



## **CONSUMER PURCHASING BEHAVIOR TOWARDS GREEN PRODUCTS IN BOSNIA AND HERZEGOVINA**

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### **Abstract**

*The aim of this study was to empirically examine the impact of environmental awareness, peer influence and price on consumer purchasing behavior towards green products in Bosnia and Herzegovina. The participants were asked to fill out the survey that was created using valid and reliable scales. Once enough responses were collected, the data was statistically analyzed using Microsoft Excel and Software Package for Social Sciences (SPSS). While Microsoft Excel was used to deliver descriptive statistics, SPSS was used to conduct relevant validity, reliability, regression and correlation tests. Currently studies of this kind in Bosnia and Herzegovina are very rare. Therefore, this research will give theoretical contribution to this field. Also, it will practically help managers of companies dealing with green products to better understand behavior of the customers regarding purchasing of green products. The results of the study showed that all three factors have significant impact on consumer purchasing behavior towards green products.*

*Keywords: Green products, Environmental awareness, Price, Peer influence, BiH*



## INTRODUCTION

Throughout the years, the demand for green products has increased dramatically. Consumers are more and more interested to the environment and switching to ecofriendly. Nowadays, there is a wide selection of alternatives you can choose from and people are even willing to pay more to promote the green products. (Agyeman, 2014).

The consumption of goods and services has increased dramatically over the last decade, which led to exhaustion of natural resources and environment damage (Chen et al, 2010). The concerns of the climate change, air pollution and global warming are encouraging the companies to move toward protection of the environment and sustainability (Sharma, 2013). The term “going green” has become more and more recognized and we can already find a lot of products and services.

Green products are designed to minimize the environmental impacts during its life cycle. Over the last decades, humans have consumed more resources than ever before. Its main goal is to reduce the waste and maximize the efficiency of the resources. They manufacture them using nontoxic ingredients and the procedures that are environmentally friendly and recognized by the leading organizations. The main characteristics of green products are: (Das, 2019)

- Recyclable
- Eco-friendly packaging
- Eco-sufficient
- Reduced or zero carbon and plastic footprint
- No toxic chemicals

People all around the world are more aware of the environmental issues and how to live more sustainably. Environmental issues we face today are a hugely important subject that should be addressed to with such attentiveness. However, currently studies of this kind in BiH are very rare. Therefore, this research will give theoretical contribution to this field. Also, it will practically help managers of companies dealing with green products to better understand behavior of the customers regarding purchasing of green products.

The aim of this research is to offer the information on group of factors that have effect on consumer purchase intention towards the green products. Moreover, it aims at helping the businesses see how consumer perceive green products and their purchase intentions. In other words, it explores whether consumers are ready to go green and what affect it has on their purchase intention towards green products in Bosnia and Herzegovina.

This research intends to investigate the impact of environmental awareness, peer influence and price on consumer purchasing intention towards the green products in Bosnia and Herzegovina.

## **LITERATURE REVIEW**

### **Green Products**

A green product is one that is designed to have as little environmental impact as possible over its entire life cycle, including when it is no longer in use. Green products typically have two primary goals: waste reduction and resource efficiency maximization. They're made using toxic-free components and eco-friendly techniques.

Peattie (1995) defining green as "when a product's environmental and societal performance, in production, use, and disposal, is significantly improved and improving in comparison to conventional or competitive product offerings," emphasizes the importance of considering the entire life cycle of a product, not just the use phase or the production.

### **Environmental awareness**

Environmental awareness is being aware of one's surroundings and making decisions that benefit rather than harm the environment. According to the Papadopoulos (2013), people are more and more concerned about the environment, compared to the past, so they are changing their purchasing behavior. So, they are willing to change their decision when selecting and buying the products and goods.

### **Peer influence**

Peer pressure is the impact of peers, or members of social groups with comparable interests, experiences, or social position, on one another. Kotler (2011), stated that consumer behavior is influenced by small groups and families and that they have strong impact on purchasing decisions.

### **Price**

A price is the amount of money paid or compensated by one party to another in exchange for a single unit of goods or services. Kottler et al. (2009), stated that price is perceived as the sign of quality.

### **Consumer purchasing intention**

The attitude of a customer toward a given purchase activity, as well as the consumer's readiness to pay, is referred to as purchasing intention.

"Intention expresses a person's immediate behavioral orientation toward engaging in a certain conduct and it reflects the person's motivation toward that behavior," according to the theory (Hagger et al., 2002)

### **Environmental Awareness and Green Products Purchase Intention**

Environmental concerns have long been seen as one of the most essential variables in determining a consumer's environmental knowledge and responsibility (Kinnear, Taylor, & Ahmed, 1974). Tiwari (2016) in her study revealed that the increased awareness of the environmental problems led them to change their life regarding the green products and their purchasing. They were willing to adopt to greener lifestyle. Furthermore, it was mentioned that people were actively seeking to reduce the negative impact on the environment. She states that it is still a process and it will take time. Kinnear et al. (1974) discovered that people would become more concerned about the environment if they thought they might make a difference. As a result, individuals would be more likely to exhibit environmental attitudes and behaviors (Henion, 1976).

### **Peer influence and Green Products Purchase Intention**

According to Maram et al. (2007), consumers belong to a society and people that are surrounded with one another tend to influence other ones purchasing decision. They have the power to influence other to choose eco-friendly products and services. McDonalds et al. (2010) study found out that buying a new product in a store leads to discussing with the friends and family and agreeing to purchase green products.

Mida (2009) determined family as an external factor directly influencing products being purchased. When forming individual norms and beliefs, family is believed to be one of the most important origins. Based on the belief that family is forwarding values and forming attitudes, family can have a direct relationship between the purchasing behavior and environmental awareness (Mida, 2009).

### **Price and Green Products Purchase Intention**

A study done by Sena (2020), reveals that 55% of the consumers across 60 countries are indeed willing to pay higher prices for goods from companies that are environmentally conscious. Sharma (2011) states that price is considered to be one of the factors that are most influential in the green marketing mix. People are willing to pay more, if they know that paying more will lead to higher value of the product.

The study done by Purohit (2011) named Consumer buying behavior on green products analyzed the attitude of the consumers and their intention toward buying the green products. The study was done by distributing questionnaire to 238 post graduate students and has revealed that product, place, price and promotion had significance when buying green products.

Moreover, it concluded that people were willing to pay even more to use green products instead of the traditional products, because it causes less pollution the environment.

## HYPOTHESES AND RESEARCH MODEL

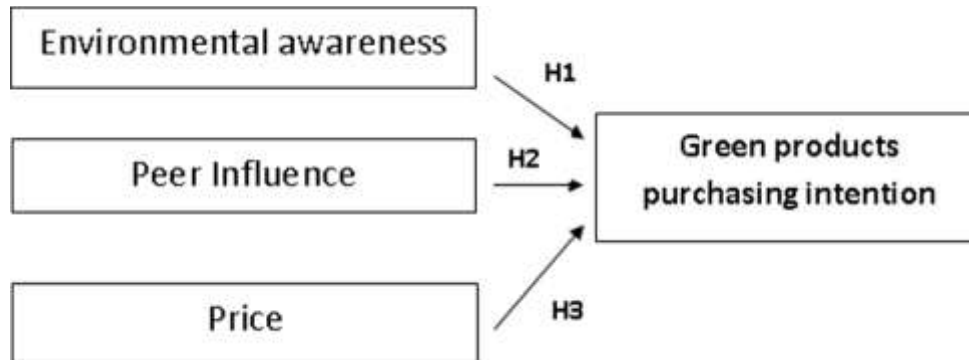


Figure 1. Proposed Research Model

**H1:** Environmental awareness has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina.

**H2:** Peer Influence has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina.

**H3:** Price has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina.

## RESEARCH METHODOLOGY

The study adopted a descriptive research design. The data used in the study was collected by distributing a structured survey. The survey consisted of three sections and in total it had twenty – one questions. First section was related to the demographic data of respondents. Second section was related to the consumer purchase intention and it consisted of four statements. The third section was related to the environmental awareness, peer influence and price.

Moreover, the questionnaire was adjusted in line with the previous studies done by the researchers that dealt with the similar topics. The scales used for the preparation of this instrument were previously used by researchers and proven reliable and valid for measuring

environmental awareness (Rinawati et al, 2018), peer influence (Rinawati et al, 2018) , price (Isaacs, 2015) and green products purchase intention (Zakuan et al, 2015).

Total number of respondents that participated in the study was 210. The sampling method used was convenience sampling, meaning that participants filled out the survey because of their availability and willingness to contribute. The questionnaire was done throughout the Internet and aimed for people living in Bosnia and Herzegovina. There was a total of 210 questionnaires. Survey was created by Google forms and was distributed through several channels: Social media, E-mails, and Friends and families.

The five-point Likert scale was used in this study, with answers ranging from 1 = Strongly disagree to 5 = Strongly agree. The data was examined using the Microsoft Excel for descriptive statistics and Software Package for Social Sciences (SPSS). While Microsoft Excel was used to deliver descriptive statistics, SPSS was used to conduct relevant validity, reliability, and regression tests.

## RESULTS

### Sample Characteristics

The survey provided 210 responds in total. 86 people (41%) who answered are from the age “18-25”, while 48 people (23%) were from the age group “26-32”. 27 people (13%) were from the age group “33-40”, 22 people (10%) from the age group “41-48”, 18 people (9%) from the age group “49-56” and 9 people (4%) from the age group 56+. So we can see that we collected the most answers from age groups 18-25 and 26-32 and the least from the age group 56+. we had, 126 (60%) answers were from the female population, and 84 (40%) from the male.

Answers were collected from people with different education levels achieved such as High school; Bachelor degree; Master’s degree; PhD degree. We have had most responses from people with bachelor degree as there are 81 people (39%). 63 people (30%) were respondents with Master’s degree, 56 people (27%) with high school degree, and 9 people (4%) with PhD degree. We collected answers from people with different income levels: 0-500; 500-1000; 1001-1500; 1501-2000; 2001-2500; 2500 +. 13 (6%) of the respondents have an income 0-500 BAM, 57 respondents (27%) have 500-1000 BAM, 51 respondents (24%) have 1001- 1500 BAM, 45 respondents (22%) have 1501-2000 BAM, 27 respondents with an income 2001-2500 BAM and 17 respondents (8%) have more than 2500 BAM.

Table 1. Sample Characteristics

Variable	Demographics	Number	Percent
GENDER	MALE	84	40%
	FEMALE	126	60%
AGE	18-25	86	41%
	26-32	48	23%
	33-40	27	13%
	41-48	22	10%
	49-56	18	9%
	56+	9	4%
EDUCATION LEVEL	HIGH SCHOOL	56	27%
	BACHELOR DEGREE	81	39%
	MASTER'S DEGREE	63	30%
	PHD	9	4%
INCOME LEVEL	0-500	13	6%
	500-1000	57	27%
	1001-1500	51	24%
	1501-2000	45	22%
	2001-2500	27	13%
	2500 +	17	8%

### Descriptive Statistics

As it can be seen in Table 2, the mean value for consumer purchasing intention is 4.14 which is interpreted as “Agree” being the average answer. Furthermore, the mean values for environmental awareness and price are 3.80 and 3.99 respectively, which suggest that they can be interpreted as “Agree”. However, when it comes to peer influence, the mean value of 3.12 is interpreted as “Neutral”.

The standard deviation is a statistic that determines how much variance or dispersion there is in a group of statistics (Bland, J.M.; Altman, D.G, 1996). A low standard deviation indicates that the values are close to the set's mean (also known as the expected value), whereas a high standard deviation indicates that the values are dispersed throughout a wider range. The values of standard deviation for all research variables are presented in Table 2.

Table 2. Mean and Standard Deviation of the Research Variables

Variable	Mean	Standard Deviation
Consumer purchasing intention	4.14	.82926
Environmental awareness	3.80	.76321
Peer influence	3.12	1.03991
Price	3.99	.89116

### Reliability-Cronbach's Alpha

Cronbach's alpha is a metric for determining the internal consistency, or reliability, of a set of scale or test items. In other words, a measurement's dependability relates to how

constant it is in measuring a term, and Cronbach's alpha is one means of determining how strong that consistency is (Chelsea Goforth, 2015).

Table 3. Cronbach's Alpha

Factor	Cronbach's Alpha
Consumer Purchasing Intention	.87
Environmental Awareness	.74
Peer Influence	.92
Price	.68

According to Cronbach Alpha's scale, if  $\alpha$  is below 0.5, it is "Unacceptable". If  $\alpha$  is between 0.5 and 0.6, the internal consistency is "Poor". If  $\alpha$  is between 0.6 and 0.7 it is "Questionable", which is the case for price since the internal consistency is .68. However, George and Mallery (2003) state that the values of Cronbach Alpha's ranging from 0,6 to 0,7 are moderate, therefore based on their statement, we can accept value of 0,68 for price. If  $\alpha$  is between 0.7 and 0.8 it is "Acceptable" as in the case for Environmental Awareness (see in the Table 3). The  $\alpha$  between 0.8 and 0.9 is considered "Good" which is the case for Consumer Purchasing Intention (see in the table above). The internal consistency is considered "Excellent" when  $\alpha$  is bigger than 0.9. In this case, Peer influence internal consistency is referred to as Excellent.

### Regression analysis

Multiple regression analysis is the statistical technique used to predict the score of one variable on the basis of more variables. This research study has a dependent variable: consumer purchase intention and independent variable: environmental awareness, peer influence and price. Table 4 presents are the results of regression analysis.

Table 4. Regression Analysis  
(Hypotheses' tests)

Independent Variable	Coefficients					Hypothesis Status
	b	Std. Error	Beta	t	Sig.	
(Constant)	1.622	.274		5.920	.001	
Environmental awareness	.422	.077	.389	5.473	.001*	H1:Supported
Peer influence	.113	.053	.142	2.135	.034*	H2:Supported
Price	.142	.060	.152	2.368	.019*	H3:Supported

Note: \*Significant at 95% confidence interval



The first hypothesis of the study, “*H1: Environmental awareness has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina*” was supported since the results show that significance value is .001, that is ( $<0.05$ ) which proves that environmental awareness has a significant impact on consumer purchase intention toward green products in Bosnia and Herzegovina.

The second hypothesis of the study, “*H2: Peer influence has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina*” was also supported with the significance value of .034, that is ( $<0.05$ ) which proves that peer influence has a significant impact on consumer purchase intention toward green products in Bosnia and Herzegovina.

The third hypothesis of the study, “*H3: Price has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina*” was supported since the significance value result is .019, that is ( $<0.05$ ) which proves that price has a significant impact on consumer purchase intention toward green products in Bosnia and Herzegovina.

Based on the results of the regression analysis it can be stated that all three hypotheses of the study were supported.

## DISCUSSION

All of us are aware at some extent of the environmental issues, how important it is to be sustainable and how we can save our planet using green products. People in more developed countries are more familiar with implementing sustainable approaches, and more likely to act accordingly. It was the main motivation for conducting this kind of study in a developing economy such as Bosnia and Herzegovina. The results of this study contributed to better understanding of green products purchase behavior of people living in Bosnia and Herzegovina, and to understand what factors impact the consumers when deciding whether to buy or to not buy green products.

Hypothesis 1 of the study has also been supported. In other words, environmental awareness has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina. Our findings are in accordance with Kinnear et al. (1974) findings that people would become more concerned about the environment if they thought they might make a difference. As a result, individuals would be more likely to exhibit environmental attitudes and behaviors (Henion, 1976). According to previous research, persons who are environmentally aware are more likely to engage in environmentally friendly behavior (Hines, Hungerford, & Tomera, 1987).

Furthermore, Hypothesis 2 of the study has been supported. In other words, peer influence has an impact on consumer purchase intention towards green products in Bosnia and

Herzegovina. It can be stated that the findings of the current study are in accordance with the statement from Kotler (2011) that consumer behavior is influenced by small groups and families and that they have strong impact on purchasing decisions. Also, Solomon et al. (2010) stated that consumers can get affected by other opinions when making final product choice which is also in accordance with the conducted research findings in Bosnia and Herzegovina.

Hypothesis 3 of the study has been supported. In other words, price has an impact on consumer purchase intention towards green products in Bosnia and Herzegovina. A study done by Sena (2020), reveals that 55% of the consumers across 60 countries are indeed willing to pay higher prices for goods from companies that are environmentally conscious. Sharma (2011) states that price is considered to be one of the factors that are most influential in the green marketing mix which is in line with our findings. The results of this study are in line with the abovementioned studies.

### **LIMITATIONS OF THE STUDY**

The limitation of the study includes the response collection which is limited to people in Bosnia and Herzegovina. Furthermore, the sample size of 210 respondents should be increased in the future studies. Moreover, in the literature there are additional factors that may influence consumer purchase intention towards green products, while this research focuses on three factors including environmental awareness, price and peer influence. Therefore, in the future studies additional factors that may influence consumers' purchase intention towards green products should be used.

### **CONCLUSION**

The aim of this study was to empirically examine the impact of environmental awareness, peer influence and price on consumer purchasing behavior towards green products in Bosnia and Herzegovina. Currently, these type of studies in BiH are very rare. Therefore, this research will give theoretical and practical contribution to this field. In this research study, the collection procedure was done by the survey. Total number of respondents that participated in the study was 210. The data was collected online using Google Forms. The respondents were approached through social media and via e-mails. The data was examined using the Microsoft Excel and Software Package for Social Sciences (SPSS). All hypotheses in the study were supported. In other words, this research has shown that environmental awareness, peer influence and price all have an impact on consumer purchasing behavior towards green products in Bosnia and Herzegovina.

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## APPENDIX

## Origins of Construct

Variable	Measurement	Scale					No. of items	Source
<b>Consumer purchase intention</b>	I would buy green products in the near future.	SD	D	N	A	SA	4	Zakuan et al (2015)
	I plan to buy green products in regular basics							
	I intend to buy green products for my long-term health benefits							
	I intend to buy green products because they are more environmentally friendly.							
<b>Environmental awareness</b>	I know more about recycling than other people.	SD	D	N	A	SA	4	Rinawati et al (2018)
	I can tell if the products I bought are good for the environment							
	I am aware of the environmental issues							
	Using green products, I can reduce environmental pollution.							
<b>Peer influence</b>	I learned a lot about environmentally friendly products from my friends.	SD	D	N	A	SA	6	Rinawati et al (2018)
	I learned about environmental issues from my friends.							
	I always discuss with my friends about environmentally friendly products							
	Me and my friends, discuss about what are the environmental issues that are developing							
	I always buy environmentally friendly products with my friends							
	I always share information about green products with my friends							
<b>Price</b>	I believe the price of green products effect my purchasing decision	SD	D	N	A	SA	2	Sheik Isaacs (2015)
	I believe the green products are more expensive than non-green products							