

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Yan Hou Guan

GENERATION X AND Z CONSUMER MOTIVES TOWARDS PURCHASING GREEN
PRODUCTS IN ESTONIA

Bachelor's thesis

Programme International Business Administration, specialisation Marketing

Supervisor: Oliver Parts, PhD

Tallinn 2022

I hereby declare that I have compiled the thesis independently and all works, important standpoints and data by other authors have been properly referenced and the same paper has not been previously presented for grading.

The document length is 10325 words from the introduction to the end of the conclusion.

Yan Hou Guan 15.12.2022

(date)

TABLE OF CONTENTS

| | |
|---|----|
| ABSTRACT | 4 |
| INTRODUCTION | 5 |
| 1. THEORETICAL BACKGROUND OF GREEN MARKETING AND CONSUMER MOTIVES | 8 |
| 1.1. Green marketing | 8 |
| 1.1.1. Green marketing tools | 10 |
| 1.1.2. Green marketing's impact on consumer behaviour | 12 |
| 1.2. Motivation | 14 |
| 1.2.1. Utilitarian motives | 15 |
| 1.2.2. Hedonic motives | 17 |
| 2. RESEARCH METHODOLOGY AND RESULT | 19 |
| 2.1. Research method and data collection | 19 |
| 2.2. Demographic information..... | 21 |
| 2.3. Main findings..... | 22 |
| 2.4. Discussion and suggestions | 35 |
| CONCLUSION | 39 |
| LIST OF REFERENCES | 41 |
| APPENDICES | 44 |
| Appendix 1. Online questionnaire and results (nr. of respondents) | 44 |
| Appendix 2. Tables and figures based on the results | 53 |
| Appendix 3. Non-exclusive licence | 56 |

ABSTRACT

The changing lifestyles influence generation's consumer behaviour. In the 21st century, the standard of living is more advanced than decades ago, reflected in welfare. The continuously growing and unlimited demand eventually will not be satisfied as the resources are limited. People's irresponsible way of living harms the environment. Thus, governments, researchers, businesses and people must consider the environmental issues and act to slow down the process of demolishing the environment.

Due to the limited information on Generation X and Z's motivation towards green consumer behaviour, this thesis aims to understand better how these two generations' motivations towards purchasing green products differ. The research question, 'What are the differences between Generation X's and Z's consumer motives towards purchasing green products in Estonia?', is essential in achieving the research aim.

Both primary and secondary data collection was needed to build up this student paper. The primary data collection was executed by an online questionnaire and convenience sampling. Furthermore, T-test and correlation analysis were used for data analysis.

As a result, Generation X shows more engagement in being motivated towards green consumer behaviour, due to its better quality, ethical reasons, allergy, but they also seem to be more responsible for their environment. However, comparing the two groups, utilitarian motivation did not show any significant differences, and the hedonic motivation resulted significant difference only in trend. Based on the results, the author provided recommendations to marketers as well as researchers.

Keywords: green consumer behaviour, consumer motivation, green products, Generation X and Z

INTRODUCTION

Climate change, green marketing, green products, environmental friendliness, and being responsible consumers and businesses have been escalating terms in the 21st century. Unsustainability was mentioned about 60 years ago (Lu et al., 2013, 4), but it was not taken seriously as much as in the current century. (Polonsky, 1994) From the 2000s, many more scientific articles focused on topics like green marketing, sustainability, corporate social responsibility, and green marketing tools compared to the previous century. However, the worrying health of the Earth calls for attention and forces scientists, governments, businesses, and societies to act.

All generations have their own characteristics, values, norms, and habits acquired from the era they were born into. Different times form generation's characteristics, thus the author decided to investigate whether their generation characteristics influence their current consumer behaviour especially towards the escalating environmental trends. This student paper focuses on two generations, Generation X and Z. The author chose these two groups because the older generation was born into an era when environmental issues were not well-known yet as it is in the 21st century. People started paying attention when they were already in their thirties and may not adjust their habits easily. In contrast, Generation Z faced these issues in their early adulthood or even earlier, which play an essential role in their values.

Generation X includes people who were born between 1961-79. In the second half of the 19th century, the economy was going through difficult times, so kids did not have as many possibilities as today's kids. Lack of opportunities limited their chance to succeed in their career. In contrast, they are associated with being highly educated, and more responsible, and family, work, and life are equally important in their lives. Marketing specialists should offer them valuable and practical initiatives. They are curious individuals eager to learn, improve, and grow as a person; thus, they are open to innovations. However, they require explanations about products' features and their importance. Products, shopping, and ads are essential elements of their consumer behaviour.

Additionally, they often like expressing their opinions and providing feedback. Nevertheless, these individuals are sometimes challenging to approach. (Williams & Page, 2011)

Generation Z individuals were born in 1995 or later are more collaborative, care for others, social, support diversity, stand for uniqueness and were born into the digital world. (De Witte, 2022) Climate issues started arising around the beginning of the new century, resulting in environmental awareness and consciousness more than in previous generations. (Su *et al.*, 2019, 2) Compared to Generation X, the younger generation faces terrorism, school violence, other crises, and uncertainty. Thus, they value security and seek acceptance and belonging to a community. Marketing specialists should involve technology in their strategies and always be up to date with the trends. (Williams & Page, 2011)

The popularity of purchasing green products and being more responsible is continuously growing. Here the author means green products that were produced in a way that they have less harm on the environment during the products' life cycle, from production to disposal (Mishra & Sharma, 2010, 9). Eco-labels, as one of the marketing tools, are the indicators of green products. However, not everyone is aware of the problem, solutions, and alternatives, or they have not gotten motivated, to shift to a more sustainable lifestyle.

The research problem of this thesis paper is the limited information and research on different motivations towards purchasing green products between Generation X and Z. As mentioned above, all generations have their characteristics, values, and norms that highly influence their purchasing decisions and the way how they behave. Which results in a different willingness to transform consumer behaviour across various generations.

The research aim is to determine how Generation X and Z's motivation towards purchasing green products differ. To find out, the author states the following main research question:

RQ: What are the differences between Generation X's and Z's consumer motives towards purchasing green products in Estonia?

To answer the research question, both primary and secondary data were collected. Secondary data was gathered mainly from scientific articles, (official) webpages, and field-related books to acquire in-depth knowledge about the topic. Primary data, however, was collected via an online survey for the quantitative research method.

The first chapter introduces the theory background where there are two main sub-chapters that include further smaller chapters. The first sub-chapter is about green marketing, which includes its definition, its roles, various green marketing tools, such as green communication, eco-labelling, and green packaging. And how these tools affect consumer purchasing decisions. The second bigger sub-chapter introduces consumer motivation, such as how it evolves, what circumstances it generates and its two main kinds, the utilitarian and hedonic motivation.

The third chapter of the thesis covers the research methodology and the result of the study. This is followed by the discussion, and suggestions for businesses. Lastly, the paper closes with the author's conclusion.

1. THEORETICAL BACKGROUND OF GREEN MARKETING AND CONSUMER MOTIVES

The theory is essential to this study as it introduces the topic based on various scientific articles. This thesis paper focuses on two topics: introducing green marketing, its tools and impact on consumer behaviour. Secondly, consumer motivation introduces the motivation itself and discusses its two kinds, the utilitarian and hedonic.

1.1. Green marketing

Since the 1960s, unsustainability has been mentioned in a scientific and technological study that expressed concern about our globe's health and the limited resources available for consumption. (Lu *et al.*, 2013, 4) Companies, individuals, nor governments (Polonsky, 1994) were concerned; however, as the negative impacts on our globe have been escalating, so has the attention it has received. (Lu *et al.*, 2013, 8) Due to the environmental crisis, companies have adapted their business practices and marketing strategies, including a new sub-field called green marketing. (Lu *et al.*, 2013, 4)

Just like marketing, providing one specific definition of green marketing is challenging as the meaning is continuously evolving. Green marketing aims to satisfy the organisations' and its customers' interests whilst causing as little harm to the environment as possible but not necessarily eliminating it. (Polonsky, 1994) Green marketing's role is to advertise products or services that are assumed to be environmentally friendly. (Mishra & Sharma, 2010, 9) Thus, it includes different activities such as product modification, production process development, changing packages, advertising, and communication. (Polonsky, 1994)

It is a holistic marketing concept wherein the life cycle of products and services, meaning from production to disposal, has a less negative impact on the environment while raising awareness about global warming, waste, and pollution among companies and consumers in order to motivate them to change. The beginning of the adaption might be expensive, but it is necessary, and in the long run, the effort will pay off as it will be more cost-efficient. (Mishra & Sharma, 2010, 9)

Green marketing is an essential part of marketing which studies how the Earth's limited resources attempt to fulfil consumers' unlimited wants. "Freedom of choice" entitles individuals and organisations to satisfy their wants. With the help of green marketing, firms must find an alternative to satisfy the unlimited wants from the limited resources meanwhile achieving expected goals. (Polonsky, 1994) To have a sustainable life on Earth, consumers, and marketers need to act together. Therefore, green marketing is an inevitable activity which encourages (Mishra & Sharma, 2010, 9) companies, governments, and consumers to a more sustainable and socially responsible operation and lifestyle for a common goal: the Earth's health. Consumers must engage in a cleaner environment, be willing to pay higher prices, and/or have a modified lifestyle since it is impossible for companies to deal with the green revolution alone. When attempting to reduce environmental impact, companies can motivate the final customer just as the final customer can encourage organisations to consider environmental problems and reduce the impact their operation has on the environment. (Polonsky, 1994)

Green marketing result benefits in terms of the environment, society and commerce. Companies that transform to a more environmentally focused marketing strategy can be more appealing to its consumers. This will positively impact profitability and the company's performance regarding their goals and objectives. The more successful a company gets, the more challenging the market becomes. Competitors will also want to change their strategies as it is a potential advantage. Moreover, a brand image can be established, which enhances the reputation. Lastly, the transformation might be cost-demanding; however, the company can be cost-effective in the long run. For instance, investing in a more innovative waste disposal system is expensive but pays off in the long term. (Vilkaite-Vaitone & Skackauskiene, 2019, 59)

As Marketing has 4Ps and 7Ps, Green marketing has 5Is. The five features should be highly considered by marketing specialists when enforcing green marketing. Intuitive people hardly adapt to new shopping habits; therefore, making them want to buy organic, sustainable products is more challenging. This is why green marketing should make it readily available. Integrative cooperation between business, social effects, technology, ecology and marketing is essential as it should bond every area from production to sale, along with environmental efforts. Innovative companies should develop modern and innovative products/services to fulfil needs and reduce environmental harm. Inviting green marketing should call consumers' attention to buy environmentally friendly products. Marketing specialists can succeed better if they highlight health benefits, efficiency,

durability, and affordability. Informed green marketing should also educate and inform the audience by spreading information. (Líšková *et al.*, 2016, 61).

1.1.1. Green marketing tools

There are various approaches to how marketing specialists try to call consumers' attention, including green communication, eco-labelling, and packaging.

Green communication is a tool for marketing to introduce environmentally friendly products to customers. Communicating information and convincing consumers means high costs for companies. It is also challenging since it is not guaranteed whether the customer is convinced to choose a green product or the advertising company. Companies that fail are usually unaware of what information influences one's purchasing decisions. The message should be persuasive, specific and meaningful; a marketer should also consider whether the customer has enough knowledge of environmental definitions. Moreover, the message should be based on actual acts, as credibility is essential. Customers have values that are expected to be represented by companies' actions, not only by advertising. (Smith & Brower, 2016, 540)

Word-of-mouth is part of green communication; it is an influential communication channel that appears to be more credible than advertising. It usually appears in social networks where like-minded people influence each other's purchasing behaviour by passing on feedback about a particular product or brand. (Mouloudj & Bouarar, 2021, 872) Similarly, online reviews where experienced consumers share their opinion and recommendations later influence someone else's consumer choice. (Smith & Brower, 2016, 540)

Another way of green communication is environmental or sustainability disclosures. Sustainable Communication provides insight into issues not only for consumers but to stockholders. Some companies report additional information beyond the requirements, which can attract more stockholders interested in how the company is engaged in protecting the environment. (Smith & Brower, 2016, 541)

According to the United States Environmental Protection Agency, eco-labels are a way of communication. Symbols on product packaging that has informative policy functions to help consumers to be able to make purchasing decisions and identify environmentally friendly products that meet a specific criteria. Government agencies, non-profit environmental organisations, or private sector entities can establish eco-labels. (n.d. para. 1) The four functions a label fulfils are

identifying a product or its brand, grades, describes, or promotes the product. Therefore, eco-labels play an essential role in strategic marketing activities (Ranjan & Kushwaha, 2017, 11-12) as it impacts one's purchasing decision. (Dangelico & Vocalelli, 2017, 1273) The main target groups are the customers whose values are trustworthiness and reliability. According to a study by Dangelico & Vocalelli (2017), eco-labels and green advertising affect about 70 per cent of consumers as they are curious to learn more about the products and their life cycle. Furthermore, it is also beneficial for companies as it enhances sales and the image of a product. (Dangelico & Vocalelli, 2017, 1273)

To have an eco-label on a product, the product must be categorised (ISO I, II, III). Furthermore, product categories are sub-grouped based on the purpose of use, also known as the principle of functional equivalence. Defining product category guarantee that the criteria for comparing items valid for the eco-label is objectively defined. Second, it examines how and how much the product impacts the environment. The examination can be only on determined parts of the product's life cycle or the lifespan of a product called LCA (life cycle assessment). Thirdly, standards are found before eco-labelling, based on the volume of the impact, which sets the requirements that must be fulfilled. Moreover, the standards also ensure transparency in the examination and evaluation. In case of technological or value change of the manufacturer, the standards are required to be revised and the validity to be renewed. (Líšková *et al.*, 2016, 63)

The eco-labels can be divided into three main categories. Firstly, the product or material procurement, such as fair trade, dolphin safe, rainforest alliance certified, and cruelty-free. Secondly, the production used bio, organic, locally grown ingredients or throughout the production, the carbon dioxide emission was reduced. Lastly, the eco-labels ensure that the product's characteristics indicate that the product is GMO-free, not rich in fat, a natural product and does not contain preservatives. (Líšková *et al.*, 2016, 63) Moreover, eco-labels can promote eco-friendly packaging; the product is not tested on animals, just approved chemicals were used during the production, the product is made with natural ingredients, or it has no negative impact on the environment. (Mishra & Sharma, 2010, 10)

When product packaging is designed, marketing specialists study product positioning as the 4P marketing mix. A unique design attracts more consumers as it functions as an advertising tool in itself. (Tabinda *et al.*, 2012, 2089) During the procedure, the shape of the product, its size, and the price comparison between the competitors are being considered by the professionals. Positioning literally means how to position a product in consumers' minds. (Ampuero & Vila, 2006, 101)

Therefore, product packaging is a way of communicating symbolic meaning and value to consumers. Marketers can manipulate one's purchasing decision by the product's packaging as it impacts the customer's perception of the goods' functionality or utilitarian value. According to a study, appearance or feature considered by consumers, such as aesthetics, provides ergonomic information, calls one's attention, has functional and symbolic values, and represents a category. (Smith & Brower, 2016, 541) The look of the product can help customers to identify and differentiate quickly. (Ampuero & Vila, 2006, 101) For instance, using green images, pictures of nature, and clean, uncluttered looks generate the feeling in the customer that the product is environmentally friendly. (Smith & Brower, 2016, 542) In addition to differentiation and identification, product packaging as a communication tool is becoming more critical in product decisions because limited advertising budgets, brand-building expenses, and communication efforts are focusing on promotions. (Ampuero & Vila, 2006, 101)

Not only the design but also the price, the biodegradability, and the recyclability of the packaging materials impact purchasing decisions, but the level of one's environmental concerns also impacts it. Conscious consumers care about the product's end-life attributes, whether the packaging is reusable, recyclable, or biodegradable. When it comes to the price, the opinions and willingness to pay are diverse, some consumers are willing to pay a higher price, but the other group of people make purchasing decisions based on the price. (Wandosell *et al.*, 2021, 14)

1.1.2. Green marketing's impact on consumer behaviour

Green communication is an essential green marketing activity that attracts consumers' attention. Informing customers about the company's environmental initiatives and responsibilities can encourage them to re-evaluate their values and shift to more conscious consumer behaviour. (Sousa *et al.*, 2022, 4)

Effective communication brings consumers closer to the environmental concept, enhancing the green image and further increasing sales for the company. According to a study by Sousa *et al.* (2022), green communication positively impacts green purchasing behaviour. Moreover, a positive relationship exists between companies' green communication and the samples' intention towards green products. Therefore, it is highly recommended to marketing specialists and companies to emphasise their green communication activities. (Sousa *et al.*, 2022, 8-9)

Based on an article by Riskos *et al.* (2021), eco-labels significantly influence consumer behaviour. However, to convince one's purchasing decision about green products, trust, credibility,

knowledge, and beliefs are essential factors. For instance, marketers will have difficulty attracting consumers' attention without trust. Trust can be enhanced if the customer has previous knowledge or experience regarding environmental issues and he/she has an inner motivation and values to change his/her purchasing behaviour. This pro-environmental attitude makes one feel the importance of environmental concerns and likely will choose eco-labelled products, but there must be a previously established trust. Besides trust, credibility, beliefs, and knowledge are also motivating factors for paying attention and getting involved with eco-labelled products. Therefore, these factors significantly impact one's green consumer behaviour. That is why companies should provide complete, trustworthy information which helps consumers to enrich their knowledge, to be able to make the right purchasing decisions about green products, and increase their attitude towards green products. The positive impact will also make the consumer more conscious of animals' conditions. For example, an eco-label can indicate whether the product is biologically labelled meat. (Riskos *et al.* 2021, 7)

Packaging is an equally important factor in marketing as eco-labelling or green communication. Its design influences consumer purchasing decision, whether the package weighs a little or a lot, whether it can be reused more than once, and whether it is easy to open or carry. The packaging design, reusability, price, environmental awareness, its impact on the environment and the age influence one's decision-making process. (Hao *et al.*, 2019) Moreover, colour plays a significant role in (green) packaging as it influences green purchasing behaviour. Colours help differentiate brands; for example, iconic colours remind consumers of certain brands (Tabinda *et al.*, 2012, 2090), such as Wolt and its symbolic blue colour, the Bolt, which uses green colour, McDonald's and its yellow colour, all these brands can be recognised or associated by just the colour, without any logos. (Tabinda *et al.*, 2012, 2090) For instance, green colours are usually perceived with nature; when a product has green packaging, consumers might perceive it as a green product which likely influences their purchasing decisions. (Seo and Scammon, 2017, 360)

Based on a study by Hao *et al.* (2019), 18-27 years old consumers are more interested in green packaging than other groups. The 38–47-year-old consumers with repellent attitudes towards green packaging showed the least response rate. From this statistic, it can be concluded that younger generations have more environmental awareness, are willing to change their attitude and will pay more for green packaged goods. (Hao *et al.*, 2019, 24)

Based on a study by Boztepe (2012, 14), environmental awareness plays a significant role in one's green purchasing behaviour. (Boztepe, 2012, 14) The more educated a consumer is, the more likely

they will adopt green purchasing behaviour, recycle, and try to be a conscious individual as they feel responsible and respectful towards the future generation and have solidarity towards other fellows. (Boztepe, 2012, 9-10) Consumers who have environmental awareness and the willingness to choose green products, believe they have a significant influence on improving the environment and better social recognition. However, most consumers lack knowledge of conventional or green packaging's impact on the environment; therefore, packaging does not significantly impact one's purchasing decision. (Hao *et al.*, 2019, 28)

As the number of conscious consumers is growing, companies and manufacturers face the demand for green packaging. Packaging should fulfil essential functions but should add features to environmental protection by focusing on the following principles, environment, green packaging quality, commodity, and price. These principles can also motivate one to pay more for green packaged goods. (Hao *et al.*, 2019, 28)

1.2. Motivation

Consumer motives stimulate one's readiness to act and respond. It identifies what individuals want to do and how much they want to do it. It dictates a direction and an intensity. The direction determines the consumer towards the good/service, and the intensity indicates how much they want to do to accomplish the goal. (Kumar, 2006, 55)

In order to understand consumer motivation, marketers must consider psychology. It is often called the silent P. According to Marketing Myopia, successful companies must acknowledge and act according to their consumer's wants and needs. To do so, marketing specialists need to understand what is in the consumers' minds and what influences their behaviour. (Kumar, 2006, 50)

One's consumer and purchasing behaviour is based on attitude, motivation and values. (Adomaviciute, 2013, 756) Conscious and unconscious needs and desires motivate consumers to identify and purchase products or services to satisfy the inner tension. (Albert, n.d.) Needs and wants are hands in hand. Needs arise, which become wants, and it makes one create a demand. (Kumar, 2006, 55) Need is one of the most basic feelings that individuals experience. This can be categorised into two groups, the primary needs and the secondary needs. Primary is biogenic when one needs to eat, drink, sleep, breathe, wear clothing, or have sex. In contrast, secondary needs are learnt from the environment, such as belonging, safety, esteem, and self-actualisation. Primary and secondary needs are the components of Maslow's hierarchy of needs. (Kumar, 2006, 50-51)

Knowing consumer needs helps companies acknowledge customer insights and allows them to discover, learn and execute experiments with new products. (Kumar, 2006, 50-51) When the feeling of need arises, it creates psychological and physiological irritation and tension which can be satisfied by purchasing or using products/services. (Kumar, 2006, 55) The consumer attempts to either reduce or eliminate the inner feeling of craving that the needs or desires have generated. (Albert, n.d.) Whereas marketers aim to offer products and services that benefit customers and reduce inner tension. (Solomon, 2019, 166)

The goal is the intended outcome that a consumer is driven to achieve which is resulted from motivated behaviour. Goals can be specific or generic. When a goal is specific, the brand and type are determined (burger, Mcdonald's). In contrast, the generic goal means there is no product or brand preference; the person has no specific wishes about the cuisine or brand in case of hunger. (Kumar, 2006, 56)

1.2.1. Utilitarian motives

Consumers make purchase decisions based on utilitarian motives to maximise utility and receive rational, functional benefits from the products or services. Based on the Kumar & Yadav article (2021), different antecedents are associated with utilitarian motivation, such as information availability, selection, and personalised offers. (Kumar & Yadav, 2021, 8)

Business owners can meet their needs by offering them a good price/quality equilibrium and different promotional activities. Utilitarian consumers are driven by achievement and efficiency when they feel the shopping was successful, they could get all the items they planned on beforehand, whilst it did not take too much time and energy. This kind of consumer is also known as a pragmatic shopper who does not seek gratification. The only thing that matters is efficiency; therefore, they prefer shops that offer a wide variety so they do not have to visit several shops. The logical organisation which reduces time spent on looking for items, objective communication, signs and layouts that help the customer finding the products, comparing prices. Utilitarian consumers also belong to social and moderate shopper groups where again, efficiency and cost factors are dominant, and they do not mind bargaining either. (Cardoso & Pinto, 2010, 554)

Consumers with utilitarian values prefer effortless shopping experiences whereby they acquire the most out of it. Therefore, these customers try to plan before going shopping to achieve a more fantastic shopping experience and satisfaction. Research intention has a significant role in planning as the customer gathers information about the products or services. This intention is an essential

and determinative aspect of the actual purchase behaviour. However, it might compel the customer to do unplanned shopping during the information-gathering process due to the emotional stimuli. When the final purchase is made, the customer feels satisfied with their effort during the information-gathering process. (Atulkar, 2021, 466-469) Information availability allows utilitarian consumers to evaluate different products or services. The consumer has more control over decision-making if enough data is gathered. Therefore, for utilitarian consumers, it is essential to access information on the internet, e.g., feedback, reviews from other users or during store shopping from the personnel. If these two are unavailable, the consumer will attempt by themselves; however, it might be time- and money-consuming and inconvenient. In terms of green purchase decisions, more information is required, primarily on the environmental impact, since the consumer wants to make an efficient decision. (Kumar & Yadav, 2021, 3)

Online stores and physical ones sometimes offer too wide of a selection; however, utilitarian customers try to be efficient and choose a product or service that satisfies utility and functionality or choose based on rationality. Undoubtedly, online stores are more convenient than physical stores since they are more time, effort and money-saving, and the selection is usually broader. Moreover, the selection is often more exhaustive in green products; therefore, utilitarian consumers are likely motivated to purchase green products from the internet to make better purchasing decisions. (Kumar & Yadav, 2021, 3)

Lastly, utilitarian consumers also like receiving personal offers as it is customised based on their wants and wishes; therefore, no additional information needs to be gathered. Moreover, utilitarian consumers expect convenience, customisation, and cost efficiency. Convenience and cost efficiency are enhanced if shop owners attract these customers through one-day sales, offers, price promotions and coupons. (Atulkar, 2021, 467) In terms of green purchasing behaviour, companies could motivate customers to choose green products if they offer them personalised offers, which could help adopt green consumer behaviour. (Kumar & Yadav, 2021, 11) The same study also concluded that utilitarian consumers are motivated to purchase green products since green products seem more logical to environmental problems. (Kumar & Yadav, 2021, 10) However, based on Cheng *et al.* (2018) green lifestyle does not develop immediate results as it is a long-term process; therefore, utilitarian individuals are less motivated to make sacrifices. (Cheng *et al.*, 2018, 65)

1.2.2. Hedonic motives

Emotions-driven hedonic consumers hope for joy and happiness during and after purchasing. (Kumar & Yadav, 2021, 3) Consumers tend to make purchasing decisions according to their values, such as virtues, security, excitement, harmony and an ideal world. A consumer will choose a product based on whether a product will fulfil any inner values. (Choi & Johnson, 2019, 148) The primary antecedents associated with hedonic motivations are adventure, authority and status. (Kumar & Yadav, 2021, 9-10)

Hedonic motivation generates pleasant feelings in the consumer; however, it might also cause unpleasant ones. Firstly, the consumer gets satisfied by experiencing pleasure, fantasy and fun through entertainment and exploration while shopping and gathering information. According to an article by Adomaviciute (2013), there are two kinds of hedonism, the egoistic which generates unpleasant feelings and guilt. It is associated with materialism, gratification, egoism, and a selfish personality. Hedonic motivation makes the consumer strive for the good life, where happiness and pleasure are the moral standards, which results in those egoistic hedonists caring only about their welfare. Thus, it might result in guilt during the purchase, usage or disposal phase. (Adomaviciute, 2013, 756) Moreover, pleasure and guilt have a positive relationship. The higher pleasure is received from a good or service, the more guilty the consumer will feel. When a product/service provides immediate, short-term pleasure, the consumer will feel guilty later on due to the lack of self-control. (Saintives, 2020, 2)

In contrast, ethical hedonism is related to ethical acts, as the consumer receives more pleasure by being responsible. Therefore, they choose ethical goods over unethical goods, meaning their deeds are not egoistical as they consider others' well-being and welfare. (Adomaviciute, 2013, 756)

Individuals with hedonic shopping motivation like experimenting with the offered products and services on the market. (Cardoso & Pinto, 2010, 539) A new product likely generates excitement in the consumer; therefore, they will most likely choose the product to experience excitement, making the consumer feel self-fulfilment. Thus, for green product marketers, adventurous customers can be targeted because they are more interested in trying new, unusual, or the latest products. (Kumar & Yadav, 2021, 4) However, adapting to a more conscious lifestyle requires individuals to change manners, behaviour, and lifestyles which might cause inconvenience, such as using public transport instead of one's own car. This adaption requires one to make sacrifices, and the result will be shown in the long term; therefore, individuals might lose interest and

motivation. Nevertheless, hedonic consumers receive self-gratification when they experience pleasure and satisfaction by taking pro-environmental actions. (Cheng *et al.*, 2018, 64)

Similarly, novelty-seeking consumers probably will not purchase the same products, nor are they loyal to a particular brand because they are motivated to try new products. (Choi & Johnson, 2019, 148) They are also known as dynamic shoppers who like to get new and innovative products or services for themselves to be up to date with the latest trends. (Cardoso & Pinto, 2010, 554) Purchasing the latest products allows the customer to learn about innovations and likely share them with others; therefore, they can be opinion leaders. Novelty-seeking customers can be a target group for green products, especially if the product is innovative or unique. (Choi & Johnson, 2019, 148)

Shopping in the physical stores, the customer feels excitement and joy, which feels like an adventure. The person gets excited about shopping but not about possessing a product. At the store, the person enjoys touching the products, walking through various sections, and can interact with new products, for instance, different green products that they can have physical contact, experiment, and impression. Authority and status were found positive and significant on hedonic motives as the consumer feels special by receiving greetings, treatments, free services, or discounts. Besides that, in the store, the customer can interact with the salesperson to ask questions or just have a conversation from which the customer receives satisfaction. However, the customer gets excited about exploring the website during online shopping which offers convenience regarding time and location to browse among the available products. Additionally, customers can close the shopping experience happily with discounts, free delivery service, or replacement options. (Kumar & Yadav, 2021, 4)

Hedonic consumers also belong to involved and social shopper groups, which have very similar characteristics; both get satisfaction from shopping with others and for others. Spending time with your loved ones while doing something you enjoy is an addition. (Cardoso & Pinto, 2010, 554) Therefore, shopping as a reunion with friends/family members is very common among social and involved shoppers. In addition, they also like surprising their friends/families; thus, celebrations, such as Christmas, Easter (Cardoso & Pinto, 2010, 554) or any other special occasion is a perfect opportunity to spend more time exploring shops.

2. RESEARCH METHODOLOGY AND RESULT

The third chapter of the thesis paper will cover the research method and how the data was collected. The author presents the respondents' demographic results, followed by the main findings and closes with the discussion and suggestions.

2.1. Research method and data collection

This bachelor's thesis paper is based on two different data collection approaches. The author has studied various scientific articles to build up the theory to have a deep and better understanding of the theory.

Secondary data was collected mainly from field-specific scientific articles and (official) web pages. The already existing information was the starting point of this paper, and the questionnaire was built based on it; therefore, the theory is an essential base element of the whole paper.

The questionnaire was published on 25th October 2022 until 1st November 2022. Participation was voluntary, and the data was used only for this research paper. Firstly, it was created in English and translated into Estonian to avoid biases because it was assumed that not everyone understands English very well, especially the older generation.

Technology and social media play a significant role in collecting samples due to the lack of acquaintances and distance. The questionnaire was created on Google Forms as it is free for everyone; it is easy to use, customise and edit. This online questionnaire was distributed mainly on Facebook, where the author contacted all her Estonian friends regardless of age. The author asked them to fill it in or share it with their friends, families, or colleagues. Besides that, the questionnaire was posted in various Facebook groups such as Expats in Estonia, where many local people are members, Aiasõbrad, where older people are active, or the Estonians in Hungary group. Moreover, Taltech and Tallinn University employees were also contacted via e-mail.

Non-probability, the convenience sampling method was applied for primary data collection. This method saves the researcher time and energy as the sample is usually collected from the

researcher's circles. However, it is worth mentioning that sampling bias may occur because the population does not have an equal participation opportunity.

The questionnaire aimed to determine the significant differences between Generation X and Generation Z consumers' conscious habits, green consumer decisions, and motivations to purchase green products.

The questionnaire was divided into three sections. Initially, demographic questions were asked, and then the second section was more about their conscious lifestyle and green consumer behaviour. Third, the motivation for purchasing green products, whether hedonistic or utilitarian motives lead the consumer. The questionnaire consisted of 14 questions which 122 people answered; however, only 101 respondents' answers were taken into account, and 21 answers were excluded. The population and the sample size differ due to two criteria they had to fulfil. Since this study focused on two generations, the respondents must have been born between 1961-1971 (Generation X) (Lissitsa & Kol, 2016, 304) or 1995-2004 (Generation Z) (Su *et al.*, 2019, 2), and the person must be an Estonian citizen. To clarify, generations are not clearly defined where they start or end; therefore, the intervals mentioned above were chosen based on two articles.

Additionally, to be time and energy efficient younger than 18 years old respondents were not asked to participate in the study due to the permission their parents should have been asked for. Thus, the youngest respondents were born in 2004, if there were any. To add, if the person did not fulfil the criteria mentioned above, they could not answer further questions, and the survey was closed for them.

Since Generation Z is generally more active on social media platforms and the internet, it was easier to collect their answers. In contrast, people from Generation X are less available on the internet, resulting in an unequal sample size.

All the data was transferred to an excel sheet and coded numerically. This data set was further transferred to an SPSS data analytical software where T-tests were used to determine the differences between the two generations at 5% significance level. All the questions were divided into generations to learn how the answers were distributed. Furthermore, Spearman correlation analysis was executed to determine which variables weakly, moderately or strongly correlate. If the correlation coefficient value is between 0.00-0.19, the correlation is very weak; between 0.20-0.39 it is weak; between 0.40-0.69 it is moderate; between 0.70-0.89, it is strong; and from 0.9-1, it is very strong.

2.2. Demographic information

Figure 1. demonstrates all the demographic questions that provide basic information of the samples. It is essential to know this information because the researcher can understand the background of the respondents and may allow for generalisation. Due to the convenience sampling and the small sample size the author cannot use this data for generalisation, so the two groups do not represent the population.

The initial question was asked to verify how many Generations Z and Generation X samples participated in the study. Since the paper studies only Estonians, the author must have asked for their nationality for confirmation. After the criteria were fulfilled, the author wanted to know the sample's gender, education and social status.

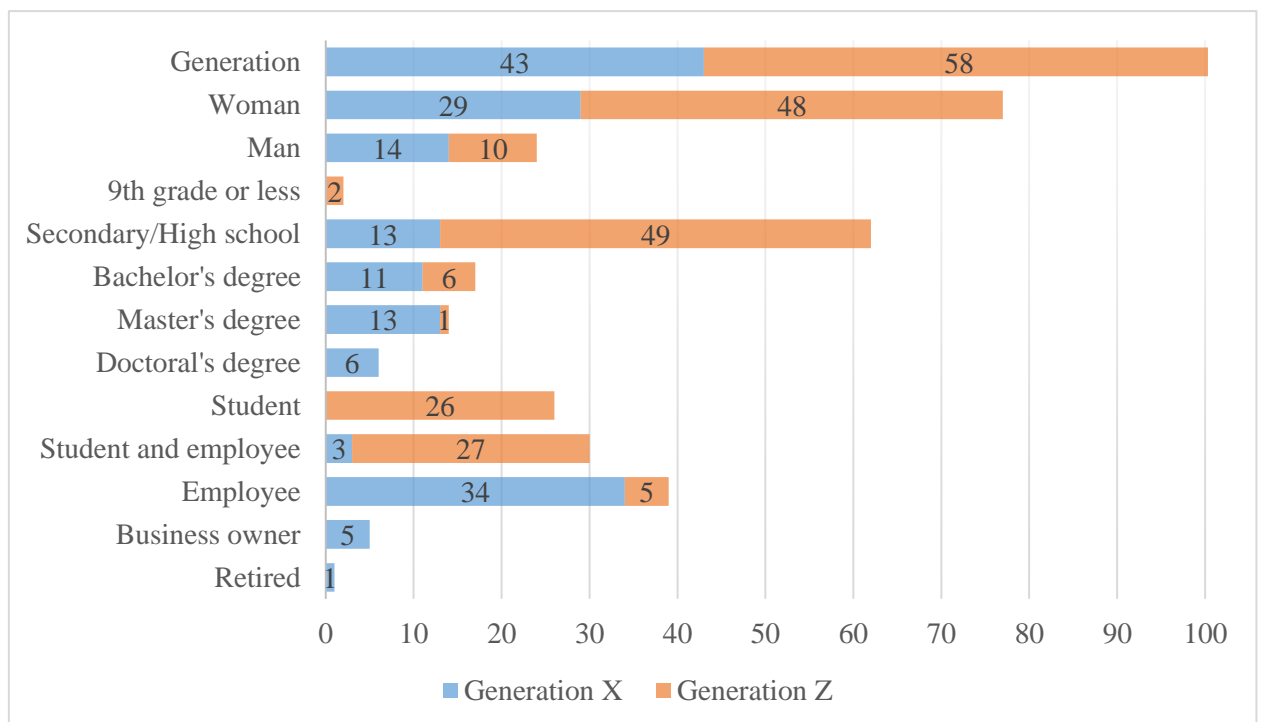


Figure 1. Demographic information, (nr. of respondents)

Source: Hou Guan (2022); author's calculations

Based on the same figure (Figure 1.), the author can conclude that female respondents (Gen X 29, Gen Z 48, in total 77) were more dominant than men (Gen X 14, Gen Z 10, in total 24). However, the author's focus was not on gender specifically. This question was asked only for the sake of curiosity.

The level of education may have more impact on one's consumer behaviour and conscious lifestyle. However, the author did not conclude anything based on one's level of education.

The three main social statuses were employment, student and employment, and student. The table clearly shows that Generation X respondents were mainly working for a company (34+3), and business owners (5) were also participating in the study. In comparison, Generation Z samples are mainly students (26) and students who work (27) besides studies. The occupation may have impact on one's purchasing decision due to the level of income which may limit the person's purchasing power. The correlation between occupation and not purchasing green products and price will be further investigated in the main findings.

2.3. Main findings

In the second section of the questionnaire, the author was interested in the participants' motivation to choose green products, their consciousness, awareness, beliefs, and barriers.

The second section started with the sixth question, studying why one is motivated to purchase green products. The two generations' answers were compared to determine whether they had significant differences. The multiple-choice question (I purchase green products to...) offered different motivations for why consumers choose green products. At 5% significance level, the T-test resulted in four significant differences; the description is based on Figure 2. and Table 6., the latter provides more detailed information, see Appendix 2. If the significance level is less than 0.05, the author can conclude that there is a significant difference between the two groups. The mean value tells how many percentages of the Generation X and Z respondents marked the following statements.

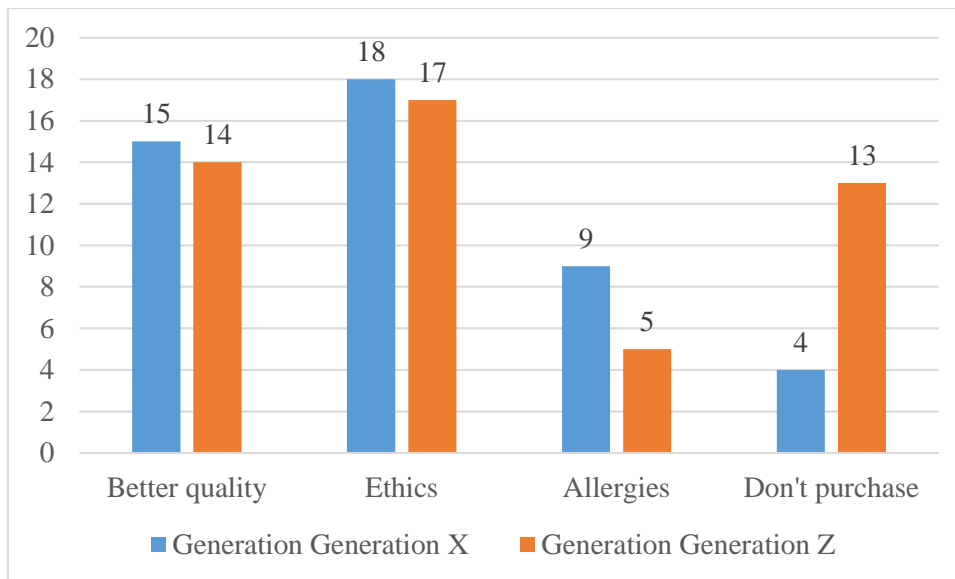


Figure 2. Differences regarding motivations to purchase green products (nr. of respondents)
Source: Hou Guan (2022); author's calculations

Firstly, the author can conclude 35% of Generation X (15) is motivated to purchase environmentally friendly goods because of the better quality. However, only 24% of Generation Z (14) think the same way. There is almost a 10%-point difference between the two groups regarding their motivation towards green products and its better quality.

Similarly, the same group (Generation X, 42%, 18) is more motivated to buy environmentally friendly products considering ethical reasons. Generation X highly values ethically produced products, which positively impacts their purchasing decisions. In contrast, only 29% (17) of the younger generation is motivated by the same value.

Thirdly, a ~10%-points significant difference remains between the two groups. The author assumes more people from the older generation (21%, 9) have developed some kind of allergies, which motivates them to be more conscious regarding their health. The same reason is valid for Generation Z (9%, 5) participants; however, the number of people who responded is significantly less.

Lastly, the author also considered that some of the respondents might not purchase green products. Approximately 10%-points of younger consumers (22%, 13) are less motivated to be conscious than the older generation (9%, 4).

The author was interested to find out whether there is a correlation between not purchasing green products and the barriers; the results are shown in Table 1. (see Appendix 2.). Only the

Price≠Quality ratio shows a weak correlation. Respondents do not purchase green products from Generation Z because they are unwilling to pay a higher price for a product that does not offer remarkably better quality.

The next multiple-choice question was related to the "I do not purchase green products" to study the main barriers that demotivate consumers to be more conscious individuals. The author writes a description based on Figure 3. Further information, such as the significance level and the mean value, can be found in Table 6. in Appendix 2. The latter was indicated in percentages in the description.

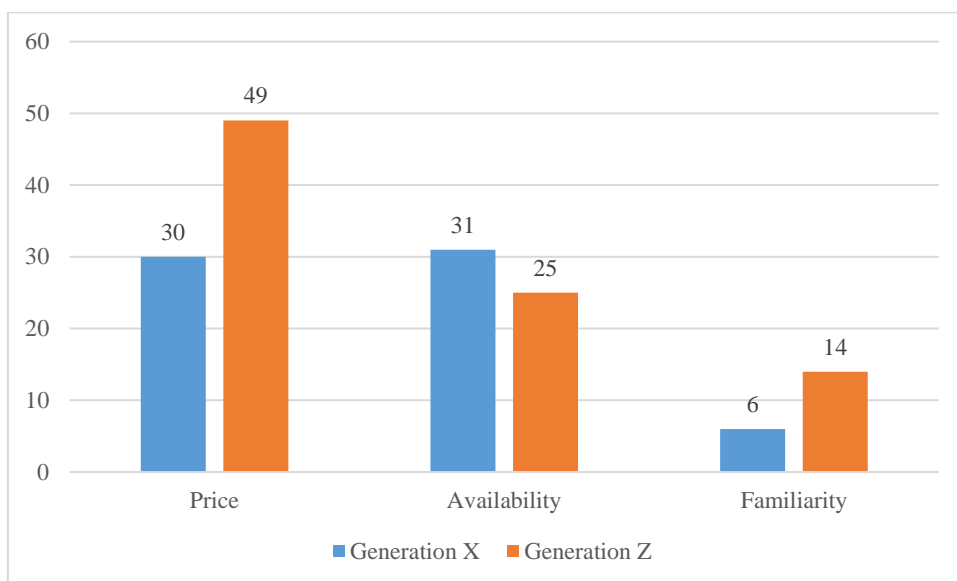


Figure 3. Differences regarding why the participants are not motivated to purchase green products, (nr. of respondents)

Source: Hou Guan (2022); author's calculations

The most remarkable demotivator was the price. A tight budget and high prices determine one's purchasing decision. Even though the person wants to be a conscious consumer, financial limitations may demolish or negatively influence one's motivation. The author can conclude that Generation Z's (84%, 49) major demotivator is the price. Nevertheless, the majority of Generation X (70%, 30) are also influenced by the price, but the barrier's intensity is significantly less. The author investigated whether there is a correlation between not being motivated to purchase green products and the price. The Spearman analysis did not result in any correlation between one's occupation and not purchasing green products, nor price as a barrier, see Table 2., Appendix 2.

There are various retail chains in Estonia, such as Rimi, Maxima, and Selver, that can be found in different sizes e.g. mini, supermarket, and hypermarket. In the city centre, mainly smaller-sized markets are available, offering a more limited selection compared to a hypermarket or supermarkets in the suburbs. As a result, respondents face difficulty finding environmentally friendly products on the shelf of (small-sized) shops. About 70% (31) of the older generation's respondents have challenges obtaining these products. In contrast, this barrier is significantly less in the case of the younger participants. They still face the same problem, but only about 40% (25) of the respondents.

Lastly, familiarity is the last barrier that negatively influences motivation towards green products. At 5% significance level, the T-test showed that 14% (6) of Generation X and 24% (14) of Z lack knowledge of environmentally friendly products and their benefits, which can negatively impact one's purchasing decision.

As mentioned in theory, everyone should take equal responsibility towards a more sustainable environment. Thus, the author collected and listed pro-environmental efforts that help achieve the common goal. These statements were collected from different web pages; for instance, by recycling, energy usage, greenhouse gases, and water pollution can be reduced, and natural resources can be saved (Anonymus, n.d.). By reducing car usage, CO₂ emission and air pollution can be reduced, which are the causes of greenhouse gas emissions (Anonymus, n.d.). Purchasing local products is good for the environment because it reduces air pollution due to less transportation, supports the local economy, and reduces packaging (Anonymus, n.d.)

The participant rate was one of the highest, which resulted in more significant differences; about eight statements show dissimilarity. The differences are illustrated in Figure 4. and Table 6. (Appendix 2.) provides further information about the level of significance and mean value. The latter was mentioned in the description in percentages.

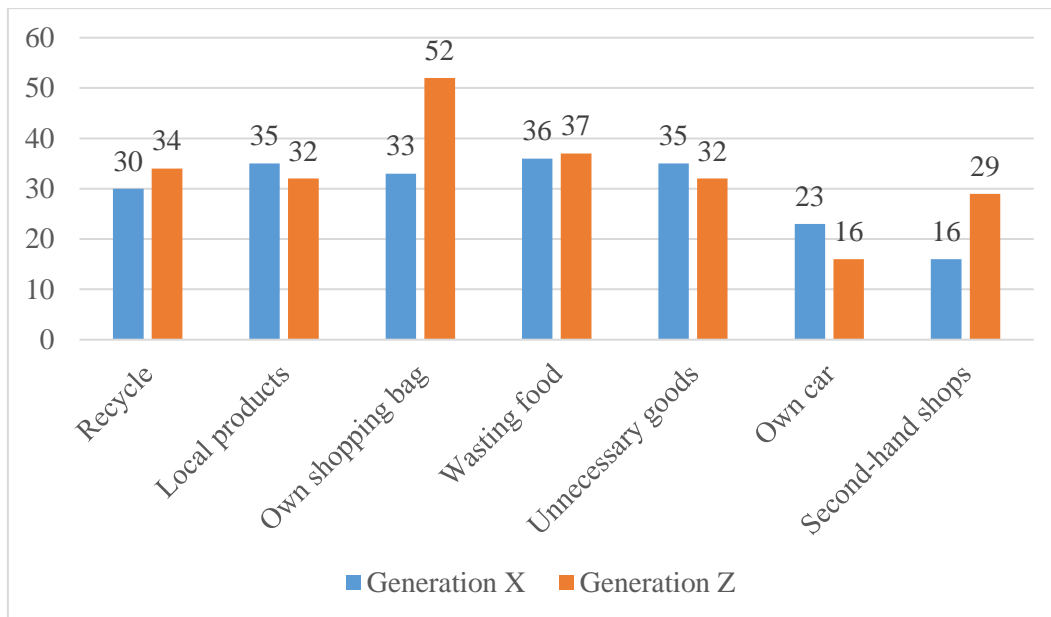


Figure 4. Differences regarding participants' conscious lifestyle, (nr. of respondents)
Source: Hou Guan (2022); author's calculations

Firstly, the test resulted in a significant difference regarding recycling. Seventy per cent of Generation X (30) show motivation toward a healthier Earth by sorting their trash. The younger participants (34) also make an effort and time to be more responsible in terms of wastage; however, only about 60 per cent of the group act so.

The following statement was about purchasing local products. The author thinks it is important to choose local producers and local products, not only for the quality, but the transportation is also a polluting factor of our environment. Moreover, choosing local goods and services support the local economy. Generation X (81%, 35) is more motivated to choose local products over imported ones, whereas the other group (55%, 32) is significantly less confident.

One of the most chosen statements was using one's own shopping bag. Tote bags among younger people are usually more popular, as the author's calculation also justified. Ninety per cent of Generation Z (52) reported using their own shopping bags. For example, many companies give away these bags or tourists like buying them on their vacations, which creates an emotional connection. These trendy bags can motivate individuals to reduce plastic bags and use durable products. This can be one of the reasons why the younger generation responded to this statement the most. Similarly, the other group (33) also generated a high participation rate of 77%.

Another statement was listed to determine the participants' attitudes toward food waste. Generation X (84%, 36) seems more conscious about food waste than Generation Z (64%, 37).

Similarly, the following statement showed a similar significant difference in purchasing unnecessary goods. The results differed by a few percentages, where Generation X (81%, 35) also showed more consciousness. The author associates that older people seem to be more responsible regarding shopping. They were grown up in a time when there was no such supply, for instance, the food crisis in the 1970s. Families did not have many choices, and sometimes the products had limitations as well, which may impact their shopping habits even nowadays, and they seem to be more responsible individuals.

In contrast, Generation X showed a higher response rate when the author asked about reducing car usage. More than half of the respondents (23) are motivated to use other transportation alternatives, and only 28% of Generation Z (16) do so. The reason behind it can be that most of the Generation Z participants may not own a car yet, so the respondent rate was much lower.

Shopping at second-hand shops is common among young individuals. These shops are more budget-friendly, where also unique pieces can be found, especially vintage ones that are trendy nowadays. Therefore, the author can conclude based on Table 6. (see Appendix 2.) Generation Z (50%, 29) is more motivated to acquire clothes and accessories from these stores because they can save money and reduce overproduction in the garment industry. Note, some of the participants from Generation X (37%, 16) were also reacting to this statement; however, it was less significant.

The last significant difference that the T-test resulted at 5% significance level was 'Other'. This option offered additional comments; however, one's answer was not visible to anyone else, and not many respondents added additional thoughts; therefore, nothing can be concluded based on it.

The author was also interested to find out how much the participants knew about different green marketing tools, such as eco-labels, green advertisements, eco brands, and green packaging. Respondents had to evaluate their knowledge on a 5-point Likert scale from Strongly disagree (1) to Strongly agree (5). Moreover, the author has also provided some examples or definitions to avoid misunderstandings. Table 7. (see Appendix 2.) shows that the author found only one significant difference, the Eco-labels. Figure 5. demonstrates that Generation X (13+19) appear to have more knowledge about Eco-labels.

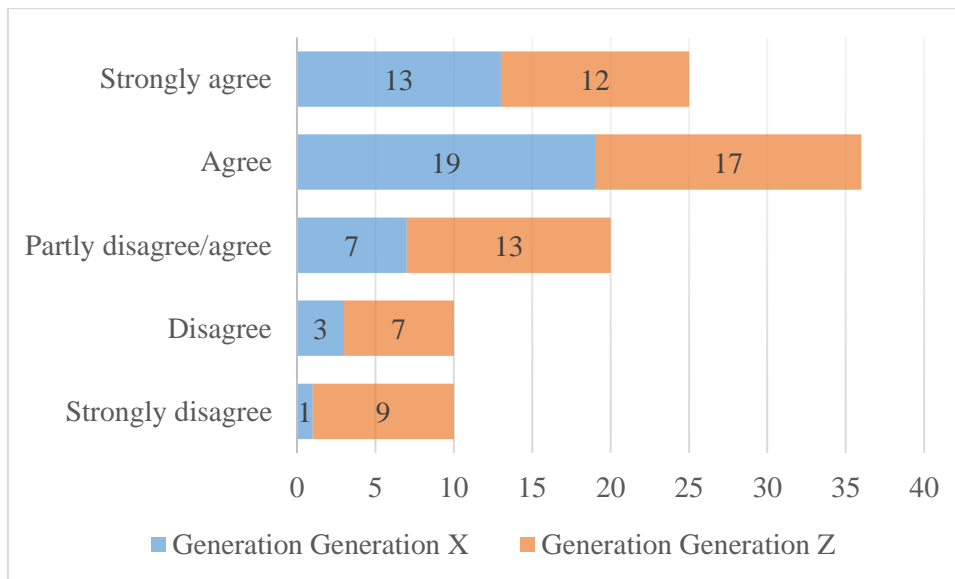


Figure 5. Awareness of Eco-labels, significant-difference, (nr. of respondents)
 Source: Hou Guan (2022); author's calculations

The author also analysed the correlation between knowledge about green marketing tools and purchasing more green products. The author wanted to find out whether knowing about these tools will motivate consumers to choose more green products. Table 3. demonstrates the correlations between various tools and motivation to purchase more green products. Generation Z resulted in a moderate correlation (0.447) between green advertisements and purchasing more green products. Therefore, the author assumes advertisement activities motivate young consumers.

Moreover, weak correlations were generated between other green marketing tools and the motivation to purchase more green products. In contrast, regarding Generation X, the correlation between the variables did not result in any moderate or stronger correlation. To conclude, more Generation X respondents are aware of eco-labels, but this marketing tool does not particularly motivate them to purchase more green products over non-green ones.

Table 3. Correlation between purchasing more green products and awareness about marketing tools, Generation X and Z

| | | More green products | |
|-----------------|-------------------------|---------------------|--------|
| Eco-labels | Correlation Coefficient | .295* | 0.153 |
| | Sig. (2-tailed) | 0.025 | 0.327 |
| | N | 58 | 43 |
| Ads. | Correlation Coefficient | .447** | -0.037 |
| | Sig. (2-tailed) | 0.000 | 0.815 |
| | N | 58 | 43 |
| Green packaging | Correlation Coefficient | .274* | 0.093 |
| | Sig. (2-tailed) | 0.037 | 0.555 |
| | N | 58 | 43 |
| Eco-brands | Correlation Coefficient | .331* | 0.290 |
| | Sig. (2-tailed) | 0.011 | 0.059 |
| | N | 58 | 43 |

Source: Hou Guan (2022), author's calculations

The following significant difference in Table 6. (see Appendix 2.) resulted from the question that measured green choices during one's shopping procedure. "How do you agree with the following statements in terms of your personal shopping" question listed different statements and the respondent had to evaluate it on a 5-point Likert-scale, from Strongly disagree (1) to Strongly agree (5). The T-test resulted at 5% significance level two differences: being motivated to purchase more green products during shopping and purchasing green products only if they are on sale.

Figure 6. shows the two groups' level of agreement regarding their motivation to buy more green products over non-green ones on a shopping occasion. Participants are not showing much motivation for purchasing more green products over non-green ones. Generation Z shows more disagreement (26) compared to Generation X (15). The author assumes that consumers are buying green products, just not to a great extent.

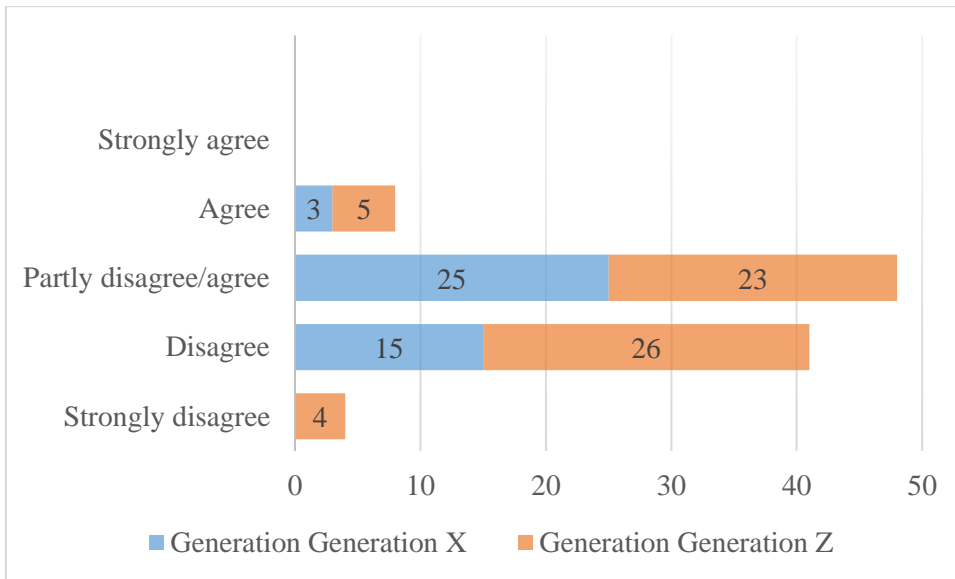


Figure 6. Purchasing more green products over non-green ones (nr. of respondents)
 Source: Hou Guan (2022); author's calculations

Figure 7. demonstrates that participants are much more motivated to purchase green products/services if their price is more favourable to their budget. Generation Z (32) shows a higher level of motivation and intention to choose environmentally friendly products/services if offered on sale because the price is one of the biggest pull back.

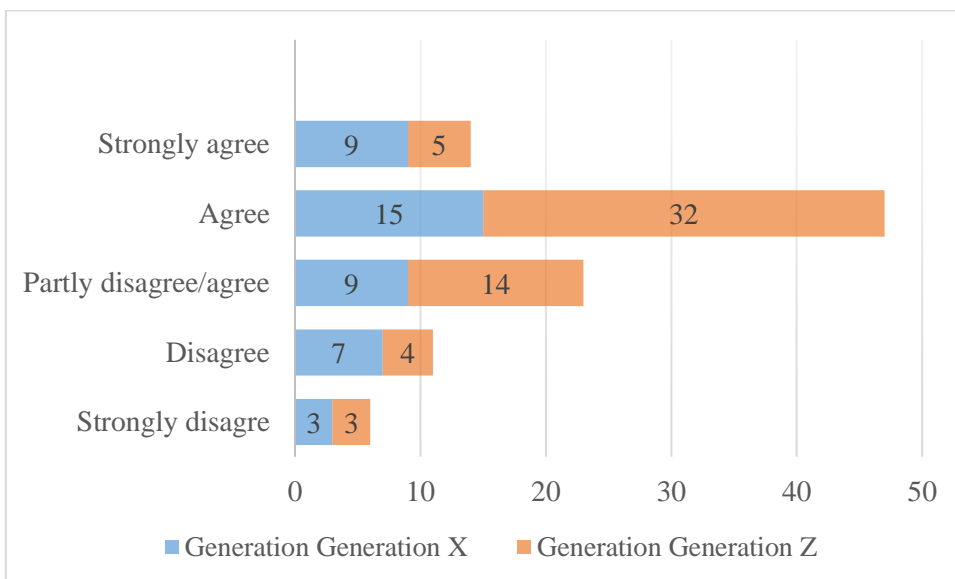


Figure 7. Purchasing green products on sale (nr. of respondents)
 Source: Hou Guan (2022); author's calculations

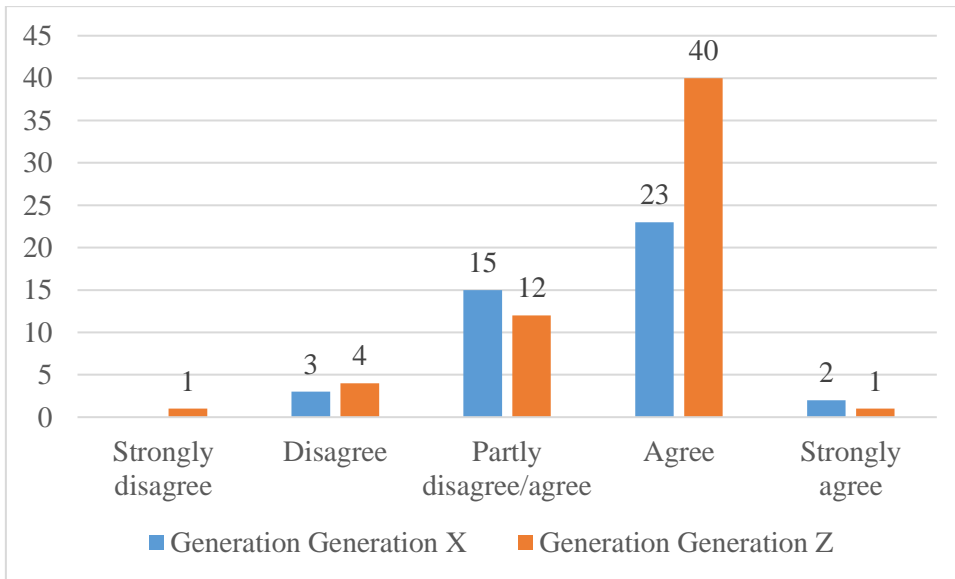


Figure 8. Beliefs about green companies' trustworthiness (nr. of respondents)
 Source: Hou Guan (2022); author's calculations

The last question of the second section was about finding out how much participants believe companies are trustworthy and credible. Figure 8. display the results. There was no significant difference between the two groups regarding their beliefs. Most respondents trust that they share valid information, act ethically and responsibly and offer green products as they communicate to the audience.

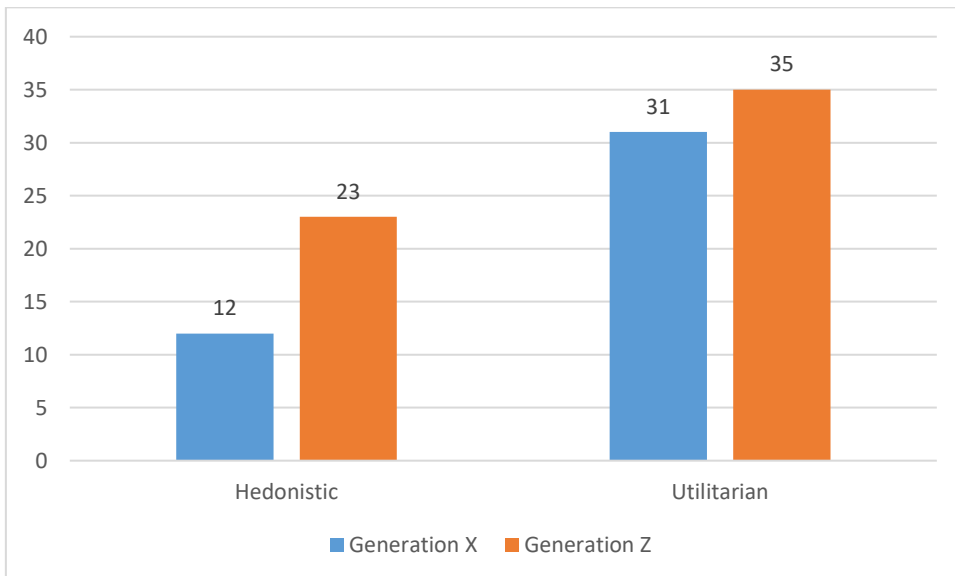


Figure 9. Motivation groups, n=101
 Source: Hou Guan (2022); author's calculations

The third section of the questionnaire focused on motivation categories. The theory introduced two motivation groups, so the author designed the questionnaire to study utilitarian and hedonistic motivation regarding green consumer behaviour. Among the participants, there were 35 hedonistic and 66 utilitarian consumers. Both groups had an almost equal number of utilitarian participants, Generation X (31) and Generation Z (35) (see Figure 9.).

The participants who chose either the hedonistic or the utilitarian group had to scale eight statements relating to green products and their motivation group on a 5-point Likert-scale, see Appendix 1.

For the utilitarian respondents, the questions were designed based on the theory. In the theory, the author detailed how utilitarian consumers make purchasing decisions, and the same features were taken into account when they were asked about purchasing green products.

From Table 4. the author can conclude that the prior motivation in purchasing green products is the price importance for both groups. Most of the respondents would purchase products with green characteristics if offered as a personalised offer. Nevertheless, all the other motivations were somewhat equally scattered, from disagreeing to agreeing. No significant differences were found between the two groups, see Appendix 2.

To add, the two generations behave more or less similarly in terms of utilitarian motivation and green products' prices. However, Generation Z shows a little bit more interest and motivation towards shifting to greener consumer behaviour, personalised green offers and being open-minded. Both groups somewhat disagree with purchasing green products from websites. Overall, results more or less reflect the characteristics of a utilitarian consumer, as was mentioned in the theory.

Table 4. Respondents' level of agreement with utilitarian motivation towards purchasing green products

| | | Strongly disagree | Disagree | Partly disagree/agree | Agree | Strongly agree |
|---------------------------------|--------------|-------------------|----------|-----------------------|-------|----------------|
| Info gathering | Generation X | 1 | 6 | 11 | 12 | 1 |
| | Generation Z | 4 | 12 | 6 | 13 | 0 |
| Price importance | Generation X | 0 | 2 | 8 | 18 | 3 |
| | Generation Z | 0 | 2 | 6 | 18 | 9 |
| Open-mindedness | Generation X | 1 | 13 | 12 | 5 | 0 |
| | Generation Z | 1 | 8 | 11 | 11 | 4 |
| Various benefits | Generation X | 0 | 5 | 9 | 11 | 6 |
| | Generation Z | 1 | 9 | 12 | 8 | 5 |
| Transforming Consumer behaviour | Generation X | 4 | 11 | 12 | 3 | 1 |
| | Generation Z | 4 | 11 | 10 | 10 | 0 |
| Convenience > Greenness | Generation X | 5 | 11 | 6 | 7 | 2 |
| | Generation Z | 4 | 7 | 14 | 8 | 2 |
| Personalised green offers | Generation X | 1 | 3 | 11 | 14 | 2 |
| | Generation Z | 0 | 3 | 8 | 21 | 3 |
| Webshopping | Generation X | 7 | 6 | 9 | 9 | 0 |
| | Generation Z | 13 | 8 | 6 | 7 | 1 |

Source: Hou Guan (2022); author's calculations

The last question of the questionnaire was to measure the difference between the two generations' hedonistic motivations to purchase environmentally friendly products for those who belonged to this group. These statements also reflected the hedonistic motivation features detailed in the theory part. Similarly, to utilitarian motivation, the answers were relatively equally scattered, see Table 5.

Table 5. Respondents' level of agreement with hedonic motivation towards purchasing green products

| | | Strongly disagree | Disagree | Partly disagree/agree | Agree | Strongly agree |
|-------------------------|--------------|-------------------|----------|-----------------------|-------|----------------|
| Joy/Pleasure | Generation X | 0 | 3 | 3 | 6 | 0 |
| | Generation Z | 2 | 3 | 8 | 9 | 1 |
| Innovative | Generation X | 0 | 3 | 7 | 2 | 0 |
| | Generation Z | 2 | 2 | 8 | 10 | 1 |
| Equal satisfaction | Generation X | 0 | 3 | 3 | 4 | 2 |
| | Generation Z | 1 | 2 | 9 | 9 | 2 |
| Willingness to pay more | Generation X | 0 | 1 | 4 | 7 | 0 |
| | Generation Z | 2 | 3 | 13 | 4 | 1 |
| Trend | Generation X | 4 | 1 | 5 | 2 | 0 |
| | Generation Z | 8 | 12 | 2 | 1 | 0 |
| Regret | Generation X | 2 | 3 | 2 | 5 | 0 |
| | Generation Z | 3 | 5 | 11 | 2 | 2 |
| Recommendation | Generation X | 0 | 1 | 5 | 6 | 0 |
| | Generation Z | 3 | 2 | 4 | 14 | 0 |
| Expressing opinion | Generation X | 1 | 4 | 2 | 3 | 2 |
| | Generation Z | 5 | 10 | 6 | 1 | 1 |

Source: Hou Guan (2022); author's calculations

Choosing a green product based on the recommendation was the most agreed. The only statement that resulted in a significant difference was whether the person is motivated to purchase green products/services because they are trendy (see Table 6. in Appendix 2.). Many Generation Z respondents denied being motivated towards green products because it is trendy and sharing opinion. The results more or less show a connection with the theory; the participants represent the characteristics of hedonistic motivation. However, the author cannot be entirely sure as the sample size of hedonistic respondents is too small.

2.4. Discussion and suggestions

The author aimed with the survey to find out the major differences between Generation X's and Z's motivation towards green consumer behaviour. The findings can be helpful information for companies and marketing specialists to customise their green strategies for these two groups. In this section, the author discusses the findings of results and provide suggestions to marketers and researchers.

Firstly, the author was interested in what motivates participants to purchase green products. The author found four significant differences (better quality, ethical reasons, allergies, and I do not purchase). Generation X shows more motivation to buy these products because they have experienced better quality, they find it necessary to support companies that offer ethically produced products, and they have allergies that require more conscious purchasing decisions. In contrast, more participants from Generation Z show that they are not motivated to purchase green products.

The author was interested in discovering why participants are not interested in or motivated by green consumer behaviour. However, the correlation analysis between not purchasing and the barriers did not show any remarkable results. Therefore, the author would suggest that researchers study these two groups more profoundly, focusing on their motivation towards green purchasing decisions, such as the main factors that are the most and least important when purchasing a green product and what demotivates them.

To marketers, the author would recommend offering products made from quality and ethically produced ingredients/materials. Generation X highly values these products' characteristics. Regarding Generation Z, informative, educative advertisements could enhance these products' sales by encouraging younger consumers to shift their values and purchasing decisions.

The author was also interested in determining the main barriers that demotivates consumers to be more conscious consumers. The study showed that for almost 80% of Generation Z, the price is the demotivator towards purchasing green products. However, the author must consider that the Generation Z participants are mainly students or students who work besides school, which may influence their consumer behaviour, capabilities and overall results. The author wanted to know if

there was any correlation between their social status and the price of the products, but the correlation analysis resulted in a very weak value. Thus, the author cannot guarantee that the price and their occupation or financial situation prevent them from following green consumer behaviour. However, this group also showed high agreement when the author asked about their personal shopping. Many participants showed motivation towards purchasing green products at reduced prices.

There is no apparent connection between not being motivated to green consumer behaviour and its reason. Thus, the author highly recommends that researchers study mainly Generation Z's barriers. Further research should deeper study their financial situation and their green consumer behaviour to be able to make precise conclusions.

However, based on the received information, marketers should offer more reasonably priced green products to fulfil more customers' wants and perhaps encourage others to greener consumer behaviour. The author would recommend that companies offer a welcoming price when they launch a product so people with little income can also try these products. They might make more effort to be able to purchase these products in the future.

Based on Hao et al. (2019) study and the fact that Generation Z spend more time on social media where green products are often advertised, the author expected that Generation Z has higher familiarity towards green products that would motivate them to a green consumer behaviour than Generation X. However, the researcher's study resulted in the opposite. More Generation Z shows a lack of familiarity with green products compared to Generation X. Green advertisements are a great marketing tool to enhance awareness and motivation towards purchasing green products. As proof, Generation Z showed a moderate correlation between advertising and purchasing more green products. Meaning, those who are exposed to green ads are more likely get motivated to purchase more green products than non-green ones. An informative advertisement can educate the customer and manipulate their purchasing decision.

Based on the result, for generalisation, more profound research would be needed on one's knowledge, awareness, and familiarity with green products and the frequency and intensity of buying green products. After that, a correlation analysis could tell whether there is a connection between awareness and purchasing green products.

However, based on the author's findings, businesses should spend more money and effort on green promotion activities involving one of the 5I, being informative. Besides advertising, companies

should focus on green communication. According to Sousa et al. (2022), green communication is an essential green marketing activity that calls for consumers' attention and may encourage them to change their values and shift to a more conscious behaviour which further results in enhanced sales and profit for companies. (Sousa et al., 2022, 4)

Besides awareness, the availability of green products arose as a demotivator. Mainly Generation X have difficulty finding these products, which impacts their purchasing decisions and motivation. This group shows interest in being more responsible individuals. However, if they face challenges during their shopping experience, it might discourage them, upset them, and cause losing their motivation and interest. Therefore, the author would recommend wider options and unique positioning of green products. A well-positioned product helps customers to find products quickly and may influence their choice if the product is placed in the right place. Further research about availability and not purchasing green products could be beneficial for businesses. Generation X should be interviewed about their most significant challenges in finding these products, location or availability.

Regarding pro-environmental activities, Generation X seems more motivated than Generation Z. The assumption resulted from the question of discovering the participants' deeds towards environmental sustainability. The author expected younger individuals to be more responsible and make more effort as they were born into an era that emphasises environmental issues. In contrast, the older generation seems to make more effort by recycling, purchasing local products, avoiding food waste, purchasing unnecessary goods, and reducing their own car usage. The author executed a correlation between pro-environmental acts and purchasing green products; however, no remarkable correlation was found. Thus, further research should be executed with a larger sample size and more focus on pro-environmental activities and green consumer behaviour to conclude whether Generation X's deeds are reflected in their green consumer behaviour.

For companies, clear and educative packaging should be applied to encourage young consumers to recycle. Besides that, companies should offer more durable goods so over production, wastage and over consumption could be significantly reduced. Companies could also offer more appealing guarantee policies or repair services so people could repair their goods instead of purchasing new ones. Consumers, mainly from Generation Z, should be encouraged for a "less is more" way of thinking.

The author was also studying the awareness of different green marketing tools where Generation X showed more knowledge about Eco-labels. Correlation analysis was also done to determine whether these tools motivate or influence green choices. The analysis showed no remarkable correlation between Generation X eco-label awareness and purchasing more green products than non-green ones. However, Generation Z showed that these tools, especially advertisements, influence one's purchasing behaviour. Therefore, the author recommends marketing specialists to focus on green marketing tools as it can educate consumers, which positively affects green product sales.

The questionnaire was designed based on the theory with the focus on green consumer behaviour. The theory introduced what features describe hedonic and utilitarian motivations. The participants' responses more or less represented those features, but no significant differences were found between Generation X and Z for utilitarian motivation. The participants in the hedonic motivation group resulted in one significant difference: the trend. Generation Z disagreement is more significant for being motivated to purchase green products because of its trendiness. Due to little respondent rate, the author cannot guarantee accurate results and cannot generalise. Therefore, it is highly recommended that market researchers conduct more profound research on utilitarian and hedonic consumers' green consumer behaviour.

CONCLUSION

In the 21st century, the world has grown fast and changed consumer behaviour. Shops are offering wider and wider selections; the demand and supply are continuously growing, leading to an unsustainable lifestyle. The unconscious way of consumption harms the environment as the limited resources will not be capable of satisfying the unlimited needs in the future.

Generations have different consumer behaviours as the era they were born into defines their characteristics and forms their habits, norms, and values. Thinking, living, consuming, and doing green takes time. Changing habits can be a long process; it can be difficult and inconvenient to transform one's lifestyle. It is different when one is born into a more environmentally friendly era than changing to it.

There is little research conducted on Generation X and Z differences regarding their motivation towards green consumer behaviour. That is why this student paper aimed to determine the differences between the two groups' motivations towards green consumer behaviour. Collecting updated data helps marketers to predict and enhance green product sales and encourage consumers to shift to more environmentally friendly behaviour. The research question was 'What are the differences between Generation X's and Z's consumer motives towards purchasing green products in Estonia?'.

The author used a quantitative method for primary data collection by online questionnaire on Google forms. The questionnaire was distributed between 25th October 2022 to 1st November 2022. The author received 122 responses all together; however, due to the criteria, only 101 responses were used in this research, 58 Generation Z and 43 Generation X participants. The data was transferred and coded numerically in Microsoft Excel; however, T-tests and correlation analysis were executed in SPSS statistical software.

To answer the research question, Generation X showed more motivation towards environmentally friendly attitudes, awareness and purchasing green products. Generation X participants are more active in pro-environmental activities, purchasing more green products, and being aware of eco-labels, but they also face barriers such as the availability of these products. However, there was no

significant difference between Generation X and Z in terms of utilitarian motivation and only trend resulted in a significant difference in hedonic motivation. The author was also interested in how their pro-environmental acts and awareness correlate to their motivation to buy green products. The author did not find a strong correlation for any of the groups by executing a correlation analysis.

The author fulfilled the research aim and provided recommendations to marketers and researchers. However, convenience sampling is not representative of the population. Therefore, the author recommends that researchers conduct a deeper study on the correlation between one's environmental responsibility, awareness and green consumer behaviour with a more representative sampling method. Qualitative research could also provide a deeper insight into the generations' attitudes towards green behaviour.

To companies, the author recommends using more informative advertising, better positioning strategy and showing a more encouraging attitude towards consumers to enhance green product sales and shift consumers' thinking to a more environmentally friendly behaviour.

LIST OF REFERENCES

- Adomaviciute, K., (2013), Relationship between utilitarian and hedonic consumer behavior and socially responsible consumption, *Economics and Management*, 18(4), 754-760, <https://doi.org/10.5755/j01.em.18.4.5580>
- Albert, L., (n.d.), *Analytics: Key to uncovering and acting on customer motivations*, Retrieved 30th September, 2022, from <https://www.retaildive.com/ex/mobilecommercedaily/analytics-key-to-uncovering-and-acting-on-customer-motivations#:~:text=Consumer%20motivation%20is%20an%20internal,to%20better%20fulfill%20those%20needs>
- Ampuero, O., Vila, N., (2006), Consumer perceptions of product packaging, *Journal of Consumer Marketing*, *Journal of Consumer Marketing*, 23/2, 100–112, DOI 10.1108/07363760610655032
- Anonymous, (n.d.), Cars impact on the environment, Retrieved 09th December, 2022, from <https://www.theworldcounts.com/challenges/consumption/transport-and-tourism/cars-impact-on-the-environment>
- Anonymous, (n.d.), Frequently Asked Questions: Benefits of Recycling, Retrieved 09th December, 2022, from <https://lbre.stanford.edu/pssistanford-recycling/frequently-asked-questions/frequently-asked-questions-benefits-recycling#:~:text=Q%3A%20What%20are%20the%20environmental,and%20reduced%20landfill%20by%2035%25.>
- Anonymous, (n.d.), HOW DOES SHOPPING LOCALLY HELP THE ENVIRONMENT?, Retrieved 09th December, 2022, from <https://shopappy.com/blog/post/how-does-shopping-locally-help-the-environment#:~:text=By%20buying%20locally%2C%20you%20can,support%20the%20local%20economy%2C%20too.>
- Atulkar, S., (2021), Utilitarian Motives and Purchase Behaviour of Indian Mall Shoppers, *Journal of Promotion Management*, 27(3), 464–486 <https://doi.org/10.1080/10496491.2020.1838024>
- Boztepe, A., (2012), Green Marketing and Its Impact on Consumer Buying Behavior, *European Journal of Economic and Political Studies*, 5, 5-21
- C Williams,K., A Page, R., (2011), Marketing to the Generations, *Journal of Behavioral Studies in Business*, 3, 37-53

- Cheng, Z.-H., Chang, C.-T., Lee, Y.-K., (2018), Linking hedonic and utilitarian shopping values to consumer skepticism and green consumption: the roles of environmental involvement and locus of control, *Review of Managerial Science*, 14, 61-85, <https://doi.org/10.1007/s11846-018-0286-z>
- Choi, D., Johnson, K. K.P., (2019), Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior, *Sustainable Production and Consumption*, 18, 145-155, <https://doi.org/10.1016/j.spc.2019.02.001>
- Dangelico, R. M., Vocalelli, D., (2017), "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature, *Journal of Cleaner Production*, 1263-1279, <http://dx.doi.org/10.1016/j.jclepro.2017.07.184>
- De Witte, M., (2022), Gen Z are not 'coddled.' They are highly collaborative, self-reliant and pragmatic, according to new Stanford-affiliated research, Retrieved 6th December, 2022, from <https://news.stanford.edu/2022/01/03/know-gen-z/>
- Dvořáková Líšková, Z., Cudlínová, E., Pártlová, P., Petr, D., (2016), Importance of Green Marketing and Its Potential, *Visegrad Journal on Bioeconomy and Sustainable Development*, 5 (2), 61–64
- Hao, Y., Liu, H., Chen, H., Sha, Y., Ji, H., Fan, J., (2018), What affect consumers' willingness to pay for green packaging? Evidence from China, *Resources, Conservation & Recycling*, 141, 21-29, <https://doi.org/10.1016/j.resconrec.2018.10.001>
- Kumar, R., (2006). Consumer behaviour, Global Media.
- Kumar, S., Yadav, R., (2021), The impact of shopping motivation on sustainable consumption: A study in the context of green apparel, *Journal of Cleaner Production*, vol. 295, 2-13, <https://doi.org/10.1016/j.jclepro.2021.126239>
- Kumar' Ranjan', R., and Kushwaha, R., (2017), Impact of Green Marketing Strategies on Consumer Purchase Behaviour, *Review of Management*, 7(3-4), 9-22
- Lissitsa, S., Kol, O., (2016), Generation X vs. Generation Y – A decade of online shopping, *Journal of Retailing and Consumer Services*, 31, 304-312, <https://doi.org/10.1016/j.jretconser.2016.04.015>
- Lu, L., Bock D., and Joseph, M., (2013), Green marketing: what the Millennials buy *Journal of Business Strategy*, 34 (6), 3-10 DOI 10.1108/JBS-05-2013-0036
- Mishra, P., Sharma, P., (2010), Green marketing in India: Emerging opportunities and challenges, *Journal of Engineering, Science and Management Education*, 3, 9-14
- Mouloudj, K., Chemseddine Bouarar, A., (2021), The Impact of Word of Mouth on Intention to Purchase Green Products: An Empirical Study, *Revue Algérienne d'Economie et gestion* Vol. 15, N° : 01, 871-890
- Polonsky, M. J., (1994), An Introduction to Green Marketing, *Electronic Green Journal*, 1(2), doi: 10.5070/G31210177

- Saintives, C., (2020), guilt online vs. offline: What are its consequences on consumer behavior?, *Journal of Retailing and Consumer Services*, 55, 1-9, <https://doi.org/10.1016/j.jretconser.2020.102114>
- Sehera, T., Arshada, M., Ellahib, S., Shahidc, M., (2012), impact of colors on advertisement and packaging on buying behavior, *Management Science Letters*, 2, 2085–2096, doi: 10.5267/j.msl.2012.06.011
- Solomon, M. (2019). *Consumer Behavior: Buying, Having, and Being*, Global Edition. (13th ed.). Pearson Education, Limited.
- Sousa, S., Correia, E., Viseu, C., and Larginho, M., 2022, Analysing the Influence of Companies' Green Communication in College Students' Green Purchase Behaviour: An Application of the Extended Theory of Planned Behaviour Model, *Administrative sciences*, 12 (3):80, 2-14, <https://doi.org/10.3390/admsci12030080>
- Su, C.-H. (J.), Tsai, C-H. (K.), Chen, M-H., Lv, W. Q., (2019), U.S. Sustainable Food Market Generation Z Consumer Segments, *Sustainability*, 11(13), 3607, 1-14, <https://doi.org/10.3390/su11133607>
- Taken Smith, K., & R. Brower, T., (2012), Longitudinal study of green marketing strategies that influence Millennials, *Journal of Strategic Marketing*, 20(6), 535–551, <https://doi.org/10.1080/0965254X.2012.711345>
- US EPA, (n.d). *Introduction to Eco-labels and Standards for Greener Products*, Retrieved 29th September, 2022, from <https://www.epa.gov/greenerproducts/introduction-ecolabels-and-standards-greener-products>
- Vilkaite-Vaitone, N., Skackauskiene, I., (2019), Green marketing orientation: evolution, conceptualisation and potential benefits, *Open Economics*, 2, 53–62, <https://doi.org/10.1515/openec-2019-0006>
- Wandosell, G., Parra-Meroño, M. C., Alcayde, A. and Baños, R., (2021), Green Packaging from Consumer and Business Perspectives, *Sustainability*, 13 (3), 1-19, <https://doi.org/10.3390/su13031356>

APPENDICES

Appendix 1. Online questionnaire and results (nr. of respondents)

| Section 1, n=101 | | | | |
|-------------------------------------|---|--------------|------------------|--------------------------------|
| | | Generation X | Generatio n Z | Nominal scale |
| I was born in the... | | 43 | 58 | |
| Are you Estonian? | Yes | 43 | 58 | |
| My gender is... | Woman | 29 | 48 | |
| | Man | 14 | 10 | |
| My education is... | 9th grade or less | 0 | 2 | |
| | Secondary/High school | 13 | 49 | |
| | Bachelor's degree | 11 | 6 | |
| | Master's degree | 13 | 1 | |
| | Doctoral's degree | 6 | 0 | |
| My occupation... | Student | 0 | 26 | |
| | Student and employee | 3 | 27 | |
| | Employee | 34 | 5 | |
| | Business owner | 5 | 0 | |
| | Retired | 1 | 0 | |
| Section 2, n=101 | | | | |
| | | Generation X | Generatio n Z | Multiple choice question |
| I purchase green products... | to have less impact on the environment. | 27 | 32 | |

| | | | |
|--|--|----|----|
| | because it is better quality. | 15 | 14 |
| | because It is healthier. | 25 | 22 |
| | for ethical reasons. | 18 | 17 |
| | because it is trendy. | 1 | 1 |
| | due to allergies. | 9 | 5 |
| | I do not purchase green products. | 4 | 13 |
| | I make my purchases based on the price. Often, the eco-friendly products are much more expensive so I don't buy them very often. | 0 | 1 |
| | If they are compatible with the price-quality ratio | 1 | 0 |
| | I'm looking for an optimal compromise | 1 | 0 |
| | I do buy environmentally friendly products but depending on the price and my tastes. | 0 | 1 |
| My barriers to purchase green products... | its price. | 30 | 49 |
| | due to lack of trust. | 4 | 3 |
| | because it is not available in the local shops. | 31 | 25 |

| | | | |
|--|--|----|----|
| | the quality is not significant so I do not want to pay a higher price. | 19 | 22 |
| | I am not familiar with green products. | 6 | 14 |
| | I will not be able to change the environmental crisis by a more conscious lifestyle. | 3 | 3 |
| | I do not care. | 1 | 5 |
| | due to lack of environmental awareness. | 4 | 9 |
| I try to have a more conscious life style by... | Recycling | 30 | 34 |
| | Purchasing local products | 35 | 32 |
| | Purchasing green products | 19 | 20 |
| | Using my own shopping bag | 33 | 52 |
| | Buying seasonal fruits/vegetables | 24 | 26 |
| | Not throwing away/wasting food | 36 | 37 |
| | Not purchasing unnecessary goods | 35 | 32 |
| | Trying to reduce the usage of my own car | 23 | 16 |

| | | | | | | |
|--|---|-------------------|----------|---------------------------|-------|----------------|
| | Purchasing things from second-hand shops | 16 | 29 | | | |
| | I use my things reasonably, that is, over a longer period, I try to repair them. | 1 | 0 | | | |
| | I buy old furniture and design items. | 1 | 0 | | | |
| I have some knowledge about different green marketing tools | Green packaging (paper packages instead of plastic, e.g. 100 % recycled paperboard) | Strongly disagree | Disagree | Partially disagree /agree | Agree | Strongly Agree |
| | Generation X | 0 | 0 | 4 | 16 | 23 |
| | Generation Z | 1 | 2 | 10 | 18 | 27 |
| | Eco brands (Usually these companies produce environmental friendly products for example, the materials are recycled. E.g. Patagonia, I Love Eco (from Rimi), RemedyWay, LaMuu, etc.,) | | | | | |
| | Generation X | 1 | 8 | 6 | 16 | 12 |
| | Generation Z | 3 | 6 | 16 | 14 | 19 |
| | Green advertisements (environmental friendly products or services are promoted via commercial advertising , e.g. advertising green products and its benefits, on billboards, posters, etc.) | | | | | |
| | Generation X | 4 | 6 | 13 | 13 | 7 |
| | Generation Z | 2 | 6 | 16 | 27 | 7 |

| | | | | | | |
|---|--|---|----|----|----|----|
| | Eco-labels (e.g. Fairtrade, Organic, Rainforest Alliance, Leaping Bunny, MSC, etc.) | | | | | |
| | Generation X | 1 | 3 | 7 | 19 | 13 |
| | Generation Z | 9 | 7 | 13 | 17 | 12 |
| How do you agree with the following statements in terms of your personal shopping? | The quality is more important than the price | | | | | |
| | Generation X | 1 | 4 | 13 | 17 | 8 |
| | Generation Z | 2 | 8 | 26 | 20 | 2 |
| | I buy green products if the price difference is not too significant | | | | | |
| | Generation X | 0 | 3 | 6 | 20 | 14 |
| | Generation Z | 3 | 4 | 10 | 25 | 16 |
| | The majority of the goods I buy are green products | | | | | |
| | Generation X | 0 | 15 | 25 | 3 | 0 |
| | Generation Z | 4 | 26 | 23 | 5 | 0 |
| | I purchase based on the brand | | | | | |
| | Generation X | 3 | 6 | 13 | 18 | 3 |
| | Generation Z | 1 | 7 | 19 | 24 | 7 |
| | I read labels | | | | | |
| | Generation X | 1 | 4 | 9 | 15 | 14 |
| | Generation Z | 4 | 8 | 16 | 22 | 8 |
| | I choose green products if it is on sale | | | | | |
| | Generation X | 3 | 7 | 9 | 15 | 9 |
| | Generation Z | 3 | 4 | 14 | 32 | 5 |
| | I choose the green product if it is in front of me otherwise I would not look for it | | | | | |
| | Generation X | 4 | 10 | 10 | 18 | 1 |
| | Generation Z | 3 | 10 | 25 | 16 | 4 |
| | The price is more important than the quality | | | | | |

| | | | | | | |
|--|--|-------------------|------------------|---------------------------|-------|----------------------|
| | Generation X | 9 | 16 | 13 | 2 | 3 |
| | Generation Z | 3 | 13 | 26 | 12 | 4 |
| | I do not think there is any difference between green and non green products. | | | | | |
| | Generation X | 16 | 19 | 4 | 4 | 0 |
| | Generation Z | 17 | 24 | 12 | 5 | 0 |
| Additional comments | <p>My choices are rather based on healthiness on the product (gluten and milk free), not animal based.</p> <p>I don't have money to buy them, I choose the cheapest option.</p> <p>Often the not environmentally friendly product has better quality. I have bought environmentally friendly products that don't work (e.g. deodorant).</p> <p>It's possible that the most environmentally friendly product is sold on the market. At least it is not (over) packaged</p> <p>Mostly I don't know whether I am buying environment friendly products (e.g at the groceries) when I don't have time to delve into it and when there is no clear explicit labeling on the product.</p> | | | | | |
| I believe that green companies are trustworthy and credible | | Strongly disagree | Disagree | Partially disagree /agree | Agree | Strongly Agree |
| | Generation X | 0 | 3 | 15 | 23 | 2 |
| | Generation Z | 1 | 4 | 12 | 40 | 1 |
| Section 3, n=101 | | | | | | |
| | | Generatio n X | Generati on Z | | | |
| My consumer motivation is... | Hedonic, I like buying and trying new products and I feel excitement, joy, pleasure during the purchase. | 12 | 23 | | | Nomi nal scale |
| | Utilitarian, I purchase usually the same brand and products for its functionality, value to satisfy basic needs. | 31 | 35 | | | |

| | | Strongly disagree | Disagree | Partially disagree /agree | Agree | Strongly Agree |
|---|---|--|----------|---------------------------|-------|----------------|
| | | I like gathering information before purchasing green products/services | 1 | 6 | 11 | 12 |
| Generation X | 4 | 12 | 6 | 13 | 0 | |
| Generation Z | | | | | | |
| The price has an important role at choosing green products/services | 0 | 2 | 8 | 18 | 3 | |
| Generation X | 0 | 2 | 6 | 18 | 9 | |
| Generation Z | | | | | | |
| I hardly try new green products/services or change my consumer behaviour | 1 | 13 | 12 | 5 | 0 | |
| Generation X | 1 | 8 | 11 | 11 | 4 | |
| Generation Z | | | | | | |
| I purchase green products/services because it has different benefits | 0 | 5 | 9 | 11 | 6 | |
| Generation X | 1 | 9 | 12 | 8 | 5 | |
| Generation Z | | | | | | |
| I hardly change from non-green products/services to green | 4 | 11 | 12 | 3 | 1 | |
| Generation X | 4 | 11 | 10 | 10 | 0 | |
| Generation Z | | | | | | |
| The convenience is more important than the greenness of the product/service | 5 | 11 | 6 | 7 | 2 | |
| Generation X | 4 | 7 | 14 | 8 | 2 | |
| Generation Z | | | | | | |
| I like personalised green product offers. | 1 | 3 | 11 | 14 | 2 | |
| Generation X | 0 | 3 | 8 | 21 | 3 | |
| Generation Z | | | | | | |

| | | | | | | |
|--|---|-------------------|----------|---------------------------|-------|----------------|
| | I purchase green products from the internet because it saves time, money and the selection is larger. | | | | | |
| | Generation X | 7 | 6 | 9 | 9 | 0 |
| | Generation Z | 13 | 8 | 6 | 7 | 1 |
| How do you agree with the following statements as hedonic consumer? | I choose new green products based on recommendation | Strongly disagree | Disagree | Partially disagree /agree | Agree | Strongly Agree |
| | Generation X | 0 | 1 | 5 | 6 | 0 |
| | Generation Z | 3 | 2 | 4 | 14 | 0 |
| | I often express my opinion about new green products | | | | | |
| | Generation X | 1 | 4 | 2 | 3 | 2 |
| | Generation Z | 5 | 10 | 6 | 1 | 1 |
| | I choose new green products because I experience joy, pleasure | | | | | |
| | Generation X | 0 | 3 | 3 | 6 | 0 |
| | Generation Z | 2 | 3 | 8 | 9 | 1 |
| | I purchase green products because they are innovative | | | | | |
| | Generation X | 0 | 3 | 7 | 2 | 0 |
| | Generation Z | 2 | 2 | 8 | 10 | 1 |
| | Purchasing different green products give as much pleasure as the non-green ones | | | | | |
| | Generation X | 0 | 3 | 3 | 4 | 2 |
| | Generation Z | 1 | 2 | 9 | 9 | 2 |
| | I am willing to pay higher price for a green | | | | | |
| | Generation X | 0 | 1 | 4 | 7 | 0 |
| | Generation Z | 2 | 3 | 13 | 4 | 1 |
| | I choose new green products to be up to date with the trends | | | | | |
| | Generation X | 4 | 1 | 5 | 2 | 0 |

| | | | | | | |
|--|---|---|----|----|---|---|
| | Generation Z | 8 | 12 | 2 | 1 | 0 |
| | I regret less buying something unnecessary if it is green | | | | | |
| | Generation X | 2 | 3 | 2 | 5 | 0 |
| | Generation Z | 3 | 5 | 11 | 2 | 2 |

Source: Hou Guan (2022); author's calculations

Appendix 2. Tables and figures based on the results

Table 1. Correlation between not purchasing green products and barriers to purchasing green products for both groups

| | | Price | Availability | Price≠Quality | Familiarity | Environmental Awareness |
|----------------|-------------------------|--------|--------------|---------------|-------------|-------------------------|
| Don't purchase | Correlation Coefficient | -0.226 | -0.217 | .262* | 0.180 | -0.002 |
| | Sig. (2-tailed) | 0.087 | 0.101 | 0.047 | 0.177 | 0.988 |
| | N | 58 | 58 | 58 | 58 | 58 |
| | Correlation Coefficient | 0.036 | -0.158 | 0.037 | 0.102 | 0.173 |
| | Sig. (2-tailed) | 0.816 | 0.312 | 0.811 | 0.515 | 0.267 |
| | N | 43 | 43 | 43 | 43 | 43 |

Source: Hou Guan (2022), author's calculation

Table 2. Correlation between occupation and not purchasing green products and price

| | | Don't purchase | Price |
|-------------------------|------------|-------------------------|--------|
| | Occupation | Correlation Coefficient | 0.135 |
| Sig. (2-tailed) | | 0.314 | 0.916 |
| N | | 58 | 58 |
| Correlation Coefficient | | 0.005 | -0.198 |
| Sig. (2-tailed) | | 0.977 | 0.202 |
| N | | 43 | 43 |

Source: Hou Guan (2022), author's calculations

Table 6. Significant differences between Generation X and Z in terms of environmental friendliness and motivation

| GROUP STATISTICS | | | | | | Levene's Test for Equality of Variances | |
|------------------|--------------|----|------|----------------|-----------------|---|-------|
| | | | | | | F | Sig. |
| Variable name | Generation | N | Mean | Std. Deviation | Std. Error Mean | | |
| Better quality | Generation X | 43 | 0.35 | 0.482 | 0.074 | 5.078 | 0.026 |
| | Generation Z | 58 | 0.24 | 0.432 | 0.057 | | |
| Ethics | Generation X | 43 | 0.42 | 0.499 | 0.076 | 5.482 | 0.021 |
| | Generation Z | 58 | 0.29 | 0.459 | 0.060 | | |
| Allergies | Generation X | 43 | 0.21 | 0.412 | 0.063 | 13.286 | 0.000 |
| | Generation Z | 58 | 0.09 | 0.283 | 0.037 | | |
| Don't purchase | Generation X | 43 | 0.09 | 0.294 | 0.045 | 14.319 | 0.000 |
| | Generation Z | 58 | 0.22 | 0.421 | 0.055 | | |
| Price | Generation X | 43 | 0.70 | 0.465 | 0.071 | 12.379 | 0.001 |
| | Generation Z | 58 | 0.84 | 0.365 | 0.048 | | |
| Availability | Generation X | 43 | 0.72 | 0.454 | 0.069 | 9.684 | 0.002 |
| | Generation Z | 58 | 0.43 | 0.500 | 0.066 | | |
| Familiarity | Generation X | 43 | 0.14 | 0.351 | 0.053 | 7.036 | 0.009 |
| | Generation Z | 58 | 0.24 | 0.432 | 0.057 | | |
| Recycle | Generation X | 43 | 0.70 | 0.465 | 0.071 | 5.333 | 0.023 |
| | Generation Z | 58 | 0.59 | 0.497 | 0.065 | | |
| Local products | Generation X | 43 | 0.81 | 0.394 | 0.060 | 33.047 | 0.000 |
| | Generation Z | 58 | 0.55 | 0.502 | 0.066 | | |
| Own shopping bag | Generation X | 43 | 0.77 | 0.427 | 0.065 | 12.881 | 0.001 |
| | Generation Z | 58 | 0.90 | 0.307 | 0.040 | | |
| Wasting food | Generation X | 43 | 0.84 | 0.374 | 0.057 | 23.790 | 0.000 |

| | | | | | | | |
|---------------------|--------------|----|------|-------|-------|--------|-------|
| | Generation Z | 58 | 0.64 | 0.485 | 0.064 | | |
| Unnecessary goods | Generation X | 43 | 0.81 | 0.394 | 0.060 | 33.047 | 0.000 |
| | Generation Z | 58 | 0.55 | 0.502 | 0.066 | | |
| Own car | Generation X | 43 | 0.53 | 0.505 | 0.077 | 9.872 | 0.002 |
| | Generation Z | 58 | 0.28 | 0.451 | 0.059 | | |
| Second-hand shops | Generation X | 43 | 0.37 | 0.489 | 0.075 | 3.981 | 0.049 |
| | Generation Z | 58 | 0.50 | 0.504 | 0.066 | | |
| Other | Generation X | 43 | 0.05 | 0.213 | 0.032 | 12.260 | 0.001 |
| | Generation Z | 58 | 0.00 | 0.000 | 0.000 | | |
| Eco-labels | Generation X | 43 | 3.93 | 0.985 | 0.150 | 9.454 | 0.003 |
| | Generation Z | 58 | 3.28 | 1.348 | 0.177 | | |
| More green products | Generation X | 43 | 2.72 | 0.591 | 0.090 | 4.978 | 0.028 |
| | Generation Z | 58 | 2.50 | 0.755 | 0.099 | | |
| Sale | Generation X | 43 | 3.47 | 1.202 | 0.183 | 5.209 | 0.025 |
| | Generation Z | 58 | 3.55 | 0.940 | 0.123 | | |
| Trend | Generation X | 12 | 2.42 | 1.165 | 0.336 | 6.056 | 0.019 |
| | Generation Z | 23 | 1.83 | 0.778 | 0.162 | | |

Source: Source: Hou Guan (2022); author's calculations

Appendix 3. Non-exclusive licence

A non-exclusive licence for reproduction and publication of a graduation thesis¹

I Yan Hou Guan (*author's name*)

1. Grant Tallinn University of Technology free licence (non-exclusive licence) for my thesis

GENERATION X AND Z CONSUMER MOTIVES TOWARDS PURCHASING GREEN
PRODUCTS IN ESTONIA,
(*title of the graduation thesis*)

supervised by Oliver Parts,

(*supervisor's name*)

1.1 to be reproduced for the purposes of preservation and electronic publication of the graduation thesis, incl. to be entered in the digital collection of the library of Tallinn University of Technology until expiry of the term of copyright;

1.2 to be published via the web of Tallinn University of Technology, incl. to be entered in the digital collection of the library of Tallinn University of Technology until expiry of the term of copyright.

2. I am aware that the author also retains the rights specified in clause 1 of the non-exclusive licence.

3. I confirm that granting the non-exclusive licence does not infringe other persons' intellectual property rights, the rights arising from the Personal Data Protection Act or rights arising from other legislation.

15.12.2022 (date)

¹ The non-exclusive licence is not valid during the validity of access restriction indicated in the student's application for restriction on access to the graduation thesis that has been signed by the school's dean, except in case of the university's right to reproduce the thesis for preservation purposes only. If a graduation thesis is based on the joint creative activity of two or more persons and the co-author(s) has/have not granted, by the set deadline, the student defending his/her graduation thesis consent to reproduce and publish the graduation thesis in compliance with clauses 1.1 and 1.2 of the non-exclusive licence, the non-exclusive license shall not be valid for the period