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ENVIRONMENTAL CONCERNS IN CONSUMER DECISION MAKING PROCESS FOR PURCHASING CARS IN ESTONIA

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ABSTRACT

The automobile industry is an important part of every country's economy but it is also the source of one of the world's most serious problems: car emission. This research explores the consumer decision-making process of car buyers as well as consumers' perception of the environment using Estonia as a case study.

The objective of this research is to better understand why people buy vehicles, even though cars emit gases that pollute the environment and endanger our own lives in the long run. The study problem is the ongoing global threat of carbon emissions from car exhaust, which causes air pollution and is dangerous to the public, as well as why people make the choices they do.

The research study approach entails a poll of 232 respondents and a 10-person interview to determine the factors that affect buying decisions, the level of consumers' understanding of the impact of automobiles on the environment and whether environmental concerns influence car purchases.

The results indicate that price, family and car quality are the three most significant factors that affect respondents' car buying decisions while consumers' understanding of the environmental impact of their car use is strong and their responses suggest that environmental concerns influence their purchases.

Keywords: Car, Emission, Consumer Buying Process, Environmental concern.

INTRODUCTION

The global pollution of cars is between sixty to seventy percent and the vehicles are responsible for large volumes of carbon monoxide, hydrocarbon, nitrogen oxide, toxic substances such as finely filled particulates and plumes, of which each may have a negative impact on health and the environment (Swami 2018).

However, Cohen (2012) commends the automotive industry triumphs because of entrepreneurial tenacity, tireless demand and credits the favourable political, economic and cultural developments. According to Saberi (2018), the car sector is a major source of tax collection fund for countries.

According to Anjum (2008) referenced in Swami (2018), the adverse effects of vehicle emissions of carbon dioxide (CO2) as a global problem are a significant global danger needing global attention.

According to Haas & Sander (2020), the transport industry represents both the industrial and European Union drivers of climate change (EU), although the EU in its entirety is showing decreasing carbon emissions, emissions from transport are higher than those of 1990 and around 12% of overall EU greenhouse gas emissions are caused by car traffic.

The aim of this study is to understand the consumer decision to purchase cars even though cars produce emissions that cause air pollution that in the long run is hazardous to our very existence.

The research problem is the persistent global challenge in the release of carbon emission from the exhausts of cars, causing air pollution and is hazardous to the public and why people make the decision to purchase cars. The research will focus on what consumers think in their decision-making process of buying as it relates to the pollutant effects of cars in the society and find answers to the research questions.

The research questions are:

1. What factors influence the consumer's choice in purchasing a car?
2. To what extent are consumers aware of the environmental aspects of automobile consumption?
3. Do environmental concerns influence their purchasing decision?

The first stage of the decision-making process is the time that a customer knows he or she wants something and at stage two, the consumer starts to look for details on the various options he/she can buy in order to meet the requirement. Are there any alternatives? Is it a poor initial product?" At stage four, a customer purchases a product based on price, quality, branding, product placement and other factors, as well as a series of tests and at stage five, the final one, the consumer asks questions such as “Was the product right? Did my expectations confirm the description of the product?” (Stankevich et al., 2017).

This study used both qualitative and quantitative research methods through interview and questionnaire respectively. The interviews were conducted on car consumers in Estonia alone and the questionnaire was sent out in three languages such as Estonian, Russian and English using convenience sampling technique via text messages, different social media platforms on to friends and colleagues to fill the questionnaire.

There are two chapters and the first dwells on consumer decision making process, models of decision-making process, factors That Influence the decision-making process and lastly, automobile and environmental concern.

The second chapter gives justification for the research method used and the results of the questionnaire while the rest of the chapter bothers on the findings, analysis of results and recommendations. Meanwhile, the conclusions follow the second chapter while the last pages contain a list of references, questionnaire and interview questions asked from the respondents.

1. **LITERATURE REVIEW**

In this chapter, the author focuses on consumer decision-making and taking into perspective, consumers behaviour because the behaviour of consumers gives rise to their buying decision.

Consumer behaviour is the buying method, encountered by the clients because of a long process of information that could involve a broad search for evidence, product comparison and evaluation (Belch & Belch, 2009 referenced in Stankevich *et al*., 2017).

The literature review will be reviewing existing literatures on related topics on what guides consumers in making the decisions they make. It consists of four different parts and they are consumer decision making process, models of decision-making process, factors That influence the decision-making process and lastly, automobile and environmental concern.

1.1. Consumer decision making process

All these marketing decisions are founded on expectations and awareness of customer behaviour (Hawkins, Mothersbaugh & Best, 2007 referenced in Stankevich *et al*., 2017).

Consumer behaviour is characterized as the processes and practices through which people browse, choose, purchase, use, assess and dispose of products and services to meet their demands and desires (Belch & Belch, 1998 referenced in Karimi 2013).

According to Perner (2021), consumer behaviour is defined as the study of how individuals or groups are acquiring, using, experiencing, discarding and deciding on products and services or lifestyle habits.

Consumer behaviour is described as the actions that consumers take when looking for, buying, utilizing, reviewing, and disposing of products and services that they believe will meet their needs and its research focuses on how people decide how to spend their available resources (time, money,

and effort) on consumption-related objects (Schiffman & Lazar, 2007 referenced in Panwar *et al*., 2019,1).

1.2. Models of decision-making process

Stankevich *et al.,* (2017) discuss the traditional model of the consumer decision-making process as a five-stage model of the consumer buying process, which includes five stages that consumers pass through when purchasing a product or service and which a marketer must recognize in order to better move the consumer to purchasing the product, interact effectively with consumers and close the transaction (see Figure 1). According to Panwar *et al*., (2019), this model is relevant for everyone making marketing decisions since it forces marketers to understand the whole purchasing process rather than just the purchase decision, which might be too late for a company to affect.

Stankevich *et al*., (2017) explain that the first stage of the decision-making model is need/problem identification, which occurs when consumers recognize that they want something. Interestingly, marketers want to purposefully create a difference between consumers' status and their desired status, of which the imbalance would create a need and cause consumers to detect and purchase a product or service. Companies may identify customer needs and develop marketing strategies during the need identification stage (Kotler & Keller 2016, p. 195; Kotler *et al.,* 2017, p. 155-156 referenced in Qazzafi 2019).

In the second stage also known as information search, Stankevich *et al.,* (2017) report that the customer may seek knowledge both internally and externally to help him or her decide. An internal information search is defined as information from memory such as previous experiences with the product/service, while an external information search is described as asking friends and family about their experiences with acquiring a new product, which may also include research of public sources such as reviews, blogs and marketing-controlled sources such as banners, television, advertisements and so on. Ibid.

Describing the third stage, evaluation of alternatives, Qazzafi (2019) states that when a buyer gathers knowledge about a product or company, he or she ranks the product or brand and then reviews it.

Stankevich *et al.,* (2017) also describe this stage as one in which the consumer may ask herself/himself questions like: "Do I actually need the product?" Are there alternatives out there? Is the original product that bad? And, in most cases, the buyer chooses one of the most relevant characteristics depending on which he or she can make a final decision or employ the cut-off process (e.g., price, quality, brand, etc.).

They call this stage "moments that matter" because it is a step for the consumer who is looking for the best offer, which can be price, quality, brand, where to buy (location), the consequences of using the product and so on while the best deal is to focus on qualities that are more relevant to each buyer. Ibid.

In the fourth stage, purchasing, after a buyer has decided which brand to buy, he or she will put their decision into action by making the actual purchase, which occurs often in the beginning, a consumer may make a purchase intention to buy a certain product but will not close the deal because additional decisions such as when to buy, where to buy and how much money to spend will be required. Ibid.

There is often a delay between making a purchasing decision and making the actual purchase, particularly for complex purchases such as cars, personal computers and long-lasting consumer products. The period between the decision and the actual purchase can be limited for nondurable products, which include many low-implication items such as everyday goods. Ibid.

According to Qazzafi (2019), the consumer at this point, chooses to buy a product after gathering information from various sources, evaluates and decides where and what to buy and the consumer purchases the brand or product that receives the highest ranking in the evaluation stage, as the purchasing decision is often affected by the surrounding environment.

The fifth and last stage is the post-purchase where Stankevich *et al.,* (2017) express that by asking themselves a series of questions, customers assess and revisit the product with satisfaction or dissatisfaction., such questions as “Was the product right? Did it confirm their expectations?

If a consumer finds that the product meets or exceeds the promises made and their expectations, he/she will almost certainly engage him/herself in word-of-mouth marketing in influencing other

potential customers in the second stage of their customer journey and increasing the likelihood of the product being purchased again. The same can be said about negative feedback that might prevent a potential consumer from purchasing the product. Ibid.

Qazzafi (2019) advises that companies should not cease operating, even after a customer purchases a product, the company should be aware of the consumer's behaviour or opinion of the product and after using the product, the customer will be pleased or disappointed. Follow-up activities help to build a loyal customer after purchase (Stankevich *et al.,* 2017).

Figure 1: The five-stage model, consumer buying process
Source: Stankevich *et al*., (2017, 10)

Darley *et al*., (2010) explained in their discussion of the decision-making process that the Engel-Kollat-Blackwell (EKB) model extended John Dewey's (1910) original five-stage problem-solving process and applied it to consumer behaviour.

Reviewing a previous study on consumer behaviour model, Jisana (2014) discuss consumer behaviour using the Engel-Kollat-Blackwell (EKB) model as a deliberate problem-solving and learning model while Prasad & Jha (2014) describe the model as a rapidly expanding body of expertise on consumer behaviour. Both studies agree with the model's description of five events that occur during the decision-making process.

According to Jisana (2014), in the first activity of the EKB Model which is problem recognition, the consumer considers a gap between his or her current state and what the desired state should be, which can arise because of external force.

In the second activity, the consumer is now aware by marketing and non-marketing channels, which also affect the process of issue identification (Prasad & Jha, 2014). According to Jisana (2014), the initial information with the consumer may be compatible with other values and behaviours held by him and the consumer tries to gather more information from various sources, obtain stimuli, take it in and store it in the memory, since this intelligence approach is selective and the consumer embraces information that concludes what he or she perceives.

The third activity is alternative evaluation, Prasad & Jha (2014) describe this stage as the consumer's exposure, attention, interpretation, acceptance and retention of incoming information, during which the consumer must first be exposed to the message, allocate space for it, perceive the stimuli and retain the message by storing it in long-term memory.

At the fourth activity stage, the customer is influenced by his or her purpose and attitude, choice is influenced by normative compliance and expected conditions, where normative compliance refers to the degree to which the consumer is influenced by other people such as peers, family members, etc (Jisana 2014). This is the stage at which variables influence the decision process. Individual and environmental influences affect all stages of the decision process and individual characteristics include motivation, values, lifestyle and personality while social or environmental factors include cultural, comparison groups and families also, situational factors, such as the customer's financial position, also influence the decision-making process (Prasad & Jha, 2014).

The fifth activity which is output as either positive or negative (Jisana 2014).

Osei & Abenyin (2016) discussed that EKB model went through a series of revisions and modifications and finally became the Engel, Blackwell and Miniard, (EBM) model (2001) of which the revised model consists of four sections that are the information input, information processing, decision process and external variables that influence the decision process.

In discussing the first stage of the revised EKB Model, now EBM Model, the emphasis is on the five stages of the decision-making process, which are problem recognition, search for alternatives, alternate evaluation (during which beliefs may lead to the formation of attitudes, which in turn may lead to a purchase intention), purchase, and finally, outcomes, but it is not necessary for every consumer to go through all of these stages because it depends on whether it is an extended purchase or not (Prasad & Jha, 2014).

In the second stage, information input, the consumer receives information from marketing and non-marketing sources and both sources influence the problem recognition stage of the decision-making process, if the consumer still does not arrive at a specific decision or experiences a problem, the search for external information will be activated to arrive at a choice. Ibid.

The third stage is information processing which includes the consumer's exposure, attention, interpretation, acceptance and retention of incoming information. The consumer must first be introduced to the message, allocate space for this information, perceive the stimulus and maintain the message by moving the input to long-term memory. Ibid.

During the fourth stage, there are individual and environmental influences affecting all five stages of the decision-making process, the individual characteristics include motives, values, lifestyle, and personality while social influences include culture, reference groups, family and finally, situational influences such as a consumer's financial level, could affect the decision process. Ibid.

1.3. Factors that influence the decision-making process

In a previous research study on car purchasing decision-making, fuel efficiency, price, maintenance and durability, safety, personal and family needs were weighing characteristics and household demographic variables; location and vehicle attributes, moreover, the impact of family composition, socio-economic characteristics and accessibility as well as focus on vehicle features such as fuel style, body type, maintenance cost, engine displacement, fuel economy and fuel price were included as factors (Timothy & Patricia Kearney, 2006; Chandra *et al*., 2009; Potoglou & Kanaroglou, 2008); Ahn *et al*., (2008) referenced in Lee & Govindan, 2014)

In another previously studied research on factors that influence decision making, customer perceived value is consideration for products of what customers spend and what they get in return, brand image is the totality of the brand connections kept in consumers' memories that contributed to impressions of the brand while design is the overall characteristics of products desired by customers such as product presentation, functionality and problem-solving (Sweeney & Soutar, 2001; Keller 1993; Parameshwaran *et al*., (2015) referenced in Dhanabalan *et al*., 2018).

Price is considered the most important factor in a consumer's buying decision as well as the reflection of the brand value, the relationship value where consumers' interactions with company and the product value. Ibid.

In another vein, some scholars discuss personal, cultural, social, psychological and market mixing as factors that influence the consumers' purchasing decision.

The personal factor is the first factor that influences purchasing behaviour which includes age, stages of life cycle, occupation, attitude, lifestyle and values, furthermore, age and stages of life cycle are constantly evolving as people's purchasing preferences change at various stages of life (Qazzafi 2020).

Personal factors include characteristics, attitudes, lifestyle and education level of which characteristics refer to the sum of their regular and stable psychological characteristics, which include primarily interests and activities, disposition, personality and abilities, among others and this has significant implications for consumers in terms of product recognition, product information collection and product pre-purchase, product preferences, product selection and product buying efficiency to stimulate consumers' purchasing requirements and motivations, which will also have a significant effect on customer loyalty and consumption rate, with long-term consequences (Cheng 2015). Lifestyle is a person's way of life and businesses can create goods based on the lifestyles of their customers (Kotler *et al*., 2017, 149 referenced in Qazzafi 2020).

The social factors include political and economic forms that influence consumption quantity, approach and product acquisition access, which can also directly encourage or limit consumption behaviour and consumer desire, thus affecting people's purchasing ability as well as consumption level and environment; additionally, the social class is a group made up of people who have a certain level of education, despite the fact that certain people have similar beliefs, lifestyles and consumption patterns, there are differences in consumption behaviour due to differences in economic income, interests and educational background (Cheng 2015).

Psychological factor also known as internal factor influences the decision process and the psychological factor includes four factors such as motivation, perception, learning and memory (Ali & Ramya, 2016; Kotler & Keller, 2016, 187 referenced in Qazzafi 2020). Culture, subculture and consumer tradition are examples of cultural influences where culture refers to the amount of

material and spiritual capital in the social development course, including material, structural and behavioural culture; meanwhile, culture defines the option of consumer behaviour subjectively, influencing consumer experience directly (Cheng 2015).

A person's community, (online) social network and family, as well as word-of-mouth, are all social factors that influence customer buying behaviour, people in the primary group communicate constantly and informally, such as relatives, friends, neighbours and co-workers, while people in the secondary group are more formal and need less continuous interaction (Kotler & Keller 2016, 191 referenced in Qazzafi 2020).

Finally, the market mixing factor affects any stage of consumption because it is the fundamental concept of marketing management, among which product, price, place and promotion are core elements (Cheng 2015). Product purchasing is inextricably linked to product price because the latter is one of the factors that directly affect consumption behaviour and consumers can compare quality when selecting products, performance, brand, package, etc in order to make a purchasing decision and the purchasing channels primarily refer to the place, location and acquisition approach and the general approaches are supermarkets, direct marketing and sales promotion, among others and as a result, the selection of purchasing channel is the primary approach to acquiring products and it has a significant impact on the purchasing decision. Ibid.

1.4. Automobile and environmental concern

In this study, we focus on environmental concerns in relation to consumer decision making process in purchasing cars.

According to Dürr, 1994 referenced in Poortinga *et al*., (2004, 8), research focus is on household energy use, the use of (fossil) fuels is linked to the extraction of natural resources and is a significant contributor to air emissions and global warming.

Household energy use is one field where global environmental issues are directly related to human behaviour (Brandon & Lewis; Noorman & Schoot Uiterkamp, 1998 referenced by Poortinga *et al*., 2004).

In a previous study on environmental concern, Kotler (2011) referenced in Chu *et al*., (2018) stressed the environmental imperative where both consumers and businesses have a view of sustainability which affects their development, promotion, distribution and consumption beliefs and practices, also argued that the preferences of customers will drive business marketing practices, including the creation of ecological market offers (products, services, experiences).

According to Dimitropoulos (2014) in a study to investigate the impact of drivers' environmental issues on their desires for various types of plug-in electric vehicles (PEVs) which was based on the findings of a large-scale survey of Dutch drivers, it was discovered that environmental issues were a strong indicator of class affiliation and that strongly concerned drivers appeared to cluster in classes that support PEVs and high environmental issues were linked to the driver's age and education, but not to the driver's household income while plug-in electric vehicles (PEVs) also received strong policymaker support in recent decades, as widespread deployment is seen as a potential way to address mounting questions about environmental pollution, climate change, oil reliance and energy security as this is mirrored in recent efforts by the governments of the United States and Europe to set aggressive targets for the penetration of PEVs in national car fleets.

Car companies have fulfilled this expectation and invested heavily in research and development of environmentally friendly cars (EFCs) and is important to maximize the rate of adoption of EFCs, both for car companies themselves and for the feasibility of cars that meet the environmental needs of consumers and express that research has shown that consumer concern regarding environmental concerns is likely to affect the rate of adoption of environmentally friendly goods (Banbury & Mitchell, 1995; Bamberg, 2003; Barr, 2004 referenced in Romm 2006).

According to Dimitropoulos (2014) in a study to investigate the impact of drivers' environmental issues on their desires for various types of plug-in electric vehicles (PEVs) which was based on the findings of a large-scale survey of Dutch drivers, it was discovered that environmental issues were a strong indicator of class affiliation and that strongly concerned drivers appeared to cluster in classes that support PEVs and high environmental issues were linked to the driver's age and education, but not to the driver's household income while plug-in electric vehicles (PEVs) also received strong policymaker support in recent decades, as widespread deployment is seen as a potential way to address mounting questions about environmental pollution, climate change, oil

reliance, and energy security as this is mirrored in recent efforts by the governments of the United States and Europe to set aggressive targets for the penetration of PEVs in national car fleets.

In view of environmental awareness in proffering solution to this global crisis, Schwartz 1977 referenced in Coad *et al*., 2009 suggest that provision of updates to about the state of the atmosphere and how to make their lifestyles less detrimental to the environment by information provision policies, several causes are thought to be important for customers to take pro-environmental action: awareness of an issue, awareness of better solutions, a sense of duty and the expectation that one's own decisions will help solve the problem.

Additional factors such as government incentives and representations of the environment also influence the adoption of products and in addition, the effect of these factors is based on economic theory and national culture in the different economies to intersect or to vary or transcend customer behaviour, consumers thus adopt environmentally friendly goods for environmental reasons (Li, Moul, & Zhang, 2016; Ralston, Holt, Terpstra & Kai-Cheng, 1997 referenced in Romm 2006).

Chu *et al*., (2018) suggest lobbying government for research and development (R&D) grants or other subsidies as a more successful strategy (for example, tax breaks) and to summarize, car makers must place their EFCs on a country-by-country basis, because there are differences in buyers' needs for financial benefits, their desire to present an environmental image and also their need to do their part in protecting the environment (See Figure 2).

The measures taken by government are often designed to influence the adoption rates of environmental-friendly products, moreover, sociology and consumer conduct studies have shown that customers are linked to social products values (Beresteanu & Li 2011; Ewing & Sarigöllü, 2000; Gallagher & Mühlegger, 2011; Han Nunes, & Drèze, 2010, Leary & Kovalski, 1990 referenced in Romm 2006).

However, consumer adoption of PEVs, especially full electric vehicles (FEVs) has long been hampered by relatively high acquisition costs, significant uncertainty about battery technology developments and drivers' reluctance to accept changes in their current refuelling behaviour and to address some of these concerns, car manufacturers have recently developed intermediate solutions, simultaneously, new refuelling concepts, such as fast-charging and battery-swapping,

have been introduced and applied around the world in order to reduce the charging time of PEVs to that of ICE-powered vehicles (Dimitropoulos 2014).

These trends have necessitated a fresh look at customer tastes for PEVs, with a particular emphasis on relevant vehicle attributes, simultaneously, it is critical to consider which customer attributes are more likely to be correlated with the profiles of candidate PEV adopters and to tailor fiscal policies, engagement methods and marketing practices to drivers that fit those profiles. Ibid.

Most users, however, are unable to give up their primary mode of transportation, owing to the present standard of living and intense feelings of freedom associated with personal automobile use. As a result, it is important to encourage environmentally friendly approaches, vehicles that operate on renewable fuels including liquefied petroleum gas (LPG), compressed natural gas (CNG), biofuels and hydrogen, as well as drive trains like electric vehicles (EVs), hybrid electric vehicles (HEVs) and hydrogen fuel cell vehicles (HFCVs) that provide an appealing option for reducing the environmental footprint of personal transportation by successful policy steps (Anderson & Stradling, 2004 referenced in Knez *et al*., 2014).

Environmental protection strategies on these renewable power vehicles are a key component in reducing environmental contamination, since the average car will emit more than 600 grams of pollutant a day, without a pollution control instrument in good technical conditions (including carbon monoxide, oxide nitric and other solid matter, particularly petrol, with adverse effects on the human body) (Yu & Jiang 2020, 5).

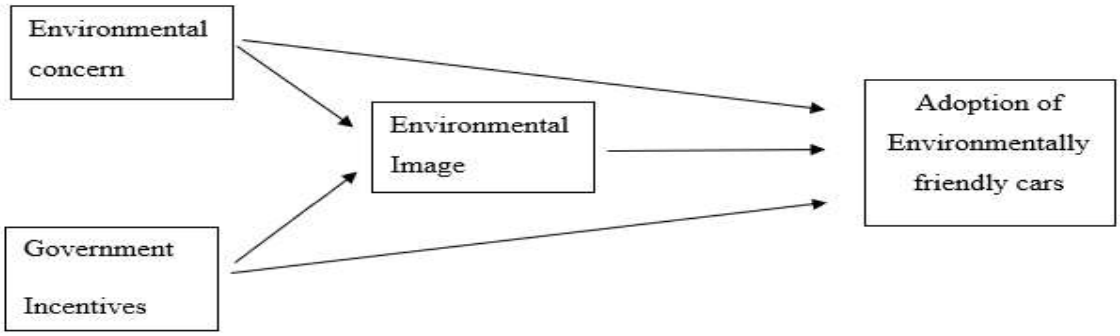

Figure 2: Adoption model for environment-friendly cars
Source: Chu, *et al*., (2018, 285)

2. METHODOLOGY AND DATA GATHERING

This chapter provides information on how the research study was conducted. The author describes the research methods used, how the research has been designed, distributed to respondents and analysed. This chapter consists of the research plan, design and data collection.

The research questions are:

1. What factors influence the consumer's choice in purchasing a car?
2. To what extent are consumers aware of the environmental aspects of automobile consumption?
3. Do environmental concerns influence their purchasing decision?

The aim of this study is to discover whether environmental considerations influence car purchase decisions.

2.1. Research design

This objective was accomplished with the application of both qualitative and quantitative approaches. The use of both approaches is intended to provide useful techniques for overcoming the shortcomings of both qualitative and quantitative ‘mono-method analysis' (Kelle 2006). Quantitative research provides a general image of the surface of the test sample while qualitative research dives further into the report to provide the information required for an in-depth explanation, validating the use of both approaches. Ibid.

2.1.1. Qualitative study design (study 1)

Qualitative study is described as definitions, terms, concept, descriptions, representations and objects interpretation while the goal of using qualitative research as a method is to generate a memory that helps resolve issues and to collect evidence from people involved with their natural

environments, for instance, data collected in evaluation of open-ended questions, in-depth interviews and field notes is a useful tool for offering a comprehensive analysis and helping to provide a greater insight and provide an abundance of information about people and actual life situation (Berg & Howard, 2012; De Vaus, 2014; Leedy and Ormrod, 2014 referenced in Abuhamda *et al*., 2021).

The author designed the interview questions, (See Appendix 1), to give answers to the research questions and based on the theoretical framework of environmental concerns on decision making process of buying cars. The interviews consisted of eleven semi-structured questions under which the author searched for factors that influenced their buying decision, their awareness on the European Union policy on reduction of car emission.

2.1.2. Quantitative study design (study 2)

A quantitative research methodology is one that emphasizes statistics and percentages in data gathering and interpretation of data (Bryman, 2001, 20 referenced in Eyisi 2016).

Firstly, the author designed questions in line with the information needed to get answers to the research questions. The questionnaire was developed and a small group of people was asked to pilot test it to get feedback on how to make the questionnaire easier to read for the respondents.

Secondly, a questionnaire consisting of thirteen questions was finalized and there were questions about three categories of information in the questionnaire- social demographic information, factors that influence the decision-making process of buying cars and awareness of the European Union policy on car emission reduction. (See Appendix 2).

In all of these, the author explored the use of multiple-choice questions having single and multiple responses, interval scale question, Likert scale question and open-ended question to allow respondents give their own thoughts. According to Hyman & Sierra (2016), questionnaires should be designed to be as precise and as simple to answer as possible, and open-ended questions should enable respondents to have a wide range of answers. They also advocate for the idea of choosing one option from many alternatives close-ended questions, which are simpler to answer because they make the response process easier.

Lastly, the questionnaire was translated from English to Estonian and Russian languages with the help of local friends and the questionnaire link was sent first to friends, classmates, colleagues at work and thereafter to the different Facebook groups the author belonged to as well as some other social media platforms, in order to reach as many people as possible.

2.2. Sampling material

In this segment, the author discusses the use of sampling materials for both qualitative and quantitative research methods. For the qualitative method, thematic analysis was used while descriptive analysis was used for the quantitative method.

2.2.1. Sample for study 1 (qualitative)

This part was carried out in a single-interview-per-participant design with six men and four women whose driving experiences ranged between three and thirty-five years. They were Estonian based car users who volunteered themselves to be interviewed in an interview session as the author posted to request for interview participants on Facebook. The interviews took place on Zoom (audio) of which the author asked them some eleven semi-structured questions and the participants shared their views on factors that influence their purchasing decision and their awareness knowledge of the effects of car use in the environment as well as their different opinions of how they show concern for their environment.

The primary source of this analysis was collected via recordings of ten interviews that are resident in Estonia and were purposely selected to share their thoughts on factors that influence their car buying decision and their awareness of environmental consideration in their car buying decisions. The recorded interviews were transcribed and coded thematically to bring out the main points from the themes collected from the participants' responses drawn from the transcripts (See Appendix 3). The findings and conclusion of this analysis are purposed to give an overview of factors that influence car buying decision making as discussed by the respondents.

The method of finding patterns or themes in qualitative data is known as thematic analysis, the aim of a thematic analysis is to find themes which are significant or fascinating trends in data, and then use these themes to address the study or make a point about a topic, following the six phases of thematic analysis, the author got familiar with the details, generated initial codes, searched for

themes to review themes, defined the themes and finally, wrote the analysis (Clarke & Braun, 2013; Braun & Clarke, 2006 referenced in Maguire & Delahunt, 2017).

2.2.2. Sample for study 2 (quantitative)

The sample size for this study consisted of respondents with different demographic information (See Table 1). There was a collection of 324 responses of which 15 were from respondents in some other countries apart from Estonia, they were filtered away because the survey was meant for car-users resident in Estonia. 77 other responses were also filtered out because they were from non-car users as against the target responses from car users. So, altogether, the author analysed with 232 responses which were collected from 138 English speaking respondents, 72 Estonian speaking respondents and 22 Russian speaking respondents.

2.3. Analysis methods

The author discusses the methods used in carrying out the analysis collected from the primary data for both qualitative and quantitative methods.

2.3.1. Analysis method of study 1 (qualitative)

Thematic analysis, according to Braun and Clarke (2006), is a method for identifying, analysing, and reporting trends in data in a rich and organized manner. This approach was used to analyse the transcribed data from the zoom interview by the reporter. The choice of this methodology stems from the method's ability to analyse data without requiring advanced knowledge.

The author familiarizes herself with the details by going through all of the transcribed interviews at the outset of the study. After that, predefined codes originating from the questions are assigned. The codes were examined, fine-tuned and trimmed before being organized into themes.

2.3.2. Analysis method of study 2 (quantitative)

The first section of the questionnaire is used to collect demographic information of the respondents and it started with gender which showed that the highest number of respondents was from the female gender with 53.44% while the male gender was 45.68% and some that preferred not to say their gender were 0.86% as they were 124, 106 and 2 respectively.

The interval scale was used for age groups and it was revealed that respondents in the age group of 28-37 years had the highest number of responses at 46.12% (107 respondents), followed by those in the age group of 38-47 years at 18.97% (44 respondents) and the next one was the age group between 48-57 years at 16.38% (38 respondents), 18-27 years at 12.93% (30 respondents), 7 respondents in the age group of 58-67 years were 3.02% and finally, 6 respondents in the age group of 68 years & above were 2.59%.

In collecting the respondents' highest educational attainment, the author found out that the greatest respondents were bachelor's degree holders with 54.74%, master's degree came after with 25%, vocational came next with 9.05% and then, Ph. D holders with 6.03% and finally, secondary school holders with 5.17%.

Almost half of the respondents (48.71%) indicated that they were office workers while 20.69% of the respondents were students. The self-employed and entrepreneur represented another 25.43% of the respondents. The respondents that declared that other forms of occupation were 12.5% of the sample size. Some of the respondents chose more than one occupation as a multiple-choice question that was used for occupation.

There was information on marital status that showed that the married respondents represented 61.63% while the single were represented by 34.05%. Others of 4.3% were represented by those that declared themselves to be cohabiting, in open marriage, divorce, widow and widower.

The table below also includes information on the three language speaking respondents as 59.48% of the respondents were English speakers, 31.03% represented the Estonian speaking respondents while 9.4% accounted for the Russian speaking respondents, there was no question to ask for language of respondents as there were three links to the three-language questionnaire of which respondents freely decided their language choices. The last question on the demographic section was on country of origin and every other respondent from other country was filtered out to concentrate on only the ones from Estonia.

The questionnaire has a question "Do you have a car?" and the responses to this question are that respondents that represented "Yes, I have a car" were 93.1% (216 respondents) and the respondents that indicated that they had a car and would like to buy another one was 6.9% (16 respondents). The total number of the sample size is 232.

Table 1 Demographic Information		
Variable	Frequency	Percentage
	gender	
Male	106	45.68%
Female	124	53.44%
Prefer not to say	2	0.86%
Total	232	100.00%
	age	
18-27years	30	12.93%
28-37years	107	46.12%
38-47years	44	18.97%
48-57years	38	16.38%
58-67years	7	3.02%
68years & above	6	2.59%
Total	232	100.00%
	higher educational qualification	
Secondary	12	5.17%
Vocational	21	9.05%
Bachelor's degree	127	54.74%
Master's degree	58	25.00%
Ph.D.	14	6.03%
Total	232	100.00%
	language	
Russian	22	9.40%
Estonian	72	31.03%
English	138	59.48%
Total	232	100.00%
	occupation	
Office worker	113	48.71%
Self-employed	59	25.43%
Student	48	20.69%
Others	29	12.50%
	marital status	
Married	143	61.63%
Single	79	34.05%
Others	10	4.30%
Total	232	100.00%
Source: Ogunnaike (2021)		

3. RESULTS AND DISCUSSION

This chapter focuses on the results of the questionnaire and the interview to provide answers to the research questions, using theoretical framework of environmental concerns on decision making process of buying cars.

3.1. Findings from interview (study 1)

Most of them shared that their need to buy their cars was borne out of their desire to be independent because they needed freedom and the comfortability of moving around at their own pace without waiting for bus or relying on people for mobility. Some respondents also communicated that their decision to buy their cars came from their consideration for their family size growth, convenience of doing more things and getting around easier, advice from friends (social status), weather condition, business and their choices were enhanced by their budgets matching their car quality and designs.

They discussed that they considered the comfortability, maintenance cost implication, durability, the features of cars before buying eventually. Three of the interviewees declared that they are comfortable with second-hand vehicles and believe that German cars could deliver value to them. Five of them were fascinated by their car brands because of previous experiences (affordable, reliable, durable, spare parts availability and economical to maintain), friends' advice and research. Four of these interviewees discussed that cars with small engines do not consume much fuel and so, do not emit much emissions into the atmosphere and that is one of the reasons they bought their cars.

Three of them expressed belief that cars with diesel engines would allow them to travel faster and smoother to long distances as well as spending less money on fuel and on the contrary, another three expressed their own belief that cars with diesel engines produced more car emissions to the environment.

Seven of the interviewees wished that they bought hybrid, electric and natural gas cars to enjoy the opportunity of consuming little or no fuel as these types of cars produce low or zero emissions, are affordable to maintain with have little or no technical problems but sadly, they reported that they found them expensive to buy.

Eight of them acknowledged that air pollution came from car emission but three suggested more ideas of implementation that would lead to more improvements can be borrowed from China, well known for being exemplary in the world for standardised charging points everywhere for hybrid, electric and Tesla car users and not only in residences of these car owners; from Norway, for price reductions for new cars and from USA where solar energy is available to help cars charge freely and lastly, that people should endeavour to use bicycle.

Finally, seven of them discussed the havoc fossil fuelled cars constitute as they hoped they would get cars with low or zero emissions later in life to protect the environment. Three professed having preference for Tesla while one of them advocated for second-hand Tesla. Three of them discussed the inspection exercise that cars go through periodically to detect emission faulty cars in Estonia. Four visualized into the future and supported the act of going greener with the use of hybrid, electric and natural gas cars as they are economical, use batteries and less of fuel and are believed to match up with environmental friendliness thereby resulting in drastic reduction rate of car emissions released into the environment.

3.1.1. Thematic analysis

The analysis produced six themes. They are self-awareness, feeling of belonging, trust, staying within one's budget, going green and dream.

Self-awareness: Most of the respondents' responses revealed that they got the awareness of reaching a stage where they needed to do things freely and independently. Illustrative examples from responses appear below.

Participant 1*: Well, I got a car because of the comforts of mobility, I can move easily from here to there. Then also, I have a part time job I also do that involves me driving the car. So that is why I really got a car.*

Participant 2: *I got a car because it's very convenient. I feel I am able to do more things and get around easier that I don't have to. I don't have to think about the bus times and plan out as much. I can go whenever I want. And it won't take me long. And because I take long distance road trips a lot, it's a lot more convenient for me. And I can get to a lot more places faster.*

Participant 5: *Independence. I didn't like to wait for somebody else to take me places. So I got a car.*

Participant 6: *Well, it was a necessity to move faster to get to my destination faster. Because you know, public transport could be a delay sometimes. Also, it was necessary because at some points in the country I'm living, it gets really cold. So it's much easier to move around in a personal car than public transport*.

Participant 8: *License or a car? Why I bought the car. I guess the basic reason is to have the freedom to go wherever I want whenever I want. And I don't have to use public transportation or depend on anybody else. So if I just want to go I have a car, I can sit in it and go when I have the need.*

Participant 9: *Because it's convenient. Gets me faster to the places and I hate carrying stuff so car seems to be like a good solution.*

Feeling of belonging: There were expressions of belongingness in some of their responses that reflected sense of responsibility to provide mobility for family members as the size increased.

Participant 3: *First, getting a car in Estonia is a necessity for a family to move around, because of having the kids….*

Participant 4: *Yeah. I buy cars or let me say I bought my car for the purpose of... our family use it to convey myself and my family all around the town. But ultimately, for business….*

Participant 7: *Personally, I had to get a car because my family is growing….*

Participant 10: *Oh, God, I think a car is just like a necessity for family use. And so I just find this a necessity, because it makes your movements faster, easier. And faster.*

Trust: In their account, there was a reflection of trust in what these products could deliver.

Participant 4: *Globally, Toyota is well known as one of the strongest cars among other car models and coupled with the fact that the parts are quite affordable and available, so, the easy accessibility to its parts and the affordability prompted my interest in Toyota as a vehicle. Yeah.*

Participant 7: *Yeah, because economically it helps it's not expensive to maintain it fits the requirement of what I want especially reliability and durability. And when it comes to the economic aspects, it totally fits the bill. I don't know. I just don't know I, I have been liking Hondas. I mean among Of course. Yeah would be there a lot of better cars and newer cars….*

Participant 8: …..*And historically, Mercedes Benz and BMW have always been ahead of time with other car makers with the, you know, safety systems. So that was kind of the final decisions that drove me towards this, this category or this kind of a car, I guess.*

Participant 10: *Yeah, one of the major things I have to think about is to see the durability because I'm a woman and it's difficult for me to understand more of the mechanical aspects of a car. So, if a car is durable and doesn't give lots of problems then I'm fine with that type of car and that is why I always used Toyota because I've been using Toyota and I've always enjoyed it.*

Spending within one's budget: Some participants revealed that they had budgets for their purchases.

Participant 1: …*And coupled with the fact of the budget that I actually have, so with all these factors, I just went for Civic Honda hybrid.*

Participant 2: *Yes price. Price was for sure. What kind of price and the quality of the car. But because the last time I only thought about the price and not the quality. But this time I wanted the price to match the quality.*

Participant 6: *Well, the price obviously was in the same range of the price of what I actually wanted to buy. So we're able to negotiate for something that is a bit less as well. So yeah, the price is part of why I bought it*.

Participant 7: *You know when I'm buying a car, I look out for durability, reliability, the economic value, and also the price*.

Participant 9: *Yeah would be there a lot of better cars and newer cars, but like by my budget, I didn't want to buy anything really expensive because I don't think I can afford one. And I didn't want to get the loan. So I just looked at my budget and I got something I can get right away without any loan.*

Theme of going green: Some participants expressed their willingness to go green.

Participant 1: *Um, I went I went for the brand because of one, the fuel consumption because I think it's much more...it consumes less fuel because of the hybrid battery it uses, then and then also Yeah, I think basically, ...*

Participant 3: Yeah, I do. I do. Like Swedbank, for example, they do make a campaign of you buying a newer car, and environmentally friendly car. And it means that if you are buying a newer car of let's say, less than one year or two years old, they're going to give you like 1.99%, it means that you're going to get a car on a cheaper interest. And by doing so, they're promoting their environment, like, environmentally friendly car.

Participant 4: *Yeah. Basically, the whole world is trying to avoid anything that has to do with fossil fuel, there is a kind of globalisation of... or let me say the whole world is trying to go green as in trying to avoid emissions. So, the major issues with car usage in the environment are the emissions, the negative impacts, what we call a kind of negative impact on the environment on the ozone layer.*

Participant 5: *Of course, I mean, if you want to get technical, it's of course better to walk or ride a bicycle and not to have so many cars on the road, but I know that certain places, especially the EU, are more strict on the emissions that the cars give out. And so that I know that they are doing more and more regulations. On that, so that when car makers put out cars, they're not so harmful as they used to be. I think someday in the future, most cars are going to be electric probably anyway*.

Participant *6: Ah, well, we are all trying to save the environment right now. Before, I had no knowledge about cars that how we affect our environment rather well, right now, you know, everyone is trying to go greener with the environment.*

Participant 7: *An electric car does not use both benzene which is petrol and/or diesel it basically runs on electricity, which means the car has to be charged, which means that by doing that there*

is no emission coming from the car. It would be more environmentally safe. And I think that's the direction the world is moving towards.

Participant 8: *Well, while the basic is, yeah, like as we use a lot of fossil fuels, and this is the main source. So with all the nice cars. And environmentally friendly, I guess the electric cars and the new hybrid cars are better, because they provide fewer emissions.*

Dream: If the option of price was eliminated, participants shared choices of their dream cars.

Participant 1: *Electric cars, yes. I think they emanate zero combustion into the environment. But I'm not sure. But I might go for an electric car. Maybe Tesla or something but maybe I am dreaming too big but yeah.*

Participant 2: *Hmm. Um, I think soon, not at the moment, but soon I would like to go to an electric car. It's cheaper to maintain it and to fill it up like not filling it up but charging it and it's a lot more environmentally friendly. And I think this is the future, we're going that way anyway. And there's we don't have to worry about the word can I charge it or things like that. And they're just it's the future and the future technology. And I think I would like to be part of the future.*

Participant 3: *For now if you give me such a blank choice, I'll be going for a Toyota Hybrid, a newer car like a Toyota 2019 hybrid that runs smoothly. Less expenses, like I said, because if you buy a car, you don't have to make more repairs and other stuff. So buying a car, a newer car with Toyota hybrid. I think it's much more okay. And it gives you a smooth driving.*

Participant 5: *I would get a Tesla*

Participant 6: *Okay, that's gonna be a Porsche S Class, the latest electric Porsche. It's purely electric. It's fast. It's luxurious and sleek. That would be my choice right now.*

Participant 7: *Okay. All right. In that case, I would select an electric car.*

Participant 9: *Yeah, of course I would prefer the hybrid, kinda electricity and yeah, some I think the hybrid would be the best. I don't know about I don't know about cars. Though, I think I would like something that is really like would not be a burden in any way I mean, like buying gas and and also like to maintain it.*

3.2. Findings from survey (study 2)

The second section of the questionnaire asked about the factors that influence the car purchase decision-making process, in order to research questions 1 (“What factors influence the consumer's choice in purchasing a car?”) and 3 (“Do environmental concerns influence their purchasing decision?”).

Figure 3 shows information on the question “What is your opinion about a car. Most of the respondents (54%) saw cars as a necessity, almost half of them (49%) deemed the car important. Only 15% of the respondents marked that they saw cars as a source of pollution.

When buying a car, 95% of the respondents said that they consider the size of the family (see Figure 4). 75% of the respondents said that price matters, 70% marked quality considerations, and 64% chose maintenance cost as an issue to consider. 46% and 44% of the respondents, respectively, take into consideration the car's physical shape/design and the social status indicated by their car choice. Less than a third (29%) of the respondents said that they considered exhaust issues.

By location, it refers to the respondents' geographical location as some do not stay in Tallinn and may not be having the opportunity of moving around in free buses. And the business is for respondents whose businesses demanded the use of cars to run it, by health, the author meant to put that element as some people may choose to move in their personal cars because of physical disability.

When asked specifically about the importance of possible lowest emissions (see Figure 5), 76% of the respondents indicated that it was very important or important for them (41% and 35%, respectively). Only 11% of the respondents said that emissions were not very important or not important at all (6% and 5%, respectively).

When asked about the environmental impact of different cars (see Figure 6), 70% of the respondents thought that natural gas cars are environmentally friendly, 58% of the respondents thought so about hybrid cars, and 57% about electric cars. Only 12% of the respondents marked conventional fossil fuelled cars as environmentally friendly in their opinion.

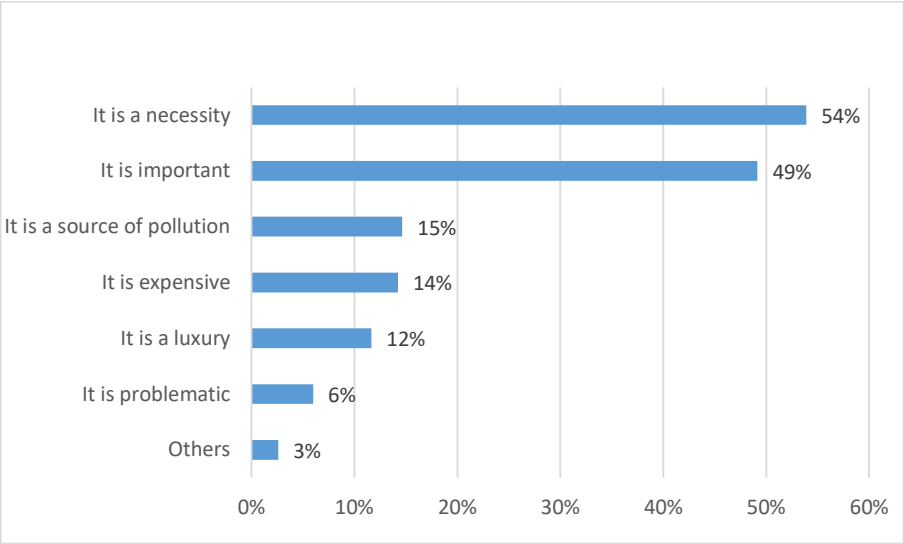

Figure 3. Opinion of car usage to the environment.

Source: Ogunnaike (2021)

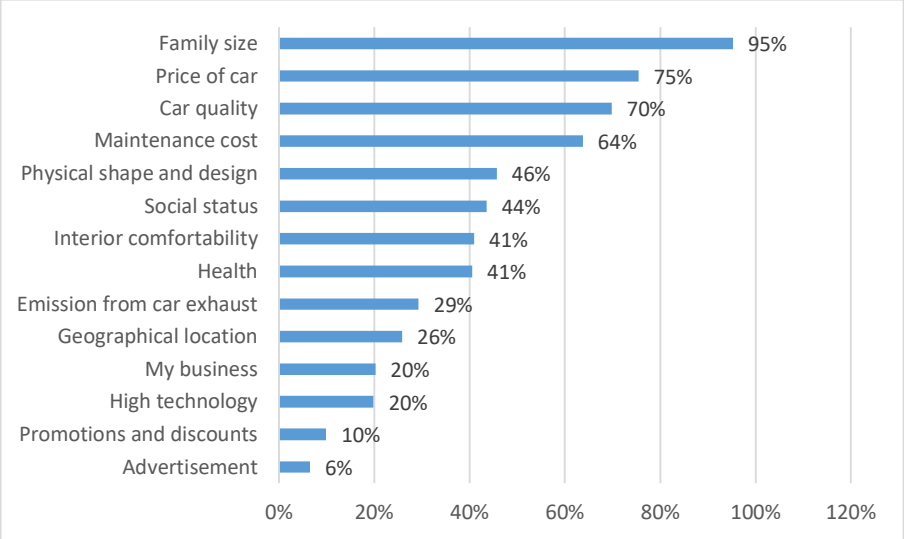

Figure 4. Consideration when buying a car.

Source: Ogunnaike (2021)

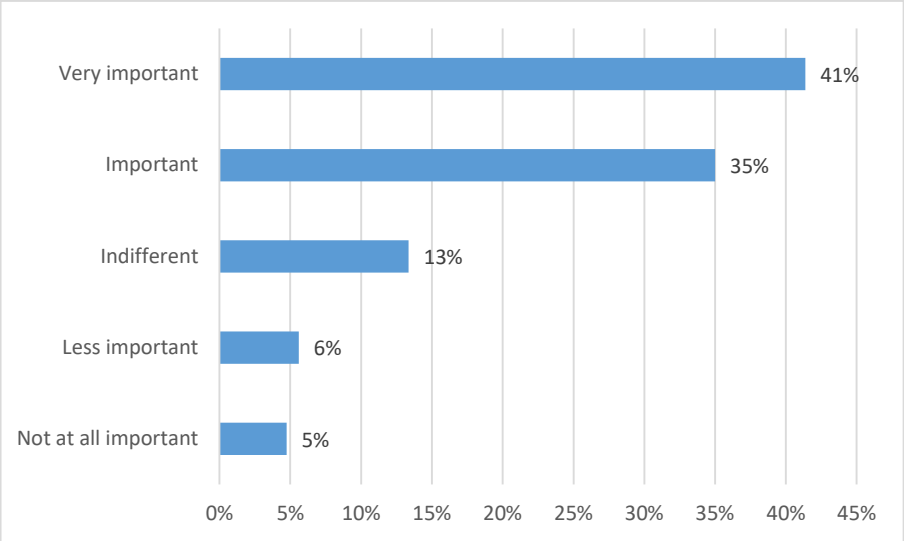

Figure 5. Importance of the possible lowest carbon emission

Source: Ogunnaike (2021)

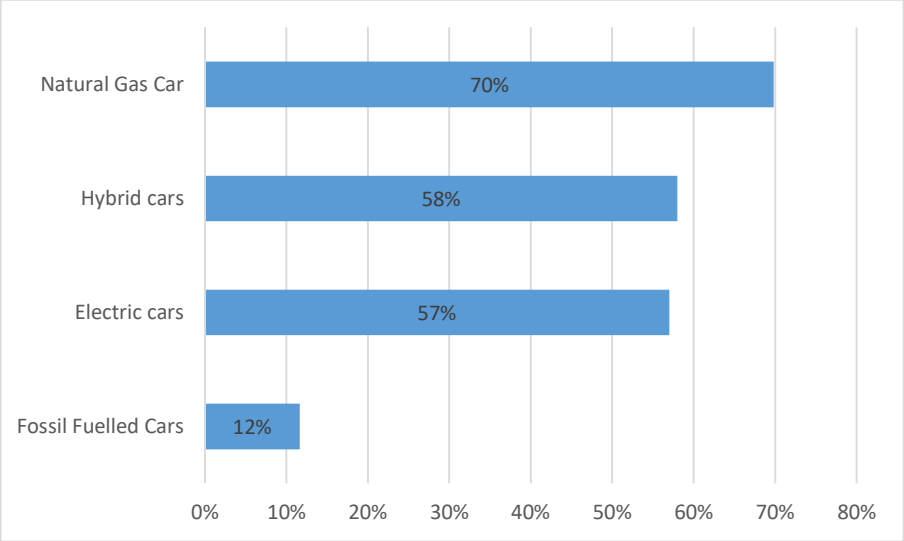

Figure 6. Environmentally friendly cars.

Source: Ogunnaike (2021)

The third section of the questionnaire is focused on the awareness of the European Union policy on car emission reduction, and it is purposed to find answer to the research question 2 that says: To what extent are consumers aware of the environmental aspects of automobile consumption? When asked about their awareness of the European Union policy on car emission reduction, 76% of the respondents said that they were very much and slightly aware of this plan (33% and 43%,

respectively). 17% of the respondents said that they were less aware or not aware at all (9% and 8%, respectively).

About a third of the respondents (N=77) said that their awareness of the emission reduction plan came from the press (TV, radio, ERR news, newspapers). 25% of the respondents (N=57) said that they became aware of the policy through online sources. 29 respondents became aware through educational sources (seminars, assignments, school courses), 22 mentioned the EU Commission website and 20 respondents wrote about some personal experience (as a result of their periodic car inspection, discussions, or information from friends). 27 respondents (12%) left this open question unanswered (See Figure 7).

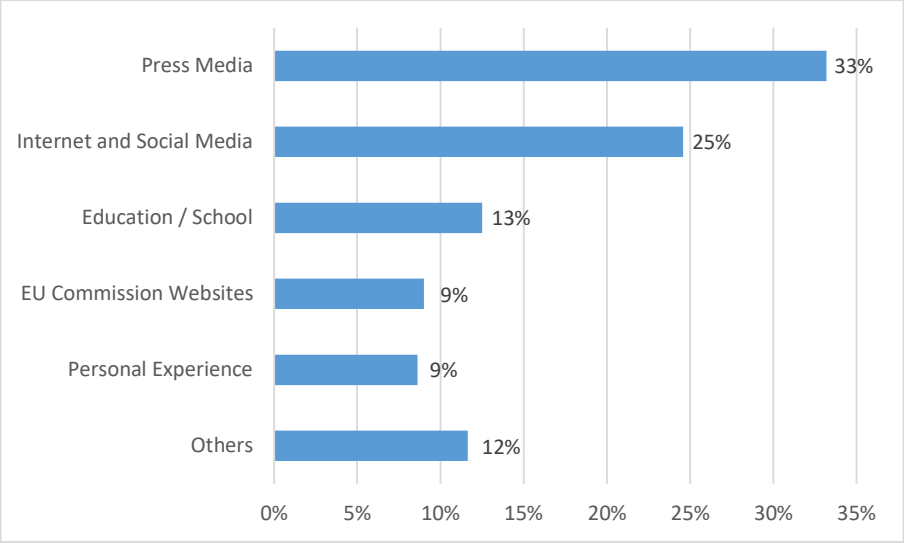

Figure 7. Sources of EU Commission policy awareness
Source: Ogunnaike (2021)

The findings on the awareness rate on the demographic information of respondents, according to the survey, reveal that respondents with secondary education have 33.3% awareness and other higher educational levels surpass it, meanwhile respondents with Doctoral degree has 100%. Also from the survey, the male with 82.08% have more awareness than the female gender with70.4%. The age group with the lowest awareness rate is 48-57% with 68.42% while the age group with the highest level of awareness goes to 68 years and above with 83.33%, This can therefore be ascribed to experience of life. From the marital status, the singles are more aware on

the rate of 84.81% than the married on a rate of 72.73%. In the sphere of occupation, the office workers top the list on 79.82% while the respondents with other occupations are the last on the list with 76%. By this survey, the English-speaking respondents have awareness of 78.61% while the Estonian respondents have 73.61% and finally, the Russian speaking respondents have awareness of 68.18% (See Table 2).

Table 2. Awareness level of respondents according to demographic information.

	Number of respondents with awareness	Total number of respondents	Percentage of respondents with awareness
educational level			
Secondary education	4	12	33.3%
Vocational education,	17	21	80.95%
Bachelor's degree	92	127	72.44%
Master's degree	50	58	86.21%
Ph.D.	14	14	100%
gender			
Male	87	106	82.08%
Female	88	125	70.4%
age			
18-27 years	23	31	74.19%
28-37 years	84	107	78.5%
38-47 years	34	44	77.27%
48-57 years	26	38	68.42%
58-67 years	5	7	71.42%
68 years and above	5	6	83.33%
marital status			
Married	104	143	72.73%
Single	67	79	84.81%
Other relationships	6	10	60%
occupation			
Student	38	48	79.17%
Office worker	91	114	79.82%
Self-employed / entrepreneur	50	68	73.53%
People with other occupations	19	25	76%
language			
Russian	15	22	68.18%
Estonian	53	72	73.61%
English	109	138	78.99%

Source: Ogunnaike (2021)

3.3. Discussion

The results of the survey show that consumers perceive family size, price of car, car quality, cost of maintenance and physical shape as the most important factors when deciding to purchase cars.

The car users' rate of environmental awareness to automobile consumption is rated 76% as found out from the responses of the respondents while the survey also reveals that even though people have different personal factors that influenced their car purchase decision, report has it that a large percentage of them still considered the impact of their decision on the environment before making their purchases which is found to be 76% of the respondents.

In addition, the views and opinions of interviewees has led to further confirmation of family size, price of car and car quality in terms of durability and reliability as top factors that influence their decision. Seven out of ten interviewees discussed their awareness on going green to sustain cleaner air in answering RQ2 and in providing answer to RQ3, seven interviewees declared their choices would be for hybrid, electric and natural gas cars if they had the privilege and this shows their consideration for their environment.

CONCLUSION

A literature review in consumer decision-making and environmental considerations in relation to the use of automobiles was discussed in this research report.

In the qualitative method where the use of thematic analysis was used, there were themes of self-awareness, feeling of belonging, trust, staying within one's budgets, going green and dream. All these themes provide answers to the research questions. Research question 1 is "What factors influence the consumer's decision in buying a car?" and the first four themes offer answers to it since they represent freedom, comfortability and a sense of dedication to family development. There were also answers that indicated that consumers needed value for money and some participants were not willing to get bank facility in making their purchases but they were willing to live within what their budget could provide.

The second research question is "What extent are consumers aware of the environmental aspects of automobile consumption?" and participants' reports testify to their understanding, as they shared their experience of the effect of automobiles on the environment.

To respond to the third research question, which is, "Do environmental concerns influence their buying decisions?" The participants' remarks show that they concern for the environment, which is backed up by their account of having their vehicles inspected on a regular basis. Their willingness to conserve the environment was shown by their decision to use eco-friendly vehicles if price was not a factor.

From the survey, the respondents' top priorities influencing their car purchases were price, family, car quality and it is evident that education could be said to be a function of awareness as projected in the awareness rate table. After the age group of 68 years and above, the author ascribes this awareness to experience of life while age group of 38-47 years are next on the top awareness rate for respondents.

The phases involved in the consumer decision-making process, the moments that matter as well as the factors that affect their purchases are significant. All of these will help car manufacturers and marketers to achieve more customer satisfaction, grow more social evidence which will boost their reputation and help them to stand out in stiff competitions.

Individuals that expressed concern for the atmosphere demonstrated how environmentally conscious they were, as shown by the survey, the huge rate of awareness can be traced to the various knowledge-based networks that educate the public on the global issue of car emission that impedes good health.

Following the completion of the research and consideration of its shortcomings, prospective research studies can be made with a greater sampling size of interviewees in a similar research study. Alternate fuel options offered by environmentally friendly cars and their significance may be investigated as well.

This research is also recommended for use in Africa, where the author originates from. The African Union can learn from the EU Commission policies and regulations in raising environmental concern about global emission impacts and ways to protect the atmosphere.

Awareness of environmental friendliness will raise concerns of the importance of car users being environmentally conscious in their decisions thereby promoting a cleaner air globally. Many awareness programmes in different institutions, in form of workshops, seminars, school assignments, government policies and many more will change the atmosphere and help the well-being of all and sundry.

Tuuli, Loona, Liana, Gbemisola and Promise rallied around my questionnaire translation into Estonian and Russian languages, amid their various tight schedules, to include free services in interpreting and accurately inserting the right sentences in the google forms of other languages. I am extremely grateful to these individuals for I could not have completed this project without the assistance of indigenous people and fluent speakers of these languages; thank you very much!

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APPENDICES

Appendix 1. Interview Questions

Do you have a car?
For how long have you been driving?
Why did you get a car?
Do you mind telling me what type of car you use now?
Why did you to go for that car and brand?
What are those elements that affect your buying decision of a car?
Is your car environmentally friendly? With brief answer
Regardless of price, what type of engine car would you freely select? And why?
What is your idea of environmental awareness on cars?
Can you tell me something about car emissions?
Do you have more things to say on cars and the environment?

- **Here is my letter template for requesting for interviewees to grant me a session of interview with them:**

Dear ……..,
My name is Sade, a final year student at Tallinn university of Technology.
I would like to ask you for a session of interview as I want to ask questions from car users on environmental concerns and factors that prompt their buying decisions. My thesis topic is: Environmental Concerns in Consumer Decision Making Process for Purchasing Cars in Estonia.

The purpose of the interview is to give me an insight into the consideration of car users in relation to the environment and factors that affect their buying decision.

I will need you to schedule a convenient time for the interview. It will not take more than 30 minutes of your time. Your participation is of course voluntary and I ask for your permission to

record it, but the results are strictly confidential and solely used for this research. If you wish, I will be glad to share the results of my study with you.

Sincerely yours,
Folasade Ogunnaike.

Appendix 2. Questionnaire and result of survey

Dear respondent,

Thank you for opening this questionnaire!

My name is Sade and I am a student at the Tallinn University of Technology. I am conducting research on environmental concerns in the process of buying a car and I would be very grateful if you can take the time to answer the following questionnaire.

Your answers will remain anonymous, confidential and they will be used only within the scope of this research.

Please feel free to contact me if you have any questions!

Thank you for your time!

Sincerely Yours,
Folasade Ogunnaike
foogun@taltech.ee

Gender: Male
Female
I prefer not to say

Age: 18-27years
28-37years
38-47years
48-57years
58- 67years
68years and above.

Level of highest educational attainment: Secondary
Vocational
Bachelor's degree
Master's degree
Ph.D. and above.

Occupation: Office worker
Self-employed/Entrepreneur
Student
Other

Marital status: Single
Married
Other

Country of residence: Estonia
Other: Please specify…….

FACTORS INFLUENCING THE DECISION-MAKING PROCESS OF RESPONDENTS IN BUYING A CAR

Currently, do you own a car? Yes
No
I am planning to buy one.
I have a car but I am also planning to buy another car

What is your opinion about a car? It is important.
It is a necessity.
It is a luxury.
It is expensive.
It is a source of air pollution.
It is problematic.
Others (please specify): .....

When buying a car, I take into consideration?
Family size
Health
Price of the car
Social status
Advertisement
Interior comfortability of the car
Physical shape and design
Maintenance cost
Promotion and discounts
Car quality
High technology
Location
My business
Emission coming from car exhaust.
Others (please specify): .....

When buying your car, do you consider the car's overall performance in terms of emission or air pollution to the environment?
Very important
Important
Indifferent
Less important
Not important at all.

Which of these cars do you think will be environmentally friendly?
Electric car**s**
Hybrid cars
Fossil fueled cars
Natural gas cars

AWARENESS OF EUROPEAN POLICY ON CAR EMISSION REDUCTION

Are you aware of European Union Commission policy on Emission Reduction from cars to promote clean air?
Greatly aware
Slightly aware
Neutral
Less aware
I have no awareness at all.

How did you become aware of *the European Union policy on Emission Reduction?*
Source (please specify): .....

Website link to EUROPEAN POLICY ON CAR EMISSION REDUCTION is
CO_2 emission performance standards for cars and vans (2020 onwards) - Climate Action - European Commission

To view results of survey, click below.

Result of the survey

Appendix 3. Interview Transcript:

To view the content of the transcribed responses and the voice recordings, please control click on the link below for Appendix 3.

https://bit.ly/3eueKVh

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