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What is Different about Volunteers? A Study on Factors of Buying Decisions of Products with Recycled Content

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Abstract: Volunteering is a way to express civic behavior, including pro-environmental behavior such as buying products with recycled content. The purpose of this research is to understand the differences between individuals involved in volunteering activities and individuals who have never been involved in volunteering activities. In order to do this, dimensions are analyzed by categories of public: the general public, individuals involved in volunteering activities (volunteers), and individuals who have never been involved in volunteering activities (non-volunteers). Qualitative methods, based on in-depth interviews; and quantitative methods, based on Anova, Independent Samples T tests, factor analyses, and regression analyses have been combined. The sample included 469 respondents. The general dimensions of buying decisions are: product features, social values, promotions, low risk, uniqueness, and affordable price. The volunteers' dimensions of buying decisions are product features, social values, uniqueness, benefits, and promotions. The non-volunteers' dimensions of buying decisions are product features, uniqueness, credibility support, promotions, and low risk. In the conclusions section, implications are presented using specific communication for each of the three public categories, based on important resulting dimensions for each public.

Keywords: volunteers; factor analysis; regression analysis; buying decision; products with recycled content

1. Introduction

In highly debated climate change discussions, attention has been recently given to the circular economy and the "zero waste" movement, as opposed to production model of "take-make-waste" [1] or "take, make, dispose" [2], which contributes to very important issues of mankind such as polluting the environment and shortages of resources [3]. Nowadays, recycling, reusing wasted materials, and remanufacturing are all examples of strategies resulting from the need to protect the environment and achieve sustainability [4].

Discussions on industrial sustainability are associated with strategies developed to create more, using fewer resources or by reducing negative effects [5], through a shift of traditional production [6]. Sustainability has become an important international issue for present and future manufacturing

companies, and it seeks to minimize the impact on the environment [7]. Thus, a viable strategy for sustainable development needs new models for business and marketing strategies [8], which are based on the promotion of environmentally-friendly products [9] such as energy efficient products made from recycled materials, remanufactured products, organic products, or green products [10,11]. These sustainable products will provide long-term benefits as they ensure environmental protection alongside customer satisfaction [12]. In the present context, economic growth considers the development of these sustainable products while maintaining the production and consumption level.

As consumption patterns have changed, environmental awareness of consumers has increased and new marketing concepts have been defined: green buying, environmental consciousness, remanufactured products, green products, and societal marketing [11]. In this context, consumer orientated strategies should also consider social welfare in order to improve a firms' image and increase customers' buying behavior [13]. Consequently, firms should be encouraged to produce environmentally friendly products that provide benefits for both consumer and society [11]. Thus, there is an emerging need for practitioners and academics to study the consumers' green purchasing behavior.

The research literature on consumer behavior is very vast and contains studies of several factors that have the potential to affect buying behavior. Business practice shows that consumer behavior prediction can be difficult, and it is important for managers to take into account the factors that influence it. Khaniwale's [14] paper presents the grouped factors into cultural, social, personal, and psychological categories. A better understanding of these factors could be useful in the new product development process [14]. Another theoretical perspective identifies the evaluative, affective, and cognitive dimensions of purchasing behavior. Wang [15] examines the effects of these dimensions of purchasing behavior in a social media context and identifies as significant only the evaluative and cognitive dimensions.

However, focusing more on environmentally friendly products such as remanufactured products made from recycled materials or green products, we are briefly describing below several studies made upon these two categories of products. They are separately presented, although their purchasing reasons and attitudes are similar, and they both serve the idea of sustainable development [16] that promotes the reduction of energy and material consumption.

Studies that analyze customer perceptions of remanufactured products state that these products provide substantial value for customers, although they are not evaluated as new products [17]. Lower price [18–20], extended warranty, energy efficiency, and reduced material consumption represent the factors that could contribute to their buying decision [10,11,21]. When analyzing the consumers' willingness to pay for products with recycled content, a lower quality level is also identified as a barrier in purchasing [22–24]. The authors suggest that quality assurance should be given as a marketing solution. Research that explored the differences between new and remanufactured products identified the same buying decision determinants: brand reputation, warranty assurance, and identity of seller [25]. Other research emphasizes the impact of functional risk as a significant factor that can influence consumers purchasing behavior [22] (of remanufactured products). The study of Jimenez-Para et al. [26] presents social environment, price, motivation, attitude, and brand reputation as drivers that affect consumers' purchasing behavior for products that contain recycled materials. Yilmaz and Belbag [11] propose a model to project consumer purchasing. Their research reveals low prices, warranty disclaimer, company reliability, and product promotion as factors that affect the purchasing behavior of remanufactured products.

Regarding green products, the research literature shows the influence of rather similar factors that are affecting consumer behavior [27–33].

For example, Maichum, Parichatnon, and Peng [27] analyzed only young consumers from Thailand and found out that environmental attitude, environmental knowledge, and environmental consciousness have significant positive influences on intention to purchase these types of products.

Other research presents the drivers that affect the consumption of green energy and reveals that, regarding the financial aspect, consumers' behavior is influenced by social and emotional factors. The study proposes a model with functional, social, emotional, and conditional value dimensions [28].

A more extensive study analyzed 53 studies, published in the period 2000–2014, which examine the influence of different factors upon consumer purchasing intentions of green products. They conclude that subjective norms and environmental knowledge influence the purchasing of green products. Also the study finding reveals as barriers the existence of low consumer trust in these types of products, issues associated with reduced availability of green products, and high prices [29].

Anvar and Venter [31] examined factors that influence purchasing behavior and their attitude towards green products for consumers in the Generation Y category from South Africa. Results show that consumers' attitudes are positively influenced by price, environmental awareness, and social influence. Also, a positive attitude indicates a high probability of buying these green goods.

The study of Tan et al. [33] conducted in Malaysia identified the following factors that affect the purchasing behavior for green products: government and industry role, social influence, and environmental concern.

Another research direction that concerns products with recycled content refers to attitude towards recycling. Recycling is a way to protect the environment [34]. It is thus suited to responsible people who understand the importance of environmental protection [35,36], recycling, and buying products with recycled content [37].

Grønhøj and Thøgersen [38] studied young individuals' motivation to behave in a pro-environmental manner and found that an important role in their behavior is played by their parents' example, which is translated among others by engaging, showing self-determination, and communicating in this respect.

Pro-environmental behavior is an example of civic behavior. Van Goethem et al. [39] studied civic and pro-social behavior associated with young individuals' involvement in volunteering and found that one major motivation of civic behavior, which includes volunteering, is the opened and positive manner adolescents' families discuss in this respect. Accordingly, Grønhøj and Thøgersen's [38] research is in line with Van Goethem et al.'s [39] findings. Volunteering is thus a manner with which to express civic behavior.

Associating civic behavior with pro-environmental behavior, it would be interesting to find to what extent volunteers' motivations differ from individuals that have never been involved in volunteering actions towards protecting the environment. Although there are studies focusing on particular aspects of consumer behavior for products with recycled content [22], as far as we are aware of, there is no previous research that has investigated the factors/dimensions of buying decisions of such products for the general public and specifically for both individuals who were previously involved in volunteering activities and who were not involved in volunteering activities.

This research relies on the general assumption that individuals involved in volunteering activities are more responsible compared to other population categories. Thus, it is expected that volunteers are more oriented towards protecting the environment. Derived from this assumption, the purpose of this research is to understand the differences between individuals involved in volunteering activities and individuals who have never been involved in volunteering activities. In order to do this, dimensions are identified and analyzed by categories of public: general public, individuals involved in volunteering activities (volunteers), and individuals who have never been involved in volunteering activities (non-volunteers).

The remainder of this paper is divided as follows. The research methodology section explains how qualitative methods, based on in-depth interviews, have been combined with quantitative methods. In order to approach each research objective, the entire sample was split at some point into two main groups: individuals who have been previously involved in volunteering activities, labeled as volunteers in this research, and individuals who have never been involved in volunteering activities, labeled as non-volunteers. In the results and discussion sections, results are presented for each of the

research objectives, followed by discussions. In the conclusions section, the original aspects of this paper are synthesized, and the implications, limitations, and future research are presented as well.

2. Materials and Methods

The research methodology combined qualitative and quantitative methods.

In the first stage of the study, we used in-depth interview based on an interview guide for getting insights into people's opinions about products with recycled content and for generating a list of items for building a questionnaire.

In the second stage of the research, a quantitative survey was conducted, using the questionnaire that was created based on the results of the exploratory qualitative research.

We included in the sample people that are involved in volunteering activities and people that are not concerned about this activity. A volunteer is a person who is actively involved with time, energy, or talent for a common good [40], working with no desire of monetary benefits [41]. Volunteerism has been defined as "freely chosen and deliberate helping activities that extend over time, are engaged in without expectation of reward or other compensation and often through formal organizations, and that are performed on behalf of causes or individuals who desire assistance" [42] (p. 3). Volunteers have the opportunity to decide among different types of environmental, social, or political causes to be involved in, or the activities they choose to perform. Our approach refers to the volunteers that are actively involved in environmental, social, cultural, or political activities.

In order to understand what people think about products with recycled content and the important elements defining their buying decision, we conducted 20 semi-structured face-to-face in-depth interviews, including respondents between 18 and 35 years old, both men (6 respondents) and women (14 respondents). 60% of the respondents have low incomes, less than 1500 RON (330 Euro); 15% of them have incomes between 1501–2500 RON (330–540 EURO), while 20% have incomes between 2501 and 4500 RON (540–970 EURO). Only 5% of the respondents have incomes over 4500 RON (over 970 EURO).

Using a screening questionnaire, we selected people who heard about products with recycled content and half of them who also have bought at least once a product from this category.

The snowball technique was applied as a sampling procedure, due to the fact that it is the most widely used sampling method in qualitative studies [43]. This non-probability method of survey sample selection is based on finding potential participants with characteristics of interest [44] for in-depth interviews with the help of other participants' recommendations. In-depth interview is a qualitative research method that facilitates access to rich data about consumers' thoughts, motivations, feelings, or preferences, and it was used in other research studies related to recycling behavior [45] and important factors for recycling behavior change [46].

Regarding the sample size for qualitative research, Guest et al. [47] suggest that 12 respondents represent an adequate number of subjects for reaching data saturation [45].

The interviews were conducted for three weeks, in October 2017 in Iasi, Romania. The average time for each interview was 50 min, and the discussions were guided by an interviewer. The interview guide included different types of open-ended questions, investigating experiences ("What types of products with recycled content did you see until now?"), feelings ("What did you feel when you bought a product with recycled content?"), opinions ("What do you think about companies that sell products with recycled content?"), and knowledge ("What do you know about products with recycled content?"). Projective techniques were used to investigate people's perception about products with recycled content, such as third person techniques ("How are the persons who buy products with recycled content?") or association techniques ("What is the first word that came into your mind when you think about recycling?"). In order to discover detailed aspects of respondents' experiences, perceptions, and perspectives [48], probing questions were used ("Can you tell me more about this?", "What else?").

The data collected through in-depth interviews were structured using content analysis, following the procedures for open coding and axial coding. The main themes were identified and categories were created.

Analyzing the data, we identified three categories describing the benefits of recycling: progress for society, protecting nature, and being good for the people (for present and for future generations).

Another important theme was about the products with recycle content. The respondents' perception about these types of products is connected with the following categories: protecting nature ("it is important to take care of our Planet, to save nature"), financial aspects ("they are more expensive than the other products"), product quality ("I think these products have a good quality due to the materials they are made of), differentiation ("the design is different from other products"), or buyer profile ("a person who buys this type of products is responsible and intelligent").

Regarding factors affecting buying decisions for products with recycle content, we identified seven categories: uniqueness ("it is something unique"), tangibility ("I need to touch them before buying"), quality ("it is important to be time resistant"), financial issues ("I buy products with affordable prices"), advertising ("I would like to see these products promoted in Social Media"), social example ("I can be an example for others"), and recommendations ("I will buy if a specialist will recommend the product").

Investigating the connections between the codes, the axial coding analysis indicated a connection between the gender of the respondent and the importance of quality in buying process: women are more focused on product features and the quality difference between products with and without recycled content. Also, all the respondents made a strong connection between the importance of buying certain types of products and the necessity to protect the natural environment.

A valuable insight was the attitude of the respondents who used to be volunteers regarding the products with recycled content; they were more willing to buy these products in the future and more enthusiastic about being an example and helping others to be involved in recycling and using products with recycled content.

Using the results of the qualitative and documentary research [22], a questionnaire was developed, including a list of 30 items for measuring the dimensions of buying decisions of products with recycled content. Each of the items was measured on a seven point scale, from 1 (not at all important) to 7 (very important). Also, a question for measuring future buying intension was used: "To what extent do you intend to buy a product from recycled content in the next 6 months?" (with answer options from 1—not at all, to 7—very much).

In the second stage of the research, the quantitative survey based on a questionnaire was conducted for two months (between 15 October 2017 and 15 November 2017), in Iasi, Romania. The research used a convenience sample of 469 respondents, both men and women who heard about products with recycled content, with ages over 18 years. 63% of them have already bought a product with recycled content. The sample size is appropriate for conducting factor and regression analysis, in order to achieve the research objectives. The minimum sample size in order to perform factor analysis is 100 cases, according to Gorsuch [49] and Kline [50], or 200 cases, according to Guilford [51]. For regressions analysis, Vittinghoff and McCulloch [52] suggested a necessity of 5–9 subjects for each variable.

We also considered it important to include in the sample at least half of the respondents who have already bought at least one product with recycled content, to have a wider perspective on the dimensions of buying decision. In order to investigate the dimensions of purchasing decisions for products with recycled content, we considered relevant the perception of the buyers and also of the non-buyers of these types of products. For conducting analyses on different groups of respondents, we included at least 50% of the respondent who already had bought recycled content products.

Data was collected online, on a social media platform. We chose Facebook due to its popularity in Romania. We posted the questionnaire on our Facebook pages and encouraged students and our

friends to fill it in and to send it to other friends, including to those who were involved in volunteering activities and who had bought products with recycled content.

The snowball sampling technique was used due to its popularity for hidden populations and also for the cases when the number of potential participants was low [53]. During the process of data collection, we paid attention to the ethical aspects of the research. The respondents have been assured that their answers would be confidential. Before filling in the questionnaire, they were informed about the purpose of the study, and they decided whether to participate or not. The items included in the questionnaire investigated the buying process for products with recycled content and were not referring to aspects meant to create discomfort for the participants.

3. Results

In order to achieve the purpose of this study, dimensions are analyzed by categories of public: general public, individuals involved in volunteering activities (volunteers), and individuals who have never been involved in volunteering activities (non-volunteers).

The sample includes 469 respondents. Out of the entire sample, 311 respondents (66.3%) declared they have been previously involved in volunteering activities, and 157 respondents (33.5%) declared they have never been involved in this type of activities before.

67.2% of respondents have low income (less than 1500 RON equivalent to less than 330 EUR). 20.3% of respondents have income between 1501 and 2500 RON (330–540 EUR). 7.5% of respondents have income between 2501 and 4500 RON (540–970 EUR). Only 5.1% of respondents have an income over 4500 RON (equivalent to over 970 EURO).

82.7% of respondents are relatively young, with ages between 18 and 25 and 9.4% with ages between 26 and 35. 6.4% of respondents are between 36 and 45 years old, 1.3% of respondents are between 46 and 65 years old, and only one respondent (0.2%) is over 65 years old.

70.6% of respondents are women, and 29.2% are men.

3.1. Identifying the Dimensions of Buying Decision of Products with Recycled Content (Objective 1)

In order to identify the dimensions of buying decisions of products with recycled content, factor analysis was conducted, along with Principal Components Method with Varimax rotation. In the initial analyses, 30 items were included with 469 cases. The subject to item ratio is over 10:1. Previous studies presenting research based on factor analyses use subject to item ratios between 2:1 and 10:1 [54].

Four items were removed in successive analyses due to similar loadings in Rotated Components Matrix ("I need to see them before I buy them, so I can touch them", "The content of these products should be described", "To have an accessible price", and "To see them first in other people possession").

In the final analysis, six factors/dimensions were identified: "social values", "products features", "promotions", "low risk", "uniqueness", and "affordable price". The six dimensions explain 62.21% of the total variance. According to Malhotra [55], it is recommended for factors to explain over 60% of the total variance. These dimensions, each with composing items and explained variance, are presented in Table 1.

The entire scale composed of 26 items is very reliable, with Cronbach's Alpha coefficient 0.908. According to Abraham and Barker [56], a level of Cronbach's Alpha above 0.7 indicates acceptable reliability, while a level between 0.91 and 0.93 is an indicator of strong reliability [57].

The KMO Test value is 0.899 > 0.5, indicating that correlation matrix may be analyzed for factor analysis, and factor analysis is appropriate [55]. Barlett's Sphericity test rejects the hypothesis that the correlation matrix is a unit correlation, as sig. < 0.05.

Table 1. Dimensions of general buying decision of products with recycled content.

Dimensions	Items	Loadings in Rotated Component Matrix
Social values' explained variance: 31.54%	I can give a good example to those around me	0.704
	I can make a contribution to nature's salvation	0.69
	Recommendations of specialists in the field	0.668
	Campaigns of information/education about environment protection (associated with buying these types of products)	0.64
	Information I find about these products	0.636
	Buying these types of products makes me feel good about myself	0.63
	Other people recommend that I use these products	0.598
	I can pride myself on this type of products towards colleagues/friends	0.438
Product features' explained variance: 7.99%	To be nicely finished	0.768
	To have a nice design	0.738
	To find a product I really need	0.72
	To be time resistant	0.715
	To find a varied products line	0.651
Promotions' explained variance: 7.44%	To see ads on street banners	0.787
	To be intensely promoted on Internet	0.731
	To be able to buy them from the Internet	0.693
	To find them at fairs	0.531
Low risk' explained variance: 5.87%	The brand of the product is very well-known	0.789
	One way or another, I receive a part of the money I pay back	0.715
	Products have warranty	0.635
	Perception I have about people that buy these products	0.576
Uniqueness' explained variance: 5.43%	It is something new	0.839
	These products may represent a special present/gift	0.798
	There is something unique about them	0.781
Affordable price' explained variance: 3.93%	To have smaller prices than usual products	0.828
	To have discounts for these type of products	0.697

3.2. Identifying Possible Significant Differences between Volunteers and Non-Volunteers in Buying Intentions of Products with Recycled Content (Objective 2)

The sample was described based on age, income, sex, and involvement in volunteering activities. Based on these variables, mean tests were conducted in order to identify whether there are any significant differences in the buying intentions of products with recycled content on groups separated by age, income, sex, and involvement in volunteering activities.

Anova test was conducted in order to test whether age groups (factor) influence buying intentions (dependent variable). The age groups considered were (a) 18–25; (b) 26–35; (c) 36–45; (d) 46–65; and (e) >65.

Table 2 presents the result of the age inter-groups comparisons. There are two significant differences: (a) between group 18–25 age interval and 26–35 age interval and (b) between 18–25 age interval and 36–45 age interval. In both cases, buying intentions are significantly lower for the 18–25 age interval group.

Anova test was also conducted in order to test if income groups (factor) influence buying intentions (dependent variable). The income groups considered were (a) <1500 RON, (b) 1501–2500 RON, (c) 2501–4500 RON, and (d) >4500 RON.

Table 3 presents the result of the income inter-groups comparisons. There are two significant differences: (a) between <1500 Ron group and 1501–2500 Ron group and (2) between <1500 Ron group and >4500 Ron, in which case buying intentions are significantly lower for the lowest income group. No other significant differences were identified.

Table 2. Multiple comparisons for age intervals influencing the intention to buy.

(I) Age Interval	(J) Age Interval	Mean Difference (I–J)	Std. Error	Significance	95% Confidence Interval	
					Lower Bound	Upper Bound
18–25	26–35	−0.750 *	0.239	0.018	−1.42	−0.08
	36–45	−1.027 *	0.285	0.003	−1.83	−0.22
	46–65	−1.561	0.618	0.119	−3.30	0.18
	>65	−1.227	1.065	1.000	−4.23	1.78
26–35	18–25	0.750 *	0.239	0.018	0.08	1.42
	36–45	−0.277	0.356	1.000	−1.28	0.73
	46–65	−0.811	0.654	1.000	−2.65	1.03
	>65	−0.477	1.086	1.000	−3.54	2.59
36–45	18–25	1.027 *	0.285	0.003	0.22	1.83
	26–35	0.277	0.356	1.000	−0.73	1.28
	46–65	−0.533	0.672	1.000	−2.43	1.36
	>65	−0.200	1.097	1.000	−3.29	2.89
46–65	18–25	1.561	0.618	0.119	−0.18	3.30
	26–35	0.811	0.654	1.000	−1.03	2.65
	36–45	0.533	0.672	1.000	−1.36	2.43
	>65	0.333	1.227	1.000	−3.13	3.79
>65	18–25	1.227	1.065	1.000	−1.78	4.23
	26–35	0.477	1.086	1.000	−2.59	3.54
	36–45	0.200	1.097	1.000	−2.89	3.29
	46–65	−0.333	1.227	1.000	−3.79	3.13

* The mean difference is significant at the 0.05 level.

Table 3. Multiple comparisons for income intervals influencing the intention to buy.

(I) Income Interval	(J) Income Interval	Mean Difference (I–J)	Std. Error	Significance	95% Confidence Interval	
					Lower Bound	Upper Bound
<1500	1501–2500	−0.516 *	0.176	0.021	−0.98	−0.05
	2501–4500	−0.321	0.268	1.000	−1.03	0.39
	>4500	−1.347 *	0.319	0.000	−2.19	−0.50
1501–2500	<1500	0.516 *	0.176	0.021	0.05	0.98
	2501–4500	0.195	0.298	1.000	−0.59	0.98
	>4500	−0.831	0.344	0.097	−1.74	0.08
2501–4500	<1500	0.321	0.268	1.000	−0.39	1.03
	1501–2500	−0.195	0.298	1.000	−0.98	0.59
	>4500	−1.026	0.399	0.063	−2.08	0.03
>4500	<1500	1.347 *	0.319	0.000	0.50	2.19
	1501–2500	0.831	0.344	0.097	−0.08	1.74
	2501–4500	1.026	0.399	0.063	−0.03	2.08

* The mean difference is significant at the 0.05 level.

Independent Samples Test was conducted in order to identify possible significant differences between sex groups, based on buying intentions. According to results presented in Table 4, there are not significant differences between sex groups (men/women) based on buying decision.

Table 4. Independent samples test—men/women.

		Levene's Test for Equality of Variances		*t*-Test for Equality of Means						
		F	Sig.	t	df	Significance (2-Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
To what extent are you willing to buy a product with recycled content within the next 6 months?	Equal variances assumed	2.457	0.118	−0.777	466	0.438	−0.122	0.157	−0.429	0.186
	Equal variances not assumed			−0.808	277.777	0.420	−0.122	0.150	−0.418	0.175

Independent Samples Test was also conducted in order to identify possible significant differences between volunteers and non-volunteers groups, based on buying intentions. According to results presented in Table 5, there are significant differences between these two groups (volunteers/non-volunteers) based on buying decision.

Table 5. Independent samples test—volunteers/non-volunteers.

		Levene's Test for Equality of Variances		*t*-Test for Equality of Means						
		F	Sig.	t	df	Significance (2-Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
To what extent are you willing to buy a product with recycled content within the next 6 months?	Equal variances assumed	0.292	0.589	3.205	466	0.001	0.479	0.149	0.185	0.772
	Equal variances not assumed			3.209	314.188	0.001	0.479	0.149	0.185	0.772

Derived from this result, researchers decided to conduct further analyses on age, income, and sex, based on these two groups.

A description of the sub-sample of volunteers, based on sex, age, and income, is given below.

73.3% of volunteers are females, while 26.7% are men. 82.3% are 18–25 years old, 9% are 26–35 years old, 6.8% are 36–45 years old, 1.3% are 46–65 years old, and one respondent (0.3%) is over 65 years old. 65% of respondents have income lower than 1500 RON, 22.5% have income between 1501–2500 RON, 7.4% have income between 2501–4500, and 5.1% have income over 4500 RON.

A description of the sub-sample of non-volunteers, based on sex, age, and income, is also given below.

65% of volunteers are females. 83.4% are 18–25 years old, 10.2% are 26–35 years old, 5.7% are 36–45 years old, and 0.6% are 46–65 years old. 71.3% of respondents have income lower than 1500 RON, 15.9% have income between 1501 and 2500 RON, 7.6% have income between 2501 and 4500, and 5.1% have income over 4500 RON.

Anova test was conducted on the split file (volunteers/non-volunteers) in order to test whether age groups (factor) influence buying intentions (dependent variable). In the volunteers group, there was only one case over 65 years of age. In the non-volunteers group, there was only one case between 46 and 65 years of age. In order to conduct the analysis, these two cases were identified and eliminated from the analysis.

Table 6 presents the results of the age inter-groups comparisons on volunteers and non-volunteers. There is only one significant difference: between groups 18–25 years of age and 36–45 years of age,

only in the volunteers group. Buying intentions are significantly lower for the 18–25 years of age interval group. The non-volunteers group presents no significant differences between age groups.

Table 6. Multiple comparisons for age intervals influencing the intention to buy.

(I) Age Interval	(J) Age Interval	Mean Difference (I–J)	Std. Error	Significance	95% Confidence Interval	
Volunteers					**Lower Bound**	**Upper Bound**
18–25	26–35	−0.785	0.297	0.052	−1.57	0.00
	36–45	−1.070 *	0.339	0.010	−1.97	−0.17
	46–65	−1.270	0.674	0.362	−3.06	0.52
26–35	18–25	0.785	0.297	0.052	0.00	1.57
	36–45	−0.286	0.431	1.000	−1.43	0.86
	46–65	−0.486	0.724	1.000	−2.41	1.44
36–45	18–25	1.070 *	0.339	0.010	0.17	1.97
	26–35	0.286	0.431	1.000	−0.86	1.43
	46–65	−0.200	0.742	1.000	−2.17	1.77
46–65	18–25	1.270	0.674	0.362	−0.52	3.06
	26–35	0.486	0.724	1.000	−1.44	2.41
	36–45	0.200	0.742	1.000	−1.77	2.17
Non–Volunteers					**Lower Bound**	**Upper Bound**
18–25	26–35	−0.707	0.397	0.230	−1.67	0.25
	36–45	−0.852	0.516	0.302	−2.10	0.40
26–35	18–25	0.707	0.397	0.230	−0.25	1.67
	36–45	−0.146	0.624	1.000	−1.66	1.36
36–45	18–25	0.852	0.516	0.302	−0.40	2.10
	26–35	0.146	0.624	1.000	−1.36	1.66

* The mean difference is significant at the 0.05 level.

Anova test was also conducted to test if income groups (factor) influence buying intentions (dependent variable) for the two groups (volunteers and non-volunteers).

Table 7 presents the results of the income inter-groups comparisons. There are two significant differences, both only for the volunteers group: (a) between <1500 Ron group and 1501–2500 Ron group and (2) between <1500 Ron group and >4500 Ron, in which case buying intentions are significantly lower for the lowest income group. No other significant differences were identified.

Table 7. Multiple comparisons for income intervals influencing the intention to buy for volunteers and non-volunteers.

(I)Income Interval	(J)Income Interval	Mean Difference (I–J)	Std. Error	Significance	95% Confidence Interval	
					Lower Bound	**Upper Bound**
Volunteers						
<1500	1501–2500	−0.572 *	0.207	0.036	−1.12	−0.02
	2501–4500	−0.578	0.328	0.473	−1.45	0.29
	>4500	−1.331 *	0.387	0.004	−2.36	−0.30
1501–2500	<1500	0.572 *	0.207	0.036	0.02	1.12
	2501–4500	−0.006	0.358	1.000	−0.96	0.95
	>4500	−0.759	0.413	0.403	−1.86	0.34
2501–4500	<1500	0.578	0.328	0.473	−0.29	1.45
	1501–2500	0.006	0.358	1.000	−0.95	0.96
	>4500	−0.753	0.485	0.731	−2.04	0.54
>4500	<1500	1.331 *	0.387	0.004	0.30	2.36
	1501–2500	0.759	0.413	0.403	−0.34	1.86
	2501–4500	0.753	0.485	0.731	−0.54	2.04

Table 7. *Cont.*

(I)Income Interval	(J)Income Interval	Mean Difference (I–J)	Std. Error	Significance	95% Confidence Interval	
					Lower Bound	Upper Bound
Non–Volunteers						
<1500	1501–2500	−0.233	0.333	1.000	−1.12	0.66
	2501–4500	0.193	0.457	1.000	−1.03	1.41
	>4500	−1.348	0.550	0.093	−2.82	0.12
1501–2500	<1500	0.233	0.333	1.000	−0.66	1.2
	2501–4500	0.427	0.528	1.000	−0.99	1.84
	>4500	−1.115	0.611	0.419	−2.75	0.52
2501–4500	<1500	−0.193	0.457	1.000	−1.41	1.03
	1501–2500	−0.427	0.528	1.000	−1.84	0.99
	>4500	−1.542	0.686	0.157	−3.38	0.29
>4500	<1500	1.348	0.550	0.093	−0.12	2.82
	1501–2500	1.115	0.611	0.419	−0.52	2.75
	2501–4500	1.542	0.686	0.157	−0.29	3.38

* The mean difference is significant at the 0.05 level.

Independent Samples Test was conducted in order to identify possible significant differences between sex groups, based on buying intentions, for the volunteers and non-volunteers group. According to results presented in Table 8, there are not significant differences between sex groups (men/women) based on buying decision, for any of the two groups.

Table 8. Independent Samples Test—men/women for volunteers and non-volunteers.

		Levene's Test for Equality of Variances		*t*-Test for Equality of Means						
		F	Sig.	t	df	Significance (2-Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Volunteers										
To what extent are you willing to buy a product with recycled content within the next 6 months?	Equal variances assumed	1.294	0.256	−1.718	308	0.087	−0.337	0.196	−0.723	0.049
	Equal variances not assumed			−1.833	162.919	0.069	−0.337	0.184	−0.700	0.026
Non–Volunteers										
To what extent are you willing to buy a product with recycled content within the next 6 months?	Equal variances assumed	1.059	0.305	0.526	153	0.600	0.135	0.257	−0.372	0.642
	Equal variances not assumed			0.544	119.297	0.587	0.135	0.248	−0.356	0.626

3.3. Identifying the Dimensions of Buying Decisions of Products with Recycled Content Specific for Volunteers' Group (Objective 3)

Dimensions were identified using Principal Components Method with Varimax rotation. The initial analysis included 30 items and 311 cases. The subject to item ratio is over 10:1.

Successive analyses were conducted, and items were eliminated until all remaining items loaded at least 0.4 per at least one factor in Component Matrix and there were no items loading similar on two or more factors in Rotated Component Matrix. The eliminated items were: "To have an accessible price", "To have discounts for these types of products", "To see them first in other people possession", "Products have warranty", "To have smaller prices than usual products", "I need to see them before

I buy them, so I can touch them", "To find them at fairs", and "Recommendations of specialists in the field".

The reliability of the final scale, consisting of 22 items, measured with Cronbach's Alpha coefficient, is 0.896 (very close to 0.9), indicating very good reliability. Resulting dimensions, explaining 63.18% of the total variance, are: "Product features", "Social values", "Uniqueness", "Benefits", and "Promotions". These dimensions with labels given by researchers are presented in Table 9.

The KMO and Barlett's Test value is 0.892 > 0.5, indicating that correlation matrix may be analyzed for factor analysis and factor analysis is appropriate [55]. Barlett's Sphericity test rejects the hypothesis that the correlation matrix is a unit correlation, as sig. < 0.05.

Table 9. Dimensions of volunteers' buying decisions for products with recycled content.

Dimensions	Items	Loadings in Rotated Component Matrix
Product features' explained variance: 34.25%	To be nicely finished	0.8
	To be time resistant	0.749
	To have a nice design	0.733
	To find a product I really need	0.719
	To find a varied products line	0.675
	The content of these products should be described	0.6
Social values' explained variance: 9.33%	Buying these types of products makes me feel good about myself	0.734
	I can give a good example to those around me	0.726
	I can make a contribution to nature's salvation	0.724
	Campaigns of information/education about environment protection (associated with buying these types of products)	0.663
	Information I find about these products	0.65
	Other people recommend that I use these products	0.564
Uniqueness' explained variance: 7.82%	It is something new	0.836
	These products may represent a special present/gift	0.826
	There is something unique about them	0.802
Benefits' explained variance: 6.54%	One way or another, I receive a part of the money I pay back	0.794
	The brand of the product is very well-known	0.788
	Perception I have about people that buy these products	0.676
	I can pride myself on this type of products towards colleagues/friends	0.542
Promotions' explained variance: 5.23%	To see ads on street banners	0.853
	To be intensely promoted on Internet	0.799
	To be able to buy them from the Internet	0.485

3.4. Identifying the Important Dimensions in Buying Intentions of Products with Recycled Content Specific for Volunteers' Group (Objective 4)

The dimensions saved as new variables are utilized in the regression analyses presented in this section. Regression analyses was conducted in order to identify which of the five dimensions specific to the volunteers' group is important in the buying intentions of individuals from this group.

Table 10 presents coefficients and the t test for each of the five dimensions. There are only two important dimensions in the buying intentions of volunteers: "social values" and "uniqueness", with sig. < 0.05 and t > 2. There is a positive relation between "social values "and "uniqueness", on one side, and buying intentions of volunteers, on the other side. For every unit increase in "social values", we expect a 0.666 unit increase of buying intentions of volunteers. For every unit increase of "uniqueness", we expect a 0.348 unit increase of buying intentions of volunteers.

Table 10. Important dimensions of volunteers' buying decision.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.096	0.075		67.55	0.000
	REGR "product features"	−0.106	0.076	−0.069	−1.40	0.161
	REGR "social values"	0.666	0.076	0.436	8.81	0.000
	REGR "uniqueness"	0.348	0.076	0.228	4.602	0.000
	REGR "benefits"	−0.118	0.076	−0.077	−1.55	0.121
	REGR "promotion"	0.039	0.076	0.025	0.511	0.610

3.5. Identifying the Dimensions of Buying Decisions of Products with Recycled Content Specific for Non-Volunteers' Group (Objective 5)

Factor analysis, Principal Components Method with Varimax rotation was conducted on the non-volunteers group. The analysis was conducted initially on 30 items and 157 cases. The subject to item ratio is over 5:1.

Items were removed in successive analyses due to cross-loadings in Rotated Components Matrix. The eliminated items were: "To have an accessible price", "To see them first in other people possession", "Other people recommendations that use these products", "Campaigns of information/education about environment protection (associated with buying these types of products)", "To have smaller prices than usual products", "To see ads on street banners", "To be able to buy them from the Internet", "To find them at fairs", "I can have a contribution to nature's salvation", "I can pride myself on this type of products towards colleagues/friends", "One way or another, I receive a part of the money I pay back", and "I can give a good example to those around me".

The final scale consists of 18 items grouped in five dimensions explaining 63.06% of the total variance, according to Table 11. The five dimensions were labeled as: "Product features", "Uniqueness", "Credibility support", "Promotions", and "Low risk".

The reliability of the final scale, measured with Cronbach's Alpha coefficient, is 0.866, indicating good reliability.

The KMO and Barlett's Test value is 0.795 > 0.5, indicating that correlation matrix may be analyzed for factor analysis and factor analysis is appropriate [55]. Barlett's Sphericity test rejects the hypothesis that the correlation matrix is a unit correlation, as sig. < 0.05.

Table 11. Dimensions of non-volunteers' buying decisions of products with recycled content.

Dimension	Items	Loadings in Rotated Component Matrix
Product features' explained variance: 29.37%	To find a product I really need	0.738
	To have a nice design	0.734
	To be time resistant	0.729
	To be nicely finished	0.714
	To find a varied products line	0.693
	The content of these products should be described	0.585
	I need to see them before I buy them, so I can touch them	0.548
Uniqueness' explained variance: 11.54%	It is something new	0.842
	There is something unique about them	0.776
	These products may represent a special present/gift	0.765
Credibility support's explained variance: 9.60%	Recommendations of specialists in the field	0.782
	Information I find about these products	0.755
	Perception I have about people that buy these products	0.66
Promotions' explained variance: 6.50%	To be intensely promoted on Internet	0.725
	To have discounts for these type of products	0.668
	Buying these types of products makes me feel good about myself	0.466
Low risk's explained variance: 6.04%	The brand of the product is very well-known	0.746
	Products have warranty	0.722

3.6. Identifying the Important Dimensions in Buying Intentions of Products with Recycled Content Specific to Non-Volunteers' Group (Objective 6)

The five dimensions identified for the non-volunteers group were saved as factor scores in SPSS, with the purpose to include them in a regression analysis and identify the important dimensions in buying intentions of non-volunteers.

Table 12 presents coefficients and the t test for each of the five dimensions. There are three important dimensions in the buying intentions of non-volunteers: "uniqueness", "credibility support", and "promotions", with sig. < 0.05 and t > 2. There is a positive relation between "uniqueness", "credibility support", and "promotions", on one side, and buying intentions of non-volunteers, on the other side. For every unit increase of "uniqueness", we expect a 0.446 unit increase of buying intentions of non-volunteers. For every unit increase of "credibility support", we expect a 0.239 unit increase of buying intentions of non-volunteers. For every unit increase of "promotions", we expect a 0.336 unit increase of buying intentions of non-volunteers.

Table 12. Important dimensions of non-volunteers' buying decisions.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.618	0.112		41.10	0.000
	REGR "product features"	0.070	0.113	0.046	0.61	0.538
	REGR "uniqueness"	0.446	0.113	0.293	3.95	0.000
	REGR "credibility support"	0.239	0.113	0.157	2.12	0.036
	REGR "promotions"	0.336	0.113	0.221	2.97	0.003
	REGR "low risk"	0.152	0.113	0.100	1.35	0.178

3.7. Identifying the Important Dimensions of General Buying Decision of Products with Recycled Content in Buying Intention for the General Audience (Objective 7)

As presented in objectives 3 and 5, regression analysis was also conducted for the entire sample, represented by both volunteers and non-volunteers. In order to do so, factor scores of the six general dimensions of buying decisions were computed and saved as six separate variables.

Table 13 presents coefficients and the t test for each of the six general dimensions. There are four important dimensions in the buying intention of the general public: "social values", "promotions", "uniqueness", and "affordable price", with sig. < 0.05 and t > 2. There is a positive relation between "social values", "promotions", and "uniqueness", on one side, and buying intention of general public, on the other side. There is a negative relation between "affordable price" and buying intention of general public. For every unit increase of "social values", we expect a 0.534 unit increase of buying intention of general public. For every unit increase of "promotions", we expect a 0.183 unit increase of buying intention of general public. For every unit increase of "uniqueness", we expect a 0.398 unit increase of buying intention of general public. For every unit increase of "affordable price", we expect a 0.144 unit decrease of buying intention of general public.

Table 13. Important general dimensions of buying decision.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.934	0.064		77.69	0.000
	REGR "social values"	0.534	0.064	0.347	8.39	0.000
	REGR "product features"	−0.047	0.064	−0.030	−0.73	0.463
	REGR "promotions"	0.183	0.064	0.119	2.88	0.004
	REGR "low risk"	−0.051	0.064	−0.033	−0.79	0.425
	REGR "uniqueness"	0.398	0.064	0.259	6.26	0.000
	REGR "affordable price"	−0.144	0.064	−0.094	−2.26	0.024

Table 14 presents the general dimensions, volunteers' dimensions, and non-volunteers' dimensions of buying decision of products with recycled content. Important dimensions of buying decisions, resulting from regression analyses of objective 4, objective 6, and objective 7, are underlined.

Table 14. General, volunteers', and non-volunteers' dimensions of buying decisions.

Public	Dimensions
General public	product features social values promotions Low-risk uniqueness affordable price
Volunteers	product features social values uniqueness benefits promotions
Non-volunteers	product features uniqueness credibility support promotions low risk

4. Discussion

Our findings can be integrated in the larger literature of sustainable purchase behaviour [29,58–61], which includes green product purchase behaviour.

Results presented in objective 2 section reveal that significant differences are identified between young and mature sample segments, on one side, and between low incomes and medium to large incomes, on the other side. A correlation analysis between age and income of respondents reveals, as expected, a strong positive relation between these two variables (sig. < 0.05 and Pearson Correlation value = 0.588). An assumption of these differences is that young individuals with low incomes are not paying enough attention to other issues apart from their own living. This is in line with Anvar and Venter [31] results, as price is a factor that influences young individuals' purchasing behaviour of green products. Results presented in objective 2 also support Prakash and Pathak's [16] findings, as intention to buy eco-friendly packaging is influenced by willingness to pay.

Previous studies investigating young individuals' behavior related to environment reveal that an important role in adolescents' behavior towards the environment is parents' possessions [38]. Thus, a social campaign to promote pro-environmental behavior could target parents as an important vehicle of education and information for children and adolescents.

As expected, buying intentions of volunteers are significantly higher than buying intentions of non-volunteers. This is in line with Van Goethem et al.'s [39] research, placing volunteering as a studied civic and pro-social behavior. Results presented separatey for the two groups reveal interesting and useful information. Significant differences between age groups and income were found only for volunteers. In conclusion, non-volunteers have a smaller buying intention, which is more homogenous for age and income groups. This leads to the assumption that volunteers change their buying intentions, as their ages and incomes increase over time, while non-volunteers don not significantly change their behavior regarding buying intentions of products with recycled content.

Related to this finding, we mention Adnan et al.'s [62] study that investigates the young ecological market segment. Researchers' findings explain that these people are constantly taking challenging actions, are always trying to improve themselves, and have pro-ecological behaviour. Although young people with low incomes have significantly lower buying intentions than other age and income

segments, being involved in ecological volunteering could encourage young segments to become more environmentally aware and increase buying intentions of products with recycled content as they become more mature and financial independent.

Comparing volunteers with general public, researchers noticed that volunteers' dimensions do not include affordable price, and that the dimension of low risk is transformed into benefits. The low risk dimension transforms into benefits dimension by removing the specific items associated with risk. This finding adds more information to Essoussi and Linton's [22] study, revealing that volunteers do perceive products with recycled content differently compared to general public and, specifically, to non-volunteers.

This is very interesting finding, as it explains that volunteers not only perceive the risks of using these products, they also perceive the benefits. Also, for them the price is not a factor in decision making. Previous literature presents price as a factor of buying decision of remanufactured products [11,18–20]. The assumption is that volunteers perceive environmental benefits as their own benefits, as volunteering is a civic and pro-social behavior [39]. This is also a possible explanation for the reason that price is not a determinant of their buying decisions. For volunteers, social values and uniqueness are the most important dimensions in buying intentions; both are also important for the general public. Consistent with the assumption presented above is the fact that, although promotions is a common dimension with the general public dimensions, for volunteers it is not an important dimension in buying intension, as opposed to general public and non-volunteers. On the other hand, non-volunteer dimensions include low risk, as identified for the general public. This is in line with Subramanian and Subramanyam [25] findings on buying decision determinants (brand reputation, warranty assurance, identity of seller) and Essoussi and Linton [22] findings that reveal perceived risk of using products with recycled content as an influence of willingness to pay for the products. Also, this is in line with Wang et al.'s [21] findings, which indicate that perceived risk negatively influences purchasing intentions of remanufactured products. Consistent with previous research, risk could be associated with perceived lower quality level [22–24].

Social values dimension is not identified, but, instead, credibility support is an identified dimension. This is an indication that the messages to encourage non-volunteers to buy products with recycled content should rely mostly on uniqueness, price advantages, and use of VIPs (Very Important Persons) in order to generate credibility support for these products, derived from important dimensions identified in buying intentions presented in objective 6.

Considering that buying products with recycled content and buying green products have the similar purpose of achieving sustainable development [16], our results are in line with Joshi and Rahman's [29] study, as factors of buying intentions of green products are found to be subjective norms and environmental knowledge and concerns, while our research found that social values is one important dimension of buying intentions of products with recycled content for the general public and volunteers. Based on the similar sustainable development of buying intentions of green products and buying intentions of products with recycled content, our findings are also in line with Maichum, Parichatnon and Peng [27] study revealing the relationship between environmental consciousness and environmental attitudes with intention to purchase green products. Also, our findings are in line with Anvar and Venter [31] and Tan et al. [33], who relate buying behaviour with environmental awareness/concern and social influence. In conclusion, messages encouraging population to buy products with recycled content should consider the entire population, on one hand, and the two segments approached in this paper, on the other hand (volunteers and non-volunteers). In line with Tan et al.'s [33] findings, government and industry role is related to behaviour of young consumers of green products, alongside social influence and environmental concern. Thus, we expect this relation to also be valid for behaviour of young consumers of products with recycled content.

Social policies addressing general population could encourage individuals to buy products with recycled content by enforcing the social values dimension. Messages could underline the fact that

people buying these products are models in society, thus contributing to nature's salvation and the understanding that this behavior is something to be proud of.

Campaigns of information and education using recommendations from specialists could also be useful. Also, messages addressing the entire population could be organized as marketing campaigns similar to commercial campaigns, as promotion and affordable price are important dimensions of buying intention. This is in line with Yoreh's [63] findings, as monetary incentives can support desired consumers' behavior.

Social policies addressing volunteers could reinforce social values and uniqueness. Messages directed to volunteers could simply present the benefits of the environment by using products with recycled content. Social policies addressing non-volunteers could focus on commercial types of messages, highlighting promotional advantages and the unique features of these products, and using VIPs to support credibility. Items associated with social implication, such as "I can have a contribution to nature's salvation", have been removed in factor analyses.

Uniqueness is an important dimension for the general public and for the two segments addressed in this paper. This is partly in line with O'Riordan and Turner's [64] findings that perceived quality is associated with recycling attitudes. This is an important clue for state authority in charge of social policies meant to encourage environmental protection behavior. Messages directed to any segment of population could underline the novelty and uniqueness of these products, which could be special gifts.

5. Conclusions

This research reveals the dimensions of buying intentions of products with recycled content. These dimensions are analyzed for three types of public: the general public, individuals involved in volunteering activities (labeled as volunteers in this research), and individuals who have never been involved in volunteering activities (labeled as non-volunteers in this research). Also, important dimensions are revealed.

The dimensions of buying intentions of products with recycled content of the general public are product features, social values, promotions, low risk, uniqueness, and affordable price. The dimensions of volunteers' buying intentions are product features, social values, uniqueness, benefits, and promotions. The dimensions of non-volunteers' buying intentions are products features, social values, uniqueness, benefits, and promotions.

Specifically, important dimensions in buying intensions for volunteers are social values and uniqueness and for non-volunteers are uniqueness, credibility support, and promotions. As a consequence, social messages addressing volunteers should focus on the environmental benefits, while messages addressing non-volunteers should be more commercial, specifying individuals' gains/benefits.

Uniqueness is an important dimension for the general public, volunteers, and non-volunteers. In conclusion, promoting uniqueness of products with recycled content is a success key factor of social campaigns encouraging products with recycled content acquisition.

The implications of this research are both methodological and practical.

Methodologically, this paper proposes a method with which to identify dimensions of buying decisions of products with recycled content for three types of target segments: the general public, volunteers, and non-volunteers. Our findings indicate that resulting dimensions are both mutual and specific for each targeted group.

Practically, the study offers social policy recommendations for campaigns and programs to encourage products with recycled content acquisition. Mass messages, addressing the general public, could highlight either the personal inclinations of individuals, such as to be part of the nature salvation process, to be a good example for other people to make others proud of them, and/or to make them feel good about themselves; or, they could focus on the specificity of these products (uniqueness) as being new, a special present/gift, and/or something unique.

Mass commercial messages, emitted by companies, could communicate through promotions (such as Internet promotions or presentations at fairs) and messages on affordable prices in order to encourage the general public to buy products with recycled content.

As volunteering is a civic and pro-social behavior [39], this target does not need an extensive communication based on social values. It is recommended that messages about social values aspects be included, such being part of the nature salvation process, being a good example for other people, making others proud of them, and/or to making individuals feel good about themselves. Messages targeting volunteers should highlight the uniqueness (being new, special present/gift, and/or something unique).

Messages targeting non-volunteers should be more commercial. As credibility support, uniqueness, and promotions are the important dimensions of the buying intentions of non-volunteers, messages could use VIP's image to promote these products and could express the idea of being something unique, something new, or a special present/gift, and could promote these products as usual commercial products.

Taking into consideration the demographic segments that register lower buying intentions, as presented in objective 2, messages promoting products targeting young people with low incomes should focus on affordable price aspects, such as smaller prices than usual products and/or having discounts.

The situation of young people with low incomes forces them to buy the cheapest products. In this context, young individuals could be convinced to consider environmental issues by being offered incentives for buying products with recycled content. Information and educational campaigns combined with small prices and special offers for products with recycled content could be organized in universities and university campuses to explain precise methods to involve this particular segment in the acquisition of products with recycled content.

In a larger context, however, volunteers over 25 of age with incomes of over 1500 Ron are more predisposed to integrate these products into their lifestyle, as presented in the discussion section, without a special need for messages presenting their interests. In the long term, a policy to encourage people to volunteer might have indirect positive results on increasing the buying intentions of products with recycled content.

5.1. Limitations of Research

One limitation of this research is the relatively small number of non-volunteer respondents. Compared to volunteers (over 300 respondents), there are only 157 non-volunteer respondents. This is not a severe limitation though, as the subject to item ratio is over 5:1, which is accepted in the literature. Yet, a higher ratio would probably reveal a clearer factor structure for this investigated group.

Another limitation of the research is related to the fact that the study refers generically to products with recycled content and is not focused on a specific type of product. Consumer behavior can be very different, depending on the category of products with recycled content. The fact that we did not investigate the type of action the volunteers were involved in (for example, the environmental, social, cultural, or political field) or the frequency of this activity represents a weakness of the research. Also, the snowball technique used in the recruitment process might be a reason for the large percentage of volunteers (66%) compared to the percentage of non-volunteers (34%), and this is another weakness of the study.

Another limitation of the research concerns the sample for the in-depth interviews. We investigated only the group of young people (18–35 years) for the qualitative research. It was exploratory research to understand the motivations and the behavior of the people who heard about/bought products with recycled content. A new qualitative research must be conducted, with participants from all age categories.

5.2. Future Research

A future research direction is to investigate particular types of messages that are efficient for the general public, volunteers, and non-volunteers in qualitative and quantitative research.

Another future research direction is to conduct new research to investigate the buying behavior of specific product with recycled content. Also, future research should focus on an in-depth investigation of volunteering behavior, such as the types of volunteering activities that people are involved in and the volunteers' motivations for being involved in this kind of actions.

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