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Sustainable Marketing: How eco-labeling affect consumer preferences in food industry

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Abstract:

This paper is focused on the issue of how eco-labeling affects consumer preferences. The purpose of this study is to identify the effect of eco-labeling to consumers' purchase decisions when buying food products in Nur-Sultan in the context of sustainable consumption. Since customers are one of the most powerful forces and crucial parts of sustainable marketing, the study will be supported by data from an online survey conducted among the residents of Nur-Sultan city as well as articles from past literature in this field.

The quantitative method was used and 206 respondents were interviewed, of which almost 32% buy eco-products on a permanent basis and the same amount are concerned about environmental problems. Based on research findings and previous literature, it was revealed that consumers are highly involved in the buying process of food and pay attention to the presence of eco-labels and composition. Consumers' awareness of sustainable consumption influences their choice during buying food products with eco labeling in the city of Nur-Sultan.

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Sustainable Marketing: How eco-labeling affect consumer preferences in food industry

Research question: How eco-labeling affects consumer preferences in the food industry in the region of Nur-Sultan city?

Introduction

The field of marketing has been studied for many decades starting from the beginning of the XX century. Marketing is highly influenced by changes in economy, traditions and society. Therefore, the current concerns in society shapes the strategies in marketing that businesses use. Marketing has seen rapid innovations in terms of sustainable marketing strategies. Labels indicating the sustainable background of the product in terms of production, storage, transportations, and products' composition being one of the significant elements of sustainable marketing strategies (Canavari & Coderoni, 2019). One of the global issues nowadays is how to maintain sustainable development to make sure that future generations will have access to all the resources we have now. Hence, there is a lot of groundwork about sustainable marketing and how to adapt to the new changes happening in the society. According to Kotler and Armstrong (2018), Sustainable marketing – “socially and environmentally responsible marketing that meets the present needs of consumers and businesses while also preserving or enhancing the ability of future generations to meet their needs” (p. 572). Moreover, nowadays to ensure the stable development of the business, the said businesses try to align their marketing strategy to the needs of consumers for sustainability. Whereas businesses in the food market try to adapt to the changing market trends, the initial consumers' response to the concept of sustainable marketing is usually related to environmental concerns, excluding economic and social aspects of sustainability (Arvola et al., 2008). Inherently, sustainable marketing strategy was aimed to attain competitive advantage, however, nowadays being socially responsible is rather a requirement than preference (Kumar et al., 2012). The cause of sustainable marketing campaigns is that consumers' attitude straightly influences a businesses' success. The more consumers' concerns are increasing about global issues such as environmental degradation, social inequality and poverty the more businesses are trying to be sustainable, which corresponds to the law of supply and demand (Smith, 2008).

Furthermore, many recent studies have focused on the problem of identifying sustainability in marketing, and what types of strategy and drivers exist (Kumar et al., 2012). There is a term called Willingness to Pay (WTP) in economics that defines the highest price point of goods & services consumers are ready to pay (Le Gall-Ely, 2009). While there has been research on it, there is still an uncertainty of how eco labeling affects the preferences of consumers and whether it has any effect on their willingness to purchase food products. Eco-labels give information on the environmental impact of the product or service for consumers' understanding and labels help to identify the "eco" product among other regular commodities based on the product's life cycle. On the other hand, there were studies that suggested the ecolabels' influence on the final purchase decision of green consumers is still uncertain (Melovic et al., 2020).

The purpose of this paper is to identify how eco-labeling affects consumer preferences in the food industry in the region of Nur-Sultan city. The study argues whether the awareness of sustainability among consumers influences the choices made during purchase of food products. The research will be supported by the collective data of conducted surveys, and arguments stated in the previous studies in the field.

Literature Review

To define the Environmentally Sustainable Food Consumption, shortly ESFC - the consumption of food products that use minimal natural resources in their production avoiding materials with toxic ingredients, try to minimize the waste and pollution during all the stages of the life cycle of the product, including production and consumption while respecting the basic needs of current generation and without sabotaging the future of the next generations.(Vermeir et al., 2020).

The literature researching consumer behavior in sustainable food consumption is only growing in recent years. Firstly, sustainable marketing was mainly linked to the environmental crisis, hence there is a fair amount of literature about the environmental impacts of the food industry (Kroyer, 1995; Pimentel et al., 1988). Green marketing was established in the 1970s, which tries to maintain marketing activities

that serve in favor of the environment to help in solving global issues in order to maintain a sustainable future for next generations (Hennion and Kinnear, 1976).

Green and sustainable marketing methods for promotion such as eco-labels and eco-packaging can help to raise market awareness and affect perceptions of consumers to more environmentally favorable product qualities (Ahmad et al., 2020). Environmental advertising was used in the media to promote awareness and present their products to environmentally sensitive consumers. A positive correlation between green product and customer behavior was found by Dhurup and Muposhi (2017) during their study.

Human factors have a huge impact on the environment, especially when it comes to consumption.

Fortunately, consumers are getting more environmentally sensitive these days (Teo, 2016).

In order to push people towards Environmentally Sustainable Food Consumption (ESFC), the end state should have a positive value (Vermeir et al., 2020). Customers prefer to consume green products due to the fact they feel the contribution to the solution of the problem of environmental protection (Lončar et al., 2019). The cause of environmentally friendly manners is that people value the environment and are concerned about its state (A. C. Hoek et al., 2017).

While conducting the study among consumers in the German market scientists found out the four marketing types of sustainability - performers, followers, indecisive, and passives (Belz & Schmidt-Riediger, 2010). Their research questionnaire was designed with the focus on aspects that related to social and environmental problems in the food products including the all of the stages of product lifecycle of the products, and usage of five Likert scale (ranging from “Strongly agree” to “Strongly disagree”).

About two-fifth of participated companies in the food industry incorporate social or ecological aspects into their “high degree” products. As results show, the most influential people on a strategic view in the sustainable market are top management and consumers. Brands try to consider socio-ecological issues by adding some extra value to their products in order to increase demand. However, there is a price sensitive consumer segment who are mostly concerned and driven by the price neither social or

ecological problems (Vanclay et al., 2011). Additionally, usage of accredited symbols such as “green”, “environmentally sustainable” or “eco-friendly” does not help in increasing demand (Bhaskaran et al., 2006). Accredited symbols help to identify organic foods in a range of similar products (Delafrooz et al., 2014). Although, customers are unaware because of improper use of symbols earlier. Consumer behavior follows all of the stages that are included in the purchasing lifecycle (before, during and after purchase) and the purchase decision are highly affected by other independent factors like emotions and mental responses of consumers for different situations (Kardes et al., 2015).

Moreover, consumer behavior is influenced by a variety of elements, according to Goh and Wahid (2015), including culture, value, orientation, knowledge, attitude, and demographic dynamics.

After examining the existing literature, there was identified a gap of understanding how sustainability can actually be useful in a relationship between eco-labeling and consumer perception. The study aimed to analyze in depth the attitude of Nur-Sultan citizens towards sustainability attributes of food products, in particular eco-labeling.

Sustainable food consumption

The definition of sustainable development is the “development of current economy and society which gives the next generations the chance to satisfy their own needs with current and future resources while the present population still has the opportunities to satisfy their own”, which was provided by the Brundtland Commission, a high-level United Nations body charged with fostering international cooperation for better living conditions in a sustainable future in 1987.

As it was mentioned before, the Oslo Symposium proposed the definition of sustainable consumption in 1994. Sustainable consumption includes the entire impact of purchasing patterns, not just consumption.

While consumption has a direct impact on environmental sustainability, purchasing behavior has an indirect impact through commodity production and marketing (Han & Hansen, 2012). Sustainable consumption, according to Wolff and Schönherr (2011), is an approach of utilizing goods and services before, during and after the purchasing process and considering all of the environmental and social concerns of the said goods and services.

Food safety, environmental sustainability, and social equity concerns have sparked new consumer habits aimed at achieving social, economic, and environmental sustainability in recent years.

Consumers' rising preference for organic, domestic, and other environmentally friendly food service consumption, as well as the spread of alternative channels of distribution that highlight domestic food production, short-term food transportation, and direct consumer-producer interactions, are examples of this (Estell et al., 2021).

Consumers engage with producers, farmers, industries, retailers, traders, governments, and a variety of other actors in a dynamic system, as mentioned in the Global Analysis report. However, assuming that physiological needs and purchasing power are the fundamental determinants of food consumption behavior is foolish. Culture, traditions, values, trends, exposure (availability, promotion), personal observations such as taste, health, and household demographic features (age, income, education, and etc.) are all key elements that influence consuming behavior.

Eco-labeling

Theoretically, eco labels on food products are widely accepted as the main instrument for the promotion of sustainable consumption, since eco-labeling simultaneously reminds consumers of substitute to environmentally friendly products and at once minimizes the time spent by consumers searching for environmentally friendly products. Hence, the marketers or businesses have the responsibility of informing and educating consumers on the environmental footprint of the product that are based on eco-labels' indicators, which help to increase the rate of purchases of food products that are not harmful for the environment or society (Solér, 2012).

Eco-labels are a collection of information on environmental impact of the product, process or service that is part of their labeling and/or accompanying documentation. The information can be given both in text form or graphic image, or combination of both. One of the most common statements in eco-labeling is that the product is “environmentally friendly”.

Considering that packaging is one of the crucial parts of most food products and carries various useful information about them, most of the eco-labels are placed on the packaging and often reflect the information about the packaging itself. (Testa et al., 2015).

The concept of eco labeling helps to provide consumers (users) and other interested parties with reliable information about the environmental friendliness of the objects under consideration (processes, their products and services) and is used voluntarily to form, on this basis, sustainable consumer demand for eco-friendly goods. (Frey et al., 2013).

Consumer segment

A customer fragment may be a way of separating a company's clients into classes of related sorts to think about how to offer to each sort more cost-effectively (Cambridge Dictionary Press). Consumer segments are most regularly based on character, way of life, culture, and numerous other human variables. Ghali-Zinoubi and Toukabri (2019) clarified that the more sensitive individuals are to the cost of normal items, the more they are not inclined to purchase these items since they are more costly than ordinary food products. Other literature also expressed that a negative relationship has been appeared between item cost affectability and consumer behavior (Goldsmith et al., 2010). This relationship is more vital within the case of natural nourishments since their cost is higher compared to their routine partners. The cost of items is the viewpoint that decides their buy (Marian et al., 2014; Rödiger & Hamm, 2015).

Methodology

The research was conducted by using a quantitative research approach with the usage of online survey. The purpose of the survey is to establish whether eco-labels influence the choice of consumers' during food purchase. The survey was conducted with the purpose to:

1. Identify factors that influence the decision to eco-purchase;
2. Analyze respondents who buy eco-labeled food products.

The respondents were adults over 18 years who made purchases of food products. The sample of this survey is non-probabilistic. The selection of respondents is random, through the social networks Instagram, WhatsApp.

The survey was sent only to those candidates who indicated Nur-Sultan as the city of residence. Since the population in Nur-Sultan is 1,2 million people, the sample size in this study is 206 respondents (with an error of $\pm 5\%$). The survey was intended to test the following hypotheses:

H1: “Eco-consumers are more involved in the buying process”;

H2: "The more consumers are informed about sustainable consumption, the higher chances of them purchasing food products with eco labels”;

H3: “The more product has eco labels, the more consumers prefer that product”.

For this, the following statistical processing method was used:

- Descriptive statistics (frequency analysis).

Survey Design

According to *Creswell, Research Design 5e*

| | |
|----------------------------------|--|
| Research topic | Sustainable Marketing: How eco-labeling affect consumer preferences in food industry |
| The survey design | |
| Purpose of the survey | To find out the impact of eco-labels on the choice of Nur-Sultan consumers on food products in the context of sustainable consumption. |
| Survey type | Online, primary data |
| The population and sample | |

| | |
|---|--|
| The population | Nur-Sultan citizens |
| Sampling design and selection process | Non-probabilistic sample (snowball). The number of people survey was sent out: 317. Response rate: 64%. The respondents were chosen based on their convenience and availability |
| Sampling frame | Question in Google Forms |
| Instrumentation | |
| Survey instrument | Google Forms |
| Sample item | 2 open questions, 22 multiple choice questions |
| Data analysis and interpretation | |
| Expected outcome | Consumers' behavior to eco-labeling on food products among residents of the city of Nur-Sultan |

Data analysis

The research is aimed to analyze the relationship between eco-labeling and consumer preferences in the food industry between citizens of Nur-Sultan city. Of those surveyed, approximately 60% of respondents are females and about 40% males and 0.5% preferred to not to assign. 32% of respondents have children, while other 68% do not.

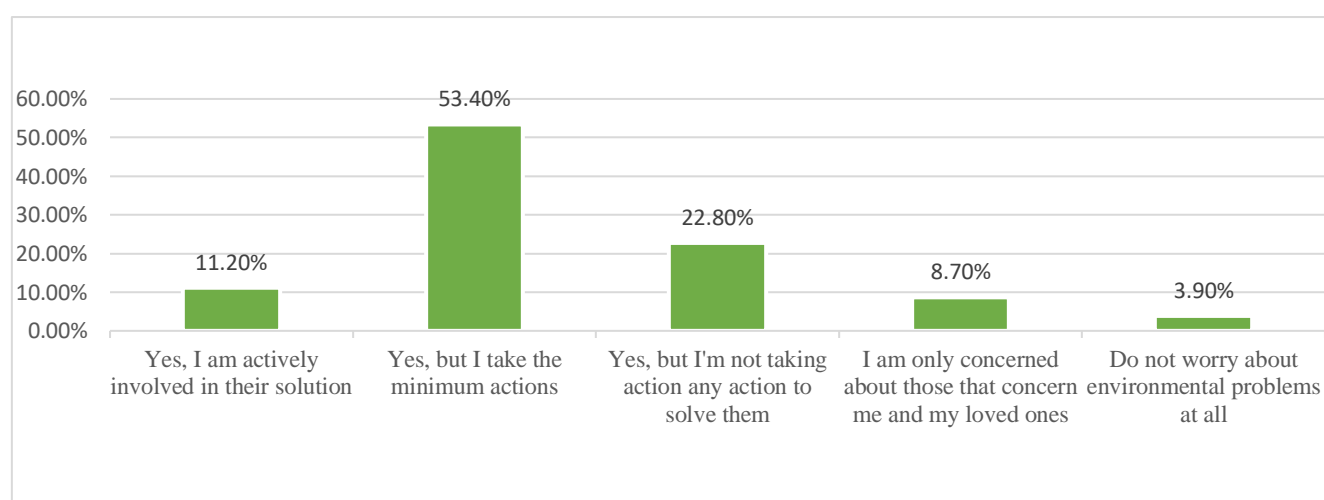
Table 1*Socio-demographic variables*

| Variable | n | % |
|---------------------------------|----------|----------|
| Gender | | |
| Male | 82 | 39.8% |
| Female | 123 | 59.7% |
| Prefer to do not answer | 1 | 0.5% |
| Age | | |
| 18-25 | 116 | 56.3% |
| 25-40 | 43 | 20.9% |
| 40-55 | 33 | 16% |
| 55+ | 14 | 6.8% |
| Income | | |
| On the provision | 37 | 18% |
| Up to 100.000 kzt | 15 | 15% |
| 100.000-150.000 kzt | 46 | 22.3% |
| 150.000-250.000 kzt | 46 | 22.3% |
| 250.000 kzt + | 62 | 30.1% |
| Education | | |
| Secondary general education | 9 | 4.4% |
| Secondary specialized education | 16 | 7.8% |
| Incomplete higher education | 56 | 27.2% |
| Higher education | 97 | 47.1% |
| Postgraduate education | 28 | 13.6% |
| Marital status | | |
| Married | 68 | 33% |
| Not married | 138 | 67% |
| Children | | |
| Have children | 66 | 32% |

If we look at the chart, we will see that 56.3% of participants are people aged from 18 to 25 years and about 45% of total participants know what Sustainable consumption is, but did not research it in depth, 39.3% know what it is, while other 15.5% do not. More than a half of participated people are concerned with ecological problems nowadays; however, they take minimal effort.

Figure 1

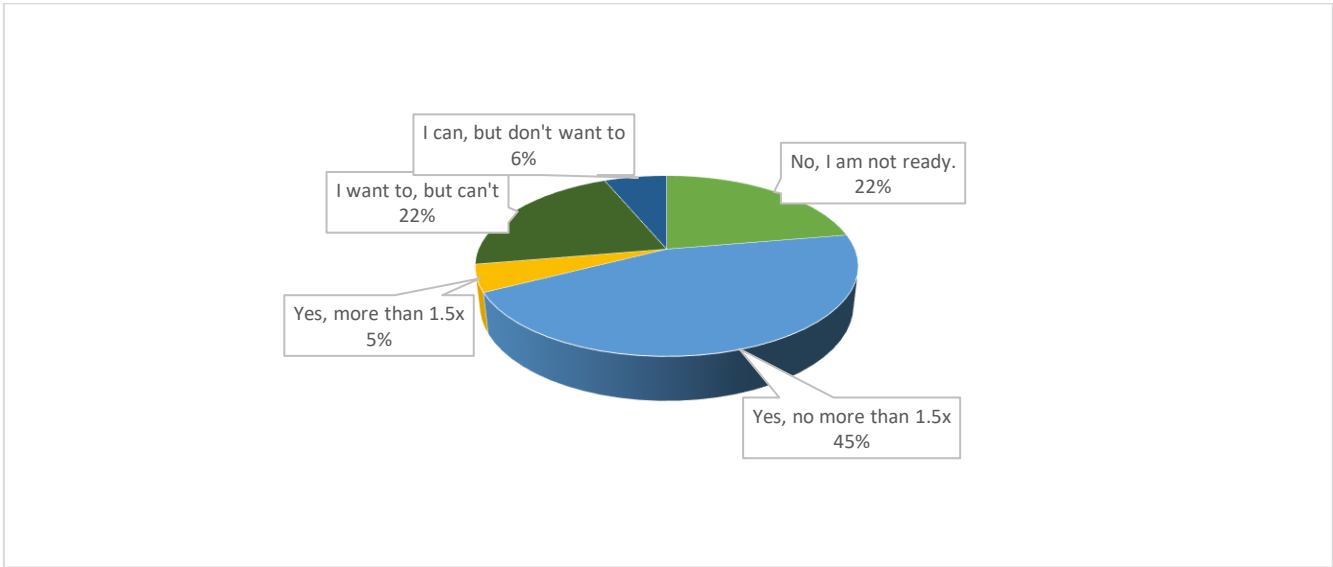
Are you concerned about ecological issues?



Even if the biggest part of participants with the percentage of 30.1% have an income over 250 000 tg., there are still price sensitive people who are concerned about product price (71.4%).

Figure 2

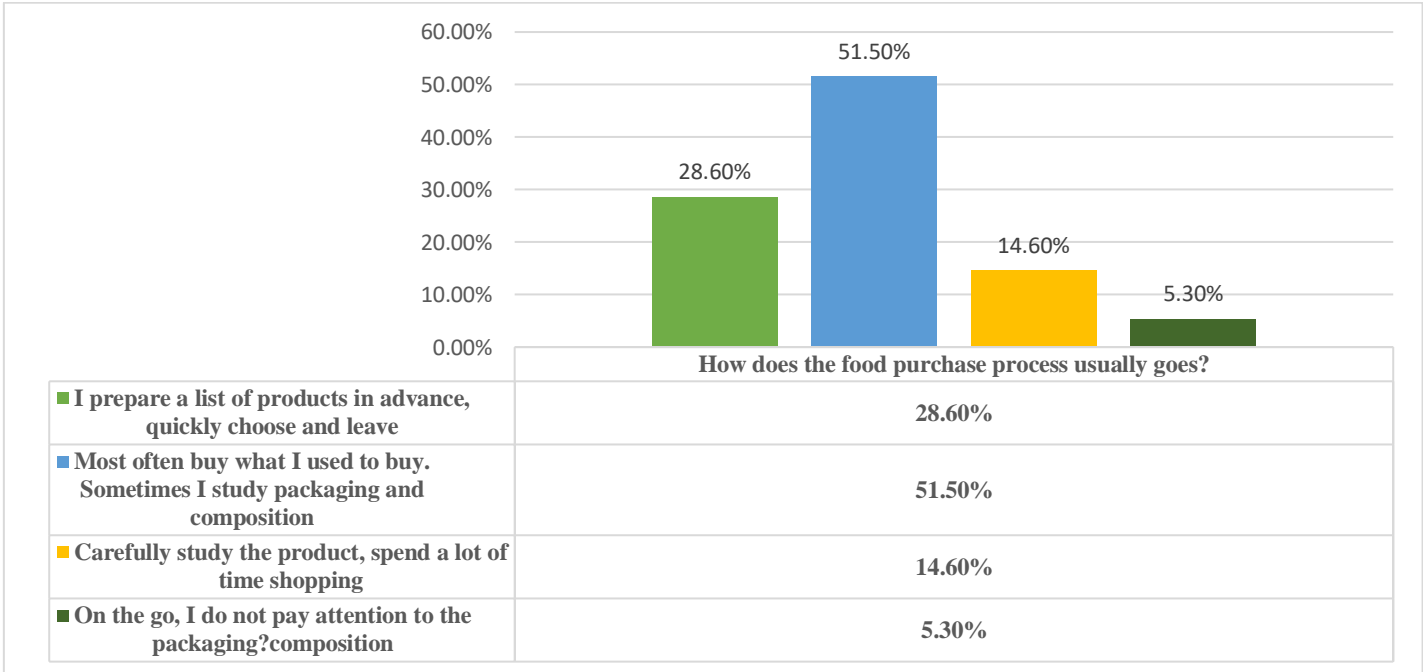
Are you ready to overpay for products made from eco-friendly, recyclable materials?



Also, the quality and product composition are highly important in the choosing process. The brand's participation in charity, mission, and the minimal use of natural deposits in the manufacturing process are the least important components of the buying process. Mostly (51.5%) people tend to buy products they are used to and about 48% of participants read the products' composition. Only 14.6% of people pay attention to packaging and spend a lot of time on product analysis.

Figure 3

How does the food purchase process usually go?

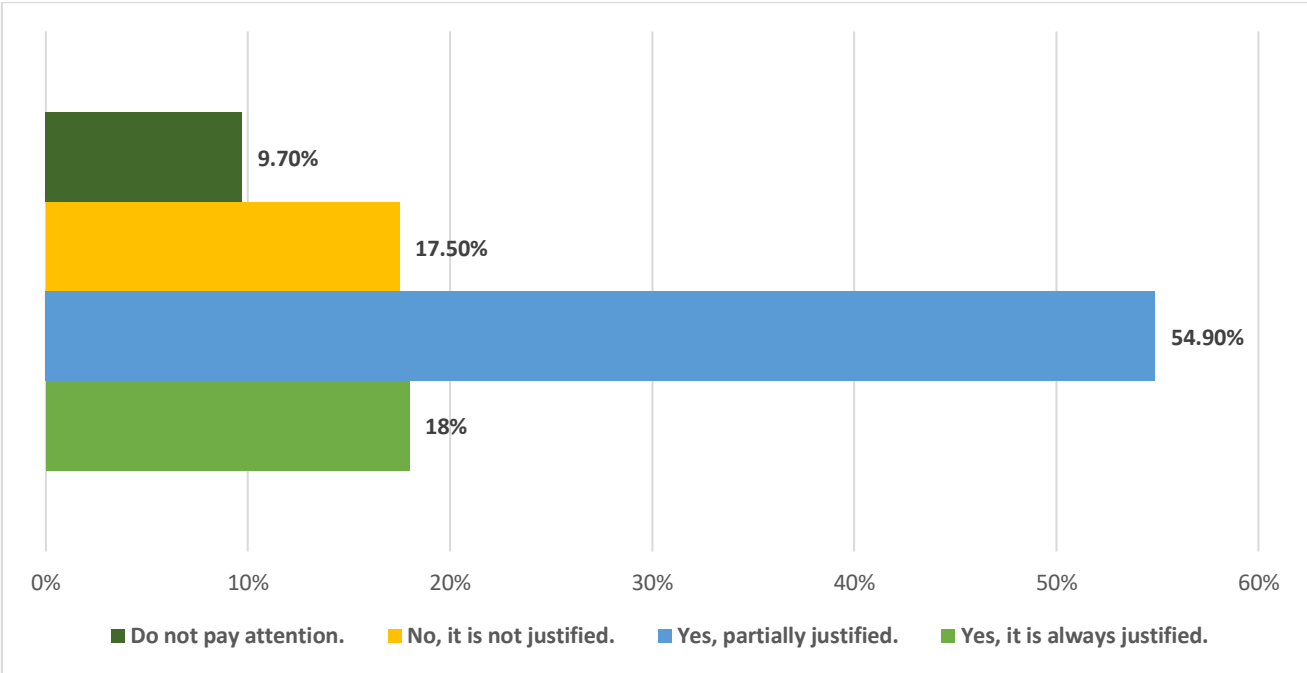


On the other hand, 45.1% of people are ready to pay extra money for sustainable products no more than x1.5 more. Usually the food products with eco labels are priced higher than common products

(Aschemann-Witzel & Zielke, 2017). The attitude towards the price policy of food products with eco labels varies among the responders – 55% think that the higher price is partly justified, 18% states that it is completely justifiable, and 17,5% states that the higher pricing is not justifiable, and 10% of responders do not pay attention to the pricing of food products.

Figure 4

Do you think the increased price of food products labeled “ECO”, “BIO”, “ORGANIC” is justified than that of conventional products?



Overall, it was identified that most people are concerned more about the composition of the food products rather than the packaging materials. Only 30% of responders answered “Yes” to the question “Do you pay attention to the materials of the packaging of food products?”, while almost 50% of responders read the composition of the products. 20% of responders are indifferent when it comes to the packaging, and 51,5% of responders sometimes pay attention to the packaging. Almost 8% of

responders never read the composition on the product, and 44% responded that they sometimes read the composition.

Figure 5

Do you pay attention to the material from which packaging of food products is made?

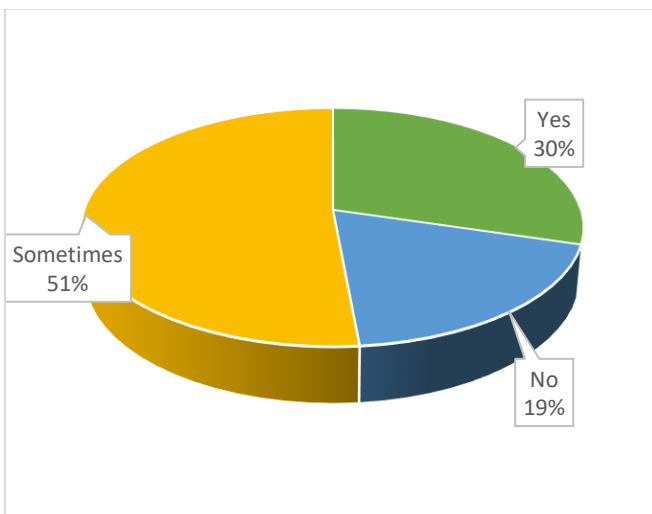
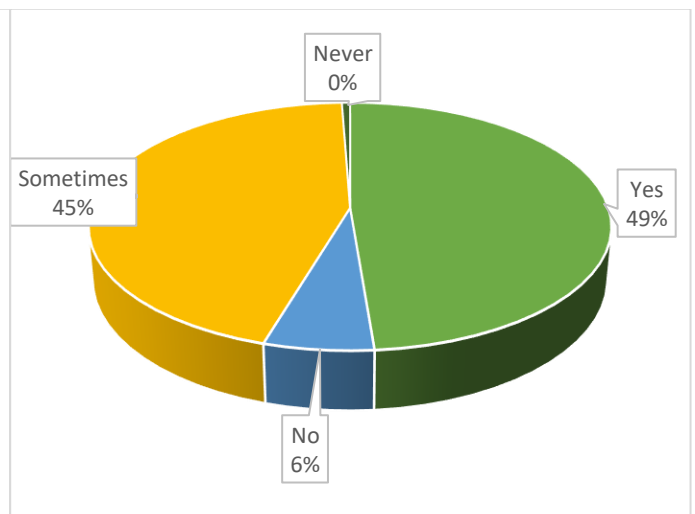


Figure 6

Do you read the composition of the products?



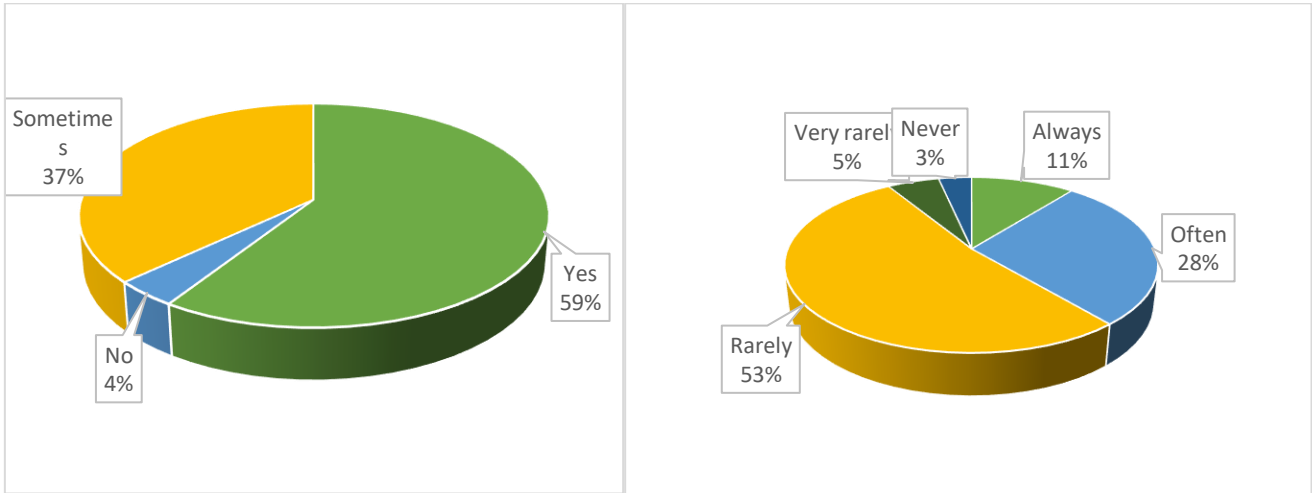
Furthermore, during a trip to the store, almost 60% buy only what they really need, 36.9% buy products with a sustainable approach sometimes and 3.9% are not sustainable. To the question “How often have you come across advertisements promoting organic food?” 52.4% answered that rarely, 38.9% very often and the rest answered that very rarely or never.

Figure 7

I consciously approach the purchase of this or that thing and buy only what I really need.

Figure 8

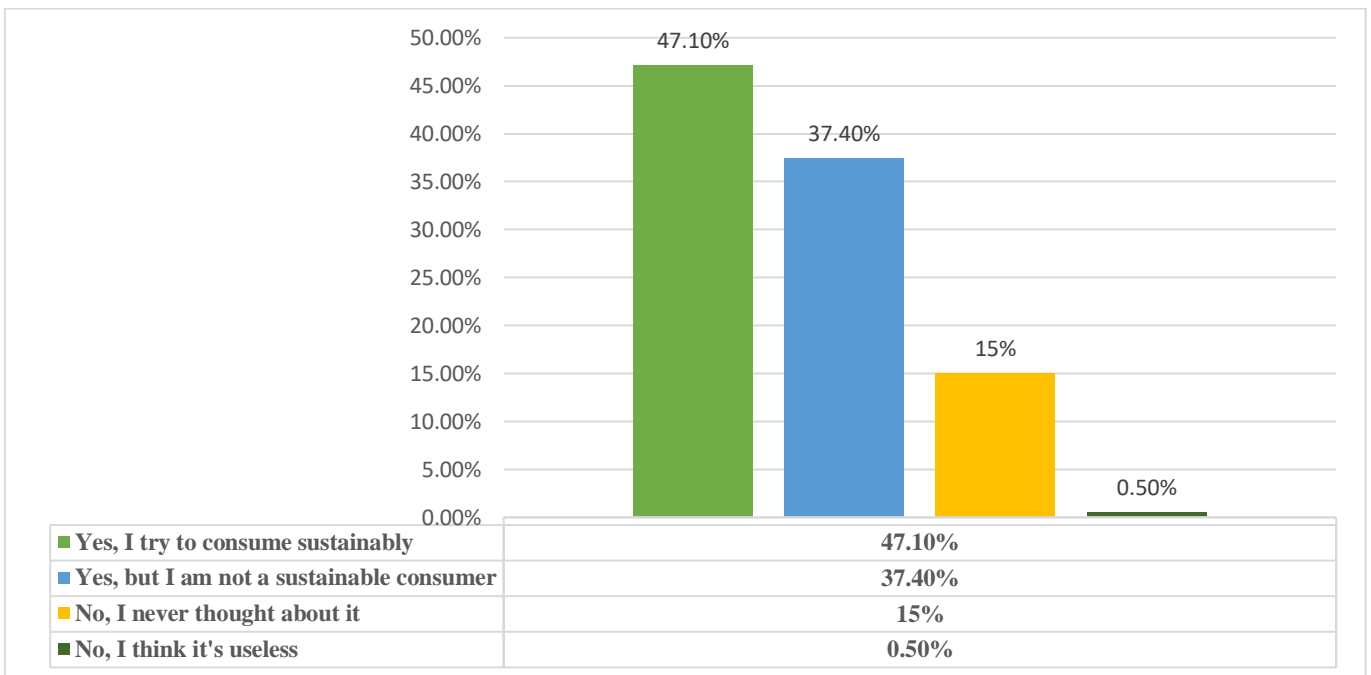
How often have you come across ads promoting organic food?



It has been detected that almost half of the respondents, i.e. 47.1% support the concept of sustainable consumption in the food industry, and about 40% support it but do not apply it in practice, 15% have never thought about it and only 1 respondent, i.e. 0.5% consider the sustainable consumption as useless.

Figure 9

Do you support the concept of conscious consumption in the food industry?



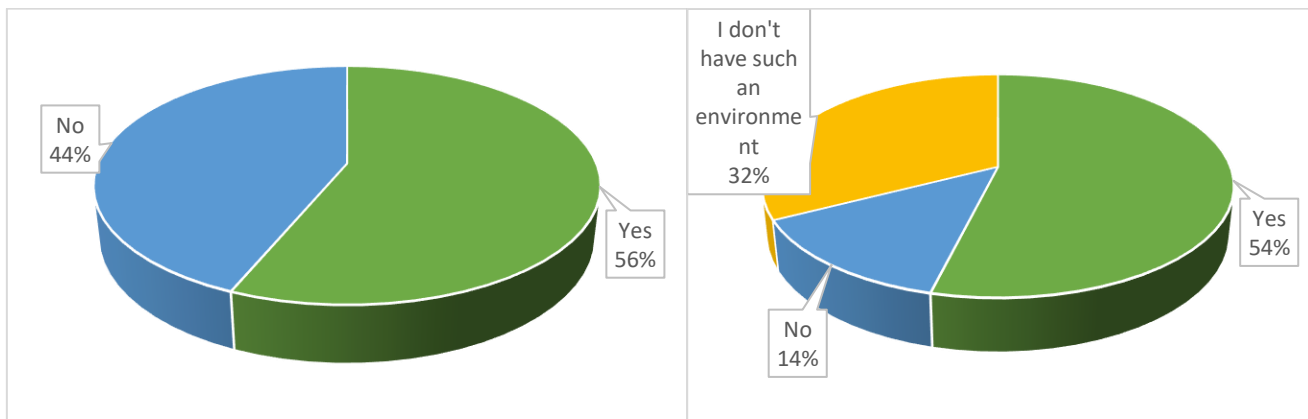
More than a half of citizens, particularly 56.3% familiar with people, who actively support the concept of sustainability, another 43,7% are not. Also, almost 54% of respondents are motivated by their close people who support this concept, while 13.6% of people are not motivated at all.

Figure 10

Figure 11

Are there people in your close environment who actively practice sustainable consumption?

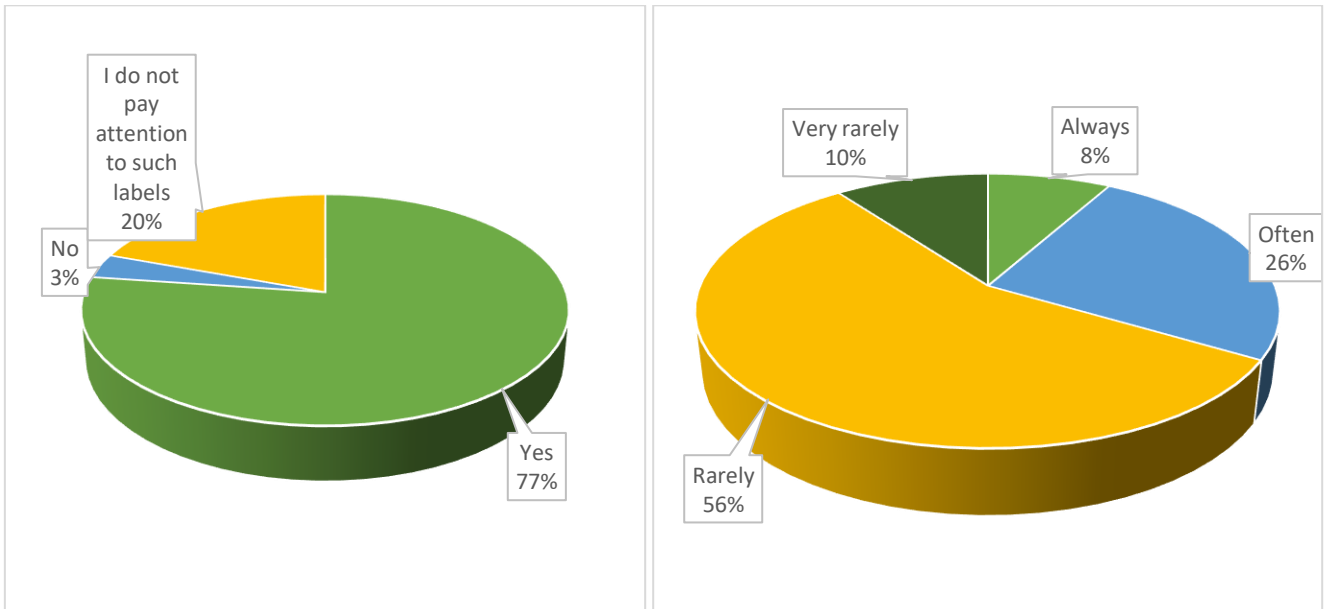
Does a close environment that supports sustainable food brands motivate you to consume more sustainable?



To add, as it was mentioned earlier, 39.3% of participants declared their knowledge of sustainable consumption and other 45.1% were slightly aware about it. However, by analyzing answers to open question, we can see that right answers were given for about 21% less. Moreover, if we look in detail, we will see that most people think sustainable consumption is about rational consumption and buying a product when it's needed. Only a few gave full answers by considering sustainability as an environmentally friendly approach with the total satisfaction of needs and wants. On the other hand, there is an opinion that sustainable consumption means consumption of eco products. Also, the responders answered what eco labels they expect to see on the packaging. The most common answers were – “Not tested on animals”, “BIO”, “ECO”, “Vegan”, “Recyclable materials” and “Do not know/do not care”. As shown in the diagram, among the 206 respondents surveyed, about three quarters (77%) buy products with labels “ECO”, “BIO” or “ORGANIC”, while the remaining smaller part (19%) do not pay attention to them, and the rest do not prefer products with these labels. About 54% answered that they rarely buy products with labels “ECO”, “BIO” or “ORGANIC”, while almost 30% always buy such products, and the rest never buy them.

Figure 12
Have you bought products with labels “ECO”/“BIO”/“ORGANIC”?

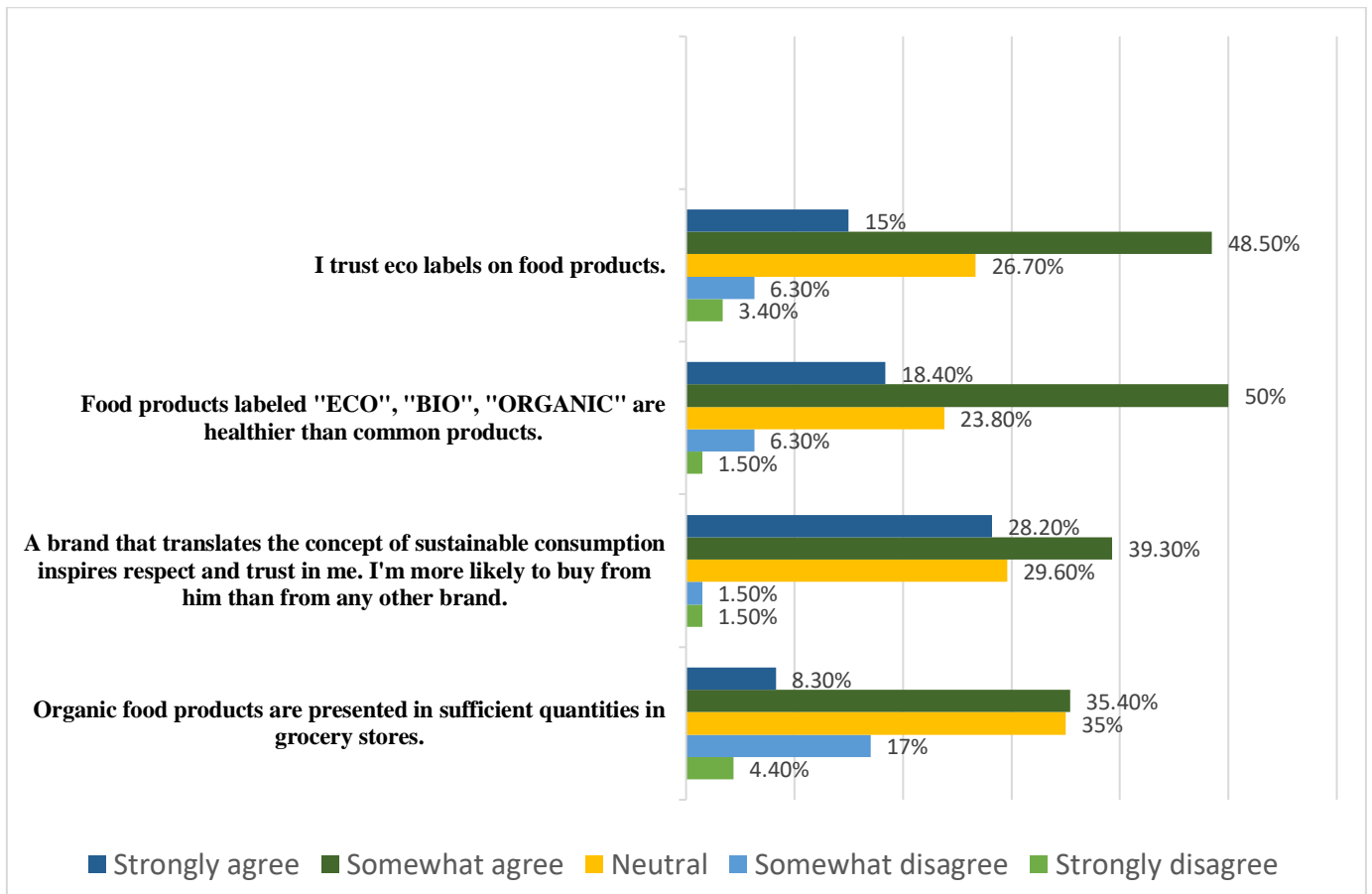
Figure 13
How often do you buy products labeled “ECO”, “BIO” or “ORGANIC”?



When it comes to eco labels, such as “ECO”, “BIO”, “ORGANIC”, the survey identified responders the attitude towards the trust in these eco labeled food products with a higher price tag. 50% of responders somewhat agree that food products marked with eco labels are healthier than other products and 49% of responders stated that they somewhat agree with the statement – “I trust these eco labels”, therefore relationship between them comes pretty close. Only 18% of responders strongly agree with the statement “Food products marked with “ECO”, “BIO”, “ORGANIC” labels are healthier than common products”, 24% responders took the neutral position, 6% somewhat disagree, and only 3 people stated that they strongly disagree with such statement. When it comes to the trust of the consumers to such labels, again 27% of responders took the neutral position, similar to the previous statement. Only 15% completely trust the eco labels on the food products. 6% somewhat disagree and 3% strongly disagree with the statement.

Figure 14

Consumers' attitude towards food products with eco labels



People who choose to buy products from brands that promote sustainable consumption represented for 28,2% totally. At the same time, two-fifths (39%) partially agree with this, and 29% are neutral about this position, the rest do not agree with it at all.

Almost 44% of people do not pay attention to products at all when they make a choice between local and foreign manufacturers, then 14,1% make a choice in favor of foreign companies, and 18% of local ones, and the remaining 24% prefer them equally.

According to the statement from the survey “Eco-food alternatives are presented in sufficient quantities in stores/supermarkets” there are 35% of people believe that there are enough alternatives of eco-products in supermarkets, while almost the 35% do not pay attention to this, and the remaining 17% partially agree with this, 8.3% completely agree, and the rest do not agree with this opinion at all.

Hypothesis testing

Hypothesis #1

Throughout the research process it was found that the first hypothesis, which sounds like “Eco-consumers are more involved in the buying process” has a positive outcome. Firstly, eco consumer is

the consumer who is sensitive to the protection environment when he/she makes a buying decision (Banyte J.; Braziuniene L.; Gadeikiene A., 2010), accordingly for this type of consumers each step of the product cycle is very important, from the composition and packaging to the mode of transportation and storage, which means that eco-consumers can be more involved in the buying process. Secondly, based on a survey conducted among the population of the Nur-Sultan, it has been analyzed that 64% of respondents who carefully study the composition of products keep the concept of sustainable consumption and 11,2 % of the whole respondents identified themselves as eco concerned and actively involved in environmental issues. Among eco-consumers, 61% are sustainable during the buying process, they prepare a list of necessary products in advance, as well as carefully study the packaging itself. Also, 70% of them pay attention to the material of the packaging and 83% read the composition of the products. Based on all these factors the hypothesis “Eco-consumers are more involved in the buying process” can be proved positive.

Hypothesis #2

The second hypothesis of the study indicates that the more informed consumers are about sustainability the more likely they will purchase the food products with eco-labeling.

To prove the hypothesis the paper used a quantitative research method based on the data from the conducted survey. Dependent variable on this hypothesis is frequency of purchase for food products with eco-labeling. Independent variables are internal knowledge and external knowledge about sustainable consumption. The expected outcome for the hypothesis is the knowledge of sustainable consumption of consumer will positively affect the purchase decision when it comes to food products with eco labels.

Research showed that 41% of responders who knows what sustainable consumption is often or always buy food products with eco labels; and 25% who do not know what sustainable consumption buys food products with eco-labels on regular basis; and similarly 27% of responders who heard what sustainable consumption is but didn't go into details buys food labeled “ECO”, “BIO”, etc. On the other hand, based on the survey 75% of people who do not know what sustainable consumption is rarely or never

buys food with eco-labels, while the results for answers “I know what is sustainable consumption” and “Heard, but never went into details” are 59% and 73% respectively.

The knowledge about sustainable consumption might be the internal factor that affects the consumer’s buying behavior, but there are also some external factors. One of them being the advertisements promoting organic and ecological food.

The 39% of responders always or often come across these types of advertisements based on the research findings. 53% of them buy food with eco labels on a regular basis, while the other 47% do not buy or rarely buy these types of food products. Most of the 61% of responders who rarely or never come across the said advertisements do not buy food products with eco labels. Only 19% buy food products labeled eco, despite the fact that they rarely or never see the advertisements on the eco food products. In addition, people who never saw those types of advertisements (3,4% of total responders) was the only segment who never or rarely buys the food products labeled eco.

Overall, based on the survey results the hypothesis "The more consumers are informed about sustainability, the higher chances of them purchasing food products with eco labels" can be proved positive. Also, the results can conclude that external factors, such as advertisements are more influencing the purchase decision of the consumer rather than internal factors.

Hypothesis #3

The hypothesis that we put forward “The more product has eco labels, the more consumers prefer that product” suggests that buyers are interested in environmentally friendly products, because they pay attention to the composition, packaging and brand that represents this product. In our case, we are considering issues related to how consumers make purchases, what they prefer when choosing a product: eco-friendly or ordinary. Among those who answered “Yes” to the question “Have you bought products that had the label “ECO”/“BIO”/“ORGANIC”?” there were 77.2%, of which 32.1% always buy products with these labels. Among 206 respondents, 68.4% believe that eco-products with such labels are much more useful than conventional ones. Also, 49% of respondents trust products with “ECO”/“BIO”/“ORGANIC” labeled and prefer to buy them than conventional food. Based on this, it

should be assumed that the hypothesis is confirmed, since environmentally friendly products are the most consumed among buyers.

Purpose of the paper

To sum up, the research was aimed to identify factors influencing people on eco-purchase in the field of food industry. One of the factors identified, most of the respondents have a close people supporting sustainable consumption (56.3%), moreover this environment motivates approximately the same amount of people (53.9%) to act more sustainably proactive. Furthermore, more than a half (51.9%) of participants rarely or do not pay attention on product composition while buying process. In addition, if we look in details, we will see that the higher price for eco products may demotivate people from buying such products. 71.4% of surveyed respondents are concerned about products' price and 49% of total participants cannot afford the higher price of eco products. Also, about 54% of participants rarely buy products with eco-labels, however, from consumers' view brand's translating sustainable consumption concept seems more trustworthy and respectful. To add, approximately two-fifths (38.9%) of surveyed people declared they often come across advertisements promoting eco products, and there is a positive indicators with frequency of buying eco products. In total 32.1% of participants buy organic products very often or permanently, which suggests their higher engagement and willingness to buy eco labeled products.

Overall, people buying eco-labeled food products very often or always (66 of 206 or 32%) are aged from 18 to 25, and least often are over 55 years. The bigger part with the percentage of 56% have a bachelor degree, while the other 33.3% have a secondary general, secondary specialized or incomplete education. Among all participants, only 1 person replied that they do not care about ecological problems and do not consume sustainably. Mostly, people take minimal efforts in a fight against eco-problems. In addition, people buy products they are used to, and about 52% are ready to pay extra money no more than 1.5 times, only 4.5% can afford the higher price but do not want it. Moreover, about 18% of people pay attention to packaging and the purchasing process takes plenty of time. 71.2% read the products' composition and 81.8% trust or partially trust on labeling such as "ECO", "BIO", "ORGANIC".

Moreover, almost the same amount of people (80.3%) replied that food products with eco-labels are healthier than regular products.

Conclusion

The major purpose of eco-labels is to increase customer knowledge about the benefits of the ecologically friendly products and to stimulate people to buy them. Consumer purchasing behavior is being studied to better understand the role of eco-labels in real-world situations. However, as it was mentioned earlier, eco labels do not always indicate the environmental friendliness of a product.

Companies may establish whether eco-labels are useful as a communication tool for eco-label items by examining consumer purchase behavior and preferences. By conducting a full analysis of these metrics, companies can identify more effective development strategies for themselves, thereby it may lead to higher sales and positively impact consumer demand.

The purpose of the study was to look into the impact of eco-labels on consumer preferences in the food industry in Nur-Sultan.

Based on the quantitative research, it has been analyzed that eco-labels can affect the selection, purchase, and consumption of the products with eco labels. Despite the fact that the results are based on a survey among Nur-Sultan residents with likely biased samples and expressed preferences, the survey indicates that the impact of the eco-labels to the consumer purchase behavior does really exist. The results are broadly consistent with earlier studies demonstrating that respondents who attach high value to food products labeled “ECO”, “BIO”, “ORGANIC”, etc., and the products which are produced with a low environmental impact and have a more positive effect on human health, also tend to attribute a positive increase to the price of eco-labeled products. In addition, evidence supports that eco labels may be more efficient in combination with lower or equal prices for regular products (Vanclay et al., 2011). Eco-labels help consumers make faster decisions and to distinguish the products they want to buy from other products. From the results of the study we can conclude that buying products which are positioned as Eco is difficult, due to the fact that people have to consider different factors before buying: the price of the product, the quality, the guarantee of sustainability and where to find such products. During the

study it was found that most of the residents of Nur-Sultan city have a positive attitude towards food products with eco-labels and, therefore, were willing to buy these products.

Limitations and recommendations

There are some limitations that came across during conducting this paper which should be taken into account while evaluating research findings. Foremost, the sample of the study being limited is the most obvious of the limitations that can result in biased research findings. The limited sample is described in sample size and lack of diversity in the age range. Most respondents (55.3%) were in the age range of 18-25. Such statistical disadvantage can lead to insufficient response rate and cannot represent the preferences of all types of consumers living in Nur-Sultan city, because of the inevitable biased sample, where younger people with higher education are overrepresented. These factors generally can affect the overall credibility of data analysis.

Secondly, due to the geopolitical situation between the Russian Federation and Ukraine (Kommenda, 2022), the Post-Soviet countries could see the impact on their economy and financial market.

Consequently, there could be shifts in consumer behavior regarding the price of products. As the survey was shared (March 16, 2022) after the start of the conflict, the results can be biased, because of the price increase of the food products. The inflation on food products in Kazakhstan has increased up to 10% from February, 2022. (Dyussengulova, 2022, para. 10).

Also, there was a shortage of theoretical framework, which prohibited the study of deep and more profound research based on previous literature. Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) is considered an economically developing region. Therefore, the information on the eco-labeling as a sustainable marketing strategy and consumer's attitudes to them is limited, as many works described the market state in developed regions, such as Italy, Hong Kong, and etc.

Due to the restrictions of the research, there is a necessity for deeper analysis in order to indicate the clients' preferences in a relation to eco-labels. Further research should contain wider sample size for more representative results for prevention of challenges related to slanted sampling of available people.

In addition, it may include comprehensive analysis with the purpose to identify the correlation between sustainable marketing consumer behavior and besides eco-labels. Further research could take into the consideration more precise factors for the analysis, such as the examination of state policies on sustainability, more variables that can affect willingness to pay (WTP) of food products with eco-labels, covering not only the environmental impact of the food industry and sociodemographic factors of consumers.

Reliability of the survey

This research was aimed to develop a new theoretical framework in Central Asia (Kazakhstan) and to determine whether the eco-labeling affects consumers' preferences. The research data was conducted by the group of 4th year students of M. Narikbayev KAZGUU University under supervision of master's degree in marketing professor Lyazzat Khairullina. The research was not sponsored by any other third party and was done only with the purpose to answer the research question. Also, the participants were not paid for participation. Research method is a quantitative method with usage of online survey source (google survey) consisting of multiple choice and open questions. For the survey a non-probabilistic sample (snowball) was chosen which means that people to be surveyed were chosen among available people, so not every individual had an equal chance to participate. Accordingly, the research results may not be representative as the sample could be out of the target population.

Survey sample might give biased results, and due to the limited number of respondents it may affect the credibility of data analysis. Overall, it may lead to insufficient results.

The research questionnaire was created from scratch by the researchers and no secondary data was used. The authenticity and up to date information are the additional merits of primary data collection, while duration of collection is the disadvantage.

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