numeric values and the topic as well as its characteristics are described in numeric values. Also results are in numeric values. (Vilkka 2014) The survey does include images, which are the objects

of which the answerers views are studied. Still, the necessary values that are not numerical are converted to numerical ones in the analysis-section.

In order to do this, I changed theoretical issues to an understandable language, thus I operationalized it. I also structurized the survey for each answerer to understand the survey in the same way. (Vilka 2014) This was ensured in the testing phase, where six people went through the survey and gave me feedback about it (Appendix 1). Corrections were made according to the feedback. The views of different generations towards EVs are studied. In addition to that, I examine in case the place where they live and the generation they belong to affect the perception about electric vehicles, which also might have an additional effect to the advertisement.

1.6. Structure of the study

In this introductory chapter I have gone through the background of the research and literature regarding the research topic. After that, main research question and sub questions are made in addition to presenting theoretical framework of the study. Necessary definitions of this paper were presented on top of limitations of this study. Finally, research methodology was presented. Next chapter goes through the topic in more detail; first I examine how people perceive electric cars in which I emphasize electric vehicles, their markets and the current state of driving a car. Then, I study media channels and their usage in different generations, media richness theory and channel expansion theory. In addition, hypotheses are conducted based on the literature. This is followed by research design and methods, in which I go through description of the data, data collection and analysis method and reliability and validity of the research. Then, findings of the research hypotheses are revealed. Finally, discussion and conclusion are made with theoretical contributions, practical implications, limitations of the study and suggestions for future research.

2. Perceptions of EVs

In this chapter I go through research made about EVs, definitions of the vehicles and their markets. In addition to that, I go through how people perceive them from different aspects; public's opinion, purchasing likelihood, worries, price, safeness, and sustainability. After this, I go through current state of driving a car. Finally, I conduct my first hypotheses based on this information.

2.1. Electric vehicles (EV) and their markets

To understand EV advertisements, we need to define different types of EVs, their characteristics and what presumptions people might have about them. EVs have been considered to be one of the solutions to the growing greenhouse gas emissions problem (Egbue & Long 2012).

2.1.1. Definitions of different EVs

There are multiple different alternatives for traditional cars (hereby called as CVs - conventional vehicles- with inner combustion engines ICEs, which use gas as a fuel and are responsible for some of the greenhouse gasses in the transportation sector), such as EVs, which are electric drive vehicles. EVs represent all of the vehicles, which use only or partially electricity as a power source. There are also sub-categories to EVs. HEV (Hybrid Electric Vehicle) is an electric vehicle, which has also an internal combustion engine in addition to an electric motor (Egbue & Long 2012). PHEV (Plug-in Hybrid Electric Vehicle) is similar to HEV except its ICE is smaller and has more powerful battery, which is rechargeable (Sovacool & Hirsh 2009). PHEVs battery can go up to 20 to 60 miles (Sovacool & Hirsh 2009). BEV has only powerful electric battery, which is rechargeable. It can go 100 miles with one charge (Egbue & Long 2012).

2.1.2. Market fluctuations

According to Egbue & Long (2012), IEA (2007) states that in the transportation sector alone, 14% of greenhouse gas emissions were produced globally and it is estimated to rise to 50% in 2030 (Egbue & Long 2012). This has shown as U.S. government's investments on promoting alternative fuels (Skerlos and Winebrake 2010) and ARRA (American Recovery and Reinvestment Act) paying over 2 billion dollars to EV and battery technologies (Canis 2011).

Hybrid and electric car market in Finland grew almost 35% in 2019, now being almost a billion dollar market, as can be seen in figures 2 and 3 (Market Line 2020). The market is expected to grow almost 430% by 2024, making it a 4987 million dollar market. Most cars sold in the market are hybrid, they count for 91,9% of its total volume. This is due to long distances and cold weather, which makes them better for Finnish infrastructure. (Market Line 2020)

Despite the growth of the market, it has decelerated from 2017 and 2018 and is expected to have weaker growth in 2020. This is due to decreasing demand, which is caused by domestic economy's decreasing trend. Also, compared to Sweden and Norway, Finland's market is quite small. This is because of government decisions of focusing on biofuels and the incentives to purchase an electric or hybrid car are smaller than in other European countries. Low adoption of electric cars makes vivid competition in the Finnish market. (Market Line 2020)

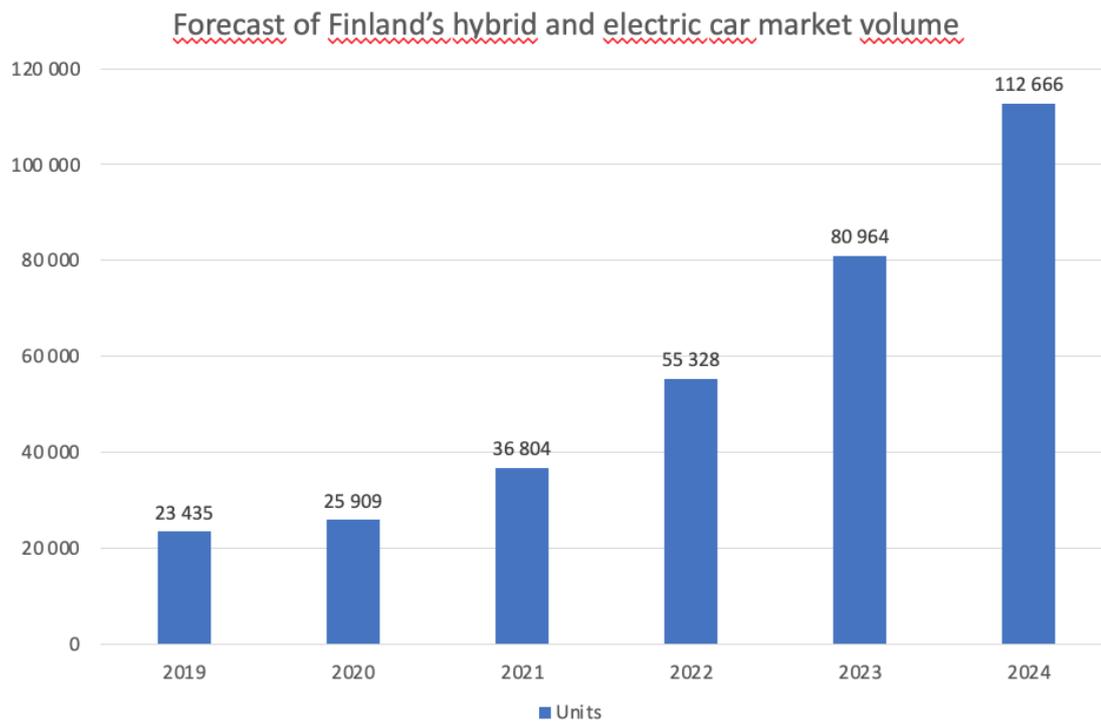


Figure 2. Finland hybrid and electric cars market volume forecast: units, 2019-24 based on Market Line's (2020) data

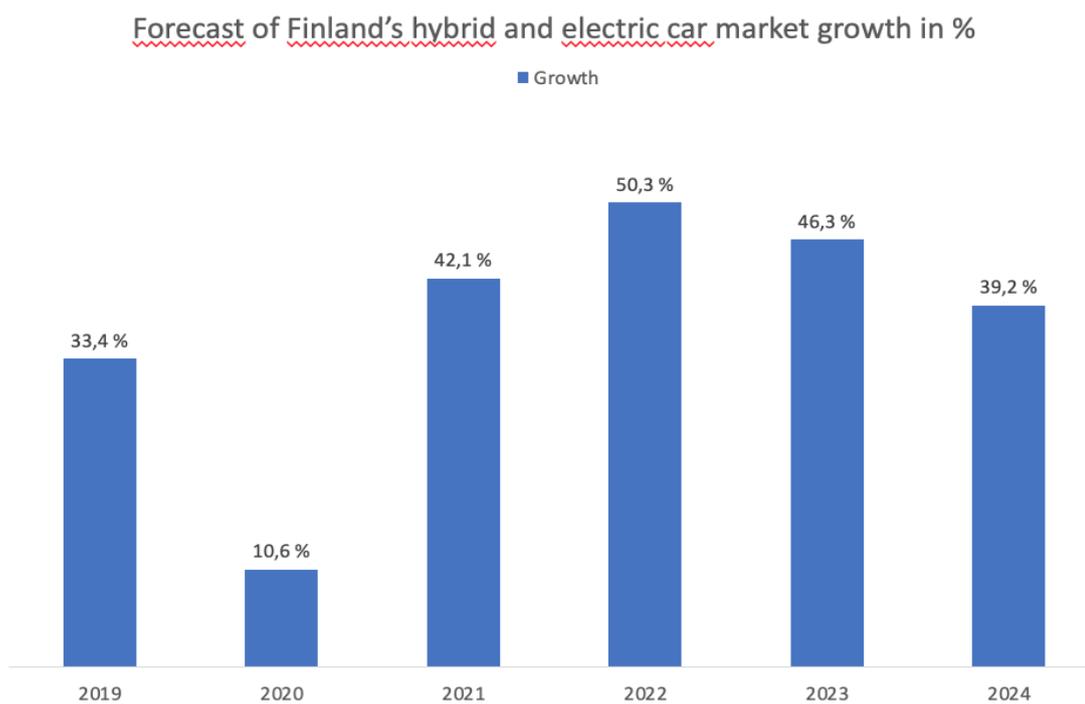


Figure 3. Finland hybrid and electric cars market volume forecast growth in percentage, 2019-24 based on Market Line's (2020) data.

Despite the growth of the market, it has decelerated from 2017 and 2018 and is expected to have weaker growth in 2020. This is due to decreasing demand, which is caused by domestic economy's decreasing trend. Also, compared to Sweden and Norway, Finland's market is quite small. This is because of government decisions of focusing on biofuels and the incentives to purchase an electric or hybrid car are smaller than in other European countries. Low adoption of electric cars makes vivid competition in the Finnish market. (Market Line 2020)

According to Münzel, Plötz, Sprei & Gnann (2019) there is a positive effect of financial incentives to PEV registration rates, which could indicate that in case Finland would focus on PEVs by making monetary incentives, the adoption rate would be higher. Also, they found out that the amount of money incentives and access to benefits affects the market diffusion. (Münzel et al. 2019)

2.1.3. Public's opinions and likelihood of purchase

Sample associated EVs in this order; with the environment, battery lasting and its charging, efficiency, high price, fossil fuels, alternative energy, and the future. Almost half of the group said they would likely or very likely buy an AFV, 37% somewhat likely and 15% not at all likely. There was no disparity in demographics among answerers. EVs were considered to be appealing due to decrease of the level of petroleum used or having none of it at all, cheaper costs of maintenance and the car causing smaller amount of greenhouse gases in this order. Comfort and look were not considered to be meaningful. (Egbue & Long 2012) Interestingly, study made by Sovacool, Kester, Noel & Zarazua de Rubens (2019) showed, that (in Norway) those with high income – and own more EVs and drive more often than others – have a significant interest in EVs but this is not correlated. One reason might be Norway's support towards EVs, where the adoption is also high, but make the market even

more polarized. Those with lower income levels have less requirements for a car but could be interested in cheaper versions of EVs. Also, political views affect the perception and ownership of EVs; Liberals are very interested in EVs, and a high percentage owns it, but they have a low rate of car ownerships all together. On the other hand, conservative right has the ability to purchase expensive cars, and there is a high percentage of EVs owned in this group, but those who do not have EVs have a very low intention in owning one. As other ecological options such as renewable energy has been politicized, so does EVs. (Sovacool et al. 2019)

In Egbue & Long's study (2012) Alternative Fuel Vehicles (AFVs) interested more men and those, who are graduated or studying towards it than women and undergraduates or other lower studying degrees. EVs were in general less interesting to the sample, but the differences among the sample were similar to the ones with AFVs. Attractiveness of different EVs aligned with the awareness of EVs. Half of the sample gathered had a little experience with alternatively fueled cars, most of which had it in HEVs (38%), second largest amount with BEVs (17%) and lastly with PHEVs (7%) and half didn't have any. The only demographic characteristic that stood out was gender, with men being more likely to have experiences with EVs to women. This sample aligned their awareness of different EVs with the market – HEVs are represented the most in the market, which was the most common EV the sample knew about, PHEVs coming in second in both and BEVs the last. (Egbue & Long 2012) Thus, we can consider HEVs as the most popular ones among EVs.

Zarazua de Rubens (2019) found 6 groups of customers in the Nordic countries and studied how likely they are to adopt an EV. Status Seekers is one of them, which consists of mostly male, a bit older of age with high income people, who have graduate or postgraduate degrees. This group is mainly liberal and is followed by social democrats. This group do not consider environmental aspects to be that important, but they do have an interest to buy solar PV and home energy efficiency measures in addition to being the second most recycling group with less water consumption. (Zarazua de Rubens 2019).

Greens-group consists of mostly female, a bit younger, individuals who have second most high income among groups. They have also highest number of postgraduates after Status Seekers and are in a Socialist Green side in political views. This also means that they are most interested in environmental behavior among groups, with nutrition changes, less water consumption and recycling behavior. They are only third in purchasing solar PVs, which could be caused by lower income and not as much interest in new tech. (Zarazua de Rubens 2019).

Blue-collar Moderates are lower in income level and a bit older than Greens. This group ranks environmental lifestyle second lowest of all groups and are the last to invest in solar PV and second to last in reducing water use. This group is almost half men and half women. The Public Mobiles are mostly female group with most retiree's among groups (approx. 20%) and most unemployed (16%). This cluster has second lowest income level and the mean age is third highest of all groups. The group ranks environmental importance second highest among groups but are least likely to invest in solar PVs or other measures of energy efficiency. This can be due to low income level. They are also in near-to-last places in environmental behavior. (Zarazua de Rubens 2019)

Sceptics do not have an environmental lifestyle, ranking it the lowest of all groups, and has the third oldest age. It also has the least degrees than other groups. Petrol Heads also do not have an environmental lifestyle, ranking it the second lowest of all groups. They have the highest age with mean of 45.5 years. (Zarazua de Rubens 2019).

It seems that the reasons of purchase of EVs in its current state is not that much affected by its environmental benefits, but rather its price and status, due to Greens low adoption of these cars despite their appreciation of environmental benefits. Thus, the study suggests that the marketing of EVs should be focusing more on the technological aspects of the cars and not only on their environmental characteristics. An example of Nissan Leaf, a more economical version of EVs and Tesla is made. Nissan Leaf has a cost of over 30 000 euros, and do not focus much of technological characteristics than on their environmental ones, missing their best market. On the other hand, Tesla, a more "luxury" car, focuses on technological

attributes and have made an impact on Status Seekers. (Zarazua de Rubens 2019) It is interesting, that an assumption about purchasing or even interest of an EV cannot be made based on environmental behaviour of a person. Many other factors have an impact in adoption of EVs, such as high-income, interest in new technology and status symbols.

2.1.4. Worries about EVs

People were most concerned with EVs about bad battery range, high price and lack of charging places (Egbue & Long 2012). This is a problem also in Finland which we can notice by looking at statistics; charging stations are not rare in the city areas but can be difficult to find in the countryside (Latauskartta). Finland is also a long country, which might make EVs inconvenient in travelling around the country. The general market in Nordic countries also seem to consider the price of EVs to be above their price range. Only Status seekers-group, who are middle- to high income and age, could consider buying a car above 30 000 euros according to Zarazua de Rubens (2019).

Women worried most about the price and men about the battery range. Only a little bit over half of the sample considered EVs to be safe, women considered it to be less safe than men. Perceived safeness of EVs was correlated with previous experience with AFVs. 16% of answerers, who had no experience with EVs found it unsafe, whereas only 4% of respondents, who had experience with EVs considered it to be unsafe. (Egbue & Long 2012)

In Finland, similar characteristics sparked worry. According to Market Line (2020), the buyer power was not very strong due to a couple of characteristics; high price, limited range, and too few charging stations. The biggest obstacle for adoption of electric and hybrid cars is price, which is too high compared to a regular car with ICE. On the other hand, strongest drivers to buy, which can be seen in figure 4, are price sensitivity and buyer independence. (Market Line 2020)

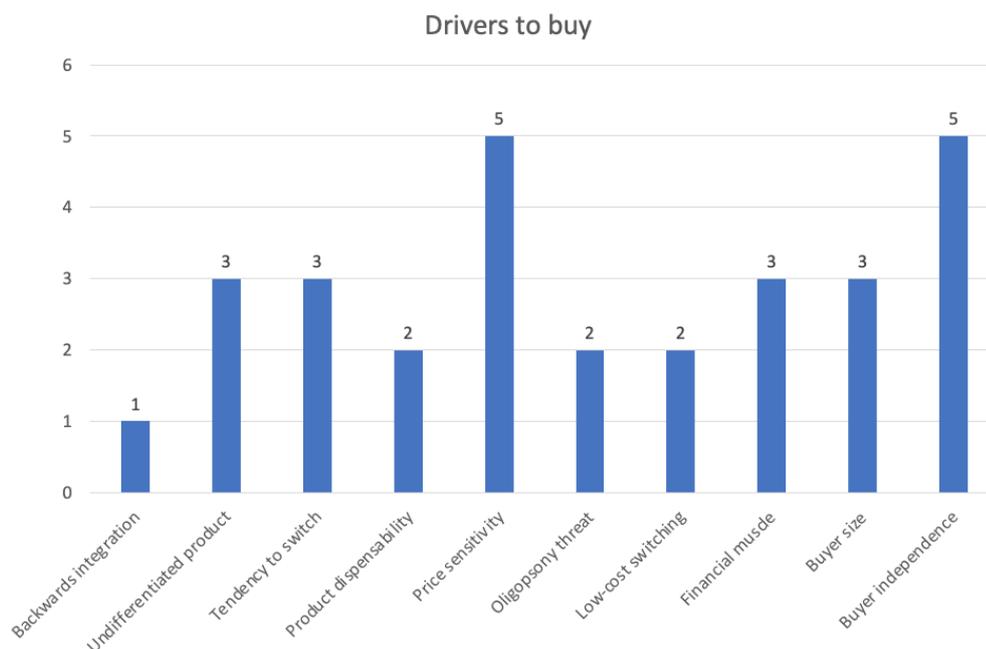


Figure 4. Drivers of buyer power in the hybrid and electric market in Finland, 2019, based on Market Line's (2020) data.

Limited range is also a problem in a tall country like Finland, as discussed before. Range anxiety can happen with drivers when a car that has a 200 to 300 km range has a 50 km journey every day. Manufacturers aim to help this anxiety by developing charging infrastructure, higher battery capacities and quicker charging time. (Market Line 2020) In Zarazua de Rubens study (2019) most people drive less than 80 kilometers per day, thus EVs can respond to this need with their range. Nonetheless, most people also considered the range to be a factor that is of interest to them, and this might still slow down the adoption of the EVs (Market Line 2020) until the charging infrastructure and / or range is good.

2.1.5. Price

The approximate gas price should be 5.42 dollars per gallon in order for people to buy an EV. Among the answerers the subject rose big emotions, due to a large amount of them needing no reassurance towards buying an EV because they would buy it anyway. On the

other hand, some of the answerers would not want to buy an EV despite the increasing of the gas price. (Egbue & Long 2012) In Finland fluctuations in fuel prices affect the wants of buying an electric car or a hybrid car. In the beginning of 2020 they have slumped, making electric and hybrid cars not as appealing to buy as before. On the other hand, running costs of EVs are expected to reduce significantly as renewable energy sources become more and more general. (Market Line 2020) The price of the car seems to scare buyers away, even though running costs for the car are not as big as with ICE cars. Market line (2020) predicts that when the total cost of owning an EV or an ICE reach the same level, adoption EVs will happen.

The research was in line with Diamond's (2009) research, that in case the price of PHEVs will not drop, the gas prices need to rise in order for PHEVs sector to grow in the market (Egbue & Long 2012). This could be also in cases of HEVs and BEVs. On the other hand, here the cost of EVs was seen as less significant factor than battery life, and this might be since the respondents were tech fans, which means that they perceive technical problems to be bigger. (Egbue & Long 2012)

2.1.6. Safeness

Safeness of the cars did not seem to be a big subject of worry in Finland compared to US market (Market Line 2020). Nevertheless, similar subjects were worried about such as price and infrastructure, as can be seen from the previous chapters, both of which will be changed due to manufacturer's efforts and time. This should mean, that characteristics preventing the adoption of EVs are aspects that are likely to change without consumers efforts in the upcoming years, making it a very viable option for a future car.

2.1.7. Sustainability

Sustainability as a concept was familiar to 83% of respondents and 79% considered it to be an important factor when they were deciding to buy a vehicle (Egbue & Long 2012). The

concept of sustainability was more known among those, who had a graduate degree or were studying towards it compared to undergraduated and those studying towards it. Also, over 25-year-olds knew the concept better compared to younger, 18-24 year-old people. The term was linked by those who knew the concept to long-lived products, retention of natural resources and preserving the environment. (Egbue & Long 2012)

Among EVs, BEVs were considered to be the most sustainable option, second most sustainable were PHEVs and lastly HEVs. Almost half (43%) of the sample were neutral about considering EVs to be more sustainable than CVs and AFVs. And although sustainability is a characteristic that has an impact on what the respondent buys, most of them are still not sure about the sustainability of EVs compared to other vehicles. One of the reasons is that the cars use electricity as their power source, which is generated from gas or coal, creating greenhouse gasses. (Egbue & Long 2012) Here we can see a potential threat: according to Lee & Holden (1999), environmentally conscious consumers are worried about others environmentally bad situations which can affect their own environmental actions. Thus, the worry about others and for example global warming issues might have a positive effect towards them buying an EV, but on the other hand, in case EVs are not seen as a good environmental option, this might not happen.

Over half of women were more neutral about the sustainability of electric vehicles compared to men (37%). Those, who have sustainability affecting their purchase choice should have gasoline price at approx. 5,2 dollars in order to buy an EV, in comparison to those, who did not consider sustainability, should have the price in 6,3 dollars. This means that those, who consider sustainability to be an important issue in purchase decision, are more likely going to get an EV than those, who have worse awareness of sustainability. (Egbue & Long 2012)

There has not been much research about different generations perceiving EVs, thus, I conduct my first hypotheses. H1: Different generations perceive electric vehicles differently.

2.2. Current state of driving a car

Some literature has stated that younger generations, such as Millennials, would be less likely to acquire a driver's license and that their attitudes towards the issue have shifted (Dutzik et al. 2014). According to Newbold and Scott's (2017) research, this is not the case. The research states that younger generations may be acquiring a driver's license later than the generations before them, but the percentages in the generation acquiring one are not less than before. They do still use more of public transportation than other generations, but the number decreases as the time passes. (Newbold & Scott 2017) This might be the case in Canada, but how about Finland, a country whose capital is known to have one of the best public transportations? (City of Helsinki 2015)

The amounts of people travelling via public transportation are rising steadily at least in bigger cities in Finland. Traficom stated that the travels made using public transportation rose 13% between 2013 and 2018 among 4 of the biggest cities in Finland. In middle-sized cities, the amount of usage of public transportation rose 20% between 2013 and 2018. (Traficom) It stated, that with small cities there is no growth to be expected in this field due to sustaining basic level services in those cities (Metsäranta & Weiste, 2019). According to Market Line (2020), substitutes such as public transportation and used cars make a great threat for adoption of electric and hybrid cars in Finland. This could mean, that the amount of growth could be big in cities, but in the countryside, cars are still needed. Next, forces driving competition are presented (figure 5).

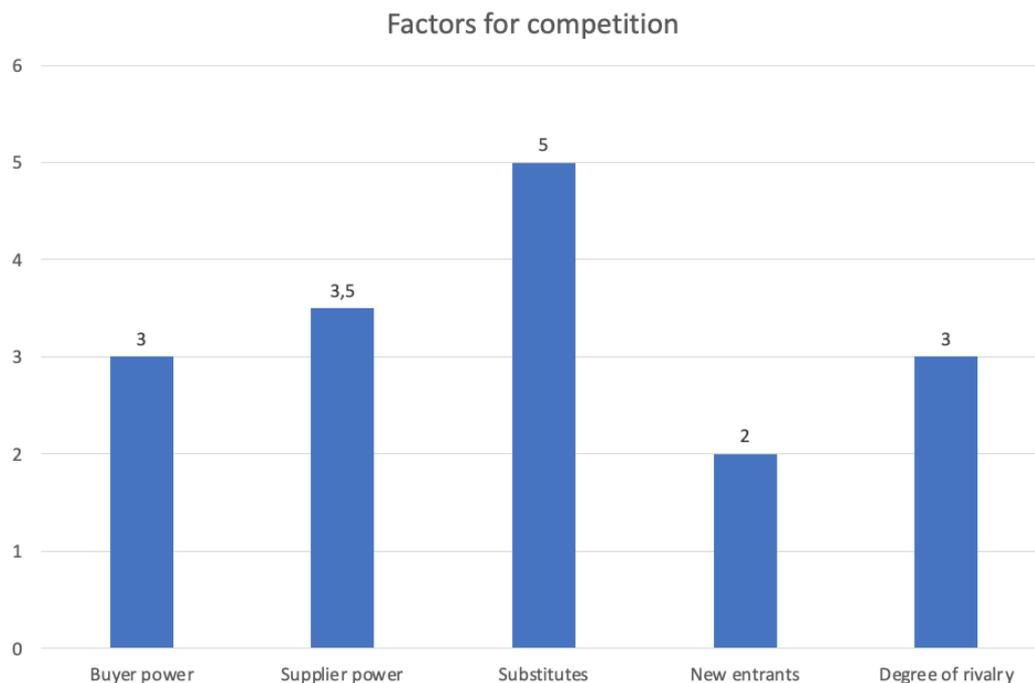


Figure 5. Forces driving competition in the hybrid and electric cars market in Finland, 2019, based on Market Line's (2020) data.

Threats for substitutes in the electric and hybrid car market is strong. Figure 5 shows that substitutes are the strongest rival in the hybrid & electric car market. There are a few viable, strong alternatives; public transportation, regular cars that use fuel and other forms of transportation such as bikes and car-pooling. Figure 6 shows the factors that influence threat of substitutes in the EV market in Finland. Those, who do not want to pay a lot or drive long distances can choose fuel cars over EVs, due to their high cost. When the costs of EVs reduces, this will not be as viable option as before. Bikes and car-pools can be found to be not as convenient; they do not display social status and are less reliable than a car. (Market Line 2020)

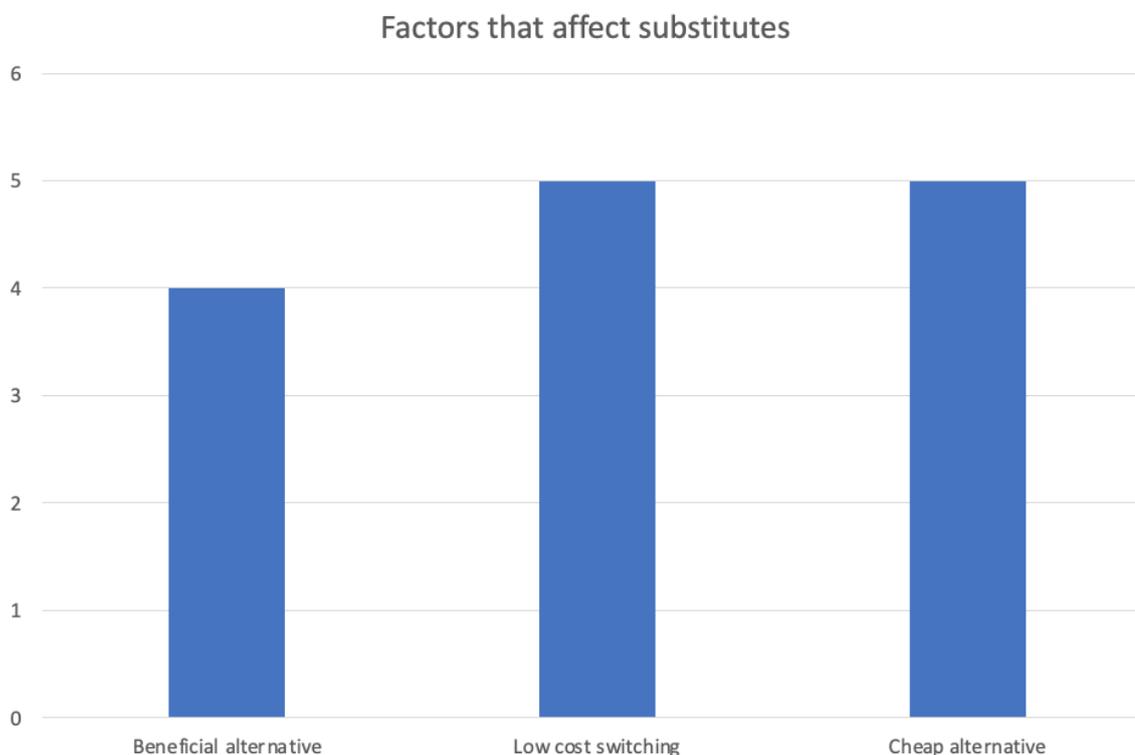


Figure 6. Factors influencing the threat of substitutes in the hybrid and electric cars market in Finland, 2019, based on Market Line's (2020) data.

In Finland, the number of cars has a lot of variance. In the end of 2018, most cars (583) per thousand inhabitants were in South Ostrobothnia, whereas the least number of cars (425) per thousand inhabitants were in Uusimaa. South Ostrobothnia has been also previously ten years ago number one in the ranking. The number of cars per inhabitants is rising in Lapland, Kainuu, Southern Savo and Southern Ostrobothnia, but in Uusimaa the rise has been only one percentage in ten years. (Ampuja & Väisänen, 2019)

Alternative fueled cars are most popular in Uusimaa where it is up to 1,7 percentages of all cars. Least AFVs are in Kainuu, where there are 0,2% AFVs among all cars. When you look at the statistics from the viewpoint of cars according to the number of inhabitants in the county, most cars were in Isokyrö, Säkyä, Pyhäranta, Miehikkälä and Vehmaa. Least cars were in the biggest cities Helsinki, Tampere, Turku, Espoo and Oulu. (Ampuja & Väisänen, 2019) Here we can see that there is some indication that biggest cities, which have good

public transportation, have the least cars, whereas in the countryside, where the travelling distances are long, have the most cars.

Also, AFVs have the most popularity in large city area Uusimaa, which can be due to the problems in infrastructure of their charging. (Ampuja & Väisänen, 2019) For example, in Helsinki and the neighboring cities, there are 271 charging stations, whereas in other "big cities" and their near-by areas such as Oulu area (30), Turku area (64) and Jyväskylä area (23) have a lot less not to mention the more rural areas in Finland. (Latauskartta)

It seems that the demographic of Nordic adopters of EVs are not those, who are the most environmentally conscious, quite the contrary. Those, who have money to spend, like status symbols and new technology seem to be the most keen to acquire an EV. On the other hand, lack of infrastructure is a factor, that is very present in Finland too. As said before, most buyer power lack due to high price, lack of infrastructure and the range of the car. There are charging stations in the city areas, but less in the countryside. Is this the reason why there are more AFVs in the city area of Uusimaa? Therefore, I make my second hypotheses based on previous text. H2: People living in city areas have a more positive picture about EVs than people in rural areas.

3. Media channels

In this chapter, I go through generational differences in media channel usage. This is followed by different media channels' characteristics and lastly, I cover media richness theory and channel expansion theory. This chapter ends with conducting my last hypotheses.

3.1. Media channel usage in generations

As stated before, habits of media usage in Finland differ among generations. Under 25-year-olds are prone to use more Internet via mobile phone a lot more than older generations. Using Internet with another device is also popular, but not significantly. In fact, the usage of Internet via another device was quite similar in all age groups- from under 25-year-olds to 45-year-olds and over. The most significant differences between the groups were in Internet usage via mobile phone, watching television and reading newspapers and magazines. (Dentsu Aegis Network 2019)

Usage of Internet via mobile phone can be seen as an act, that diminishes going towards older generations. Each age group used less time to consume Internet via phone than a younger generation before them. Another significant point can be found in television watching. The age category of 45-year-olds and over used most time watching television and the time consumed to do that diminished by each younger generation. On the other hand, time used to read newspapers and magazines was quite the same among under 25-year-olds, 25- to 34-year-olds and 35- to 44-year-old, but 45-year-olds and older used twice the amount of minutes per day to read in comparison to other generations. They also used the most minutes to consume media per day than other generations. (Dentsu Aegis Network 2019)

Internet usages generational differences are also stated in other research. Lissitsa & Kol (2016) stated that generations X (born 1965-1980 according to Strauss and Howe 1991 referenced in Engelman 2009, 17) and Y (born 1981-2000 according to Strauss and Howe

1991 referenced in Engelman 2009, 17) are more involved in the Internet than Baby Boomers (born 1946-1964 according to Strauss and Howe 1991 referenced in Engelman 2009, 17). In addition to that, generations Y is the most tech-savvy among these generations, according to Reisenwitz and Iyer (2009).

3.2. Media channels' characteristics

It is not easy to choose the right media channel for the product and situation because a lot of perspectives need to be thought through before making a right decision. For example, according to Danaher and Rossiter (2011), the sender should carefully choose the channel used for the message and it should be chosen by taking into consideration what channel the receiver likes. Senders think that channels, such as magazines and newspapers, increase consumer's intentions to buy more than tv and traditional mail. Surprisingly, receivers of marketing messages value channels differently. They think that channels such as phone, text messages, door-to-door selling and e-mail are not as efficient as other channels, but magazines and newspapers are not any more important than other mass media channels, catalogs, and personal mails. This delusion about effective media channels between senders and receivers result to lower purchasing rates and intentions. (Danaher & Rossiter, 2011) Thus, thorough research and consideration should be put into the act of choosing a channel.

On the other hand, according to Stern, Krugman & Resnik (1981) print advertisements are indeed better in delivering more informational messages. TV is said to be a good channel for advertising hedonic (Wells 1980 referenced in Stewart et al. 2019, 2469; Stewart et al. 2019, 2469) and low-involvement products (Krugman 1965; Stewart et al. 2019, 2469). Thus, it seems that the channel should be chosen also according to what message and product they are trying to advertise.

Time might change the media industry and thus change the channels considered as viable options. Danaher & Rossiter (2011) found out that still after 10 years of consumer's using Internet, traditional media channels (such as mail and tv) have sustained their characteristic

of being seen as a trusted and depended on channel in passing information. Therefore, new media channels, such as texts and e-mails, are not seen as reliable and trustworthy. (Danaher & Rossiter 2011) During the time of the research (2008-2009), young people – despite using more and more new media channels as told in Dentsu Aegis Network's (2019) research – did not act on offers via those channels (Danaher & Rossiter 2011). Also, according to Danaher & Rossiter (2011, 34-35), McKenzie and Minifie (2006) found out that among 14–30-year-olds in New Zealand, most liked TV advertising better over other new channels such as SMS and online. It seems that the more the media channel is settled and recognized, the more they make sales. (Danaher & Rossiter, 2011)

Thus, it seems that new media channels need to be so settled that they are not "new" in the minds of consumers anymore in order to act as a viable option for advertising. These researches were made over 10 years ago, so it is possible that the situation now is different. As we can see from Dentsu Aegis Network's (2019) research about Finnish generations using media channels, younger generations especially use Internet via their phone or another device the most – this could indicate that those channels are becoming, if not already, settled.

The choice of a channel does not only depend on the product and message delivered – it can also depend on the channel's characteristics. Wendel & Dellaert (2005) found out that a channel's benefits have an impact on the person's choice of that media channel. The more it has benefits, the more certain it is that the person chooses that channel. In order to choose a particular channel, the user has a set of requirements for the benefits of the channel, which need to be fulfilled. These requirements may change due to the situation where the person needs to use the channel. (Wendel & Dellaert 2005) But what are these requirements?

In generation Y, more extroverted people relate more to tv commercials. On the contrary, less introverted people relate more to commercials in magazines. Thus, shy and quiet people do not have much content to relate to. (Wolburg & Pokrywczynski 2001) People, who are environmentally conscious, have behavior linking with distress and empathy towards others environmentally bad situations, which affects also their own environmental actions but not in promoting other people's actions (Lee & Holden 1999). Thus, extroverted

environmentally conscious people could relate to advertisements of a more emotional side. People are known to be quite introverted and melancholic in Finland, which twists the set of requirements for these kinds of people.

Recalling advertisements differ by the media channel. Product's brand information was remembered more likely when it was read from a print advertisement instead of a website or advergaming. (Huh et al. 2015) Cho et al. (2012) studied also why consumers recall print advertisements well. Advertisements in print form are static and offer time to look closely and study the advertisement compared to online, in which everything passes by quickly and makes the perfect environment for the consumer to lose their navigation, time and place. A more positive attitude towards print advertisements was found, too. (Cho et al. 2012)

Thus, it can be concluded that television advertisements are good to deliver emotional messages and print advertisements are good in case the consumer needs to recall the advertisement. Therefore print is a good channel for informational messages. The usage of both channels seems to be different according to generations. Younger generations use less both of the channels, which raises a question; how to advertise to them? Especially, how to advertise in the field of EVs, which are high-involvement products?

3.3. Media richness theory and channel expansion theory

Some channels seem to be more popular than others in different generations. Is this due to media richness, the ability for a channel to hold and transmit information (Kwak 2012)? In this chapter we dive into media richness theory, following channel expansion theory and how they affect media consumption.

Media richness theory was developed by Daft & Lengel (1984, referenced in D'Urso & Rains 2008, 488; Daft & Lengel 1986, 6) and it states that different communication channels have different capabilities to transmit rich information (Lengel & Daft 1984 referenced in Daft & Lengel 1986, 6). Face-to-face is seen as the richest channel, following phone,

documents that are made personally (for example memos), general (not personal) written documents and numeric documents (Daft & Lengel 1986). The variations of richness in the aforementioned channels can be explained by the channel's characteristics in how it processes instant feedback, the variance in language, personalization and the amount of channels and clues used (Daft & Wiginton 1979). For instance, face-to-face is the richest channel due to its ability for instant feedback and to process other clues, such as tone of voice and body language. It also transmits the subject matter in natural language. (Daft & Lengel 1986)

More recent studies about the topic with more recent media channels were made by for example D'Urso & Rains (2008). They found out that on top of the fact that the communication channel's characteristics influence the perceived richness of the channel, also the idea about a channel's media richness might be influenced by interpersonal issues, for example the person's experiences regarding the channel and the social influence towards the channel. (D'Urso & Rains 2008)

This is called channel expansion theory, which suggests that previous experiences mould our perceptions of the richness of a particular channel (Carlson & Zmud 1999). Especially, four different experiences are seen as the most essential ones, such as: previous experience about the channel, the subject of the message, of the organizational setting and with the communication partners. Those, who have experience in those fields within a channel, build knowledge bases which helps them to both understand and write messages in that particular channel which thus helps in developing a rich communication in the channel. Due to previous, they will see the channel gradually richer. Those, who do not have knowledge bases, cannot be in rich communication in the channel no matter how long they would spend time in the channel and aim to understand the messages. This leads to a neutral or negative perception of the richness of the channel. Thus, in case a knowledge base is developed, the person can communicate in the channel in a successful manner. (Carlson & Zmud 1999)

Carlson & Zmud's research (1999) found that both channel expansion theory and knowledge-based experience can have a positive effect on perceiving media richness. Main

support was found especially towards the person's previous experience about the channel and the partner they were in contact with. Also, previous experience about being in contact within a specific organizational context affected a bit. On the other hand, they found no support that previous experience towards the subject of the message would have any effect. (Carlson & Zmud 1999)

This might mean, that while older generations do not use online channels as much as younger generations, it might be possible that due to the fact that online services and channels are now used at work and during free time more than ever, they might see those channels more rich than before. On the other hand, in case there is a trend, that "old" media channels such as magazines and TV would rise, younger generations might see those channels as more rich than before. So, is it so?

When looking at this theory in more recent media environment, as it was studied in D'Urso & Rains' (2008) research, they found out that due to people's previous experiences with the channels and influence from their social circles, there were no differences in the perceptions of media richness between new (such as e-mail and IM) and old (face-to-face and phone) channels. Still, the respondent's age, experienced social impact, previous knowledge with the topic, the person they were interacting with, and specific channel all had a favorable association to perceptions about media richness of the channels, when the channel's structural differences were dominated. The most fluctuation in the experience of richness is caused by the structural dissimilarities among the channels and the person's age. (D'Urso & Rains 2008) This could implicate that younger people who are more common to – for example – social media channels, could find these channels more rich than older people.

Indeed, Generation Y perceived online channel to be rich. They know how to use this channel in various ways, for example they use voice messages, in comparison to older generations. Gen Y does not see offline channel even as a source of information, but they do use more online channel when the phone channel is perceived to be media rich. The usage of online channels decreases in older generations at the same pace as the offline channels are considered to be richer. Interestingly, Generation X falls in the middle. They do not have a

big difference between their wants to use online channels and the perceiving of richness in offline or phone channel. (Lipowski & Bondos 2018)

Badger, Kaminsky & Behrend (2014) found out that the more media rich a channel is, the more mental workload the person goes through. This has a negative effect towards how the person internalizes factual information in that channel. Thus, in case the sender of the message wants the receiving person to be able to internalize it, they should choose a channel that is not that media rich, such as website. (Badger et al. 2014) So, not only the media channel chosen (as researched by Huh et al. 2015) and the time used to research the advertisement (as researched by Cho et al. 2012) affect how advertisements and messages are memorized, but also the media richness of the channel.

Thus, I make my third and fourth hypotheses.

H3: Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media.

H4: Baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television, and newspaper than in social media.

Now I have covered the theoretical part of this thesis, which covered information about electric vehicles and their markets and the state of driving a car which is useful in understanding the attitudes towards driving and especially electric vehicles. Also, information about media channel usage per generation, media channel characteristics, media richness theory and channel expansion theory were covered, which helps in understanding consumer behaviour in different media channels. In the upcoming research I focus on the generational divide in media channel preferences and attitudes towards electric vehicles and their advertisements. Therefore, an analysis can be formed based on the research about generational divide in electric vehicle advertisements in different media channels.

Thus, literature review and theoretical framework helped in forming the following hypotheses:

H1: Different generations perceive electric vehicles differently.

H2: People living in city areas have a more positive picture about EVs than people in rural areas.

These two hypotheses focus on the electric vehicles and provide important information about the answerers attitudes towards electric vehicles and whether they differ according to the age or place of living of the answerer.

H3: Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media.

H4: Baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television, and newspaper than in social media.

Hypotheses 3 and 4 focus on the generational preference of EV advertisements in different media channels and provide information about the possible dividing of generations and new media and traditional media.

4. Research design and methods

In this chapter I will explain what the data collection methods are, data analysis methods and reliability and validity of my research. My research question is based on my literature review: “What are the differences between generations in perceiving EV advertisements in different media channels?”. I have used an alternative way of measuring this problem, due to coronavirus and restrictions in meeting people, which is why I needed to conduct an online survey using Qualtrics-service instead of my first intention to study eye movement and face movement in Lutlab.

4.1. Case description

The aim is to find out if there is a difference between generations perceiving electric vehicle advertisements based on the media channel. The data was gathered via a Qualtrics survey, which gained 236 answers during the time period of September 26th to October 24th, 2021. The answers were gathered by sharing the link to survey on my own social media platforms, such as Instagram, LinkedIn, and Facebook. In addition to that, I shared the link in my workplace’s Slack channel and shared the link to my friends and family via Whatsapp. I urged everyone to share the link onwards. Another source of answers was LUT Intra’s stream, where I placed the link to. I used quantitative methods in this empirical research (Vilkka 2014). The data collection method was a survey, which collected data mainly in numeric values. The answer which advertisement was shown to the answerers was later modified to be a numeric value in order to make the calculations. (Vilkka 2014)

Theoretical issues were translated into an understandable language in the survey and the survey was structured to be understandable for everybody in the same way. (Vilkka 2014) This was ensured in the testing phase, when six people went through the survey and gave me feedback about it (Appendix 1). Corrections were made according to the feedback.

4.2. Data collection and analysis methods

The aim of this research is to find the answer to my research question: "What are the differences between generations in perceiving EV advertisements in different media channels?". The research was conducted with a survey tool called Qualtrics. First, in order to find out that the questions and analysis method worked properly and answered my hypotheses, I conducted a test round where six people answered the questionnaire. The results of the feedback showed that I should make the survey also in Finnish for older generations to understand the questions and answer options better. I added an introduction, where the estimated amount of time the survey takes is explained and that the survey is anonymous and only used for my thesis. Especially the part of my questionnaire that asked "which channels the answerer used" gained some criticism. The test group had hard time to understand the instructions, including what to do when the answerer does not use the channel at all or should answerers use only one number per channel. Therefore, I added instructions to use 0 when the channel is not used at all and to use one number per one channel otherwise. The research was "live" for 48 other answers to find out in case something was wrong with the distribution. In this part I found out that 3 pictures of advertisements in different channels did not show in the imported Excel-sheet at all. Therefore, I added a question for the answerers to add: "Which advertisement did you see?".

The research was conducted via Qualtrics and with the purpose to have representation of each generation group: generation X, Y and Baby Boomers. I shared the link of the survey in my own social media channels (Facebook, Instagram, LinkedIn, Slack) and asked my friends and family to forward the link of the survey to their connections. This way different generations could be reached. I also added the link to Lut Intra's stream. The data collection time was during the time period of September 26th to October 24th, 2021. Over 200 answers were gathered during the time period.

The survey itself began with demographic questions to find information about the answerers. Here I asked about the place they live in, which year they were born in, what sex they were, did they own a driver's license and did they own a car. The goal was to find out which

generation the answerer belonged to, did they live in a city or rural area and are they potential customers in the car market. In addition to that, I asked what media channels they used in order to find out their media channel usage. Last background question was what they valued most when buying a car, in order to find out the things they value in an advertisement.

After this, one of the advertisements in different media channels (traditional media, digital channel, or social media) was randomly selected for a respondent by using Qualtrics survey randomization. Further, they answered in which channel they saw the ad in, in order for me to have record of it in the results. The advertisements shown can be seen in figures 7, 8 and 9. The whole questionnaire can be seen in appendix 2.

[Etusivulle](#) 🔗 📖 💬

sekä eteläpuolella poutaiseksi ja helteiseksi.

MAINOS (TEKSTI/VALOKUVA)



MAINOS PÄÄTTY

Luetuimmat

- 1 EM-jalkapallo** | Christian Eriksen saa tahdistimen, ura todennäköisesti ohi
- 2 Mielenosoitukset** | Elokapina osoittaa mieltään Helsingissä, mielenosoittajat katkaisivat liikenteen Mannerheimintiellä
- 3 Rajoitukset** | Rajoja avataan rokotetuille maanantaista alkaen, työmatkaliikenne Virossa ja Ruotsista helpottuu
- 4 Päivittyvä seuranta** | Suomessa todettu 55 uutta koronavirus-tartuntaa, THL suosittaa 12–15-vuotiaiden riskiryhmään kuuluvien rokottamista
● **HS seuraa**
- 5 Kokoomus** | Petteri Orpolle tehtiin pallolaajennus, jää sairauslomalle heinäkuun loppuun asti
- 6 HS Helsinki** | Moni arkailee turhaan käyttää sydäniskuria, jollainen pelasti myös Christian

”Lauantaina Kymenlaaksossa, Päijät-Hämeessä, Etelä-Karjalassa ja Etelä-

Figure 7. Picture of the advertisement in a digital channel.

Korja sähköautoperheen uusin jäsen lähinnällä jälleennyjättäisi!

Volkswagenin sähköautoperhe kasvaa

ID.4

100 % SUV. 100 % Sähköauto.

ID.4-mallin toimintamatka jopa 520 km*

ID.4 Pure 52 kWh akulla alk. 38 370 €**

Huoleton yksityisleasing esim. 415 €/kk

Yhdessä kohti nollapäästöjä | volkswagen.fi/sahkoautot

*Ajoneuvon kulutus ja toimintamatka on määritelty maailmanlaajuisesti yhdenkertainen testimenetelmän (WLTP) mukaisesti. Ilmoitettu WLTP-kulutus/toimintamatka saattaa vaihdella olennaisesti riippuen mm. kiihtöajan ajatuksesta, akkukapasiteetista, lataamisen sääntötyytestä, sähköjärjestelmän käytöstä, mahdollisesta lisävarustelusta, ajotavasta, ulkoilmpötilasta, matkustajien ja kuumien nesteiden, lämpötilasta, auton kiihtöä, akkujen lämpötilasta ja peräkäskien laatuun liittyvistä. Volkswagen ID.4 Pure 109 kW, akku 52 kWh huuto 38 370 € CO₂-päästöä 0 g/km. ID.4-malliston auto-eristysarvot: Käyttöleasing: Volkswagen ID.4 Pure 109 kW, akku 52 kWh kääntä 0 € kiinnä ki-erä esim. 415 €/kk sopimuskauden ajan (12 000 €). Suositusvähittäishinnasta 9.2.2021 (WLTP) kääntä 19 920 €. Hinta sisältää toimintakulut, valtion myöntämän täyssähköauton hankintatuen 2 000 € kääntä ja talvirenkaat, sopimuksen mukainen ajonäärä sekä rahansiirtokorvaukset. Auto palautuu sopimuskauden jälkeen rahausuyhdistö. Volkswagenin yksityisleasingin rahoittaa K Auto Leasing Oy. Volkswagenin Suomen maahantuoja on K Auto Oy. Volkswagenin jälleennyjättäiset ovat Autotalo Lohja, Bika, Jyväskylä Autoterveys, Käyttöleasing, Pöytä Autotikka, Saveläinen Auto, Traktotauto ja K Caava Volkswagen Center.

Huomioidaan yhdessä paikalliset rajoitukset ja suositukset koronapidemän aikana.

Lataa sähköautosi kauppareissun yhteydessä **K**

Figure 8. Picture of the advertisement in a newspaper.

14.45 4G

Instagram

volkswagen suomi Sponsoroitu

Koe sähköinen tulevaisuus
ID.4
Katso itsellesi sopivin paketti
yksityisleasing-laskurilla
esim. 415 €/kk

Tutustu leasinglaskuriin

Latata sähköautosi
kauppapareissun yhteydessä

♥ 💬 📍

volkswagen suomi ja 119 muuta tykkäävät

volkswagen suomi Uusi hiilineutraali ID.4 nyt ajoon myös huolettomalla yksityisleasingillä esim. 415 €/kk. Voit laskea autosi kuukausihinnan leasing-laskurilla osoitteessa volkswagen.fi.

#id4 #volkswagen #vwcars #sähköauto #yksityisleasing

31. maaliskuuta

🏠 🔍 📺 🛍️ 👤

Figure 9. Picture of the advertisement in Instagram.

To analyze their perceptions of the advertisements, I asked them to rate the advertisement based on how interesting it was for them and what was the most interesting part of the advertisement. Then, I asked their willingness to buy the car or consider it after seeing the advertisement. Open answers were gathered from follow-up question “Why?”. The respondent’s views about electric vehicles were asked next, following up with open answers “Why if more negative view?” and “Why if more positive view?”. Last question was “Did this ad affect your views about EVs” with following up open question “why yes” and “why no”.

4.3. Data analysis methods

Analysis was made by using Stata-software. After I had gathered the answers, the data was brought to Excel, where I cleaned the document from unfinished answers. I made modifications to the Excel-file each time when I brought the information to Stata. Each time I only kept the needed fields and erased others. I also cleaned the rows so they would become understandable variables in Stata, so I took off the questions and replaced them with for example “age”, for the question about birth year.

I studied hypotheses one “Different generations perceive electric vehicles differently” by taking the answerers age and their view about electric cars to a Spearman correlation test. In H1 I kept the fields age and views about electric cars. Hypotheses two “People living in city areas have a more positive picture about EVs than people in rural areas” was studied by taking the question where they live (rural versus city) and what are their views about electric cars to a two-sample t test. In H2 I kept the field of the answerer’s place of living and view of electric cars.

Hypotheses three “Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media” was tested by taking the answerers generation and how interesting was the advertisement that was shown to them and tested it in ANCOVA, so in H3 I used the fields age, which was filtered to have only generation X

and Y answerers, in which media channel they saw the advertisement and how they rated the advertisement based on how interesting it was for them. In H3 I needed to convert the media channel to numbers for the ANOVA-analysis. This resulted to the following: newspaper advertisement is number 3, digital advertisement is number 1 and Instagram advertisement is number 2.

Hypotheses four “Baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television and newspaper than in social media and Internet” was tested by taking the answers of baby boomers’ generation about how interesting the advertisement was and the media channel it was in and tested the answers with two-sample t-test with equal variances.

4.4 Reliability and validity

In this dataset, three groups were studied: generation X, generation Y and baby boomers. Over 200 answers were gathered, which is a good number of answers and makes the study reliable. On the other hand, the data analysis method used was a survey, and the way it was gathered during coronavirus pandemic was through digital channels; Instagram, Facebook, LinkedIn, Whatsapp, LUT Stream and Slack, which did not enable to gather so many answers from each group as initially wanted. Especially the group baby boomers had less answers than other generations. Thus, the reliability of this group’s answers is not as valid as other groups. Another way of gathering data could have been more suitable for them, but coronavirus restrained word-of-mouth and other face-to-face ways. The results of the study in this group should be generalized with caution.

The survey itself had a test group with 6 different people before launching. This ensures, that the questions and pictures are understandable, easy to fill and does not affect any confusion. Enhancements were made according to the feedback received. Second testing of the survey was made in order to ensure, that the link itself worked properly and all of the answers showed in the exported Excel-sheet in a form, that could be further analyzed. Thus,

the survey was live for 48 people until another correction was made. Therefore, the study itself is very reliable.

5. Findings

In this chapter I first go through the description of the whole data gathered, followed by different hypotheses tested in Stata-programme. Results are told in this chapter. Analysis itself is in the following chapter. Pictures are provided from each step of the testing.

5.1. Description of the data

From all my data, I got 44 answers from people born in 1946-1964, belonging to generation baby boomers, which can be seen in figure 10. From this group, 14 saw the advertisement in Instagram, 13 saw the advertisement in Helsingin Sanomat newspaper and 17 saw the advertisement in Helsingin Sanomat digital version, which can be seen in figure 11. In the group of baby boomers, 33 answerers were male and 11 female. Majority, 25, lived in rural area and 19 in city area. Everybody owned a driver's license. 41 owned a car, 2 did not own a car and one only used the car the most but did not own it.

60 people answered from the age group 1965-1980, belonging to generation X, which can be seen in figure 10. In this group, 19 people saw the advertisement in Instagram, 18 saw the advertisement in Helsingin Sanomat newspaper and 23 people saw the advertisement in Helsingin Sanomat digital version, which can be seen in figure 11. In this group, there were 31 female answerers and 28 male answerers. 1 person preferred not to say their gender. In this group, 24 answerers lived in rural area and 36 people lived in city area. Almost everybody owned a driver's license in this group, only one did not. 4 did not own a car, 55 did own a car, one answerer used their spouse's car.

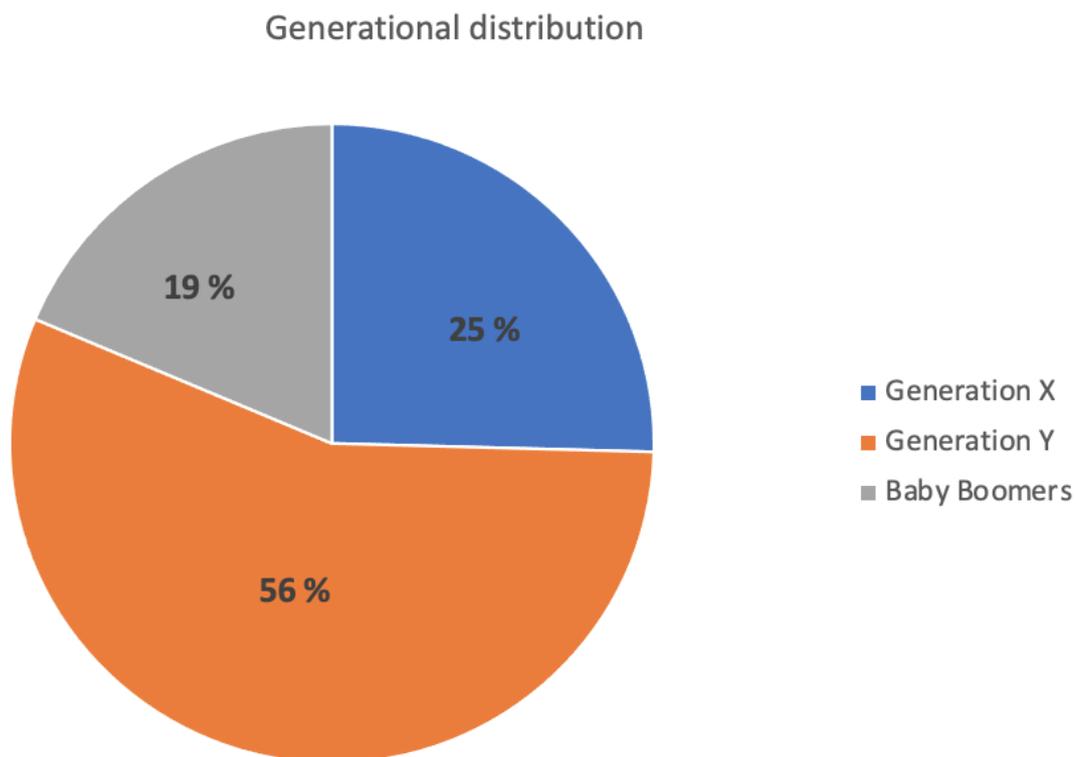


Figure 10. Generational distribution of answerers to the survey

In figure 10 can be seen that 132 people answered from the age group 1981-2000, belonging to generation Y and making this group the most presented in this study. 45 people saw the advertisement in Instagram, 49 saw it in the Helsingin Sanomat newspaper and 38 saw it in the Helsingin Sanomat digital version, which can be seen in figure 11. 73 of the answerers were female, 58 were male and 1 was non-binary. 124 answerers owned a driver's license, 8 did not. 84 people owned a car, 43 did not and 5 had other answer. Two people used their mother-/father-in-law's car, one used their spouse's car, one had a car for ten years but did not use it at all. One had a leasing car. 32 of this generation's answerers lived in rural area and rest, 100 people, in a city area.

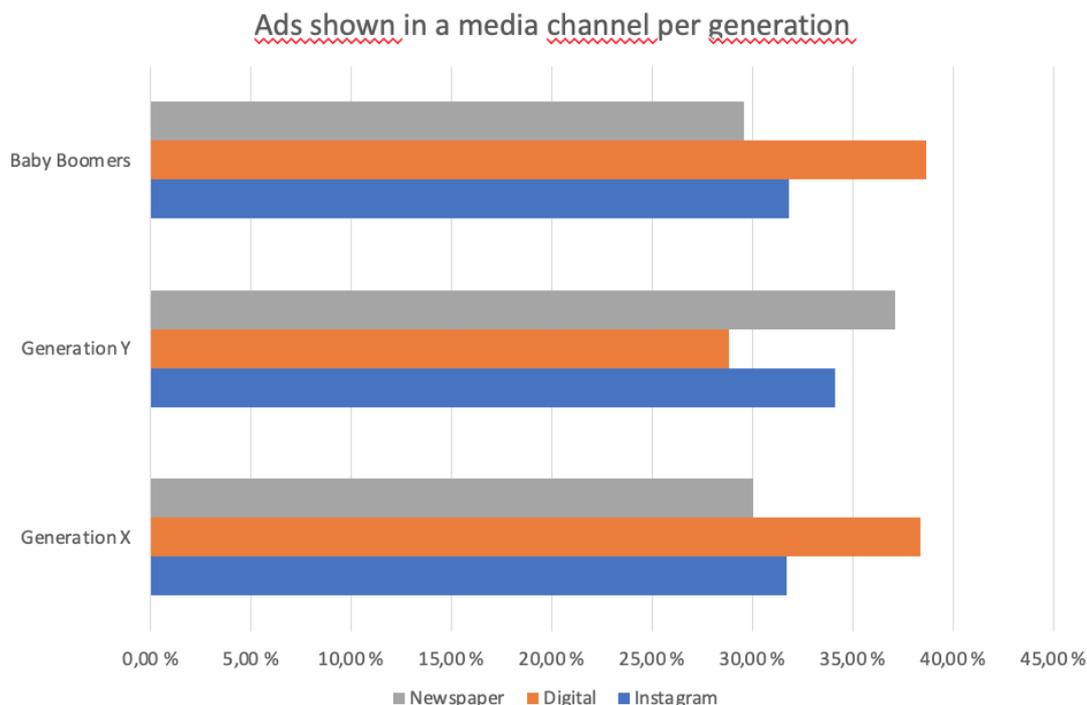


Figure 11. Advertisements shown by a media channel per generation

In figure 11 is shown variation of advertisements shown per media channel among one generation. Most of Generation X and Baby Boomers saw Helsingin Sanomat advertisement in a digital channel in the Internet, and Generation Y saw the newspaper advertisement the most among all of the channels. The variety of advertisements in different channels were all in all equal, due to Qualtrics randomization function, which shows different advertisements randomly per answerer, but all in all equal amounts.

5.2. Generational differences in perceptions of EVs

In this chapter, I aim to find the answer to my first hypothesis: Different generations perceive electric vehicles differently. First, in finding out if the variables birth year and views on electric vehicles are correlated, I brought Excel sheet with variables birth year and views about electric vehicles to Stata. Answerers had birth years all the way from 1946 to 1998,

which is a good representation of baby boomers, generation X and generation Y. Views about electric vehicles had values all the way from 0 (very negative) to 6 (very positive).

I calculated the mean, median, standard deviation, variance, and range of the variables by making a tabstat-command in Stata. The results can be seen in table 1. Mean value of birth year was 1979.66, which means that the answerers were more of the younger side, whereas views about EVs was 4.16, meaning that the views were more positive than negative. Median birth year was 1984 and 4 in views of electric cars. Standard deviation was 13.86 with the birth year variable and 1.40 with views variable. Variance with birth year was 192.07 and 1.96 with views. Range with birth year variable was 52 and with views it was 6.

Table 1. Standard calculations of generations.

	Birth year	Views about Evs
Mean	1979.655	4.161702
p50	1984	4
Standard Deviance	13.85904	1.398802
Variance	192.073	1.956647
Range	52	6

I started to analyze this hypothesis in Stata by making a Spearman correlation test, which tests the linear relationship between two variables (Hujala 2021). I chose to do the Spearman correlation test since the two variables could have a monotonic relationship, thus the birth year variable could increase, and views variable could either decrease or increase. (Ramzai, 2020) The results can be seen in table 2.

Table 2. Spearman's correlation coefficient about birth year and views about electric vehicles.

Spearman's correlation	
Number of observations	235
Spearman's rho	0.1493
P-value	0.0221

I researched does birth year correlate with views about electric cars. The results can be seen in the table 2, which represents Spearman's correlation. The number of observations is 235, which is the whole set of answers that were gathered. Value for Spearman's correlation coefficient is 0.1493. The test p-value is less than 0.05, so it is statistically significant. Thus, there is a positive correlation between birth year and views about electric cars.

5.3. Regional differences about perceptions of EVs

In this chapter, I aim to find the answer to my Hypothesis 2: People living in city areas have a more positive picture about EVs than people in rural areas. I started to study the hypothesis by importing the Excel sheet of my results with two variables; place where the answerer lives (rural area or city area) and views on electric vehicles (0 means very negative, 6 means very positive) to Stata. Then I made a variance test to find out whether the variances are equal in variables. The results can be seen in table 3. Two-sample variance comparison test showed that the p-value was bigger than 0.05, thus the hypotheses is still valid.

Table 3. Two-sample variance comparison test about views about electric vehicles and place of living.

Variance ratio test						
Group	Obs	Mean	Std. Err.	Std. Dev.	[95% conf. Interval]	
City area	155	4.374194	0.1064129	1.32483	4.163976	4.584411
Rural area	80	3.75	0.1625548	1.453934	3.426443	4.073557
Combined	235	4.161702	0.0912478	1.398802	3.98193	4.341474
ratio = sd(City area) / sd(Rural area)						f = 0.8303
H0: ratio = 1						Degrees of freedom = 154.79
Ha: ratio < 1			Ha: ratio != 1			Ha: ratio > 1
Pr(F < f) = 0.1640			2*Pr(f < f) = 0.3280			Pr(F > f) = 0.8360

This means I moved forward to make a Pooled t-test, as can be seen in table 4. Results showed that the p-value was less than 0.05, thus there is a difference between answerers living in rural areas and city areas and how they perceive electric vehicles.

Table 4. Two-sample t test with views about electric vehicles and place of living.

Two-sample t-test with equal variances						
Group	Obs	Mean	Std. Err.	Std. Dev.	[95% conf. Interval]	
City area	155	4.374194	0.1064129	1.32483	4.163976	4.584411
Rural area	80	3.75	0.1625548	1.45934	3.426443	4.073557
Combined	235	4.161702	0.0912478	1.398802	3.98193	4.341474
diff		0.6241935	0.1885963		0.2526215	0.9957656
diff = mean (City area) - mean (Rural area)						t = 3.3097
H0: diff = 0						Degrees of freedom = 233

Ha: diff < 0			Ha: diff !=0			Ha: diff > 0
Pr(t < t) = 0.9995			Pr(T > t) = 0.0011			Pr(T > t) = 0.0005

Those who live in city areas have a different view about electric vehicles than those, who live in rural areas. By looking at the mean value of both, people living in city area have more positive views about EVs than those living in rural areas. Still, those living in rural areas have also more positive picture about EVs than negative.

5.4. Generations X and Y's perceptions about EV advertisements in different media channels

In this chapter, I aim to find out answer to my hypothesis 3: Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media. I brought data about answerer's generation, media channels they saw the advertisement in (newspaper, digital channel and Instagram) and how interesting the advertisement they saw was to them (0 means not interesting, 6 means very interesting) from Excel sheet to Stata. Variable media channel was a string variable and thus, I could not do ANOVA before converting it to numeric variable. I used the command describe to find out that media channel was indeed a string variable. This can be seen in the table 5.

Table 5. Description of data about generations X and Y, media channel and perceptions about electric vehicles.

Observations	193
Variables	3
Variable name	Storage type
Generation	byte
Media channel	string

Interest	byte
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After this, I used the command encode to convert the string variable into a numeric variable. Now newspaper advertisement is 3, digital advertisement is number 1 and Instagram advertisement is number 2. The conversion can be seen in table 6.

Table 6. Conversion of the data of generations X and Y to numeric variables and description of the data.

Observations	193
Variables	4
Variable name	Storage type
Generation	byte
Media channel	string
Interest	byte
Media channel1	long

Then, I used the command tabulate on variables generation and media channel to find out more specific information about media channels separated by generation of the answerer. Information can be seen in table 7. Generation X, which is number 2, saw more Instagram and digital advertisements than generation Y, which is number 3, due to mean being 1.92 with generation X and 2.08 with generation Y. The difference is not big all in all. The standard deviation is 0.83 for generation X and 0.81 for generation Y, which is also not a big difference. The frequency of answers is 60 with generation X and 133 in generation Y, which is a big difference. The number of answers among generation Y is almost double than among generation X.

Table 7. More detailed information about generations X and Y and media channels of the advertisements they saw.

Generation	Mean	Std. Dev.	Freq.
2	1.9166667	0.8293691	60
3	2.075188	0.81300099	133
Total	2.0259067	0.81926818	193

Further, I used the command tabulate on variables generation and interest to find out more specific information about rates of interest separated by the generation of the answerer. The answers can be seen in table 8. Generation Y liked the advertisements better, with mean value of 2.51, than generation X, with mean value 2.48. The difference is not big. Standard deviation was 1.57 with generation X and 1.54 with generation Y, which is not a big difference.

Table 8. More detailed information about generations X and Y and the perceptions of the electric vehicles advertisements.

Generation	Mean	Std. Dev.	Freq.
2	2.4833333	1.567592	60
3	2.5112782	1.5355215	133
Total	2.5025907	1.5415237	193

Same thing was done to media channel of the advertisement and rate of interest of the advertisement. The answers can be seen in table 9. The total sample size is 193, of which 62 saw the digital advertisement, 64 saw the advertisement in Instagram and 67 saw the advertisement in a newspaper. The general liking of the advertisement was 2.19 with the digital advertisement, 2.55 with the Instagram advertisement which is a bit better and 2.75 with the newspaper advertisement. It seems that the newspaper advertisement was the most

interesting, following Instagram advertisement and lastly the digital advertisement. The advertisements did not get very good numbers either way, because the rate was from 0 to 6, so total rate of interest is less than 3, which means that the advertisements were more disliked than liked. Standard deviation was 1.37 with digital advertisement, 1.57 with Instagram advertisement and 1.64 with newspaper.

Table 9. More detailed information about the media channels of advertisements and the interest of those advertisements from generations X and Y.

Media channel	Mean	Std. Dev.	Freq.
Digital	2.1935484	1.3651243	62
Instagram	2.546875	1.5728822	64
Newspaper	2.7462687	1.6361752	67
Total	2.5025907	1.5415237	193

Then I made the ANOVA-command to Stata with dependent variable rate of interest and two independent variables generation and media channel. I also researched how the two latter interact. Results are visible in table 10.

Table 10. ANOVA-table with dependent variable rate of interest and two independent variables generation and media channel of generation X and Y.

Number of observations	193				
Root MSE	1.53816				
R-squared	0.0303				
Adj. R-squared	0.0044				

Source	Partial SS	df	MS	F	Prob>F
Model	13.817002	5	2.7634005	1.17	0.3265
Generation	0.00407032	1	0.00407032	0	0.967
Media channel1	8.0554326	2	4.0277163	1.7	0.1851
Generation#Media channel1	3.7788391	2	1.8894196	0.8	0.4515
Residual	442.4317	187	2.3659449		
Total	456.2487	192	2.3762953		

By looking at the row Generation#media channel1 in table 10, we see that our p-value is 0.45. This is a statistically insignificant interaction. There was also no statistically significant interest in rate of interest between generation and media channel. Thus, we reject our hypothesis that generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media.

5.5. Baby boomer's perceptions about EV advertisements in different media channels

In this chapter, I aim to find out the answer to my hypothesis 4: Baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television and newspaper than in social media. In order to find out if there is a difference how interesting the advertisements in different media channels are to baby boomers, I brought the answers of baby boomers about how interesting the advertisements were and the different media channels they saw the advertisements into Stata. Thus, I called them media channel and rate of interest (of the advertisement). First, I used the command `sdtest` to make a variance ratio test about interest rate categorized by media channel, which can be seen in

table 11. The result showed that the p-value is over 0.05, thus the hypothesis stays in place and I continue with a pooled t-test.

Table 11. Variance ratio test about interest about the advertisement categorized by media channel of the advertisement.

Group	Observations	Mean	Standard error	Standard deviation	95% confidence interval	
New channel	30	2.633333	0.3506425	1.920548	1.916189	3.350478
Traditional channel	13	2.538462	0.3689101	1.330124	1.734675	3.342248
Total	43	2.604651	0.2665134	1.747645	2.066805	3.142497
ratio = sd(new) / sd(traditional)						f = 2.0848
ratio = 1						Degrees of freedom = 29.12
Ha: ratio < 1		Ha: ratio != 1			Ha: ratio > 1	
r(F < f) = 0.9104		2*Pr(F > f) = 0.1792			Pr (F > f) = 0.0896	

I used the command ttest to make a two-sample t-test with equal variances, which can be seen in table 12. Result showed that the pooled t-test's p-value is over 0.05, thus, there is no difference in baby boomers answers between media channels about how interesting the advertisement is.

Table 12. Two sample t-test with equal variances.

Group	Observations	Mean	Standard error	Standard deviation	95% confidence interval	
New channel	30	2.633333	0.3506425	1.920548	1.916189	3.350478
Traditional channel	13	2.538462	0.3689101	1.330124	1.734675	3.342248
Combined	43	2.604651	0.2665134	1.747645	2.066805	3.142497
Difference		0.0948718	0.5871508		-1.090903	1.280647
Difference = mean(new channel) - mean(traditional channel)						f = 0.1616
Difference = 0						Degrees of freedom = 41
Ha: diff < 0		Ha: diff !=0			Ha: diff > 0	
Pr(T < t) = 0.5638		Pr(T > t) = 0.8724			Pr (T > t) = 0.4362	

In this chapter I went through the description of my data and findings of all of my hypotheses explained with the calculations made in Stata-programme. The results were the following. Hypothesis one “Different generations perceive electric vehicles differently” was tested with Spearman’s correlation test. The test’s p-value was less than 0.05, so there is a positive correlation between age and perceptions of electric cars. Hypothesis two “People living in city areas have a more positive picture about EVs than people in rural areas.” was tested with two-sample t-test with equal variances. The test’s p-value was less than 0.05, meaning that there is a difference between people living in city areas and people living in rural areas. Hypothesis three “Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media.” was tested with two-way ANOVA. The p-value was over 0.05, which means that there is no statistically significant interest in the rate of interest between between generation and media channel. The hypothesis is rejected. Hypothesis four “Baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television and newspaper than in social media.” was

tested with pooled t-test. The p-value of the test was over 0.05, and the hypothesis is rejected. Next, an analysis about the results and previous literature is provided.

6. Discussion and conclusions

In this chapter, I go through the structure of the research in order to remind about it and make it clear. Then, I go through theoretical contributions of the findings of this study by each research question and sub question. Following, I go through practical implications of the study, limitations of the study and suggestions for future research about the topic.

6.1. Summary of the research

The aim of this research was to find out the best channels to advertise to different generations. Previous research has mainly focused on public's perceptions about EVs and generational media channel choices. It has left a research gap to study how these media channel choices and views about EVs affect how interesting different generations find the advertisement shown to them. Thus, focusing on how different media channels impact the interest towards the advertisement based on different generations was an information left unanswered. In order to find this out, my main research question was:

”What are the differences between generations in perceiving EV advertisements in different media channels?”

In order to help find this out, hypotheses were conducted as following;

H1: Different generations perceive electric vehicles differently.

H2: People living in city areas have a more positive picture about EVs than people in rural areas.

H3: Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media.

H4: Baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television and newspaper than in social media.

I studied views about EVs and generational usage of media channels with theoretical topics media richness theory and channel expansion theory. My empirical research was conducted with a survey tool called Qualtrics. I gathered over 200 answers by sharing the link in different digital channels. I used quantitative methods in the analysis of this research due to the numeric values gathered via the survey. There were three generations studied; X, Y and baby boomers and three media channels; Instagram, newspaper and digital channel.

6.2. Theoretical contributions

In this chapter I compare the results of my study about hypotheses one, two, three and four and compare them with the previous research about the topic. In addition to this, I analyze both. My main research question is also addressed. Among the analysis, research gaps and new information is found.

6.2.3. Hypothesis one

In my hypothesis one I studied does different generations perceive electric vehicles differently. Based on the calculation Spearman's correlation made in Stata, the result of birth year correlation with views about EVs is positive. Thus, there is a positive correlation with birth year and views about EVs. This would mean that higher birth year means more positive view about EVs.

Previous literature stated, that in Norway political views and income level affect the ownership of an EV. Those, who are liberal are interested in EVs and a high percentage of car owners own it, but there is a low percentage of car owners itself in this group. People

with political views of the conservative right own a lot of EVs, but there is a low interest in the product itself. In general those who have a high income have a high interest in EVs. Those with lower income levels could be interested in a budget EV and have less requirements for a car. (Sovacool et al. 2019) It could be assumed that younger people have lower income in general than older people and thus cannot afford EVs as well as older generations. Therefore it could be assumed that older generations could have a more positive view about EVs than younger ones, but the results are the contrary. Zarazua de Rubens (2019) studied six groups of people in the Nordics who are most likely to adopt an EV and found out that EVs are acquired due to its high price. Thus the adoption happens due to wanting a status symbol rather than for EVs environmental benefits. Therefore those who seek status and are middle- to high income and age could consider buying a car over 30 000 euros. (Zarazua de Rubens 2019) This research strengthens the point that older generations could view EVs more positively than younger generations, even though they are not in this study.

Research of Zarazua de Rubens (2019) stated that in the Nordics the price of EVs seem to be above the general market's. Price-sensitive consumers might consider fuel cars to be more luring to them at the moment, but when the price of EVs reduces, it is not as good of an option as before (Market Line 2020). Thus, also younger generations might be able to acquire EVs when the price changes.

It is unusual that my study found out that younger generations view EVs more positively than older generations, especially because previous research suggested otherwise. Latest research about motivations behind acquiring EVs are less about ecological reasons and more about status symbols. In this case, it might be that younger generations merely view the product itself in a positive way and find the positive consequences of less pollution to have a positive impact towards the world rather than view the EVs to be positive only in case they are able to purchase one. Newbold and Scott's (2017) research stated that younger generations acquire driver's licenses later than the generations before them, but still the same amount eventually as the other generations. This reinforces the fact, that younger generations might consider their positive views about EVs to be less from the point of acquiring one and

more from other, perhaps ecological points. Egbue & Long's research (2012) stated that the concept of sustainability was known among over 25-year-olds who had a graduate degree or were studying towards it. The concept was linked to retention of natural resources, saving the environment and products with long life. (Egbue & Long 2012) Lee & Holden (1999) found out that customers who are environmentally conscious are worried about bad situations about the environment, which in turn affects their actions. It might be that worrying about global warming could result in this group purchasing an EV.

6.2.3. Hypothesis two

My second hypothesis was "People living in city areas have a more positive picture about the advertisements about EVs than people in rural areas". I studied the relation between the place of living and views about EVs by making a pooled t-test. The results showed that the p-value was less than 0.05, which means, that those who live in city areas have a different view about electric vehicles than those, who live in rural areas. In addition to this, we can see from the table 3 of two-sample variance comparison test that the mean of liking of the advertisement was 4.4 with people living in city area and 3.8 with people living in rural area. This means, that people living in cities views EVs more positively.

Previous research suggested that most cars per thousand inhabitants were in South Ostrobothnia and especially in cities of Isokyrö, Säskylä, Pyhäranta, Miehikkälä and Vehmaa. Least cars were in Uusimaa, and especially in cities of Helsinki, Tampere, Turku, Espoo and Oulu. Despite this, the number of alternatively fuelled cars is the biggest in Uusimaa and lowest in Kainuu. (Ampuja & Väisänen, 2019) This goes hand in hand with the result of pooled t-test. Even though there is the least amount of cars in the city area, the number of AFVs is the highest (Ampuja & Väisänen, 2019). This could also be due to the infrastructure problem of charging of EVs (Ampuja & Väisänen, 2019). In Helsinki and neighbouring cities, there are 271 charging stations. Other big cities and their neighbouring areas, such as Oulu, Turku and Jyväskylä have only a fraction of it. More rural areas have even less. (Latauskartta) This makes sense with the perceptions of people living in rural areas. In case there is a lack of infrastructure, why to get an EV. On the other hand, people living in city

areas with a good infrastructure might have more interest towards the topic and the advertisements.

6.2.4. Hypotheses three and four

In order to study my hypothesis three: “Generations X and Y prefer advertisements about electric vehicles more in social media and Internet than in traditional media” and especially the relations between the generation, channel and advertisement, I made an ANOVA-command in Stata with dependent variable interest rate (of the advertisement) and two independent variables generation and media channel to find it out. The p-value of relations between generation and media channel was 0.45, which means that it is statistically insignificant. Thus, the hypothesis is rejected, there is no difference between the media channels the generations saw and the liking of the advertisements.

In order to study my hypothesis four: baby boomers prefer advertisements about electric vehicles more in traditional media, such as radio, television and newspaper than in social media, I made a pooled t-test in Stata. From the result I could see that there is a p-value over 0.05. This means that there is no statistically significant difference between how baby boomers perceive electronic vehicle advertisements in new media channels and traditional media channels.

In Danaher & Rossiter’s (2011) research, people still saw traditional media channels more trusted and depended on in passing information. This was despite the fact that Internet had been used for over 10 years. (Danaher and Rossiter 2011) On top of that, according to Danaher & Rossiter (2011, 34-35), McKenzie and Minifie (2006) found out that in New Zealand 14-30-year-olds liked television advertisements better than advertisements in other new channels. Thus, the more settled a media channel is, the more they make sales. (Danaher & Rossiter 2011) The result of my study would implicate that finally new media channels, such as digital channel and social media channel, are not that new in the minds consumers

from every generation. Therefore they all work well for advertising and the study enforces the idea that they are settled.

Previous research has a variety of other results pointing towards the topic. Lissitsa & Kol (2016) stated that generations X and Y are more involved on the Internet than Baby Boomers. Especially Generation Y is handy with technology Reisenwitz and Iyer (2009). According to Carlson & Zmud's research (1999), person's previous experience about the channel and the partner they were in contact with would have a positive effect on perceiving media richness of a channel. In media richness theory different channels have different abilities to hold and transmit information (Kwak 2012). This would emphasize the relation with generation and perceived media richness of the channel, in this case younger generations perceiving new channels more media rich. On the other hand, D'Urso & Rains' (2008) study stated that due to previous experience with the channel and influence from their surrounding social circles, there is no difference in the perception of media richness between new and old channels. Although these factors did not show any difference in the perception, a lot of other factors did. Among these factors one was age and one was specific channel. These had a difference when the structural differences of the channel were dominated. Interestingly, most fluctuation in the experience of richness was caused by structural differences between the channels and the person's age. (D'Urso & Rains 2008) The results of my study would then suggest that now all of the generations are involved on the Internet and have experience from all of the media channels.

More support to differences between generations and media richness is found in previous research: Generations X and Y should find new channels, such as social media, digital channels and Internet richer than baby boomers due to the fact that they are more used to these channels overall. In addition, especially youngest generation Y perceived online channel to be rich since they could use the channel in different ways, such as use voice messages (Lipowski & Bondos 2018). There is not a big difference with Generation X about their wants to use online channel and perceiving richness of the offline channel. (Lipowski & Bondos 2018). Thus, since my research was made about advertisements, and focusing on

an object in the channel itself, the result is not in line with this previous research. We will continue with how media richness and advertisements are linked.

This is supported by Danaher & Rossiter's research (2011), in which people despite of using more and more new media channels (Dentsu Aegis Network 2019) did not act on offers via new media channels (Danaher & Rossiter 2011). Also 14-30-year olds in New Zealand liked television advertising better over new channels SMS and online (McKenzie & Minifie 2006, referenced in Danaher & Rossiter 2011, 34-35). So, is it so that advertisements are a different content in these channels and thus media richness does not apply to it?

According to Badger et al. (2014), the more media rich the channel is, the more mental workload the person receiving the message needs to go through, which in turn has a negative effect in internalizing the message. So, in case the advertisement needs to be internalized in order to view it positively, my result is in line with this study. This relationship between internalizing advertisement and perception about it was not studied my research, so this is something to be left for new studies to be made. Longer exposure times are connected to more positive attitudes towards the advertisements and especially print advertisements, which are static and have longer exposure times, are recalled better (Cho et al. 2012). Newspaper had the best mean value in my study, following Instagram and digital channel with generations X and Y. This is in line with the previous research.

Thus, it seems that the media channel choices with the advertisements have a consistency; having more exposure time would resonate more positively towards the advertisement. On the other hand, in the conducted study all the advertisements in different channels were shown in pictures among the survey. The people looking at advertisements could look at the advertisements for as long as they wished to. Another question arises; does it matter whether the pictures are in the survey or if they were in the original channel of the advertisement? Said differently; do people have the same initial reactions to the advertisements towards the pictures whether or not they were in the survey or in the original channel? The pictures showed the context they were in. It was clear that the advertisements were either in a newspaper, Instagram channel or in Helsingin Sanomat digital version. This is something to

be studied in the future; whether people have the initial reactions of what they would do in the channel, swipe quickly in social media or study the advertisement with care in a newspaper even if the pictures of the channels are in another larger context, such as survey.

6.2.5. Main research question

“What are the differences between generations in perceiving EV advertisements in different media channels?”

In order to answer to the main research question of this study, all of the hypotheses need to be taken into consideration. Results about generational differences between preferences of advertising in different media channels revealed that there are no differences. The differences with baby boomers and differences between generations x and y and perceptions about advertisements in different channels had too big p-value so the hypotheses were rejected. This would mean that all of the media channels are so settled, that the labels of new and traditional media could be erased; all generations studied in this research did not have differences between the channels and the interest towards the advertisement. On top of that one interesting fact did come to the surface; longer exposure time links with positive attitude towards the advertisement (Cho et al. 2012).

Place of living had an impact towards perceptions of EV advertisements. People living in city area liked them better. Previous research stated that there are less cars in cities and more cars in rural areas (Ampuja & Väisänen, 2019). Despite this, number of AFVs are the biggest in cities (Ampuja & Väisänen, 2019). The lower mean value of views about EVs in rural area might be a consequence about the lack of charging infrastructure in the countryside. The charging stations are more focused on the city areas. (Latauskartta) Also those, who consider status to be important and are quite wealthy, middle- to high income and age, could consider buying a car over 30 000 euros (Zarazua de Rubens 2019). Thus, since results of this study showed that younger generations liked the advertisements better, it seems that their views about EVs are not resulted from acquiring an EV or seeing the product as a status

symbol. It is rather a result from ecological point-of-views. Therefore more budget versions of EVs could have a good amount of buyers.

6.3. Practical implications

My results can be used by advertising professionals and marketing executives. This research brings valuable information to marketers in the field of electronic vehicles and to people who consider which channel to use and how to advertise. Even though my results showed that there is no difference between media channels and how different generations perceive advertisements, it can still be concluded that now different media channels seem to be settled and therefore trusted among all of the generations. Thus, there is no difference between advertising in different media channels and how different generations perceive the advertisements. This helps in forming media plans for advertising; there is less distinction between generations and how to reach them.

On another note, it seems that newspaper advertisement was the most interesting advertisement. This might be due to the amount of information, which was bigger than in other channels. This has been reinforced by previous research; Stern, Krugman & Resnik (1981) stated that print advertisements are better in delivering informational messages. Another reason might be that the advertisements in print are recalled better, as Huh et al. (2015) and Cho et al. (2012) have found out. Print advertisements are static and offer longer exposure time. More positive attitude towards advertisements in print was also found. (Cho et al. 2012) This brings valuable information when deciding which channel to advertise in with an advertisement which offers a lot of information.

Surprising research results about place of living and perceptions about EVs were found. People, who live in the city area had more positive views than people living in rural areas. This is another factor that needs to be taken into consideration when planning marketing materials about EVs to the public. This can be also due to the lack of charging infrastructure in the rural areas (Latauskartta) and another research is in place when this problem is fixed.

Perceptions about EVs and generations are also linked. General views about the vehicles differ among age, and thus especially younger generations living in city areas seem to have a better picture about EVs, thus, this is a consumer group to be kept in mind.

6.4. Limitations and future research

There are possible limitations in this study. The number of answers from baby boomers' generation was not as big as other generations'. Therefore, this generation needs to be studied more in the future, when the world is slowly opening and there are better ways instead of digital and/or social media channels to get in touch with this group.

Future research can be done to find more reasons for the results of this study as well as to find results to the research gaps this study has found. People living in city areas had a more positive view about EVs compared to people living in rural areas. This result can be affected by the lack of charging infrastructure in the rural areas of Finland (Latauskartta) and thus, this is something that needs another research when the problem with the infrastructure is fixed. The result will tell if the difference between results does occur due to infrastructure problems or because of another reason that is yet to be found.

Other younger generations that were not included in this research present another topic for future research. The results found in this study may change when the environment around EVs and global warming changes and thus, the opinions and views different people and generations show. Those can change quite quickly, too, as the topic is more and more in the widespread media and in the coffee table conversations.

In the analysis I found another topic to be studied. The pictures about advertisements in different media channels were in the survey. Does this affect the initial reactions towards the advertisement, compared to seeing the picture in its original channel? This is also a limitation to this study. Since the pictures were in the survey instead of the original channel, we need to presume that the results might be affected. The results might be different in case the

answerers saw the advertisements in their original channel. Therefore, this limitation need to be kept in mind while implementing the results of this study.

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APPENDICES 1: Piloting the questionnaire

In English:

In the beginning I say: Go through this survey and I hope, that you will rate the functionality of this survey during and afterwards completing it. Is there something, that felt weird? Is something unclear in the survey? What kind of feeling do you have after the survey, would there have been something else that you would like to answer or are you wondering something? Does it seem, that the questions are in a logical order, do you understand the questions etc. But feel free to say anything. Here is the questionnaire.

First test.

Question 6: Do I need to fill a number in each? If I have not used a channel, what do I need to put there then? Should I leave empty, what I do not use?

-> I clarified the directions and added that each part needs to be answered. In case someone has not used some channel, they put 0.

Question 8: Is this a question? What do I press when there is another arrow below?

-> I added instructions: When you are ready, press the arrow below on the right side.

-Last text: This is not in Finnish.

->I added the text in Finnish.

Second test.

Before the questionnaire: How long does this take?

I added time to introduction.

After the questionnaire:

Very good survey and background factors. It is not too long. In case there is a short introduction in the beginning, it could be good to add that the questionnaire is anonymous and that it takes only a few minutes to answer.

I added a notion about anonymity and time of length to introduction.

Third test.

Q6: Would not it be more logical that 1 is the most used? I think it would.

Did not change this, others did not mention this so thus, it is a taste thing.

Q8: I opened the picture via mobile phone and it is quite small.

I made the picture bigger.

After the questionnaire: Quite short, guess the point is to be short.

Fourth test.

Q8: Here could be that you can answer the same number to multiple places.

Done.

Fifth test.

After the questionnaire: Good and concise entity as an answerer.

Sixth test:

After the questionnaire: Good and simple survey, but Question 8 is a bit difficult to fill. It was hard to put the channels to an order by numbers and I did not understand if there needed to be one number each. It was difficult to answer unless you go from the most liked to least liked in order.

In Finnish:

Sanon tähän alkuun: Käy läpi tämä kysely ja toivon, että palautteena arvioit tämän kyselyn toiminnallisuutta läpi kyselyn ja sen jälkeen. Onko jotain mikä tuntuu oudolta? Onko joku kyselyssä epäselkeää? Millainen olo kyselyn jälkeen jää, olisiko ollut jotain muuta mihin olisit halunnut vastata tai mietityttääkö jokin? Vaikuttaako, että kysymykset ovat loogisessa järjestyksessä, ymmärtääkö kysymykset jne. mutta sana on aika vapaa. Tässä on tämä kysely.

Ensimmäinen testi.

-Kysymys 6: Pitääkö jokaiseen kohtaan täyttää numero? Jos ei ole käyttänyt jotain kanavaa, mitä siihen pitää laittaa? Pitäisikö jättää tyhjäksi, mitä ei käytä?

-> Tämän seurauksena selvensin ohjetta ja lisäsin, että jokaiseen kohtaan on vastattu ja jos ei ole käyttänyt jotain kanavaa, laittaa niihin 0.

Kysymys 8: Onko tämä kysymys? Mitä nyt painan, kun alhaalla on myös toinen nuoli?

-> Tämän seurauksena lisäsin selitteen: Kun olet valmis, paina nuolta alhaalla oikealla.

Viimeinen teksti: Tämä ei ole suomeksi.

-> Lisätty suomeksi.

Toinen testi.

Ennen kyselyä: Kuinka kauan tämä kestää?

-> Lisätty aika introon.

Kyselyn jälkeen: Hyvä kysely, hyvin kartoitettu taustatekijät. Hyvää tässä on se, että kysely ei ole liian pitkä. Tähän varmaan tulee saatekirje, siihen olisi hyvä laittaa että tämä kysely on anonymi. Voisi laittaa myös, että menee täyttämiseen vain muutama minuutti.

Lisäsin maininnan anonymiteetistä ja pituuden alkuun.

Kolmas testi.

Kysymys 6: Eikö olisi loogisempaa että 1 olisi eniten käytetty? Mun mielestä olisi.

Ei muutettu, muut eivät maininneet asiasta, luultavasti makuasia.

Kysymys 8. Avattu FB:n kautta linkki kännykällä. Tällöin kuva aika pieni.

Suurennettu kuvaa.

Kyselyn jälkeen: Aika lyhyt, varmaan pointtikin olla lyhyt ja ytimekäs.

Neljäs testi.

Kysymys 8: Tässä vois olla, että voit vastata useampaan kohtaan saman numeron

Tehty.

Viides testi.

Kyselyn jälkeen: Hyvä ja selkeä kokonaisuus mun mielestä vastaajana.

Kuudes testi:

Kyselyn jälkeen: Hyvä ja simppele kysely, mutta käytetyimmät mediat oli jotenki vaikeaa täyttää. Vaikeaa oli laittaa numerojärkkään, en tajunnut pitkö olla jokaista numeroa vaan 1. Vaikeaa täyttää paitsi jos alkaa suunnitelmallisesti täyttämään suosituimmasta vähiten suosituimpaan.

APPENDICES 2: THE QUESTIONNAIRE

Thank you for using 5 to 10 minutes in filling this survey. Survey is anonymous and is only used as a data for my thesis. Every answer is valuable. Please answer only if you have been born in 1946-2000./

Kiitos, että käytät 5-10 minuuttia kyselyn täyttämiseen. Kysely on anonymi ja sitä käytetään vain datana gradussani. Jokainen vastaus on tärkeä. Vastaa vain jos olet syntynyt vuosina 1946-2000.

Please answer to a few background questions.

Q1. Do you live in.../

Vastaathan muutamaan taustakysymykseen, kiitos! Asutko...

- Rural area/countryside? / Maaseudulla?
- City area (Helsinki, Espoo, Vantaa, Turku, Tampere, Oulu, Jyväskylä, Lahti, Kuopio) / Kaupungissa (Helsinki, Espoo, Vantaa, Turku, Tampere, Oulu, Jyväskylä, Lahti, Kuopio)

Q2. I'm born in...(year)/ Olen syntynyt vuonna... (open answer)

Q3. Sex / Sukupuolesi:

- Male / Mies
- Female / Nainen
- Non-binary / Muunsukupuolinen
- Prefer not to say / En halua sanoa

Q4. Do you own a driver's license? / Omistatko ajokorttia?

- Yes / Kyllä

- No / En

Q5. Do you own a car? / Omistatko autoa?

- Yes / Kyllä

- No / En

- Other, write in the field below / Muu, kirjoita kenttään alhaalla (open answer)

Q6. What media channels do you use?

Use the biggest number to indicate the channel you use the most and lowest number to indicate the channel you use the least. (10=most used, 1= least used). Fill only one number to one channel, with the exception of number 0. In case there are multiple channels you do not use at all, use number 0. /

Mitä mediakanavia käytät?

Käytä isointa numeroa siihen kanavaan, jota käytät eniten ja pienintä numeroa siihen kanavaan, jota käytät vähiten. (10=eniten käytetty, 1=vähiten käytetty) Täytä vain yksi numero yhteen kanavaan, poikkeuksena numero 0. Mikäli sinulla on kanavia, joita et käytä ollenkaan, käytä niiden kaikkien kohdalla numeroa 0.

- Instagram

- Facebook

- LinkedIn

- TikTok

- Pinterest

- Twitter

- Email /Sähköposti

- Radio
- Newspaper / Sanomalehti
- Television / Televisio

Q7. What do you value most when buying a car? / Mitä arvostat eniten, kun ostat autoa?

- Price / Hinta
- Look / Ulkonäkö
- Comfort / Mukavuus
- Environmental friendliness / Ympäristöystävällisyys
- It uses electricity / Se käyttää sähköä
- It is hybrid / Se on hybridi
- It uses gas / Se käyttää bensaa
- It uses diesel / Se käyttää dieseliä
- Brand / Brändi
- Other, what? / Muu, mikä? (open answer)

Q8a. Please look at the ad in a digital channel below. When you are ready, press the arrow below the picture on the right side. / Katso alla olevaa mainosta digitaalisessa kanavassa, kiitos. Kun olet valmis, paina nuolta alhaalla oikealla.

[Etusivulle](#)



sekä eteläpuolella poutaiseksi ja helteiseksi.



"Luantaina Kymenlaaksossa, Päijät-Hämeessä, Etelä-Karjalassa ja Etelä-

Luetuimmat

- 1 **EM-jalkapallo** | Christian Eriksen saa tahdistimen, ura todennäköisesti ohi
- 2 **Mielenosoitukset** | Elokapina osoittaa mieltään Helsingissä, mielenosoittajat katkaisivat liikenteen Mannerheimintielle
- 3 **Rajoitukset** | Rajoja avataan rokotetuille maanantaista alkaen, työmatkaliikenne Virosta ja Ruotsista helpottuu
- 4 **Päivittyvä seuranta** | Suomessa todettu 55 uutta koronavirustartuntaa, THL suosittaa 12-15-vuotiaiden riskiryhmään kuuluvien rokkottamista
● **HS seuraa**
- 5 **Kokoomus** | Petteri Orpolle tehtiin pallolaajennus, jää sairauslomalle heinäkuun loppuun asti
- 6 **HS Helsinki** | Moni arkailee turhaan käyttää sydäniskuria, jollainen pelasti myös Christian

Q8b. Please look at the newspaper ad below. When you are ready, press the arrow below the picture on the right side./ Katso alla olevaa sanomalehden mainosta, kiitos. Kun olet valmis, paina nuolta alhaalla oikealla.

Koeaja sähköautoperheen
uusin jäsen lähimmältä
jälleenmyyjältäsi

Volkswagenin sähköautoperhe kasvaa

ID.4

100 % SUV. 100 % Sähköauto.



ID.4-mallin toimintamatka jopa 520 km*	ID.4 Pure 52 kWh akulla alk. 38 370 €**	Huoleton yksityisleasing esim. 415 €/kk
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Yhdessä kohti nollapäästöjä | volkswagen.fi/sahkoautot

*Ajoneuvon kulutus ja toimintamatka on määritetty maailmanlaajuisesti yhtenäistetyn testimenetelmän (WLTP) mukaisesti. Ilmoitettu WLTP-kulutus/toimintamatka saattaa vaihdella olennaisestikin riippuen mm. kuljettajan ajotavasta, akkukapasiteetista, lataamisen säännöllisyydestä, sähkövarusteiden käytöstä, mahdollisten lisälämmittimien käytöstä, ulkolämpötilasta, matkustajien ja kuorman määrästä, valvasta ajoprofiilista tai tieprofiilista. Ajoneuvon latausteho ja -aika voivat vaihdella olennaisestikin ilmoitetusta ohjearvosta. Latausteho ja -aika riippuvat esimerkiksi käytetystä lataus- pisteestä, lämpötilasta, auton käytöstä, akuston lämpötilasta ja peräkäsitön lämpötilasta. Volkswagen ID.4 Pure 109 kW, akku 52 kWh hinta 38 370 € CO₂-päästöillä 0 g/km. ID.4-malliston yhd. EU-sähkökulutus 16,9-17,8 kWh/100 km. **Hinta sisältää toimituskulut ja valtion myöntämän täyssähköautojen hankintatuen (2 000 €). Suositusvähimmäishinnasto 9 200 €. Kuvan palautuu sopimuskauten jälkeen rahotusyhdiställe. Volkswagen yksityisleasingin rahottaa K Auto Leasing Oy, Volkswagenin Suomen maahan tuojat on K Auto Oy. Volkswagenin jälleenmyyjät ovat Autotalo Lohja, Bifa, Jyväskylän Autotarvike, Käyttöönto, Pöyhön Autoliike, Savilahden Auto, Traktauto ja K Caara Volkswagen Center.

Huomioidaan yhdessä paikalliset rajoitukset ja suositukset koronaepidemian aikana.

Letaa sähköautosi
kauppareissuun yhteydessä 

Q9c. Please look at this Instagram ad below. When you are ready, press the arrow below the picture on the right side./ Katso alla olevaa Instagram-mainosta, kiitos. Kun olet valmis, paina nuolta alhaalla oikealla.

14.45 4G

Instagram

volkswagen suomi  Sponsoroitu



Koe sähköinen tulevaisuus

ID.4

Katso itsellesi sopivin paketti yksityisleasing-laskurilla
esim. 415 €/kk

Tutustu leasinglaskuriin

Lataa sähköautosi kauppareissun yhteydessä 

 volkswagen suomi ja 119 muuta tykkäävät

volkswagen suomi Uusi hiilineutraali ID.4 nyt ajoon myös huolettomalla yksityisleasingillä esim. 415 €/kk. Voit laskea autosi kuukausihinnan leasing-laskurilla osoitteessa volkswagen.fi.

#id4 #volkswagen #vwcars #sähköauto #yksityisleasing

31. maaliskuuta

Q10. Which ad was shown to you? / Mikä mainos näytettiin sinulle?

- Helsingin Sanomat newspaper / Helsingin Sanomat sanomalehtiversio
- Instagram, social media / Instagram, sosiaalinen media
- Helsingin Sanomat digi version, digital channel / Helsingin Sanomat digiversio, digitaalinen kanava

Q11. How do you rate the ad based on how interesting it is to you? (0= least, 6= most)/

Kuinka kiinnostava mainos oli sinulle? (0=ei ollenkaan kiinnostava, 6=todella kiinnostava)
(slider)

Q12. What was the most interesting part in the ad? / Mikä oli kiinnostavin asia mainoksessa?

- Look of the car / Auton ulkonäkö
- Brand / Brändi
- Price / Hinta
- That it is electric/ Se, että se on sähköinen
- Environmental friendliness / Ympäristöystävällisyys
- Other, what? / Muu, mikä? (open answer)

Q13. Does this ad make you want to buy the car or at least consider it? (0= least, 6=most)/

Herättääkö tämä mainos halusi ostaa auto tai ainakin harkitsemaan sen ostoa? (0=ei ollenkaan, 6=todella paljon) (slider)

Q14. Why (does the ad make or not make you want to buy the car or at least consider it)?/
Miksi (mainos saa sinut haluamaan tai olemaan haluamatta ostaa auton tai ainakin
harkitsemaan sitä)? (open answer)

Q15. What are your views on electric vehicles? (0=very negative, 6=very positive)

Mikä on näkemyksesi sähköautoista? (0=todella negatiivinen, 6= todella positiivinen)
(slider)

Q16a. If you chose more negative, why? (Skip this if you chose positive.)/

Jos valitsit enemmän negatiivisen, miksi? (Ohita tämä jos valitsit positiivisen.)

Q16b. If you chose more positive, why? (Skip this if you chose negative.)

Jos valitsit enemmän positiivisen, miksi? (Ohita tämä jos valitsit negatiivisen.)

Q17. Did this ad affect your views about electric vehicles?/

Vaikuttiko tämä mainos näkemyksiisi sähköautoista?

- Yes

- No

Q18a. If yes, how? (Skip this if you chose no.)/

Jos kyllä, miten? (Ohita tämä jos valitsit ei.)

Q18b. If no, why? (Skip this if you chose yes.)/

Jos ei, miksi? (Ohita tämä jos valitsit kyllä.)

We thank you for your time spent taking this survey. Your response has been recorded.

Kiitos ajastasi, jonka käytit kyselyn täyttämiseen. Vastauksesi on tallennettu.