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JEL: Q210

Original scientific article

<https://doi.org/10.51680/ev.34.2.2>

Received: November 4, 2020

Revision received: January 4, 2021

Accepted for publishing: February 19, 2021

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ACCEPTABILITY AND PERCEPTION OF ENVIRONMENTALLY FRIENDLY PRODUCTS BY STUDENT POPULATION IN CROATIA

ABSTRACT

Purpose: The purpose of this paper is to point out the perceptions of the student population toward environmentally friendly products and examine if they are willing to pay higher prices for those products.

Methodology: The research conducted in the second half of 2020 included the student population, i.e. a sample of 114 respondents. The close-ended questions offered answers ranging from the level of knowledge related to general concepts to the factors related to purchasing decisions. Data were collected through an online survey. The collected data were analyzed by statistical software packages MedCalc Statistical Software version 19.1.7 and SPSS.

Results: Respondents are familiar with the concepts of sustainable development, a socially responsible business and green consumers, which they define correctly. There are no major differences between male and female respondents. When choosing a product, respondents of both genders mention product quality as the most important factor. The second most important factor is the price, followed by the brand of the product and the environmental friendliness of the product. The brand of the product and environmental acceptability of the product are somewhat more important to male respondents than to female respondents. Corporate social responsibility of the company that produces a product is described as least important by respondents of both genders when choosing a product.

Conclusion: It is evident that the student population changed their attitudes towards environmentally friendly products compared to year 2009, but the trend has not changed since 2015. It is a market segment that takes into account this factor when choosing a product.

Keywords: Green products, green consumers, environmental protection, sustainable development

1. Introduction

The issues of sustainable development, environmental protection and climate change have been in the public spotlight for a long time. There is no doubt that human activity influences climate change, and

consumer habits are an important segment of this action. Almost thirty years ago, the term “green consumers” was coined in the United States to denote environmentally conscious consumers, i.e. consumers who prefer environmentally friendly products. Today, this market segment is the subject

of market segmentation research and research on various aspects of sustainability that, in addition to the environmental dimension, also include the social and the economic dimension. Research based on various aspects of sustainable development points to the fact that consumers still pay most attention to the environmental dimension (Hosta & Žabkar, 2016).

Together with employees, consumers are one of the most important contributors to any business entity because their decisions significantly affect business results and profitability. Therefore, it is extremely important at the level of business entities to think about adjusting the product portfolio to meet the requirements of environmentally conscious consumers.

Previous research in the Republic of Croatia has defined environmentally conscious consumers on the Croatian market as individuals over the age of 55, with a Bachelor's degree or higher, who live in marital union and are willing to pay a 20% higher price for environmentally friendly products (Ham, 2009).

The aim of this paper is to investigate the attitudes of the student population towards environmentally friendly products and to explore the level of knowledge of the concepts of sustainable development, green consumers and socially responsible businesses.

As defined in previous research ten years ago, the student population belongs to the least environmentally conscious group of people. Nevertheless, research conducted in 2015 (Ham et al., 2015) found that the student population understands the importance of corporate social responsibility.

2. Literature review

Brown and Dacin (1997) empirically confirmed the existence of a link between consumer knowledge of a business entity and consumer reaction to the products of the same business entity. Sen and Bhattacharya (2001) confirmed that consumer reactions are stronger and more sensitive to negative information related to corporate social responsibility. All consumers react to negative information, and only those consumers who monitor and support a socially responsible business react to positive information about a socially responsible business. Singh et al. (2008) conducted research related to consumer perceptions of products and corporate social

responsibility. The result of their research showed that consumers do not have enough information about socially responsible business entities. In their research, Luo and Bhattacharya (2006) confirmed a positive relationship between a socially responsible business, consumer satisfaction and the market value of a business entity. However, they pointed out that consumers expect high quality products and services.

Hosta and Žabkar (2016) pointed out in their research that consumers pay most attention to the ecological dimension of sustainable development. If we look at the research related to sustainable development and environmentally friendly products, research results indicate that certain consumers are reluctant to buy environmentally friendly products because they consider them less efficient and there is a gap between their general attitudes about environmentally friendly products and actual shopping habits (Luchs et al., 2010). Haws et al. (2014) developed a system for measuring consumer attitudes towards environmentally friendly products, i.e. the green scale, and emphasized the existence of differences between different cultures, but also on a personal level. Bratt et al. (2014) conducted research in Germany and Norway that found differences in consumer behavior in different situations such as behavior at home, car-use behavior, and vacation behavior.

Leko Šimić and Štimac (2010) conducted research related to consumer opinion on corporate social responsibility in the Republic of Croatia. The research results showed that consumers do not have enough information on this topic and that they do not trust the advertising messages emphasizing socially responsibility of business entities. A year later, in a new study, they emphasized that consumers in the Republic of Croatia are not ready to unconditionally buy products produced by business entities that are socially responsible (Leko Šimić & Štimac, 2011). In her research into the segmentation of green consumers in the Republic of Croatia conducted in 2009, Ham (2009) stated that people aged 15 to 24 are least interested in environmentally friendly products, but a recent research study conducted in 2015 shows that students perceive the importance of corporate social responsibility (Ham et al., 2015). Anić and Antolović (2019) concluded in their research that generation Z wants to be informed about and aware of social responsibility.

The concept of sustainable development has been in use since 1987, and the World Commission on Environment and Development (WCED) defines it as “development that meets the needs of the current generation, but not at the expense of future generations” (United Nations, 1987). The basic principles of conduct relating to business entities related to sustainable development were defined in 1992 in the Rio Declaration on Environment and Development (United Nations, 1992). The Organization for Economic Cooperation and Development (OECD, 2011) emphasizes in the guidelines for business entities that the goals in the segment of environmental and natural resources management should be systematically implemented at the strategic level and aim at continuous improvement. In this way, businesses entities take an active role in protecting the environment and nature from negative impacts as a result of their economic activity.

At the level of business entities, Črnjar defines sustainable development as a process in which less and less resources are spent to meet the needs of consumers and, accordingly, the environment is less and less polluted (Črnjar, 2002, p. 202). Sustainable development consists of three parts that include economic, social and environmental responsibility. All three parts of sustainable development form an important component at the level of business entities that should focus more on creating long-term values for all participants.

Consumers who prefer to buy environmentally friendly products are called green consumers (Carroll & Buchholtz, 2015, p. 453). Gardyn (2001) defines green consumers as young, well-paid, highly educated, predominantly women, i.e. white collars. Ham (2009) defines green consumers on the Croatian market as individuals over the age of 55, with a Bachelor's degree or higher, who live in marital union and are willing to pay a 20% higher price for environmentally friendly products. The shopping habits of green consumers are based on the 3Rs, i.e. reduce, reuse and recycle. To reduce means to avoid buying products that create waste and pollute the environment, reuse means buying reusable products made of and/or packaged in recycled material, and recycle is the third choice after the first two (Makower et al., 1990).

According to research conducted by market research companies, two segments have been identified depending on the strength of their preferences for environmentally friendly products. “Light green” con-

sumers mainly make impulsive decisions at the point of sale regarding environmentally friendly products, and “dark green consumers” already take into account environmentally friendly products when planning their purchase (Carroll & Buchholtz, 2015). Subsequent research in Germany and Norway (Bratt et al., 2014) points to the fact that there are differences in green consumer behavior in terms of environmentally friendly behavior at home, when using a car, and on vacation. Environmentally friendly behavior is mostly seen at home and it is in line with general attitudes towards environmental responsibility. Car-use and vacation behavior are not in line with environmental responsibility.

There are obvious differences with respect to the age of consumers, income level, nationality, legislation, etc. Twenty years after writing the book *Green Consumer*, Joel Makower (2010) looked at the size of this market segment. He believed that the number of green consumers has not increased drastically since 1990, although expectations were different. He stressed the lack of information on environmentally friendly products and consumer distrust in the quality of such products as the main reasons.

Consumers encounter numerous labels in the market related to environmental friendliness of the product. Most of the labels are developed by business entities that produce such products, mostly for marketing purposes, so consumer distrust is expected and understandable. The EU Ecolabel is one of the labels guaranteeing consumers that the product or service is of high quality and environmentally friendly. In order to receive the EU Ecolabel, a product or service must comply with a tough set of criteria. In the first place, these environmental criteria have to be set by a panel of experts from a number of stakeholders, including consumer organizations and industry. “The EU Ecolabel scheme is part of the sustainable consumption and production policy of the Community, which aims at reducing the negative impact of consumption and production on the environment, health, climate and natural resources. The scheme is intended to promote those products which have a high level of environmental performance through the use of the EU Ecolabel.” (European Commission, 2009). As a label, the EU Ecolabel is of great importance in the process of informing consumers because consumers have expectations in relation to harmonization of business operations and social values, and if they believe that the business entity behaves responsibly, there may

be positive changes in their shopping habits and motives (Ellen et al., 2006).

Irawan and Darmayanti (2012) conducted a survey among a sample of 200 students in Jakarta and confirmed that environmental care, environmental responsibility, and environmental awareness are significant factors influencing students' shopping habits.

3. Research problem

The main research questions are:

1. Were there any changes in student population behaviour regarding environmentally friendly products since the last research carried out in 2009?
2. Are they willing to pay a higher price for those products?

The answers to these questions may determine future strategies by companies regarding environmentally friendly products.

4. Research methodology

In order to collect data, the authors used an online survey and questionnaire with close-ended questions. Respondents were offered several answers to each question. The collected data were analyzed by means of statistical methods. The category data are presented in absolute and relative frequencies.

Differences in categorical variables were tested by the χ^2 test and, if necessary, by the Fisher exact test. The significance level was set to Alpha = 0.05. MedCalc Statistical Software version 19.1.7 (MedCalc Software Ltd, Ostend, Belgium, 2020)¹ and SPSS (IBM SPSS Statistics for Windows, Version 21.0 Armonk, NY: IBM Corp., released 2013) were used for statistical analysis.

The aim of the research was to collect data related to the attitudes of the student population about environmentally friendly products. Accordingly, it is focused on two areas. The first is related to general attitudes towards and knowledge of the concepts of sustainable development, corporate social responsibility and green consumers. The second area is related to the key factors in product selection and whether consumers are willing to pay a higher price for environmentally friendly products.

The research was conducted in the period from May to June 2020 on a sample of 114 full-time and part-time freshmen and sophomores at the College of Slavonski Brod. Table 1 shows the structure of respondents by gender and income of the family household. The sample has more male than female respondents, i.e. 90 (78.9%). Fifty respondents (43.9%) fall into the HRK 5,000 to HRK 7,999 income range, 20 respondents (17.5%) earn less than HRK 5,000, whereas 7 respondents (6.1%) earn more than HRK 14,000 per month.

Table 1 Basic characteristics of respondents

	<i>Number of respondents (%)</i>
<i>Gender</i>	
Male	90 (78.9)
Female	23 (20.2)
Unanswered	1 (0.9)
<i>Amount of household income</i>	
Up to 4,999 HRK monthly	20 (17.5)
From 5,000 to 7,999 HRK monthly	50 (43.9)
From 8,000 to 9,999 HRK monthly	14 (12.3)
From 10,000 to 11,999 HRK monthly	12 (10.5)
From 12,000 to 13,999 HRK monthly	5 (4.4)
More than 14,000 HRK monthly	7 (6.1)
Unanswered	6 (5.3)
Total	114 (100)

Source: Authors

¹ <https://www.medcalc.org>

5. Research results

Respondents are familiar with the concepts of sustainable development, a socially responsible business and green consumers, which they define correctly. There are no major differences between male and female respondents. When choosing a product, respondents of both genders mention product quality as the most important factor. The second most important factor is the price, followed by the brand of the product and the environmental friendliness of

the product. The brand of the product and environmental acceptability of the product are somewhat more important to male respondents than to female respondents. When choosing a product, corporate social responsibility of the company that produces a product is described as least important by respondents of both genders. Table 2 shows in detail the results related to the structure of respondents with respect to their gender and according to the knowledge of these concepts and the importance of certain factors in making a purchase decision.

Table 2 Distribution of respondents by gender and their knowledge of sustainable development concepts, socially responsible businesses, and “green” consumers, and in relation to what is most important to them when choosing a product

	Number of respondents (%) by gender			P*
	Male	Female	Total	
Are you familiar with the term ‘sustainable development’?				
Yes	67 (74)	17 (74)	84 (74)	> 0.99
No	22 (24)	6 (26)	28 (25)	
Unanswered	1 (1)	0	1 (1)	
What does the term ‘sustainable development’ mean to you?				
Growth that keeps pace with environmental and social responsibility	70 (77.8)	15 (65.2)	85 (75.2)	0.21 ⁺
A promotional term used for PR companies	6 (6.7)	1 (4.3)	7 (6.2)	> 0.99
A limiting factor for economic growth	8 (8.9)	1 (4.3)	9 (8)	0.68
Overall a positive process	7 (7.8)	4 (17.4)	11 (9.7)	0.23
I’m not sure what that means	13 (14.4)	4 (17.4)	17 (15)	0.75 ⁺
Are you familiar with the concept of ‘corporate social responsibility’?				
Yes	80 (89)	16 (70)	96 (85)	0.02
No	10 (11)	6 (26)	16 (14)	
Unanswered	0	1 (4)	1 (1)	
What does the term ‘corporate social responsibility’ mean to you?				
Company responsibility for their impact on society	58 (64.4)	17 (73.9)	75 (66.4)	0.39 ⁺
Ethics in business	49 (54.4)	14 (61)	63 (55.8)	0.58 ⁺
Caring for employees, society and the environment	71 (78.9)	15 (65.2)	86 (76.1)	0.17 ⁺
Respect for the interests of all stakeholders including consumers, suppliers and the local community	51 (56.7)	12 (52.2)	63 (55.8)	0.70 ⁺
I’m not sure what that term means	3 (3.3)	2 (8.7)	5 (4.4)	0.27
Are you familiar with the term ‘green consumer’?				
Yes	64 (71)	18 (78)	82 (73)	0.29
No	25 (28)	4 (17)	29 (26)	
Unanswered	1 (1)	1 (4)	2 (2)	

	Number of respondents (%) by gender			P*
	Male	Female	Total	
What does the term 'green consumer' mean to you?				
Consumers who have different shopping habits	35 (38.9)	13 (56.5)	48 (42.5)	0.13 [†]
Consumers who have different product selection criteria when choosing a product	18 (20)	9 (39.1)	27 (23.9)	0.06 [†]
Consumers who prefer products that are environmentally friendly	47 (52.2)	15 (65.2)	62 (54.9)	0.26 [†]
Consumers who choose products of companies guided by the principles of sustainable development	33 (36.7)	6 (26.1)	39 (34.5)	0.34 [†]
I'm not sure what that term means	15 (16.7)	2 (8.7)	17 (15)	0.52
What is most important to you when choosing a product?				
Price	62 (68.9)	14 (60.9)	76 (67.3)	0.47
Quality	87 (96.7)	22 (95.7)	109 (97)	> 0.99
Brand	56 (62.2)	13 (56.5)	69 (61.1)	0.62
Socially responsible business of the company that produces the product	41 (45.6)	7 (30.4)	48 (42.5)	0.19
Environmental friendliness of the product	56 (62.2)	13 (56.5)	69 (61.1)	0.62

*Fisher exact test; † χ^2 test

Source: Authors

Respondents' opinions and attitudes towards environmentally friendly products with respect to gender are shown in Table 3. Respondents are willing to pay more for a more environmentally friendly product and this is somewhat more pronounced among female respondents (83%). Both men (54%) and women (65%) are willing to pay 5% or 10% more for an environmentally friendly product. There is a fairly high percentage (23%) of those who did not answer this question. When buying products, as many as 65% of female respondents always or of-

ten think about their decision that affects environmental protection. This percentage is also high for male respondents (54%), but still slightly lower than for their female counterparts. Recycling products when buying is mostly thought of sometimes and rarely. Similar results are obtained when it comes to thinking about whether the manufacturer of a particular product is an environmentally responsible company. Sometimes members of both genders are affected by advertising messages about environmentally friendly products.

Table 3 Distribution of respondents by gender and their opinions and attitudes towards environmentally friendly products

	Number of respondents (%) by gender			P*
	Male	Female	Total	
Would you pay more for a product that is environmentally friendly?				
Yes	65 (72)	19 (83)	84 (74)	0.70
No	22 (24)	4 (17)	26 (23)	
Unanswered	3 (3)	0	3 (3)	

	Number of respondents (%) by gender			P*
	Male	Female	Total	
How much more are you willing to pay for an organic product?				
5%	23 (26)	8 (35)	31 (27)	0.97
10%	26 (29)	7 (30)	33 (29)	
15%	12 (13)	2 (9)	14 (12)	
20%	5 (6)	1 (4)	6 (5)	
More than 20%	3 (3)	0	3 (3)	
Unanswered	21 (23)	5 (22)	26 (23)	
When buying a product, how often do you think that by choosing the product you personally influence environmental protection?				
Always	23 (26)	8 (35)	31 (27)	0.97
Often	26 (29)	7 (30)	33 (29)	
Sometimes	12 (13)	2 (9)	14 (12)	
Rarely	5 (6)	1 (4)	6 (5)	
Never	3 (3)	0	3 (3)	
Unanswered	21 (23)	5 (22)	26 (23)	
When buying a product, how often do you think that the selected product can be recycled?				
Always	3 (3)	1 (4)	4 (4)	0.71
Often	17 (19)	3 (13)	20 (18)	
Sometimes	38 (42)	12 (52)	50 (44)	
Rarely	24 (27)	7 (30)	31 (27)	
Never	7 (8)	0	7 (6)	
Unanswered	1 (1)	0	1 (1)	
When buying a product, how often do you think about whether the manufacturer is an environmentally responsible company?				
Always	2 (2)	0	2 (2)	0.30
Often	10 (11)	0	10 (9)	
Sometimes	36 (40)	13 (57)	49 (43)	
Rarely	31 (34)	9 (39)	40 (35)	
Never	11 (12)	1 (4)	12 (11)	
How often are your purchasing decisions influenced by advertising messages about environmentally friendly products?				
Always	4 (4)	0	4 (4)	0.29
Often	14 (16)	3 (13)	17 (15)	
Sometimes	45 (50)	11 (48)	56 (50)	
Rarely	20 (22)	9 (39)	29 (26)	
Never	7 (8)	0	7 (6)	
Total	90 (100)	23 (100)	113 (100)	

*Fisher exact test; † χ^2 test

Source: Authors

When choosing a product, regardless of the amount of their monthly income, respondents mention the quality of the product as the most important factor. The second most important factor is environmental friendliness of the product, which is followed by the price and finally the brand of the product. The brand and environmental acceptability of the product are somewhat more important for the respondents with income up to HRK 4,999 per month. When choosing a product, corporate social

responsibility of the company that produces a product is described as least important by all respondents, among whom, it was rated least important by respondents earning HRK 10,000 and more per month. Table 4 shows in detail the results related to the respondents structure to the knowledge of these concepts and the importance of certain factors in making a purchase decision in relation to the amount of monthly income.

Table 4 Distribution of respondents by the amount of monthly income and their knowledge of sustainable development concepts, socially responsible businesses, and “green” consumers, and in relation to what is most important to them when choosing a product

	Number of respondents (%) by monthly income				p*
	Up to HRK 4,999 monthly	HRK 5,000 - HRK 7,999 monthly	HRK 8,000 - HRK 9,999 monthly	HRK 10,000 and more monthly	
Are you familiar with the term 'sustainable development'?					
Yes	12 (60)	36 (72)	12 (86)	19 (79.2)	0.59
No	8 (40)	13 (26)	2 (14)	5 (20.8)	
Unanswered	0	1 (2)	0	0	
What does the term 'sustainable development' mean to you?					
Growth that keeps pace with environmental and social responsibility	15 (75)	38 (76)	10 (71)	17 (70.8)	0.95
A promotional term used for PR companies	2 (10)	4 (8)	1 (7)	0	0.49
A limiting factor for economic growth	0	6 (12)	1 (7)	2 (8.3)	0.50
Overall a positive process	1 (5)	6 (12)	1 (7)	3 (12.5)	0.88
I'm not sure what that term means	4 (20)	7 (14)	2 (14)	4 (16.7)	0.94
Are you familiar with the concept of 'corporate social responsibility'?					
Yes	15 (75)	41 (82)	12 (86)	23 (95.8)	0.42
No	5 (25)	8 (16)	2 (14)	1 (4.2)	
Unanswered	0	1 (2)	0	0	
What does the term 'corporate social responsibility' mean to you?					
Company responsibility for their impact on society	14 (70)	34 (68)	10 (71)	15 (62.5)	0.93
Ethics in business	11 (55)	26 (52)	11 (79)	14 (58.3)	0.38
Caring for employees, society and the environment	13 (65)	36 (72)	12 (86)	21 (87.5)	0.25
Respect for the interests of all stakeholders including consumers, suppliers and the local community	12 (60)	29 (58)	9 (64)	12 (50)	0.84
I'm not sure what that term means	1 (5)	3 (6)	1 (7)	0	0.62

	Number of respondents (%) by monthly income				p*
	Up to HRK 4,999 monthly	HRK 5,000 - HRK 7,999 monthly	HRK 8,000 - HRK 9,999 monthly	HRK 10,000 and more monthly	
Are you familiar with the term 'green consumer'?					
Yes	13 (65)	35 (70)	8 (57)	20 (83.3)	0.49
No	6 (30)	14 (28)	6 (43)	4 (16.7)	
Unanswered	1 (5)	1 (2)	0	0	
What does the term 'green consumer' mean to you?					
Consumers who have different shopping habits	4 (20)	20 (40)	5 (36)	16 (66.7)	0.02
Consumers who have different product selection criteria when choosing a product	3 (15)	10 (20)	2 (14)	10 (41.7)	0.14
Consumers who prefer products that are environmentally friendly	10 (50)	26 (52)	7 (50)	14 (58.3)	0.94
Consumers who choose the products of companies guided by the principles of sustainable development	5 (25)	19 (38)	6 (43)	8 (33.3)	0.71
I'm not sure what that term means	4 (20)	7 (14)	4 (29)	3 (12.5)	0.53
What is most important to you when choosing a product ?					
Price	15 (75)	38 (76)	9 (64)	12 (50)	0.14
Quality	19 (95)	48 (96)	13 (93)	24 (100)	0.65
Brand	16 (80)	27 (54)	9 (64)	14 (58.3)	0.24
Socially responsible business of the company that produces the product	12 (60)	22 (44)	7 (50)	6 (25)	0.12
Environmental friendliness of the product	17 (85)	33 (66)	10 (71)	15 (62.5)	0.37

*Fisher exact test

Source: Authors

Respondents' opinions and attitudes towards environmentally friendly products with respect to the amount of monthly income are shown in Table 5. Respondents are willing to pay more for a more environmentally friendly product and this is somewhat more pronounced among those with lower income (80%). Respondents with income up to HRK 9,999 are generally willing to pay a 5% or 10% higher price. Respondents earning HRK 10,000 or more are willing to pay a 5% or 15% higher price for an environmentally friendly product. Respondents whose monthly income is higher than HRK 8,000 usually think about how much their shopping habits affect environmental pro-

tection. Those respondents whose income is less than HRK 8,000 on average think about a purchase sometimes and rarely. Similar attitudes regarding product recycling exist among respondents with different monthly income.

Whether or not a product manufacturer is an environmentally responsible company is sometimes considered when buying, regardless of monthly income. Advertising messages about environmentally friendly products rarely affect respondents with monthly income up to HRK 4,999 when buying, and most of those with income higher than the said amount are affected sometimes.

Table 5 Distribution of respondents by their opinions and attitudes towards environmentally friendly products and by the amount of their monthly income

	Number of respondents (%) by montly income					P*
	Up to HRK 4,999 monthly	HRK 5,000 - HRK 7,999 monthly	HRK 8,000 - HRK 9,999 monthly	HRK 10,000 and more monthly	Total	
Would you pay more for a product that is environmentally friendly?						
Yes	16 (80)	38 (76)	9 (64)	17 (70.8)	80 (74.1)	0.47
No	3 (15)	12 (24)	5 (36)	6 (25)	26 (24.1)	
Unanswered	1 (5)	0	0	1 (4.2)	2 (1.9)	
How much more are you willing to pay for an organic product?						
5%	7 (35)	14 (28)	3 (21)	6 (25)	30 (27.8)	0.33
10%	8 (40)	15 (30)	5 (36)	2 (8.3)	30 (27.8)	
15%	1 (5)	5 (10)	1 (7)	7 (29.2)	14 (13)	
20%	1 (5)	3 (6)	0	2 (8.3)	6 (5.6)	
More than 20%	0	2 (4)	1 (7)	0	3 (2.8)	
Unanswered	3 (15)	11 (22)	4 (29)	7 (29.2)	25 (23.1)	
When buying a product, how often do you think that by choosing the product you personally influence environmental protection?						
Always	0	3 (6)	1 (7)	1 (4.2)	5 (4.6)	0.19
Often	2 (10)	9 (18)	1 (7)	6 (25)	18 (16.7)	
Sometimes	6 (30)	17 (34)	10 (71)	11 (45.8)	44 (40.7)	
Rarely	11 (55)	16 (32)	2 (14)	4 (16.7)	33 (30.6)	
Never	1 (5)	5 (10)	0	2 (8.3)	8 (7.4)	
Unanswered	0	3 (6)	1 (7)	1 (4.2)	5 (4.6)	
When buying a product, how often do you think that the selected product can be recycled?						
Always	0	2 (4)	1 (7)	1 (4.2)	4 (3.7)	0.68
Often	2 (10)	10 (20)	5 (36)	4 (16.7)	21 (19.4)	
Sometimes	9 (45)	19 (38)	7 (50)	10 (41.7)	45 (41.7)	
Rarely	8 (40)	15 (30)	1 (7)	6 (25)	30 (27.8)	
Never	1 (5)	3 (6)	0	3 (12.5)	7 (6.5)	
Unanswered	0	1 (2)	0	0	1 (0.9)	
When buying a product, how often do you think about whether the manufacturer is an environmentally responsible company?						
Always	0	1 (2)	1 (7)	0	2 (1.9)	0.88
Often	1 (5)	6 (12)	0	3 (12.5)	10 (9.3)	
Sometimes	9 (45)	20 (40)	7 (50)	10 (41.7)	46 (42.6)	
Rarely	7 (35)	18 (36)	6 (43)	8 (33.3)	39 (36.1)	
Never	3 (15)	5 (10)	0	3 (12.5)	11 (10.2)	

	Number of respondents (%) by montly income					P*
	Up to HRK 4,999 monthly	HRK 5,000 - HRK 7,999 monthly	HRK 8,000 - HRK 9,999 monthly	HRK 10,000 and more monthly	Total	
How often are your purchasing decisions influenced by advertising messages about environmentally friendly products?						
Always	1 (5)	2 (4)	2 (14)	0	5 (4.6)	0.54
Often	3 (15)	8 (16)	2 (14)	3 (12.5)	16 (14.8)	
Sometimes	7 (35)	23 (46)	9 (64)	14 (58.3)	53 (49.1)	
Rarely	8 (40)	14 (28)	1 (7)	5 (20.8)	28 (25.9)	
Never	1 (5)	3 (6)	0	2 (8.3)	6 (5.6)	
Total	20 (100)	50 (100)	14 (100)	24 (100)	108 (100)	

*Fisher exact test

Source: Authors

6. Conclusion

Consumers are extremely important stakeholders of every business entity because their purchasing habits and decisions directly affect business revenues and ultimately the business result. Their shopping habits also have an impact on the environment and natural resources and are important for the concept of sustainable development.

Previous research found differences in consumer behavior and their general attitudes towards sustainable development. Consumer behavior varies greatly across cultures, countries, and situations. A study conducted by Ham (2009) states that in the Republic of Croatia, people aged 15 to 24 are least interested in environmentally friendly products. A recent study by Ham et al. (2015) shows that students perceive the importance of corporate social responsibility.

As the student population belongs to this segment, the aim of this research was to determine whether there have been changes in attitudes compared to the past.

The research results indicate that the student population is familiar with the concepts of sustainable development, socially responsible business and green consumers, and defines them correctly regardless of their gender and the amount of monthly income. For environmentally friendly products, they are willing to pay a 5% or 10% higher price, and those earning HRK 10,000 or more per month, even 15%. When buying a product, respondents sometimes and rarely consider recycling and en-

vironmentally responsible behavior of the product manufacturer. Advertising messages about environmentally friendly products rarely affect their shopping habits.

From all the above, it is evident that compared to 2009, the student population has changed their attitudes towards environmentally friendly products, but the trend has not changed since 2015. It is a market segment that thinks about this factor when choosing a product. Therefore, consumers' attitudes towards environmentally friendly products and their purchasing habits should be continuously researched in order to gain a deeper understanding of these processes. Future research could include comparative studies as well investigate attitudes of specific groups including a wider age range and geographic area, which were the main limitations of our research. Namely, this research was conducted at only one college; hence, it may be said that this is the main limitation, together with respondents coming from a rather small geographic area. It would be also useful to investigate consumer behaviour related to environmentally friendly products in different situations such as at home and on vacation.

A multidisciplinary approach to green consumer research would be recommended to capture the full potential of the impact that green consumers can have on the future influence on company performance. A deeper understanding of green consumer behaviour would certainly help numerous companies in the process of creating their business strategies.

REFERENCES

1. Alić, M. & Antolović, V. (2019). Percepcija društveno odgovornog poslovanja kod generacije Z. *Proceedings of the MIPRO 2019* (pp. 1565-1570). Opatija: Hrvatska udruga za informacijsku, komunikacijsku i elektroničku tehnologiju (MIPRO).
2. Bratt, C., Stern, P. C., Matthies, E. & Nenseth, V. (2014). Home, Car Use, and Vacation: The Structure of Environmentally Significant Individual Behavior. *Environment and Behavior*, 47(4), 436-473. <https://doi.org/10.1177/0013916514525038>
3. Brown, T. J., Dacin & P. A. (1997). The Company and the Product: Corporate Associations and Consumer Product Responses. *Journal of Marketing*, 61(1), 68-84. <https://doi.org/10.1177/002224299706100106>
4. Carroll, A. B. & Buchholtz, A. K. (2015). *Business & Society: Ethics, Sustainability, and Stakeholder Management* (9th ed). Cengage Learning.
5. Črnjar, M. (2002). *Ekonomika i politika zaštite okoliša*. University of Rijeka, Faculty of Economics.
6. Ellen, P. S., Webb, D. J. & Mohr, L. A. (2006). Building Corporate Associations: Consumer Attributions for Corporate Socially Responsible Programs. *Journal of the Academy of Marketing Science*, 34(2), 147-157. <https://doi.org/10.1177/0092070305284976>
7. European Commission (2009). *Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel*. <http://eur-lex.europa.eu/legal-content/HR/TXT/HTML/?uri=CELEX:32010R0066&from=EN>
8. Gardyn, R. (2001). Saving the Earth, One Click at a Time. *American Demographics*, 23(1), 30-33.
9. Ham, M. (2009). Segmentacija potrošača prema razini ekološke odgovornosti. *Tržište*, 21(2), 183-202.
10. Ham, M., Pap, A. & Pezić, M. (2015). The attitudes of business students towards corporate social responsibility: evidence from Eastern Europe. In Mašek Tonković, A. (Ed.). *Proceedings of the 4th International scientific symposium Economy of Eastern Croatia – vision and growth* (pp. 693-702). Osijek: Faculty of Economics in Osijek.
11. Haws, K. L., Winterich, K. P. & Naylor, R. W. (2014). Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products. *Journal of Consumer Psychology*, 24(3), 336-354. <https://doi.org/10.1016/j.jcps.2013.11.002>
12. Hosta, M. & Žabkar, V. (2016). Consumer Sustainability and Responsibility: Beyond Green and Ethical Consumption. *Tržište*, 38(2), 143-157. <https://doi.org/10.22598/mt/2016.28.2.143>
13. Irawan, R. & Darmayanti, D. (2012). The influence factors of green purchasing behavior: a study of university students in Jakarta. *Proceedings of the 6th Asian Business Research Conference* (pp. 1-11). Bangkok.
14. Leko Šimić, M. & Štimac, H. (2010). CSR: Croatian Consumers' Response, Regulation and Best Practices in Public and Nonprofit Marketing. *Proceedings of the 9th International Congress of the International Association on Public and Nonprofit Marketing* (pp. 365-373). Bucharest: National School of Political Studies and Public Administration.
15. Leko Šimić, M. & Štimac, H. (2011). Corporate Social Responsibility: Croatian Controversies. In Križman Pavlović, D. & Benazić, D. (Eds.). *Proceedings of the 22nd CROMAR Congress: Marketing Challenges in New Economy* (pp. 501-517). Pula: Juraj Dobrila University of Pula, Croatian Marketing Association.
16. Luchs, G. M., Naylor, R. W., Irwin, J. R. & Raghunathan, R. (2010). The Sustainability Liability: Potential Negative Effects of Ethicality on Product Preference. *Journal of Marketing*, 74(5), 18-31. <https://doi.org/10.1509/jmkg.74.5.018>
17. Luo, X. & Bhattacharya, C. B. (2006). Corporate Social Responsibility, Customer Satisfaction, and Market Value. *Journal of Marketing*, 70(4), 1-18. <https://doi.org/10.1509/jmkg.70.4.001>
18. Makower, J., Elkington & J., Hailes, J. (1990). *The Green Consumer*. Penguin Books.

19. Makower, J. (2010). *The Green Consumer, 1990–2010*. GreenBiz.
<https://www.greenbiz.com/blog/2010/03/29/green-consumer-1990-2010>
20. OECD (2011). *OECD Guidelines for Multinational Enterprises*. OECD Publishing.
<http://mneguidelines.oecd.org/guidelines>
21. Razum, A., Pandža Bajs, I. & Zekić, Z. (2017). Analiza čimbenika održive potrošnje generacije Z u modnoj industriji. *Ekonomski pregled*, 68(3), 297-318.
22. Sen, S. & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38(2), 225-243.
<https://doi.org/10.1509/jmkr.38.2.225.18838>
23. Singh, J., Garcia de los Salmenes Sanchez, M. & Bosque, I. R. (2008). Understanding Corporate Social Responsibility and Product Perceptions in Consumer Markets: A Cross-cultural Evaluation. *Journal of Business Ethics*, 80(3), 597-611. <https://doi.org/10.1007/s10551-007-9457-6>
24. United Nations (1987). *Report of the World Commission on Environment and Development*.
25. United Nations (1992). *The Rio Declaration on Environment and Development*. The United Nations Conference on Environment and Development. Rio de Janeiro.
http://www.unesco.org/education/pdf/RIO_E.PDF

