

**Influential Factors of the Decision Making Process
of Purchasing a Personal Vehicle**



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Janne Kälkäjä

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Abstract

Author Janne Kälkäjä

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Supervisor Dr. Sajal Kabiraj

The aim of this thesis work was to name the important factors that contribute to the decision making process of purchasing a car as a private individual in Finland. Ecological interests, governmental incentives and disruptive technologies are having increasingly remarkable roles making the final decision a blend of several different aspects. Needs, wants and future expectations are considered resulting in an option that has required both, rational and emotional contemplation.

1,317 answers to a Google Docs -questionnaire provided the study with quantitative and qualitative primary data that was analyzed and graphically visualized.

The results of the research reveal that Finnish consumers care about the expenses of buying and owning a car. Predictability and reliability of the decision is highly valued and clear patterns could be found in the qualitative data about the shared attributes.

The changing world requires policies to be renewed and the new regulations bring a challenging environment to make sustainable decisions from different perspectives.

Clear communication and mutual, firm objectives facilitate steady improvement that serves each facet and respects the personal preferences.

Keywords car sales, customer preference, needs, attitudes, disruption, technology, vehicle, CO2, regulation, taxing, incentive, sustainability, ecology

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Tämän opinnäytetyön tarkoituksena oli nimetä yksityisen kuluttajan autonostopäätökseen vaikuttavat tärkeät tekijät Suomessa. Ekologiset intressit, valtiovallan insentiivit ja disruptiiviset teknologiat kasvattavat merkitystään, tehden lopullisesta päätöksestä sekoituksen useita erilaisia aspekteja. Tarpeet, halut ja tulevaisuuden odotukset huomioonottava päätöksenteko johtaa valintaan, joka on vaatinut rationaalista ja emotionaalista mietiskelyä.

1317 vastausta Google Docs -kyselyyn tarjosivat kvalitatiivista ja kvantitatiivista primääristä dataa, joka on analysoitu ja graafisesti visualisoitu.

Tulokset paljastavat, että suomalaisten autonostajien kuluohjautuvuus on korkea.

Ennustettavuus ja luotettavuus ovat päätöksenteossa merkittäviä tekijöitä ja kvalitatiivisesta datasta oli löydettävissä selviä attribuuttiyhteneväisyyksiä.

Muuttuva maailma pakottaa toimintatapamuutoksiin ja uudet säädökset tekevät haastavaksi useat eri perspektiivit huomioonottavan, kestävä, päätöksentekoympäristön.

Selvä viestintä ja vakaat yhteiset päämäärät rakentavat pohjaa tasaiselle edistykselle, joka palvelee kaikkia osapuolia ja kunnioittaa henkilökohtaisia preferenssejä.

Avainsanat automyynti, kuluttajapreferenssi, tarpeet, asenteet, disruptio, teknologia, ajoneuvo, CO2, regulaatio, verotus, kannustin, kestävyys, ekologia

Sivut 50 sivua ja 9 liitesivua

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Terminology

Blue Environment Zones is a system in Germany which prohibits driving with older diesel cars in certain areas to prevent the traffic-related air pollutants from piling up. The areas tend to be prone to quick air pollutant concentration usually because of topographic reasons or very dense traffic. (Blaue-Plakette.de, 2021)

CO-2 is a greenhouse gas; greenhouse gases cause atmospheric warming because they prevent the sun's radiation from escaping back to space from the earth's surface. (Tilastokeskus, 2021)

CO-2-based taxing In the Finland's passenger car taxing system the vehicle's CO2 emission data is the basis of the taxation. Other taxes will be applied on passenger cars that do not use gasoline as the fuel but the base tax increases according to the size of the CO2 emissions of a particular vehicle. (Traficom, 2021)

Euro6 is one of the regulative stages of the exhaust gas emissions in the European Union. The Euro 6 is the latest stage that was introduced in September 2014. The maximum values of classes of emissions are set for the car manufacturers to comply with. (Autotuoajat ja -teollisuus ry, 2021)

First registered in Finland refers to a car that has not been registered before and the first registration takes place in Finland, and it has no usage history in another country.

Imported car refers to a vehicle that has been registered and used in another country before importing it to the country where it is regarded as an imported car. From a perspective of a country that does not produce cars on their own, every car is being brought from abroad, but the term imported car means that the car has been registered already at least once, i.e., it is pre-used.

Maintenance backlog is a list of tasks that should be or are ready to be completed to repair or maintain equipment, assets, and structures. The tasks are mandatory because they need to be done to prevent further damage, failures, and safety issues.

NEDC (New European Driving Cycle) is an outdated laboratory based measuring system for the emissions of a car. The procedure had no realistic driving conditions, and the real life consumption and emissions were higher than officially stated. (Traficom, 2019)

NOx is a generic term that refers to nitric oxide and nitrogen dioxide. These two gases are air pollutants that contribute to smog and acidic rain. (The NOx Fund, 2021)

Sitra The Finnish Innovation Fund Sitra funds and collaborates with audacious new ideas to shape the future. Sitra's publications are highly valued reports that analyze the present state of matters and bring scientific estimations and solutions of and to the process of development. (The Finnish Innovation Fund Sitra, 2021)

Traficom is the Finnish Transport and Communications Agency. Everything that is legally being transported in, from or to Finland must have been or must be permitted, licensed, registered, approved, and taxed by this agency. (Traficom, 2021)

WLTP (Worldwide Harmonized Light Vehicle Test Procedure) is the new act of measuring the realistic emissions in the actual driving conditions. It has been fully applied since 2021. In general, the new measuring system brings higher emissions than the old system (NEDC). (Traficom, 2019)

1 Introduction

We are in a continuous change. The world keeps on evolving in every sense. Climate change, growing population and disruptive technologies that shake the grounds of the established corporations are just a few to mention. One needs to try to keep up with the change and respond to it.

An urgent need to react has been brought to the western world by climate change. The governments are furiously searching ways to cut emissions in general. One of the main sources of pollution is traffic (Karagulian, ym., 2015) and people physically having to move themselves from one location to another.

A household's car is usually a relatively money-demanding asset to buy, own and to use. (Autoliitto, 2018) (Eisenstein, 2019) As an expensive purchase, it is usually carefully contemplated, and the preferred attributes are diligently weighed and chosen. There are people able to tell immediately what they are after and for some the whole process is just a play of numbers and the emotional aspect has a minimal contribution. The reasons to have one in the first place also changes. In the Finnish culture owning is highly valued (Petäinen, 2017) (Taloustutkimus Oy, 2017) (Tuulilasi, 2018) and the desire to own also comes to play with its constraints. Rational calculations are indeed sensible, but how to value sole wants? In today's society the standards of living are so high that plain calculations of efficiency seldom dictate.

As it happens, people need to move and shuttle daily, and the need is not going to vanish. More ecological ways must be found. An incentive to switch from a high-consumption car to a one more ecological has been fortified constantly. (Kuurio, 2018) (Verohallinto, 2021) (Liikenne- ja viestintäministeriö, 2021) It has been done with money as it is one of the most efficient ways of controlling the citizens' behavior. (STT, 2019)

This development has brought new issues to the car owners. Mostly the expenses have risen (STT, 2019) and there are individuals unable to rely on the public transportation (HEIMA, 2019) (Sitra, 2017) or they cannot afford a more ecological personal vehicle. (FRILANDER,

2021) This has led to a situation where positive discrimination needs to be applied to some citizens (Sutinen, 2021) and the rest wonders what sort of a vehicle to buy since the decision should be made wisely to avoid costly repercussions in a form of an extremely volatile market value of an acquisition that has required a noticeable amount of capital to finance. People must be given help and guidance during the shift and the possible overwhelming disadvantages that could be created to some groups have to be sufficiently compensated. It is extremely important that the people that eventually make the transition are allowed to participate in the decision making. (Landström, Kohl, Puroila, Sihvonen , & Tamminen, 2021)

1.1 Background

The thesis writer may be regarded as a car guy. Solely that is not the reason to have them as the topic of the thesis. It is also interesting how people need to rationalize with their assets and at times choose another way of moving themselves should the status quo of their needs, wants and economics aberrate sufficiently to any direction.

Car sales and the business around them with the car importing aspect suit well the learning goals of an International Business student. The topic is under heavy debate and has a strong connection to the time as it is the worldwide battle to slow down the climate warming.

The worldwide concern called climate change is the reason for all the fuss and the wealthy countries have the obligation to try to mitigate the effects of it. As the governments' grips tighten, citizens need to stay on board and try to see to the future.

A constant desire for efficiency for sure exists and in general a need for less consuming cars remains.

Countries are collectively and individually trying to mitigate the effects of their emissions by lowering the total emissions and creating emission sinks. The net emissions reveal how much a certain country contributes to the global emissions. Finland's figures in 2019 were the following.

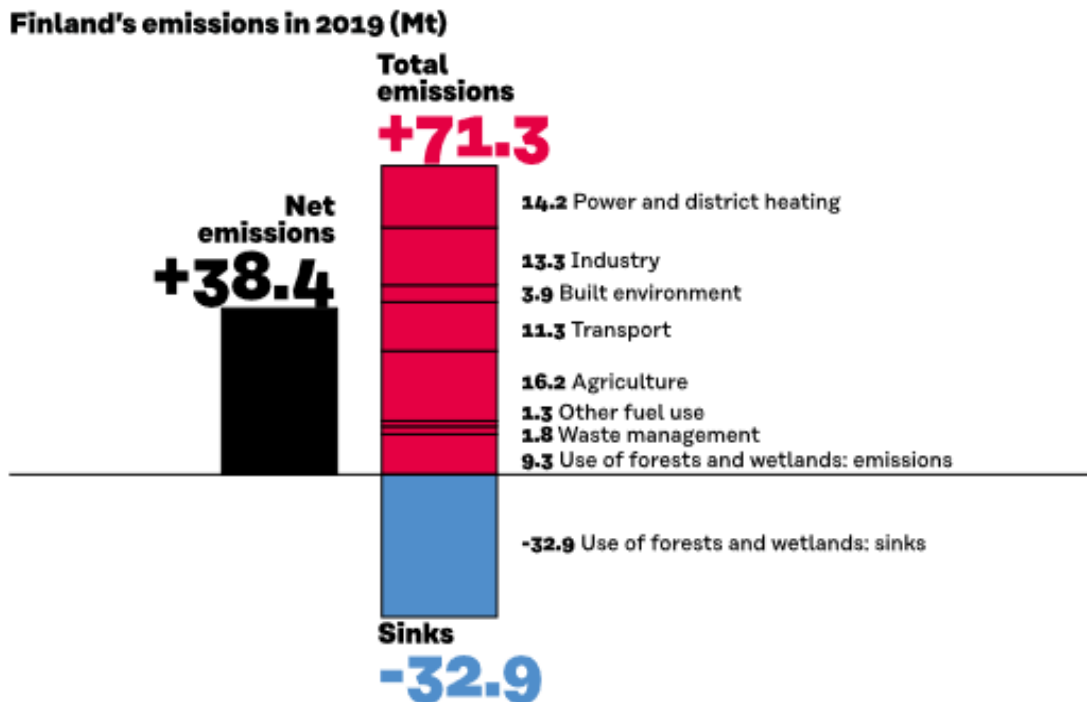


Figure 1. Emissions in megatons, Finland, 2019 (Landström;Kohl;Puroila;Sihvonen ;& Tamminen, 2021)

As it is, the infrastructure's maintenance is not going to get any cheaper even if the cars on the roads were ecological. This is a paradox that the government in Finland, as an example, guides people towards the ecological solutions by money; at the same time the funding lacks some serious amount of assets. The outcome for now is that the money being gathered from private car owners is in a downstream (Jaakkonen, 2021) but the expenses to keep the roads drivable rise and the funding has been insufficient for years leading to a substantial maintenance backlog that has surpassed one billion euros. (Jokela, 2021) Another problem is that not all of the money that is gathered from the facets using the roads is spent on improving the condition of the roads. (Jokela, 2021) There are approximately 50 000 kilometers of paved roads in Finland and at the end of 2020, 7 600 kilometers of it has been classified as unsound. (Montonen, Väyläverkon kunnossapitoon halutaan tulevina vuosina roimasti lisäresursseja – tavoitteena laskea 2,8 miljardin korjausvelkaa puolella miljardilla eurolla., 2021)

The taxing must be applied fully to the electric cars in the years to come to cover the gap in the funding that now seems to begin to emerge. The positive discrimination of taxing to the

eco-drivers seems to do the job as it stands – how about when most of the cars on the roads are polluting the absolute zero. Is a sensible, equal division of the needed funding to be applied on everyone? Is the only way to lower the costs for the private car owners to encourage more people behind the electric car's wheel to make the base of the "customers of the roads" bigger, as it lowers the costs per head?

The discussion about the insufficient tax income is up (Hodari, 2021) and one can only wonder how come the governments seem to be surprised about the obvious progression. We are to find out whether the de-incentivization intentions are to halt the electric car sales and are the other alternative energy source users to start rethinking their decisions and options. Increasing expenses would immediately effect on the desirability of the alternative energy source vehicles and so would their market price suffer.

There are 78 000 km of public roads and less than 10 000 km of it is said to be high-traffic. 70% of all the traffic takes place on 12% of the public roads. (Montonen, Väyläverkon kunnossapitoon halutaan tulevina vuosina roimasti lisäresursseja – tavoitteena laskea 2,8 miljardin korjausvelkaa puolella miljardilla eurolla., 2021) Urbanization as a megatrend of the future is probably to make the usage of the roads denser and therefore the roads that are less used are most likely to be left out when the funds to repair the roads are shared. Although, lower-traffic roads are not requiring as much repairing as the areas of high traffic, and it is reasonable to allocate the funding on areas that benefit more people. From the aspect of the safety of the citizens it is for example important to facilitate a drivable road for the first aid unit to the patient and to the nearest hospital.

Ground frost is a shared issue of the Nordic countries and that will affect negatively also the roads that are not greatly used which makes it even more important to carefully target the funds because the road repairing is a never-ending act. Global warming makes the winters milder, and the temperature range is expected to begin to hover around the zero degrees Celsius in an increasing tendency. Especially temperature fluctuation around the freezing point harms the asphalt and potholes form quickly once the coating is damaged. (Tiihonen, 2013) (Väylävirasto, 2021)

It is at least an indisputable fact that the costs to keep the infrastructure in good shape will never correlate positively with the decreasing net level of the CO₂-emissions of the cars driving on it.

1.2 Objective and research question

This study's research question is: What are the important factors that contribute to the decision making process of purchasing a car as a private individual in Finland? The intention is to find the most important and influential contributors of the car buying process that the private consumers find relevant when choosing to buy a certain kind of a car. Wants and needs are the major players, but the governmental forces and the financial aspects mould the decisions. An explicit list of the attributes is to be formed and the view will be clear about the subject what comes to the data gathered. An exact whether or not -analogy is not waiting for an answer but the preferences and attitudes are represented.

The outlooks and capabilities of the people to purchase electric cars are discussed and the attitudinal side of it was also analysed. It truly is that some are choosing not to consider ecological cars just because the common pressure to do so is there, and there is this non-conformist glory in not always going with the flow. (Tepper Tian;Bearden ;& Hunter, 2001)

A relevant part of the attitude assessment was that would people go and buy a more ecological car if they had the means. Some of the questions were provoking as it seems now because what an excuse it is to answer positively to a such question. In general, that tells that it is a statement towards the government from the citizens feeling the pressure of the need to go for a more ecological way of moving. The money is not always there for everyone, and the low-CO₂-cars can be expensive. (Ilmarinen, 2012)

2 Theoretical Framework

Cars in Finland are approximately 12,5 years old (Autoalan Tiedotuskeskus, 2021) and the figure has been rising steadily. Not necessarily it is a national health issue but a worldwide problem it is. Finland is contributing to the climate agreements and intends to follow the

guidelines set by the countries participating. We are for that reason obliged to treat our problems on the higher level even if more precise solutions would probably be reasonable and more adequate. (Koskinen, 2018)

Other countries are having harsher regulations and arbitrages have formed to the car markets inside Europe. (Ziemann, 2018) This has led to a situation where it has been an economical decision to import the pre-used cars from the middle-Europe. These cars are usually having bigger engines with bigger CO₂-emissions and are of a higher class than the newly bought in Finland. (Konttinen, 2019) However, the invasion of the old, unecological and less safe cars is nothing the country's officials would prefer.

2.1 Needs and motivation

The consumer is not always able to tell exactly why do they behave in a certain way as a consumer. Some purchases are for physiological needs and can be considered as necessities. Other bought objects take place only to fill in an image one has of themselves. Spending money on an item can have a function as a statement, too.

As an example, the very expensive cars that can even get inconvenient, are there to add to the owner's identity and the practicalities play no role. It's value as a good to spend money on is still not any lower, it just serves the consumer another way.

2.2 Maslow's hierarchy of needs

Maslow's hierarchy of needs explains very well the setting. As a well-known psychological theory explaining the human motivation, it is used as an example in this case too.

The idea basically states that humans are motivated to fill their needs in a hierarchical order. Maslow believed at the beginning that the states must be subsequently filled, and a higher state can only be pursued when the lowers are fulfilled. Nowadays it is known that the states overlap and as the motivation to reach the higher needs guides forward, the lower levels are not forgotten but the intensity to pursue them decreases.

The necessities are first to be fulfilled and the hierarchy eventually reaches the state of self-actualization. In between there are needs that have an order of importance so to say. A

person is always motivated to fulfill the right state for the moment because if the lower states are not fulfilled, they will be prioritized by the individual as they are existentially more important.

Love, belonging, and self-esteem needs are coming after the needs for survival, and they have their own effect on the customer behavior. Brands, attitudes, and ranks of different articles to buy are being looked at more carefully and the customers start to get more demanding as the base of safety and survival are already adequately covered.

A car-related example could be a situation where a pair of car owners are compared what comes to their motivations if the other needed a vehicle to get to the workplace to support their family and the other one chose to buy an expensive sports car to get to know what the extremely powerful cars are like to drive. The subjective need to behave in a certain way matters as much if the motivation is looked at but the level that they operate on is different. (Hopper, 2020)

2.3 Pestel-analysis

This analysis comes in many names, but they all help to analyze an organization's external environment based on the same idea and the same keyword-perspectives. The macroenvironmental factors of a field are being carefully looked at to have a realistic view of the operational environment. The Pestel-analysis encompasses the most relevant factors of a business field, and the sections are political, economic, social, technological, environmental, and legal.

The political factors are the government's regulations and the level to what it intervenes with a certain field of business. The impact can be very profound and that is why the political environment weights so much. Stable regulations and predictable policies are preferred by many, but continuous improvement make it impossible for some businesses and fields of business to remain profitable. Corruption, protectionism, and trade restrictions also belong to the political factors and their unpredictable and swift nature can have grave repercussions for some industries.

Car owners' lives are easily changed by the policy's fluctuation. CO₂-based taxing is an example of a tax policy factor that cannot be neglected during the cost calculations. Its

function is to make it more expensive to own a high-polluting vehicle. The synergy with always rising fuel prices, high fuel consumption and high taxing is expected to cut the country's emissions in time to an agreed level.

The economic factor is used to assess the performance of an economy. It includes the economic growth, the different rates, and the money the consumers are able to spend. Inflation for example gets the money rotating as the funds on the saving accounts continuously lose their real value. Rising inflation makes it expensive to keep the money in the pocket.

Purchasing power correlates with the local prices but imported goods are just as expensive. The latest technological breakthroughs reach us westerns first and therefore we have the ability to try to improve our vehicle-base ecology wise.

Our consumer behavior is drastically affected by the social factors. We see ourselves as a part of a society and the things we spend money on tell a story to the people around us. We aim to control that image of ourselves to a preferred direction. The population trends differ as the cultures and the established values change. The population's division and structure, such as, the age division, the cultural barriers, conformity and the lifestyle attitudes tell to the individuals what is accepted and to what extent the socially accepted norms should be obeyed.

As an example, in case of a car market where the flashier cars are preferred the sales department should underline the looks and stress the importance of the superficial features when choosing the models to sell in that market.

The technological factors are very timely to talk about. The pace the new innovations shake the world is great. When high quality research and sufficient funds are allocated for institutional or environmental benefit, breakthroughs take place.

Some markets require a different type of technology and its awareness and willingness to rely on technology is an important attribute of the environment. It can be the insufficient infrastructure that makes it impossible to have a certain technology introduced to a market. For the car markets the electro-technological aspects are a discouraging factor. The internal combustion engines have had their hegemony and it is about to come an end. Is it the electricity that will take the throne or some other energy source? This is the ponder in the

modern times. Buying a car is rarely an investment but it can be contemplated which option out there would be the best value retainer. In times of disrupting technologies, the answer is not obvious, but it can be said that the most wanted models and technical variations stay desirable in the eyes of people; and people are the ones setting the market value of an object.

Environmental factors are highlighted in every discussion. Businesses are forced to improve their practices to match to the consumers' expectations. It has recently become one of the most important aspects to the whole world when it comes to being a consumer and supporting businesses. Sustainability and corporal social responsibility in general are key factors in the outlooks, products and promises of businesses. Every facet has sustainability as an interest and therefore it serves everyone. However, greenwashing, and fraudulent operators can corrupt the field with false promises and unfair settings of competition

Legal factors are partly overlapping with the political factors, but they focus more specifically to the consumer and worker protection. Copyrights and patents are also an important part of the working environment. The legal factors set the constraints that need to be met to have the right to operate. The always changing rules and regulations are not easy to keep up with, since they are not the same for every country and region. A proper law-person is required for any bigger operator to avoid costly mistakes and to make sure the products are eligible and can be offered and sold. The rules apply to the customers too and making sure the rules are followed is a matter of high importance. (Professionalacademy, 2021)

2.4 The path to a purchase

2.4.1 Awareness

First of all, a person needs to be aware about the products and about the options there are. Advertising is a key to raise the awareness; people will make their own decisions partially based on it, but an acquisition cannot take place if the product is not known about.

2.4.2 Consideration

In this phase the options are compared, and the attributes of different marks, brands and models are listed to be able to tell what the eventual decision will be. In this point the advertising and the image there is about a product in the decision making weighs.

As a car sales example there is a certain pattern (Investopedia, 2020) people switch to a new car. They will be unresponsive to offers and advertisements in the meantime but their list of considerable options and their attitudes towards them change continuously. When they are again to make a purchase, the accumulated information is utilized, and they already hold an idea of the interesting models they want to have a more in-depth look at.

2.4.3 Conversion

Conversion is the execution of the final decision the customer has made. At this point the place and time to do the purchase is chosen. The sales conversion depends anymore about the conveniency of the purchasing. The customer can still choose not to buy anything at all if the process is not seamless and if it requires too much effort. For example, several payment options and easily managed internet pages are an important part of the closure of the process. A guided journeys can improve the conversion rate. For car sales it is important to make it easy for the customer to get rid of the old car they have; any feasible obstacle should not be allowed to halt the purchase. (KPMG, 2017)

2.4.4 Evaluation

The last stage of the purchase process is the evaluation part. From a view of the business this part is not easily controlled. It is the customer that chooses is the product or service worth the money spent and would they recommend it to other people and would they come back to the same shop or product to buy it again. The most important factor to build customer loyalty is that the customers have positive experiences, and they get the expected value from spending to a certain item or service. The car sales environment is relatively emotionally loaded and in general people tend to hold an opinion from different brands and marks based on their previous experiences. (Sandberg, 2021)

3 Factors influencing the consumer behavior



Figure 2. Factors influencing the consumer behavior (Rangaiah, 2021)

3.1 Psychological factors

Psychological factors are not easy to measure but they can be spread to motivation, perception, learning and attitudes and beliefs. The motivation has to do with the theory of hierarchy of needs in which the levels to achieve are on different levels.

The perception of a certain product constantly changes as we are subjected to advertisements, reviews, and customer feedback. The art of advertising is to have the perceptions adjusted to the company's most preferred setting.

Learning takes place in the mind of the customer when a product is bought and used. The greater amount of knowledge is accumulated through experience.

Attitudes and beliefs are very effective since they can also be subconscious, and they form as the customer gets indirect information about a product and may not have had an experience of their own. It is useful for the marketers to understand the attitudes of the consumers to have the marketing campaigns adequately adjusted.

3.2 Social factors

As social beings we are impacted by the people around us. The need to fit in is hard-wired to the human brain. The level of conformity is not the same throughout the world but the need to fit in is widely shared.

Our families play a major role in our preferences as we grow up. This has to do with the familiarity and safety of the product already known to be good. It is said that the children learn a lot from the behavior of their parents and tend to subconsciously choose the same way as they have learned from their childhood.

Other groups we associate ourselves with makes us pick the same products because we feel that we are a part of that group. The same leaders are listened, and common patterns are created. The role in a group and a society in general change the consumer behavior because of the status differs. (Rangaiah, 2021)

3.3 Cultural factors

The society we live in has its own culture and our behavior is driven by that. A culture can have several subcultures and they are basically smaller groups of people sharing the same values, requirements, and preferences inside a bigger culture. (Rangaiah, 2021) This is where knowing the customers becomes very important – the advertisers need to be aware of the petit details to reach a certain cultural group.

Social class of a society is collectively determined by the history of the families, their occupations, and their level of refinement.

3.4 Personal factors

The personal factors vary from person to person, creating varied preferences and behaviors. Age is one of the main factors as the purchasing choices are constantly changing during the lifetime. Not all people act according to the same schedule, but it is presumable that people in the same life situation are considering spending on the same products and services as the people of their age in general.

The higher our income the higher our purchasing power. The disposable income compels people to spend on luxury goods when people of lower income must spend the money on the basic needs.

Occupational differences are quite clear to grasp. The items and services need to suit the profession of the people because the needs are different.

Lifestyle differences are powerful influencers. (Rangaiah, 2021) People spend money on the products that support the lifestyle they have chosen. As an example, the fitness-lifestyle requires healthy foods, exercising facilities and specific clothes and the customers spend on the more dynamic products to support the idea they hold of themselves.

3.5 Economic factors

The personal income that can be spent on unnecessary goods is called discretionary personal income. When it increases more money can be spent on shopping goods, durables, and high-quality luxury products.

The level of expenditure is influenced by the income expectations and if it seemed that the income is to increase, more money is spent on purchasing items and vice versa.

Consumer credit and liquid assets can increase the expenditure and make it more flexible.

The expenditure can also be intentionally lessened by saving money and less money is used on goods and services that are not basic necessities. These savings become liquid assets and they can be later used on luxuries and high-quality shopping goods. (Rangaiah, 2021)

4 Risks

Every action bear risks, and they cannot be avoided but they can be listed, ranked, and preferably controlled. Owning anything of any value is risky and cars make no difference. A well-chosen car suits the needs and wants of the customers but considered compromises can be reasonable if the total subjective or objective utility remained unchanged.

4.1 Financial risks

A common perception is held that cars are awful investments. A widely known fact is that car's value begins to decrease immediately as it is driven out of the dealership's showroom. The residual values are diligently calculated by the individuals and the leasing companies to be able to hold some sort of an idea how much the car is eventually to cost. A car holds around a fifth of its original value after 12 years and its value decreases rapidly until its odometer figure has exceeded 200 000 kilometers. When the car's odometer reaches 350 000 kilometers the value meltdown discontinues. (Matikainen, 2017)

Leasing contracts are revealing immediately all the costs and the controlling of the expenses can be more straightforward, but other people hold a view that it is cheaper to own the same vehicle as the leasing model requires monthly payments to be made.

Sanctions are applied to the people unable to keep up with the monthly leasing payments should they become too expensive during the contract period, but in general the amounts can be adjusted to fit the customers' needs and desires quite efficiently. For that reason, it can be said that the financial risks are rather low in case a lease product is chosen since the customer doesn't end up owning anything that could have been a bad decision what comes to the residual value because the lease model's nature is more of a service than an owned asset.

4.2 Technological risks

The energy source competition is fascinating to watch, and it can only be guessed which of them will eventually become established. A good decision now can turn out to be a wrong one as the time goes by. Many of the biggest car manufacturers are discontinuing the

internal combustion engines' reign. (The Economist, 2017) It holds a statement to the audience that the already refined electrical power units are the best option to choose for now.

A sustainable future can be built to all the facets by ensuring a more ecological approach for the peoples' permanent need to move. Investors also seek for the ecological solutions as the green-investing is one of the ongoing megatrends and a front-row enthusiasm to try out the most ecological strategies can be financially beneficial to the sustainable carmakers and brands. As public companies the car makers are subjects to the common opinions and beliefs of the public, and they can only try to sense the atmosphere to find the right direction. Customers and investors wouldn't give their money to a company that had a risky, nonconformist action plan.

Private customers share the issue with the technology related decisions. A hyped energy source at present can end up being a costly odyssey. Disruption generates opportunities but will have its victims.

4.3 Political risks

If not disruption, new regulations that are set can wreck a value of a vehicle in a short period of time. Diesels have been under scrutinization and criticism for their NOx-emissions and the sales have dropped. The accusations have been falsified (ADAC eV, 2019) but the reputation has not been purified. The diesel-scandal of several German car manufacturers in 2014 also left the audience in ponder and the repercussions abate sluggishly. (Colvin, 2020) Desirability and market value have a direct correlation which is a problem of the current diesel car owners.

For example, a new conversation has begun about the electric cars being too lightly taxed in several countries (Hodari, 2021). Incentives that first got some car buyers into the electric cars are now being reconsidered and it will most likely increase the costs of owning a such vehicle. A such car's market value takes a direct hit, and the owner might subsequently suffer unexpected amounts of money.

Political risks are regarded as ponderous also by the public. In Finland an event of incoherent communication about the oncoming official guidelines halted the car sales as no one wanted to make a mistake. (Silvander, 2017)

4.4 Governmental intervention and taxes

Money can be used as a guide for the consumers and so it is in this case, too. Finnish Transport and Communications Agency, Traficom collects the vehicle-specific taxes in Finland. The size of the tax has a positive correlation to the car's CO₂ emissions.

(Verohallinto, 2021)

Hiilidioksidipäästö (g/km)	0	50	100	120	145	160	200
Autoveroprosentti 1)	2,70 %	3,90 %	6,80 %	9,50 %	15,30 %	20,00 %	30,60 %
Autoveroton vähittäishinta (hinnastohinta, sis. alv) (euroa) 2)	25000	25000	25 000	25 000	25 000	25 000	25 000
ALV (euroa) 3)	4 839	4 839	4 839	4 839	4 839	4 839	4 839
Autovero (euroa) 4)	649	949	1 705	2 454	4 222	5 844	9 875
Hinta veroineen (euroa)	25 649	25 949	26 705	27 454	29 222	30 844	34 875
Verojen osuus hinnasta	21,40 %	22,30 %	24,50 %	26,60 %	31,00 %	34,60 %	42,20 %
Verotusarvo (euroa) 5)	24 024	24 324	25 080	25 829	27 597	29 219	33 250

Figure 3. CO₂ emissions and taxing relation (Autoalan Tiedotuskeskus, 2019)

The graph above shows how different levels of grams of carbon dioxide emissions per kilometer affect the tax of a car that is registered as new in Finland. The attached graph shows figures that are in accordance with the newest WLTP-measurements that substituted the previous NEDC-method to close the gap between the official consumption figures from the car manufacturers and the real-life consumption more realistic to the car owner.

(Automobile Association Developments Ltd, 2018)

Also, the fuel prices are mostly taxes (Verohallinto, 2021) and these two add to the extra fees the people with more consuming cars are obliged to pay.

Alternative sources of energy e.g., hydrogen, electricity and hybrids have lower levels of taxing which has an effect on the purchasing price and the fixed yearly expenses of the car. In the study the participants answered that they are going to buy a car with a hybrid engine for the lower taxing; and the tax benefit surely has been noticed. The hybrids will be more ecological than the cars with only an internal combustion engine if the hybrid's fuel-saving features are used. It has been studied that some hybrid car users are not utilizing the ecological features to lower the emissions and it can be said that in a case like that the hybridization only exists to lower the purchasing price and the yearly taxes, but the

environmental impact remains as malign as it is in the case of the conventional power units.
(Griffiths, 2018) (Chakraborty;Hardman;& Tal, 2020)

5 How cars get into Finland

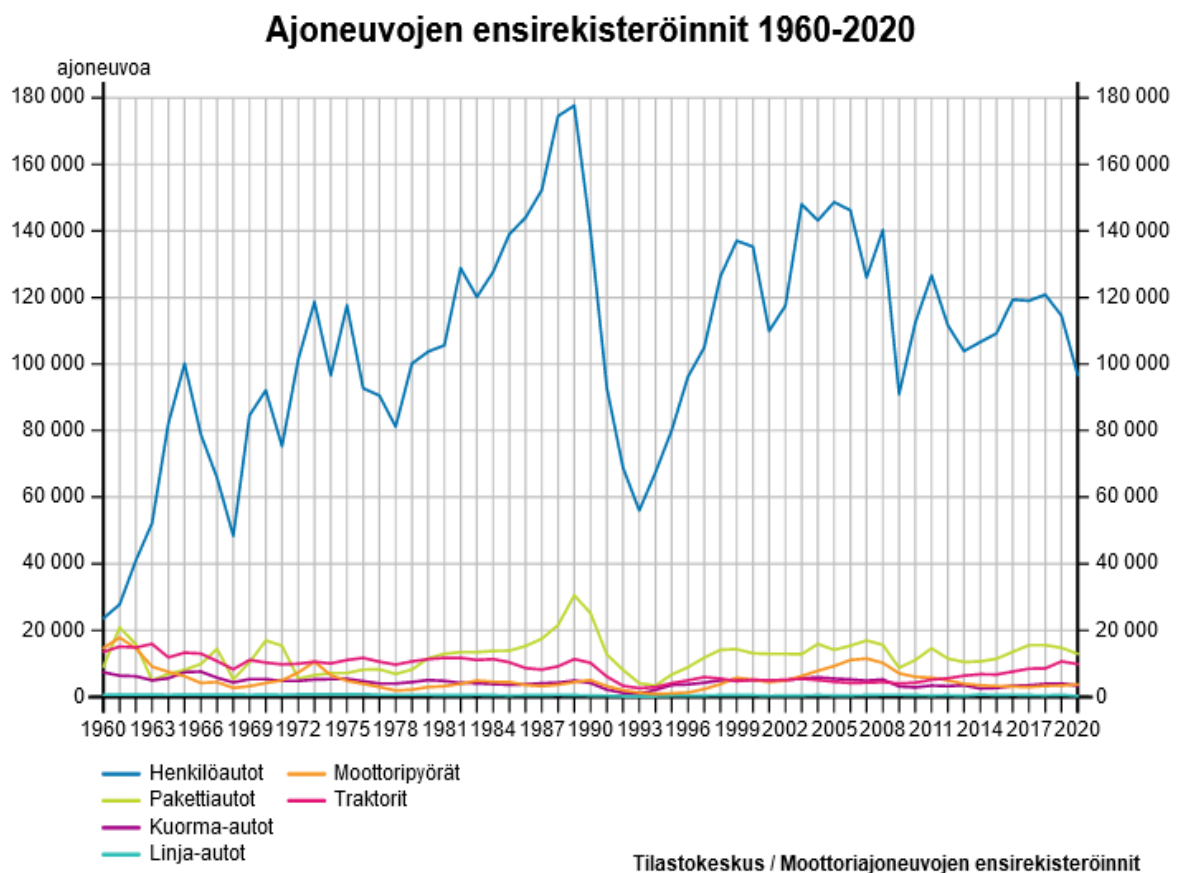


Figure 4. (Tilastokeskus, 2021) First registered passenger car yearly sales in Finland in blue between 1960-2020

As the graph shows around 100 000 new cars are bought to Finland in a year. Used car sales are much greater, it is estimated that 580 000 second-hand cars are sold in Finland in a year. Approximately half of the second-hand car sales take place between private individuals and especially the older-end cars are sold between private people. (Autoalan Tiedotuskeskus, 2021)

The composition of the passenger car base in Finland in 2019 contained around 2 720 000 cars. 4,2%, 114 200 of them were sold as new to Finland with an average price of 34 000€. Every fourth car on the roads had been sold inside Finland as a second-hand car, that made around 625 000 vehicles. Cars that were imported as pre-used to Finland made 1,7%, around 46 000 cars, of the base. The average price of an imported second-hand car was 21 700€. What comes to the whole base of the cars, the average age of a car in 2019 was 12,2 years and its average value was 6 800€. (Autoalan Tiedotuskeskus, 2021)

5.1 First registration in Finland

Cars that are first registered in Finland tend to be more ecological and smaller than the imported cars.

Positive comments about the cars that are sold as new to Finland in the study were about the solid background and a proper maintenance history. Rusting, cold operating temperatures, and the bad condition of the Finnish roads are thought to have probably caused harm to the cars that have only been used in Finland.

5.2 Pre-owned in another country

Imported cars tend to be older, bigger and they are not as ecological as the cars that are first registered in Finland. (Konttinen, 2019)

When the participants of the study were asked to write freely the positive aspects and attributes of the imported cars, most of the answers said that the imported cars are in better condition what comes to rust and to the chassis. They also said that the trim level is higher. The negative side according to the study's answers was that the odometers of the pre-used imported cars can be corrupted. Some also thought that the imported ones can have had undocumented collision repairs done.

The participants seemed to be aware of the wide-spread odometer fraud problem that the European Parliament is also worried about. (CITA, 2021) (European Parliament, 2018)

5.3 The competition and the differences

The answers from the study reveal that there are differences between privately imported and newly bought. Usually the freely written answers from the study state that the privately imported cars have better equipments and the amount of them is higher. The highly equipped models are preferred in the answers of the questionnaire.

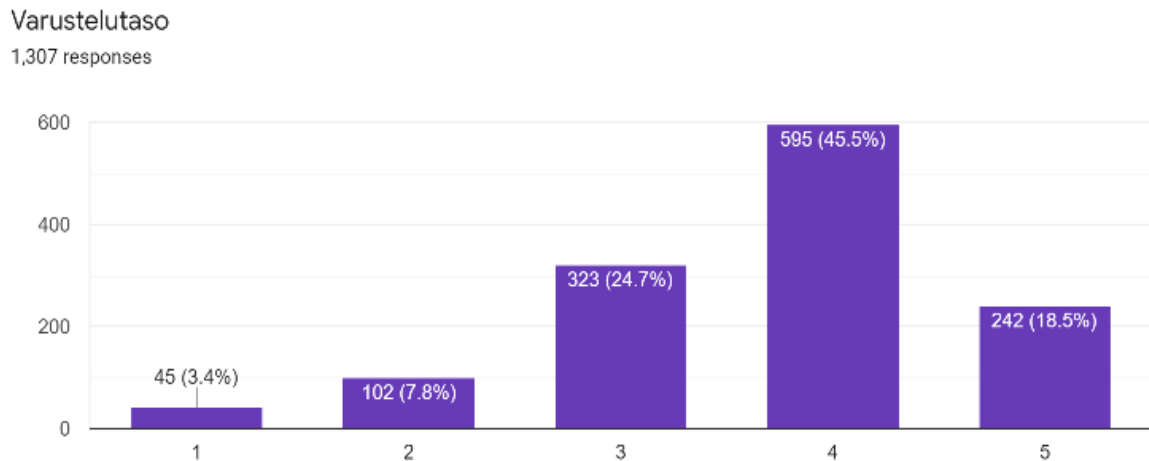


Figure 5. The importance of the equipments from very low importance (1) to very high importance (5)

In the winter time the roads in Finland are treated with sodium chloride and calcium chloride to de-ice the roads. Above freezing point the same compounds can be used to prevent dirt roads from weathering because the highly hygroscopic compounds suppress the formation of dust. (ScienceDirect, 2015) (National Library of Medicine, 2021) These compounds also increase the risk of corrosion of metal and therefore it is expected that the cars coming from areas where the salts are not used the cars are less likely to suffer from problems of corrosion.

In the Finnish car taxing system the total price of the car with all its accessories is taxed and that could be one of the reasons behind the fact that the Finnish cars are relatively low equipped.

Previous studies have shown that the question whether the imported second-hand cars are better or worse than the first registered in Finland is highly subjective and explicit differences are difficult to find. (Mykkänen, 2008)

5.4 About exporting

Car exporting is not common in Finland. Certain models and technical variations can be highly valued outside Finland and exporting can be profitable. Bigger companies that operate Europe-wide also try to utilize the arbitrages based on the differing appreciations of their car portfolio. Kamux, a Finnish car sale company, as an example has widened its operating area to several countries in Europe and it has become possible for it to start assessing the prices in a wider scale to spot the profitable arbitrages.

Africa is the destination for many of the cars exported from Finland. Older Japanese models can be up to four times more expensive in Africa than they are in Finland because spare parts are easier to find, and the simple technology is reliable and is easier for the locals to fix without the latest tools and knowhow. (Ala-Nikula, 2008) (HAAPSAARI, 2018)

6 Methodology

6.1 Why this group

A good study has a good representation. (Bouchrika, 2014) In practice it means that the base group that the data comes from needs to be substantial. A group that shares an interest in the topic of private car owning in Finland was chosen. Especially the costs were under debate and the group seemed to be aware about the realistic future visions.

It seemed to be a promising source of data for the study, and a conversation with the admins of it was started.

6.2 Data collection

The most efficient way to collect the answers was to use an established platform that is most likely to be familiar to most of the people and it also works on every electronic device.

Questions were carefully gathered to a Google Docs -questionnaire, and it was sent to an admin of a promising social media group on Facebook. The survey was pinned and scheduled to be open for two weeks.

6.3 The questionnaire

The questionnaire was divided in five sections to make it easier to focus to a few questions at a time. Already from the beginning it was important to make sure that it doesn't require too much effort from the participants so that the eventual number of answers would be as high as possible. This meant that the feasible sized sections were clearly numbered for the examinees to be able to estimate how much time is it still to consume. The writer has personally opened questionnaires that are not revealing the amount of work required to answer and it can be said that it is a difficult task to stay patient all the way to the end.

Questions were added that one could only answer by an explicit figure to. That gave the quantitative data for the exact results. The participants also had to answer to open-ended questions and therefore qualitative data was provided as well. The primary data was analyzed, and graphs were extracted to provide the reader with visual information, too.

7 The Results

1,317 examinees responded to the questionnaire. 70.2 percent of them were men and the biggest age group was 35-44. The sex division is not a surprise because it has been studied that it is mostly the men taking care of the car related tasks in the Finnish households. (Oksanen, 2021) The age groups were quite equally divided, so the representativeness

seems rather good. To participate to the study, one had to be present and active in social media which must have had an effect on the amount of the older-end participants. Also, only 2.7% answered that they do not own a car at the moment, and it can be expected that the majority of the examinees have contemplated the different aspects of the car buying.

Sukupuoli
1,310 responses

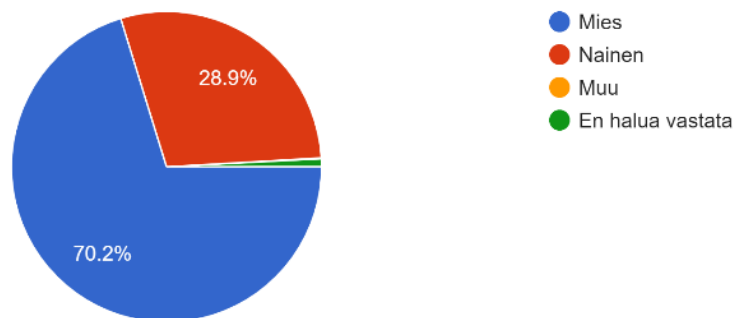


Figure 6. The sex of the participant

Ikäryhmä
1,311 responses

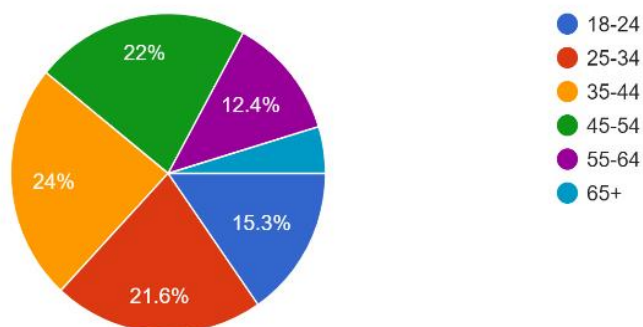


Figure 7. Age groups

Only a quarter answered that their budget for the car exceeds 15 thousand euros, and it seems to fit to the bigger studies and Traficom's estimations. (Autoalan Tiedotuskeskus, 2021)

It is interesting that 31,6 percent of all the people could not tell above what level a car in their opinion is no longer ecological, but the answers reveal that the consumption aspect is an important one. The fuel consumption has a direct correlation with the emissions. (WLTPfacts, 2021) They are either not willing to name a level or just aren't able to tell because they haven't paid attention to a such detail. 100, 150 and 200 grams of CO₂ per km are highlighted and 11,1 percent of the answers are in line with the official charts stating that cars with a CO₂-figure under 101g/km are class A. Every model has their own tax group based on their individual figure and the official chart suggests that for now a CO₂-emission figure below 101g/km has the lightest possible base taxing. Every vehicle that does not run on gasoline will also have an energy tax that is based on the weight of the vehicle but the pecuniary incentive to choose a more ecological car remains until its tax group is the lowest possible. (Liikenne- ja viestintävirasto Traficom, 2020)

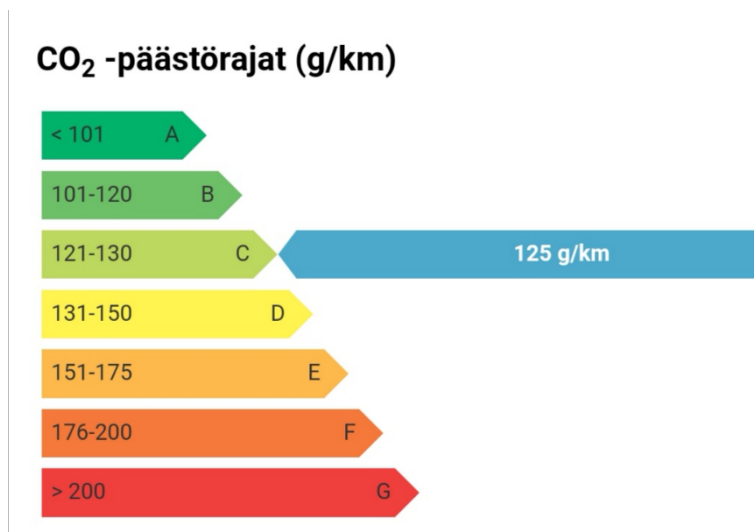


Figure 8. (Liikenne- ja viestintävirasto Traficom, 2020)

This question also shows the attitudes as every fifth person did hit the highest possible figure. It was a subjective question but surprisingly the official guidelines were chosen only by a tenth. It is possible that the group's intentions are more on the side of lower costs and therefore some answers are exaggerated to hold a statement.

88,9 percent said that their car at the moment was a secondhand car. The average car of a participant in the study was a gasoline driven, air-conditioned front-wheel drive car with a manual transmission that has not been privately imported and pre-used in another country.

The conventional energy sources (diesel and gasoline) are well represented, since 96.8% of the participants say that their car drives on either one.

Only 0.4 percent of the participants are going to rely solely on the public transportation as their next form of transport. 76.9 percent says that their next car will be a second-hand car. The average next car of the participants is a used, gasoline driven, four-wheel drive car with an automatic transmission. It will have air-conditioning and it will be newer, but it will be approximately the same size, it will also have approximately the same value, and a status upgrade will not take place. In general, the car's status value seems to have a little or no effect on the decision. 15.9% says that the next car will have lower CO₂-emissions and every fifth person (21,5%) will buy a hybrid car because of the lower taxes. Every tenth (9.2%) person is going to buy an electric car next. The case of the electric cars seems to fit nicely with the slightly bigger studies abroad; in the UK, RAC's study revealed that 9% of the 3,068 respondents are going to buy an electric car as their next car. Also, in the RAC's study 78% said that the electric cars are too expensive and 90,5% of this thesis work's examinees answered that they agree, or strongly agree with a statement that electric cars are too expensive. (RAC, 2021)

Statusarvo
1,311 responses

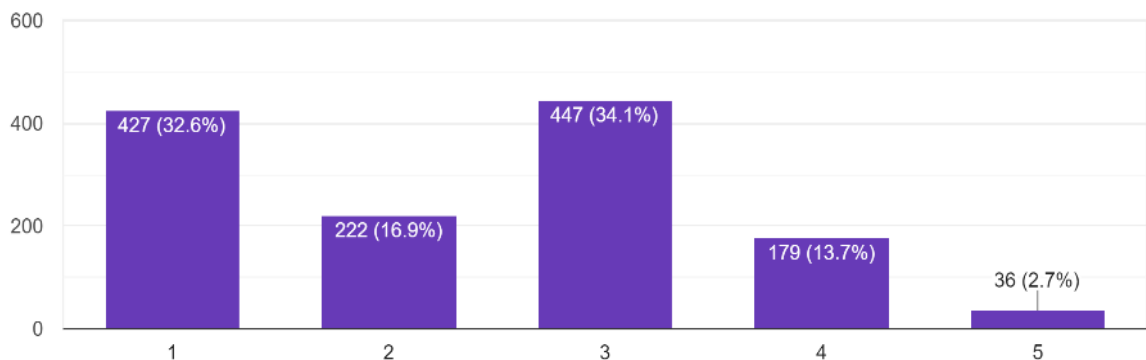


Figure 9. The importance of the status value from very low importance (1) to very high importance (5)

Only 5 percent are buying a hybrid car for ecological reasons, but 21.5 percent says that it is the tax-wise reasons behind a decision of a hybrid.

The freedom to choose is so important to the examinees that 87.1 percent says that it is extremely important for them to own a car and to have the ability to use it whenever they feel like.

Kuinka tärkeää sinulle on omistaa auto ja saada käyttää sitä mieleesi mukaan?

1,315 responses

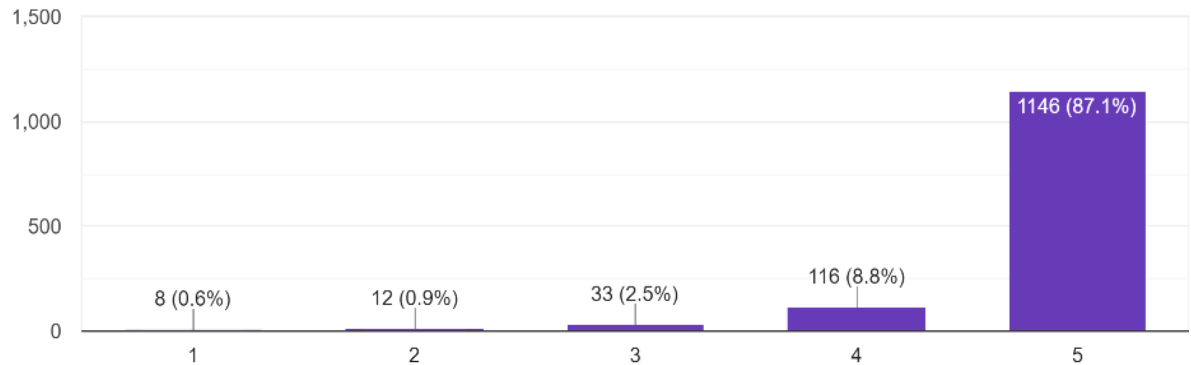


Figure 10. The importance to own and freely use a car of your own from very low importance (1) to very high importance (5)

Brand loyalty seems to fit to the previous studies. (Danske Bank A/S, 2021) 28.1% says that the brand has no impact on their decision, but 54,6 percent of the answers say that the brand is important or very important to them.

Merkki

1,313 responses

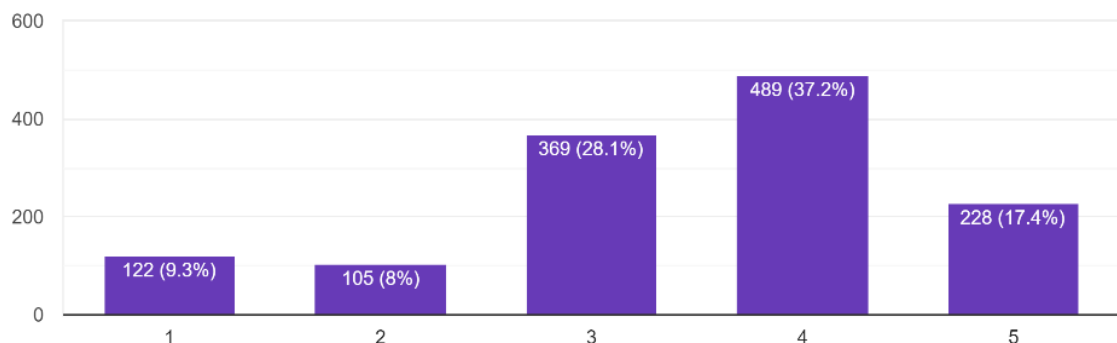


Figure 11. The importance of the car's brand from very low importance (1) to very high importance (5)

To a question whether they would like to use the public transportation, 40.1 percent chose the most disagreeing answer. 67.7% answered that in their case the public transportation would not be cheaper to them. It is not possible to tell to what extent this is true and have the participants calculated the expenses to be able to compare them. Living far from the centers and hot-spots easily makes it rather expensive to travel by the public transportation. Relying on the public transportation can also bring time efficiency problems.

The ecological values are important or very important to only 12,9 percent of the participants but 61% said that the consumption is important or very important to them when choosing a car to buy. More research is needed to form conclusions from this result, but it has been studied that especially men tend to characterize pro-environmental behaviors (PEBs) as feminine, and some men choose to opt out from the ecological actions in general to make sure they are not viewed by others as possibly non-heterosexual (Swim; Gillis; & Hamaty, 2019). This thesis study's participants were mostly men and men tend to take care of the overall activities having something to do with cars, at least in Finland (Oksanen, 2021). Therefore, it can be said that it is a remarkable perspective for the auto industry and for the leaders of the world to bear in mind when intending to aid the green transition (European Commission, 2021) and when intending to make people adjust their behaviors and reconsider their sentiments.

Ekologiset arvot

1,311 responses

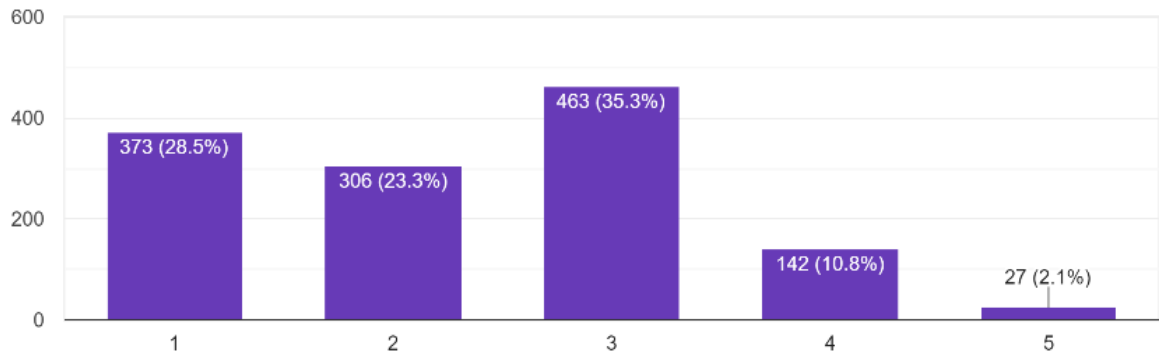


Figure 12. The importance of ecological values from very low importance (1) to very high importance (5)

Kulutus

1,309 responses

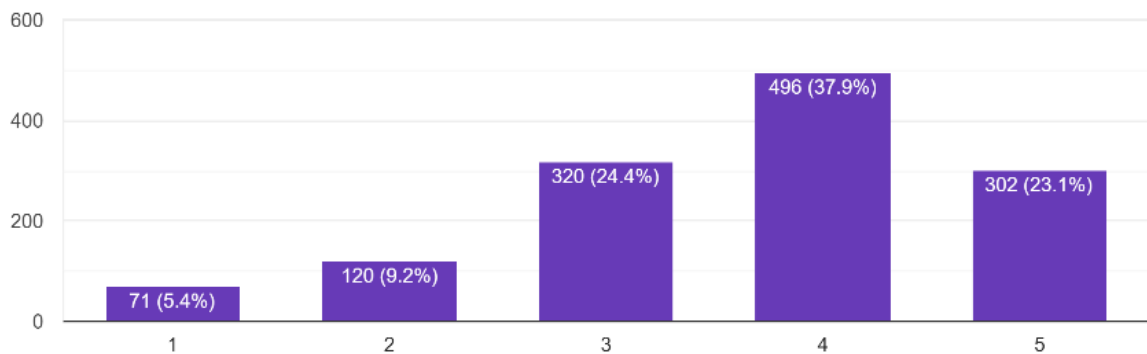


Figure 13. The importance of consumption from very low importance (1) to very high importance (5)

Less than half of the participants did calculate the total costs of owning a car before buying one, but 58,2% think that the total costs are important or very important to them when choosing a car. It is possible that the examinees only estimate the costs, but explicit calculations are not on the agenda and the question was too strict.

Laskin autonomistamisen kokonaiskulut ennen autoni ostamista. (Traficom-maksut, vakuutukset, arvonaleneminen ja rahoituskulut)

1,310 responses

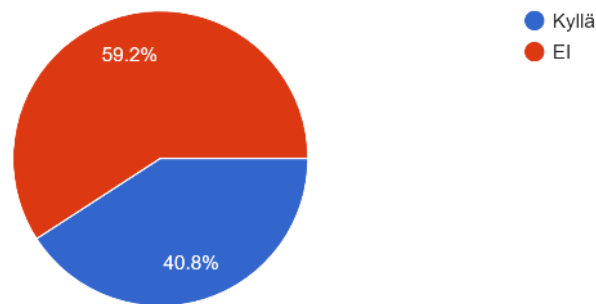


Figure 14. Did total cost calculations take place before the purchase

Autonomistamisen kokonaiskulut. (Traficom-maksut, vakuutukset, rahoituskulut ja arvonaleneminen)

1,311 responses

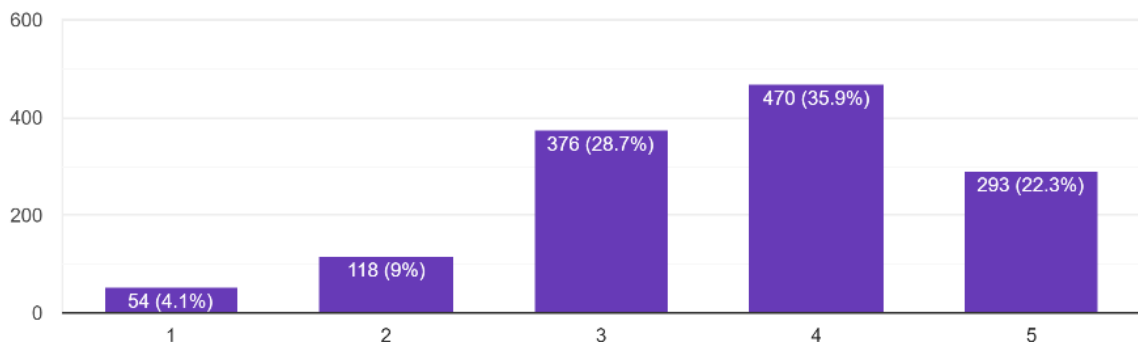


Figure 15. The importance of the total costs of owning a car from very low importance (1) to very high importance (5)

The internet has changed the car sales because it has widened the area they are searched from. Several chains offer a delivery to the closest showroom for no charge and a phenomenon of the time of the pandemic has been home delivery. To the participants it still seems to be an important part of the car buying process to have the car physically so close that it is possible to go and have a look on it straight away. When asked how important it is for them to have the car nearby to have a look, almost half of the examinees think that it is

important or very important to them. It is an interesting result because it is usually possible to remotely scrutinize very carefully every detail of the potential models and individuals on the market in the days of high-quality documentation. This will obviously benefit the larger dealership chains with several showroom locations. The smaller operators are willing to offer a home delivery after purchase but a vehicle relocation only to show it to a potential customer would bear too high risks what comes to time management and to the costs.

Auto on fyysisesti lähellä ja sitä pääsee heti katsomaan.

1,308 responses

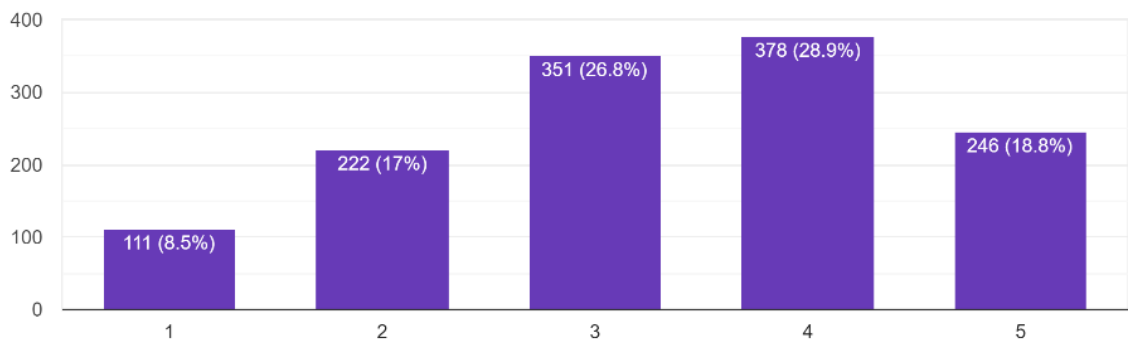


Figure 16. The importance of the physical proximity of the car from very low importance (1) to very high importance (5)

8 Conclusions

The Finnish car buyers are practical, and they want to own a car because they are used every day. The car brings freedom, and the owners want to be able to use them as they wish.

Participants of the study said that the public transportation would not be cheaper for them so it can be said that a car of their own in their case is a rational decision. The brand matters but the car does not need to be flashy. The engine's performance and the consumption are important, but the ecological aspect does not weigh too much. The total cost of owning a car is a matter of high importance but only holistic estimations are applied on the options and exact calculations are not executed. The car buyers regard the tax benefits as important factors, but this mostly means that it is the hybrids that are spoken about but the naturally low emission cars with low performance are not wanted. Participants of the study said that

they would like to buy more ecological cars, but they are expensive and 67,4% of the people strongly agreed with a statement that the electric cars are for now too expensive to buy.

The Finnish car buyers are careful, and they think that it is important to be able to have the car nearby to go and have a look at it. It is important that they themselves like the superficial visual aspects of the car, but it does not have to be ostentatious. The latest driving assistants are not seen as necessities, but the purchasing process needs to have been made effortless.

It is truly not an easy task for the officials to create reliable and fair regulation. Compromises between powerful incentives and the people's different socioeconomical situations are hard to achieve and under constant criticisms. Varying mechanisms of discrimination will and must be introduced to make sure that the resources and the rising costs are fairly divided.

The government's traffic related income is composed of several sources; the taxing of the newly purchased and second-hand imported vehicles, value added tax, Traficom-costs and high-taxed fuel prices all contribute to the treasury. They are all directly or indirectly ecology-correlated income sources and as the average pollution levels of the cars are on a downward trend the taxing mechanisms need adjusting to ensure the same level of funding. Private car owners that can be said to be the winners are the individuals who take the advantage of the new innovations and energy sources immediately as they became available for them to buy and comfortably use. The incentives that come in the form of lower costs are added to these models at the beginning but as they become popular enough to be regarded as established practices, the governments all over the globe cannot but to increase the taxing since the new technology has been widely accepted by the public and the funding cannot be let to fall any further. The mechanism has worked accordingly, and it is no more needed to encourage a specific activity.

If everyone was encouraged to use private cars as the primary form of transportation the costs would decrease per car owner, the same analogy goes for the usage of the public transportation which in Finland in most cases needs to be subsidized because it is not used widely enough to cover the costs. If everyone begun to rely on the public transportation and started to pay for it, it would become very cheap to use. These two systems need to be supported because not everyone acts the same way. Although, the busses for example

utilize the same roads as the private car owners and the same roads need to be kept in order to serve the people taking the bus and it makes these systems and interests also overlap.

Taxing has several functions and one of them is that it can be used as a guide to tell which direction is preferred. The governments' officials have a great responsibility when setting the laws – the laws that shape the citizens' behavior and therefore eventually deliver anticipated outcomes. Should the governmental decisions have been false there would be a national calamity to disentangle.

One observation from the study is that the general information that is given to the citizens is extremely cautiously processed. Whether it was about a particular tax amendment or a broader climate change advancement outlook that was communicated about, it needs to be firm and have a stable, unsurprising foundation for the people to trust and to rely on. The conventional, steady need for a car brings its own factors to the decision making and trends are generated and forgotten. The government's regulation is a significant component and a reachable, easy-to-use system for the communicative registry needs to be reinforced to maintain the relationship with the citizens as they are the subjects to the rules.

The evolution is not promising in Finland. So far, it has been possible for the public to see the registration plate specific emission and taxation figures online from the Traficom's system, Autovertaamo. The system has been among the most important sources of relevant information for the thesis writer when it comes to comparing vehicles and their qualities. For some reason the record was discontinued during this thesis process by Traficom (Traficom, 2021) and the ecological, financial and taxational comparison processes were made more difficult. A surprising decision it truly is as the general focus towards more ecological solutions is supported by governmental financial incentives and the explicit numbers are used to determine the amount of costs. However, the figures are still known by the government, since the taxing is continued, but they are no more shown in the Autovertaamo system for the public to facilitate figure-based reasoning. The citizens cannot only be told to make better decisions – accurate guidance needs to take place.

Some governments are already noticing the problems that the decreasing tax revenue generates. (Hodari, 2021) The winners are the individuals who diligently utilize the heavily incentivized models and energy sources and ditch them as the discussion about the too low

expenses begins. 67,4% of the study's examinees strongly agreed with a statement that electric cars are too expensive. Their prices are, however, falling rapidly as they naturally lose their value on the second-hand market (Matikainen, 2017), and because the battery costs are plummeting (Henze, 2020).

Lithium-ion battery pack prices have plunged in the last decade

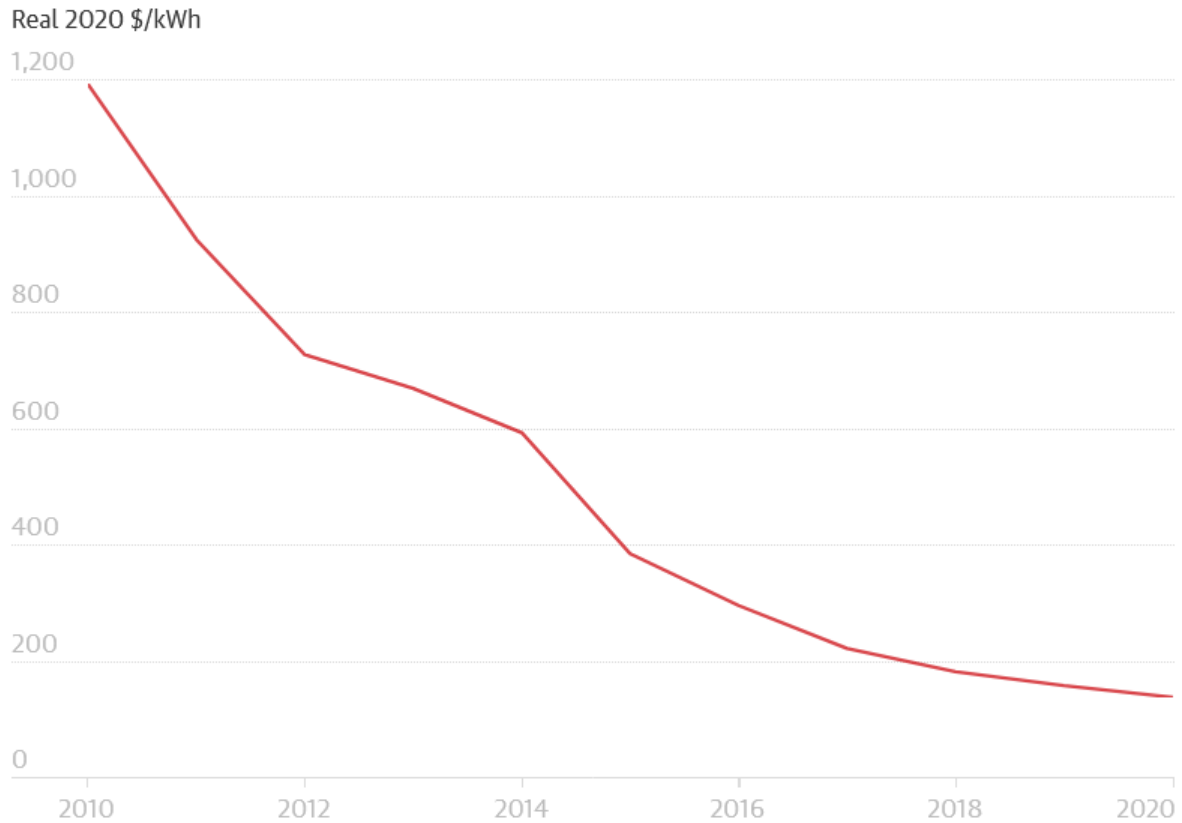


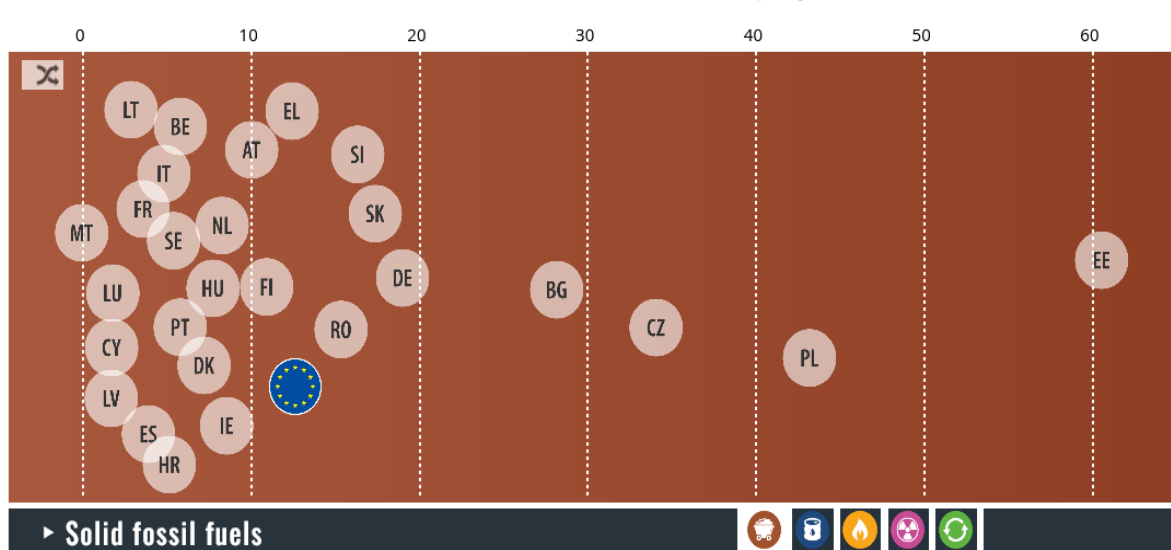
Figure 17. Lithium-ion battery pack prices decrease (Carrington, 2021)

The electric car sales are expected to go up immediately when the price is right and when it becomes more efficient to drive an electric car compared to a vehicle that uses a conventional energy source (Sharpe & Lenton, 2020). The problem with the diminishing tax revenue is therefore expected to be in no time on every government's agenda that has introduced financial incentives to encourage electric car sales.

Countries that still do rely heavily on the fossil fuels what comes to the electricity production need to first solve the problem with the electricity's sustainability. Electric cars introduced into a such society will only reduce the immediately noticeable pollutants from the exhaust pipes, but the overall ecological improvement will not take place if for example most of the

electricity spent also by the electric cars on the roads was produced with the fossil fuels as it is in Estonia. (Eurostat, 2021)

Share of energy products in total energy available, in %, 2019



Energy mix for the European Union 

Figure 18. Share of solid fossil fuels in total energy available in EU, in %, in 2019. (Eurostat, 2021)

Everyone will still choose their own very best option respective to their constraints, wants and needs. From the financially rationalizing aspect a more expensive car with lower fuel consumption and taxes would eventually end up being a better choice as the net expenses of owning and using the car would pass underneath the extra funding that was initially needed to make the purchase. Also, continuously tightening pollution regulation could ensure higher residual value for the ecological cars. Anyone needing a safe way of carrying their offspring could be happy to pay some extra for having a bigger car since they could provide better crash protection (Insurance Institute for Highway Safety (IIHS), 2021). Some choose to have a car to have their personality and image enhanced for themselves and to the audience. A certain crucial point could surmount all the other when important enough. Usually, the eventual pick is a concoction of all the possible super- and sub-liminal arguments, and that is why the fluctuating desirability of certain models, and their relations is interesting and essential to observe.

The greatest responsibility remains with the policymakers. The policymakers never run out of tools to make a society obey, they are the ones who choose the direction where we are going towards together.

Have we got the right direction?

8.1 Holistically about the process

The author was a car guy – and still is. The velocity that the manufacturers are able to bring the new, fascinating products and inventions out and into practice is breathtaking and engaging. The official, strict rules that keep on tightening are forcing the companies to the transition towards ecologically sustainable solutions. Surreal goals can lead to fraudulent outcomes like the diesel scandal. Fines are costly, so is fraudulent play. Achievable objectives generate genuine competition and sustainable results.

The thesis writer learned about himself that he is interested in the fiscal incentives that can be applied to make people act a specific way; for that reason, taxing and the pecuniary matters are a major part of the work. There is an enormous worldwide transition to take place in the peoples' behavior and in the consumption patterns what comes to the issue of global warming. The governments, national leaders and law makers have a tremendous liability and therefore it felt timely and relevant to pay attention to these affairs.

Also, according to the survey the tax benefit stimuluses are powerful, and some time was taken reasoning it. Strong crowd leading tools usually have something to do with the monetary point of view and guidance by costs is effective. The author began this thesis process feeling competent but learned plenty of new things while searching for the information that was used in this thesis. The regulation is meant to be updated and it does vary; only continuous re-learning and checking assures up to date knowledge. The subject seems to be very polemic and instead of harmonically going towards a mutual goal different facets try to ensure their interests first – as it was the primary matter. It can be guessed that it is just human as every entity is an egoist.

An important perspective of studying in another language than in one's mother tongue is to learn to use the language excellently. The writer personally has been quite confident English user but during this thesis process he for sure did run into some new words and gained

competence with the subject. Due to the somewhat technical nature of the words, he is not surprised to have discovered them writing a thesis work. At times it began to feel that the text seems to be too repetitive, but it is the case when the area spoken becomes very precise and narrow. Exact synonyms and accurate euphemisms are promptly exhausted, and a tautological image perseveres.

The author kept on improving the questionnaire in his mind the whole time it was being replied to by the social media group's members and it was no longer ductile for him to shape. It felt that the relations of the questions could have been more carefully planned. Some of the examinees also freely wrote about their personal situation that was not mentioned among the questionnaire's answer options. It was accepted that the thesis will be continued with the results and the learnings will be taken to the master's thesis when the time comes. The writer was taken by surprise when some disturbing content reached him via the freely written sections of the study. After a time of bafflement, it was realized that it truly is nothing to be amazed about nor insulted. More than 300 000 people got access to the survey and deplorable behavior cannot be ruled out.

This study took place in the darkest of days of the Covid19-pandemic. Also, for that reason it was chosen to proceed without having a commissioning company. The learning institution's reassuring assistance brought confidence to the process. The online survey was efficacious, and no issues came up with the systems or the tools. The amount of the answers was surprising and therefore it can be surmised that the audience also found the questionnaire easy to use. The pandemic might have influenced the answers as social distancing has been one of the ways to slow down the pandemic and the need to use private cars has emerged during this challenging time.

The pandemic is mentioned here also to remember it for good when the author is going through his bachelor's thesis in the years to come. An exceptional time it surely has been, but we are about to come to an end.

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Appendix 1: The questionnaire that was utilized to gather the data

To the people owning or considering buying a car

This questionnaire is used to gather the data for a Bachelor's thesis in International Business degree program in HAMK.

The thesis is about the factors that contribute to the decision making of purchasing a car. Please provide every section with adequate information according to your personal situation.

If you have several cars consider the one that is mostly used as the car to talk about when filling the questionnaire.

The answers provided are anonymous and cannot be linked to a certain examinee.

Thank you for participating!

Janne Kälkäjä, HAMK

[Kirjautu Googleen](#), jotta voit tallentaa edistymisesi. [Lue lisää](#)

Gender

- Male
- Female
- Other
- Prefer not to say

Age group

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

What is the budget for a car in your case in thousands of euros?

Valitse



The car I have right now

- I have no car at this moment
- Used car
- New car
- Imported car
- Car that has been sold to Finland (Suomiauto)
- Diesel
- Gasoline
- Hybrid
- Electric
- Hydrogen
- Manual transmission
- Automatic transmission
- Front wheel drive
- Rear wheel drive
- All-wheel drive
- Air conditioning

My car in the future

- I will start using public transportation
- Used car
- New car
- Imported car
- Car that has been sold to Finland (Suomiauto)
- Diesel
- Gasoline
- Hybrid because of the environment
- Hybrid because of lower taxes
- Electric
- Hydrogen
- Manual transmission
- Automatic transmission
- Front wheel drive
- Rear wheel drive
- All-wheel drive
- More efficient in the sense of lower CO2-emissions and consumption
- Less efficient in the sense of lower CO2-emissions and consumption
- Bigger
- Smaller
- The same size
- Higher status brand
- Lower status brand
- Same status brand
- Safer due to higher number of safety features
- Cheaper
- More expensive
- Around the same value
- Newer
- Older
- Around the same age
- Air conditioning

Above what level of CO₂-emissions per kilometer (g/Km) do you think a car is no more ecological?

- I do not know
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100
- 110
- 120
- 130
- 140
- 150
- 160
- 170
- 180
- 190
- 200

[Seuraava](#)

[Tyhjennä lomake](#)

2/5 Needs

I need a car

Every day

Every week

Every month

Occasionally

I would like to use public transportation

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

How important it is to have a car on your own for you and have the ability to flexibly use it whenever needed.

1 2 3 4 5

Not important Very important

I could rely solely on public transportation

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

Would public transportation be cheaper for you?

Yes

No

I am not sure

I own a car at this moment

Yes

No

The car I have at the moment, make and model

Oma vastauksesi _____

Takaisin Seuraava Tyhjennä lomake

3/5 Evaluate all the factors that affect the decision-making when you buy a car.
You are asked to rate the following factors' impact on the decision.

1 = VERY LOW IMPACT
2 = LOW IMPACT
3 = NEUTRAL IMPACT
4 = HIGH IMPACT
5 = VERY HIGH IMPACT

Status

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The brand

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ecological values

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Consumption

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Performance of the engine

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Total costs of owning the vehicle, (taxes, insurances, financing costs and value depreciation)

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The look of the car					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Tax benefits in case of a hybrid or other cars with low CO2-emissions					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Your budget constraint					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The odometer reading					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Age of the car					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Trim level					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Air Conditioning					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The car is physically close to go and have a look at it					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The buying process is made easy					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Modern driving aid technology					
1	2	3	4	5	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Takaisin	Seuraava	Tyhjennä lomake			

4/5 Imported cars

Are imported cars better than the ones that were sold to Finland as new?

- Yes
- No
- I am not sure

If you answered that imported cars are better, please do shortly tell why.

Oma vastauksesi

If you answered that imported cars are NOT better, please shortly tell why.

Oma vastauksesi

Takaisin

Seuraava

Tyhjennä lomake

5/5 Costs

The total costs (Traficom-payments, insurances, funding costs and the decreasing value of the vehicle) of the car per year were calculated by me before buying the car I have now.

- Yes
- No

Disruptive innovations are to wreck the value of conventional cars with internal combustion engines.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

My next car will be cheaper to own and use.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I would purchase a more ecological car if I had the money.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Electric cars are too expensive.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Even if electric cars were cheaper they wouldn't suit my needs.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

The only function of a car is to get from place A to place B.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

The prices of gasoline and diesel are too high.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

The prices of gasoline and diesel are to increase in the future.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Takaisin

Lähetä

Tyhjennä lomake