

Joint Conference: 14th ISMC and 8th ICLTIBM-2018

**THE CORRELATIONS BETWEEN ENVIRONMENTALIST
CONSUMER BEHAVIOR AND PERSONAL VALUES**

F. Burcu Candan (a), Bilsen Bilgili (b) *, Tayfun Güven (c)
* Corresponding author

(a) Kocaeli University, 41380, Kocaeli, Turkey

(b) Kocaeli University, 41380, Kocaeli, Turkey

(c) Atatürk University, 41380, Erzurum, Turkey

Abstract

Today, facing the danger of depletion of natural resources and pollution-related environmental problems as a result of the rapid population growth, it has become necessary to seek solutions for the future of mankind. The purpose of transferring natural resources to future generations before their complete consumption has introduced the concept of “environmental sustainability”. One of the important issues addressed within the context of environmental sustainability is the environmentalist approach in consumer behavior. Personal values, one of the many other factors affecting consumer behavior, involve dimensions concerning the sustainability of environment and natural life. Within this context, this research aims to determine the correlations between consumers' personal values and environmentalist consumer behaviors as well as to develop strategy recommendations for environmental sustainability in parallel with the results obtained. For this purpose, a survey was conducted on 400 members of TEMA, an environmentalist non-governmental organization. A factor analysis was applied to the data obtained from the scales in the research, and the correlations between the variables were tested by means of canonical correlation analysis. According to the results of the research, it was determined that there are correlations between personal values and environmentalist consumption dimensions.

© 2019 Published by Future Academy www.FutureAcademy.org.UK

Keywords: Environmentalist consumer, environmentalist purchasing behavior, environmentalist marketing, personal values.

1. Introduction

Struggles for development starting especially after the Second World War have raised many countries up to the status of economically developed countries, while leaving humanity with threatening environmental problems. These problems, which were initially seen as inevitable for the sake of development, have gone beyond being regional and reached a global dimension. Since the 1970s, searches for a balance between development and the natural environment have gained momentum (Tıraş, 2012). Consumers have become more aware of the environment and environmental problems as the subject of environment has become more important to the public. Environmental responsibility awareness has started to be reflected in consumption habits as a result of which the concept of environmentalist / green consumer has emerged. An environmentalist consumer “is an individual who is sensitive to the environment and acts with environmental consciousness at every stage of his / her purchasing behavior, uses his/her purchasing power and consumer rights to enable sustainable environmental conditions, and considers himself/herself responsible to the habitat of the society and future generations (Nakıboğlu, 2003). Now, consumers prefer environment-friendly products in the purchasing process (Aracıoğlu & Tatlıdil, 2009).

Consumers' purchasing behaviors are influenced by many social, cultural, personal and psychological factors (Yükselen, 2003). Personal values are also one of the important variables affecting consumers' purchasing behaviors. They play an important role as the main influential factor on consumers' choice of brand or product (Rokeach, 1973; Schwartz, 1992). On the other hand, it is also a multi-dimensional variable that is influenced by consumers' characteristics, and cultural and social factors. Investigating the correlations, especially between personal values and the environmentalist consumer behavior and identifying these correlations is very important as the latter involves dimensions regarding environment and nature. With the increased environmental awareness, many studies have been carried out to examine the effect of personal values on environmentalist purchasing behaviors, and they found that there is a correlation between environmentalist purchasing behavior and personal values (Schultz & Zelezny, 1999; Stern, Dietz, Abel, Guagnano, & Kalof, 1999; Thøgersen & Grunert-Beckmann, 1997). In this research, it was aimed to determine the correlations between consumers' environmentalist consumption behaviors and personal values and to develop strategy recommendations for environmental sustainability. For this purpose, a survey was conducted on the members and volunteers of TEMA, an environmentalist NGO operating in Istanbul and Kocaeli. Since environmentalist consumption behavior is a new form of behavior in many societies and in Turkey, it was considered appropriate to select this homogeneous group, who were known to exhibit environmentalist consumption behavior, for this research. The fact that this research allows for clearly demonstrating the correlation between consumers' personal values and environmentalist consumption behaviors will also enable this research to have a more original quality than many studies done in this regard.

Significant strategy recommendations that will contribute to environmental sustainability have been presented in accordance with the correlations between consumer's personal values and environmentalist consumer behavior obtained from the research.

2. Literature Review and Theoretical Framework

2.1. Environmentalist Consumer Behavior

There is an increasing awareness that environmental problems are caused especially by humans' actions (Schultz, Gouveia, Cameron, Tankha, Schmutz & Franek, 2005). In this regard, to what extent the individual feels responsible for these environmental problems is very important. Academic studies, especially in the field of environment and psychology, have found that the more people are aware of the harmful effects of human actions on the environment and feel responsible for these effects, the more they exhibit environment-friendly actions (Guagnano, Dietz, & Stern, 1994; Menzel & Bögeholz, 2010; Steg, Dreijerink, & Abrahamse, 2005).

Environmental behavior is defined as "the deliberate actions people take to reduce their negative actions that affect the natural world (E.g. reducing the use of resources and energy, reducing waste production, and promoting the use of non-toxic substances) (Kollmus & Agyeman, 2002). In other words, this kind of behavior is the least harmful to the environment inasmuch that it benefits the environment (Steg & Vlek, 2009), and leads to a positive change in the environment (Stern, 2000). While some behaviors directly affect the environment, some others have an indirect influence. For example, recycling domestic waste or cleaning forests is a behavior that directly affects the environment (Rosa & Dietz, 1998). The behaviors of individuals who choose products that are easy to consume and environment-friendly in the purchasing process are defined as environmentalist consumer behavior (Hussein & Cankül, 2010).

As a result of environmental damage caused by the consumed products, it has been seen that consumers have changed their product preferences over time in order to protect the environment. This change in the purchasing behaviors of consumers continued as an expanding movement that emerged as "awakening" in the 1960s, "take action" in the 1970s, "accountable" in the 1980s, and "power in the marketplace" in the 1990s (Kalafatis et al., 1999, p.442).

Environmentalists have a tendency to avoid products with properties that are dangerous for the health of people and other living creatures; dangerous to use or have serious hazards to the environment when disposed; consume excessive amounts of resources; require too much packaging and cause unnecessary waste because of having too many features; are made of materials that are extracted from hazardous areas and that cause animals to be tortured, or go against other countries (Keleş, 2007).

Environmentalists who display such sensitivities in their purchasing behaviors have some prominent characteristics. These consumers have very strong environmental values and are experienced in purchasing environment-friendly products. They are also willing to spend the necessary amount for such products, and they know the rules for protecting the environment (Young, Hwang, McDonald, & Oates, 2010).

With today's rapidly increasing environmental awareness, the main factor that drive businesses to develop environment-friendly strategies is thought to be consumers (Gilg, Barr, & Ford, 2005). In order to respond to this change in consumer markets, businesses are now giving primary importance to environmentalist marketing and planning their marketing policies accordingly. As the attention given to the topic increases, the studies carried on it increases as well.

In order to minimize the negative effects of external factors in the natural environment, it is necessary that businesses adapt their production mechanisms, and waste and product management processes in a way that is compatible with the balance of nature (Öztürk, 2003). Environmentalist businesses are able to meet the needs of environmentally-conscious consumers by producing and marketing

products for this purpose, and thus achieve an advantage in competition. Environmentally-conscious businesses regard themselves as individuals who are sensitive to the environment and are aware that they are fulfilling a social duty. In this regard, businesses follow two different strategies: they use their environmental sensitivity as a marketing tool, or even if they don't, they continue to act with environmental sensitivity because they feel responsible (Erbaşlar, 2008). Thanks to these activities, by producing environment – friendly products that are in accordance with the environmentalist consumer behavior characteristics described above, businesses are able to exist in a different position in the market by both meeting the needs of consumers and contributing to the notion of sustainable environmentalism.

According to the results of a study that the European Commission carried out in 2012 on consumers' purchasing behaviors of environment-friendly products, it was found that 26% of the European consumers often purchased environment-friendly products, and 55% of these consumers thought that the environment-friendly products had a quality that are equivalent to their prices. It was also seen that 66% of the European consumers thought that they gave less harm to the environment when they purchased environment-friendly products (European Commission, 2013). From this point of view, it is important to investigate the factors affecting environmentalist consumer behavior within the context of environmentalist consumption which is becoming increasingly widespread, and to develop strategies for sustainable environment in line with the findings obtained.

This research was conducted on a homogeneous group of environmental consumers, and the results obtained indicated the relationship between consumers' personal values and their behaviors. Strategies to be developed with a focus on a homogeneous market segment are thought to contribute more to a sustainable environment

2.2. Personal Values

The concept of value, which plays an important role in the behavior of the individual, has an effect on behaviors of consumers just as it has on every kind of behavior in life. That is because values are permanent personal goals that motivate consumers to make choices at an emotional level (De Heer & Van Vliet, 2001, p.3). Values are formed during the development process of individuals. In other words, individuals are not born with their values (Evans, Jamal & Foxall, 2007). These values are often described as thoughts, beliefs and principles that one has. Personal values have become an important concept in marketing as well as in other social sciences. The fact that values are an important concept which provides information to researchers at an individual and group level can be counted as one of the reasons of this interest (Zavolloni, 1980). Personal values have begun to be used in different areas of social sciences after psychologists indicated that human behavior rests on values, beliefs, and emotions and that these elements play a leading role (Grebitus, Steine,r & Veeman, 2012). The concept of personal values, which is one of the psychological factors affecting consumer behavior, has been subject to many researches in the field of marketing. There are studies showing that personal values are an important factor affecting consumer behavior and that they are used in market segmentation (Odabaşı & Barış, 2002; Candan & Yüksel, 2008; Uzkurt, 2007). People use these values as a means to achieve certain goals (prestige, enjoying life, acceptance by society, etc.). In this respect, values are both determinants and consequences of behavior (Şengüder, 2000).

Personal values develop in the process of socialization (Kahle, 1985) although culture and social rules have an influence on their formation (Rokeach, 1973). Personal values are elements that indicate what is important in people's lives. Each person has different and numerous values (Bardi & Schwartz, 2003). Clawson & Vinson (1978) argued that the reason people display different behavior patterns although they live in the same society and have the same cultural characteristics is that they have different personal values (Erciş, Yapraklı, Can & Yılmaz, 2013). Personal values reveal personal tendencies and affect people's choices (Schwartz, 1994).

Personal values consist of three elements: “belief, effect and behavior” (Rokeach, 1973). The behavioral dimension of personal values emerges as “the behavior when motivated”; the belief dimension emerges as “the thought that people have about the situation for which the choice is made”; the effect dimension emerges as “the effect of thought on choice” (Prince-Gibson & Schwartz, 1998).

Value theorists have stated that values are constructed according to the perspectives of those who evaluate beings around them, and they investigated how people's value priorities can be measured (Rokeach, 1973; Schwartz, 1992). Studies based on the idea that there are basic personal values and that they are measurable have continued from the 1930s to the present day (Devrani, 2010). When looked at the literature on values, it can be seen that there are many studies including Rokeach Value System (RVS), Values and Lifestyle System (VALS), Kahle's List of Values (LOV), Hofstede's Cultural Value Theory, Schwartz's Values List (SVS) and Stern's Value Based Theory (VBT) (Karalar & Kiracı, 2010). Among these scales, Schwartz's list of values is one of the most widely used scales by marketers (Ünal & Erciş, 2006). In this study, Schwartz's list of values was used.

2.2.1. Schwartz's List of Values

Schwartz's list of personal values is grouped into ten value types: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security (Schwartz & Bardi, 2001; Kuşdil & Kağıtçıbaşı, 2000). According to Schwartz 's list of values, consumers' values are examined in two main dimensions. These dimensions are treated as self-transcendence – self-enhancement and openness to change – conservation (Schwartz, 1992). Self-transcendence in the first dimension consists values of universalism and benevolence denoting to individuals' abandonment of selfish aims for the good of all human beings, whether close or distant, as well as for the nature. The self-enhancement involves values of power, achievement and hedonism which enable individuals to serve their own interests even if it turns out be to the detriment of others (Karalar & Kiracı, 2010). Openness to change in the second dimension consists values of self-direction, stimulation and hedonism which enable individuals to pursue their emotional and intellectual interests in a way that is not predictable beforehand. On the other hand, conservation involves values of tradition, conformity and security that enable individuals to maintain continuity and certainty in their relationships with those who are they close to, institutions and customs. In this study, too, the values in self-transcendence – self-enhancement dimensions of Schwartz's list of values were used to determine consumers' personal values. As the environmentalist consumer behavior was examined in the implementation part of the research, values of “power, achievement, hedonism, universalism and benevolence” in Schwartz's self-transcendence – self-enhancement dimensions were considered appropriate to be used. That is because Schwartz's value scale has been used in most of the

studies which have investigated the correlation between personal values and environmentalist purchasing behavior (Yıldırım, 2013).

Schwartz's Value Scale (SVS) is applicable at both socio-cultural and individual levels. Schwartz's (1992) list of values defines both national-cultural values and personal values separately, but they are also interrelated. According to Schwartz (1994), value priorities constitute the basis of a society – even the most central point in that society's culture; they indicate individuals' basic aims accounting for every aspect of their behavior (as cited in Candan & Yüksel, 2008 ; Yıldırım, 2013). For this reason, it has been suggested that personal values help to carry out a comprehensive evaluation of the individual in explaining behaviors. In the light of the literature, we argue that there is a correlation between personal values and environmentalist consumer behaviors and propose the following hypothesis:

H₁: There is a correlation between personal values and environmentalist consumer behaviors.

3. Research Method

3.1. Sample and Data Collection

The universe of the study consists of TEMA Foundation – an environmentalist NGO in Kocaeli and İstanbul provinces – members or volunteers. The questionnaire of the research was applied based on voluntariness by convenience sampling method to 400 TEMA members or volunteers in Kocaeli and İstanbul. Some of the questionnaires were implemented online and some of them were implemented face to face in March, 2018. Eight unsuitable questionnaires were eliminated, and 392 were included in the analysis. A t-test was applied on the variables of personal values scale and environmentalist consumption behaviors scale, and it was determined that all of the variables were different from each other at $p < 0.05$ significance level.

3.2. Analyses

A-30-item scale (Straughan & Roberts, 1999) was used to measure environmentalist consumer behaviors and a-27-item scale (Schwartz, 1992) was used to measure personal values. In addition, there were questions for participants' purchasing behaviors and demographic characteristics. Questions for environmentalist purchasing behaviors and personal values were asked by a 5-point Likert-type scale.

The research model prepared for the purpose of the research is shown in Figure 1.

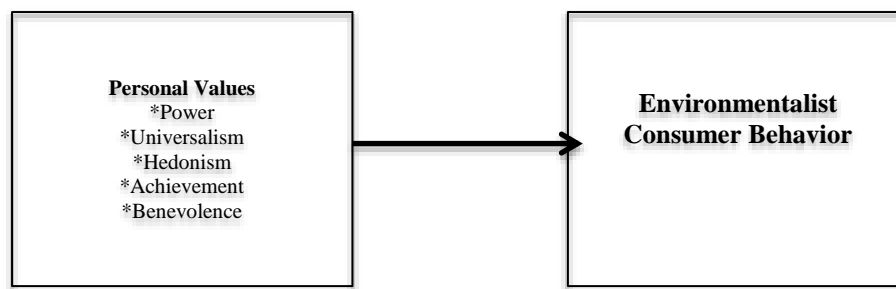


Figure 01. Research Model

4. Findings

392 people participated in the survey. Of these, 56, 4% were women, 52, 5% were between 28-47 age group, 72, 4% were university graduates and 72, 7% earned an average of 4000TL and above monthly. 76, 8% of the participants were TEMA members, 23, 2% were volunteer workers of TEMA, and 6, 4% were GREENPEACE members as well. The level of sensitivity shown by participants for whether the purchased products were environment-friendly was investigated; it was found that 10, 5% rarely, 31, 4% sometimes, 39, 5% often, and 18, 6% always paid attention to that fact.

4.1. Test of the Scales Used in the Research and the

4.1.1. Determination of the Factors

An independence test was used for the 27 expressions under the dimensions of power, universalism, hedonism, achievement and benevolence of the personal values scale; it was determined that the expressions showed differences from each other at $p < 0.05$ significance level. A confirmatory factor analysis was conducted to test the suitability of the variables under the dimensions of personal values scale for the factors. Variables with a negative variance, exceeding the standard coefficients (very close to 1.0), or with very large standard error were checked (Hair, Andersen, Tatham & Black, 1998). 1 variable from the power dimension, 3 variables from the universalism dimension, and 3 variables from the benevolence dimension were eliminated. After modifications, fit values were calculated and given in Table 1.

Table 01. Model Fit Values of Personal Values Scale

Variables	Standard Solution	R ²	Standard Error	t-Value	Fit Index
POWER Cronbach's Alfa:0,72					
To be a respected person in the society	0,62	0,39	0,68	11,82	Kikare/Sd=2,78 RMSA = 0,000 GFI = 1,00 CFI = 0,99 AGFI = 0,99 RMSR = 0,013
To be wealthy	0,58	0,34	0,54	11,90	
My image in the society	0,79	0,62	0,31	15,13	
To have social power (the power to manage and influence others)	0,62	0,39	0,64	11,80	
To have a position		Eliminated			
UNIVERSALISM Cronbach's Alfa:0,69					
To protect the environment	0,60	0,36	0,30	12,88	Kikare/Sd=1,13 RMSA = 0,038 GFI = 1,00 CFI = 1,00 AGFI = 0,98 RMSR = 0,029
To live in the nature with harmony	0,72	0,52	0,22	15,87	
To have peace in the world		Eliminated			
To have a peaceful world		Eliminated			
To have justice for everyone in the society	0,48	0,23	0,14	10,28	
To live without harming the environment	0,90	0,93	0,41	26,92	
To be open-minded(to be tolerant to different ideas and beliefs)		Eliminated			
HEDONISM Cronbach's Alfa:0,67					

To have fun things in life (food, sex, music etc.)	0,75	0,56	0,30	15,79	Kikare/Sd=4,38 RMSEA=0.079 GFI = 0,97 CFI = 0,96 AGFI = 0,85 RMSR = 0,015
To live life with pleasure	0,84	0,71	0,10	18,17	
To have an enjoyable life	0,73	0,53	0,21	15,27	
To indulge in my desires (to do things that please me)	0,43	0,18	0,16	8,17	
ACHIEVEMENT Cronbach's Alfa:0,74					
To be the best in whatever I do (work, sport, school etc.)	0,90	0,80	0,13	21,52	Kikare/Sd=3,26 RMSEA=0.076 GFI = 0,99 CFI = 0,99 AGFI = 0,96 RMSR = 0,009
To be influential in work life	0,87	0,75	0,14	20,50	
To be successful	0,42	0,18	0,36	8,37	
To be ambitious (to be hardworking and eager)	0,79	0,62	0,25	17,97	
BENEVOLENCE Cronbach's Alfa:0,71					
To return the favor (to avoid being indebted to people)	0,75	0,56	0,30	15,79	Kikare/Sd=4,22 RMSEA=0.047 GFI = 0,97 CFI = 0,96 AGFI = 0,85 RMSR = 0,009
To be helpful (to work for the good of others)	0,84	0,71	0,10	18,17	
To form true friendships	0,73	0,53	0,21	15,27	
To live a responsible life		Eliminated			
To be sensitive to social problems		Eliminated			
To be moderate		Eliminated			
To be honest	0,43	0,18	0,16	8,17	

According to the analysis results, 7 variables from the 27-variable scale were eliminated and the personal values scale was verified as 5 dimensions including power, universalism, achievement, hedonism and benevolence. In the study, a factor analysis was performed on the 30-variable environmentalist consumer behaviour scale. First of all, the Cronbach Alpha values of the scale variables were checked, and three variables from the scales were eliminated. These were "I buy high efficiency bulbs for energy saving", "I buy the lowest priced product regardless of its influence on the society in general", and "I drive as little as possible to reduce our external dependency on petroleum products". For the presence of correlations among the variables, The Bartlett's Test was used and the value of 11307.267 was obtained. This value is highly significant. It provides the statistical probability that the correlation matrix has significant correlations among at least some of the variables. Another measure to quantify the degree of inter-correlations among the variables and the appropriateness of factor analysis is the KMO. KMO is a measure of Sampling Adequacy (Hair, Andersen, Tatham, Bleck; Multivariate Data Analysis Fifth Edition, 1998). As can be seen in the table, the value is very high (0.830). Therefore, the research can be regarded as highly valid.

Table 02. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,830
Bartlett's Test of Sphericity	Approx. Chi-Square	11307,267
	df	351
	Sig.	,000

Table 03. Environmentalist Consumer Purchasing Behavior

Variables	Factor Loading	Egien Value	Variance %
Factor 1: Avoiding Harmful Products for The Environment		4,714	17,459
17. I do not buy products in aerosol containers..	0,763		
14. I have convinced members of my family or friends not to buy some products which are harmful to the environment..	0,747		
13. I use a low-phosphate detergent (or soap) form y laundry.	0,732		
15. I have replaced light bulbs in my home with those of smaller wattage so that I will conserve on the electricity I use.	0,665		
Factor 2: Recyclable Product Awareness		4,416	16,355
22. I buy Kleenex made from recycled paper.	0,937		
23. I buy paper towels made from recycled paper.	0,937		
21. I buy toilet paper made from recycled paper.	0,908		
24. I will not buy a product if the company that sells it is ecologically irresponsible.	0,612		
26. I try only to buy products that can be recycled.	0,529		
Factor 3: Tendency to Save Energy and Resources		3,885	14,389
7. I have tried very hard to reduce the amount of electricity I use.	0,838		
1. To save energy, I drive my car as little as possible..	0,764		
2. I normally make a conscious effort to limit my use of products that are made of or use scarce resources.	0,635		
3. I try to buy energy efficient household appliances.	0,585		
4. I always try to use electric appliances (e.g. dishwasher, washer and dryer) before a.m. and after 10 p.m.	0,549		
8. If I understand the potential damage to the environment that some products can cause, I do not purchase these products.	0,508		
Factor 4: Avoiding Packing and Non-Product Wastes		3,419	12,664
6. When there is a choice, I always choose that product which contributes to the least amount of pollution.	0,782		
9. I have switched products for ecological reasons.	0,695		
5. I will not buy products which have excessive packaging.	0,659		
18. Whenever possible, I buy products packaged in reusable containers..	0,515		
Factor 5: The Preference of Environment-Friendly Product		3,383	12,528
12. I have purchased a household appliance because it uses less electricity than other brands..	0,661		
16. I have purchased products because they cause less pollution.	0,628		
20. When I have a choice between two equal products, I always purchase the one which is less harmful to other people and the environment.	0,624		
25. I have purchased light bulbs that were more expensive but saved energy.	0,603		
TOTAL			73.396

Table 3 shows that the factors obtained account for 73,396% of the set of relations, at a high rate. The variables under the factors were named according to their characteristics. According to this, the first factor accounted for 17,459% of the variance by "avoiding harmful products for the environment". It appears that environmentalist consumer behavior is performed by giving priority to the avoidance of environmentally damaging products. The second factor accounted for 16,355% of the variance by "recyclable product awareness".

That denotes to the consumer contribution to prevent the depletion of natural resources by consuming recycled products. The third factor accounts for the 14,389% of the variance by "the tendency

to save energy and resources". This factor represents consumers' saving behavior in energy and natural resources consumption. The fourth factor accounts for the 12, 664% of the variance by "avoiding packing and non-product wastes". This factor refers to avoiding the consumption of materials that are directly wasted such as the packaging used in addition to products. The fifth factor refers to "the preference of environment-friendly products" which accounts for the 12,528% of the variance. Environmentalist consumers show the behavior of choosing environment-friendly products over others.

A confirmatory factor analysis was performed to determine the validity of explanatory factor analysis results. The results showed that model fit values were at an acceptable level and did not require any modification. The summary of the results is shown in Table 4.

Table 04. Model Fit Values of Environmentalist Consumer Purchasing Behavior Scale

Variables	Standard Solution	R ²	Standard Error	t-Value	Fit Index
Avoiding Harmful Products for The Environment Cronbach's Alfa:0,83	0,55	0,31	0,86	10,77	Kikare/Sd=4,57 RMSA=0.078
Recyclable Product Awareness Cronbach's Alfa:0,85	0,72	0,52	0,26	14,96	
Tendency to Save Energy and Resources Cronbach's Alfa:0,82	0,64	0,41	0,52	12,78	GFI = 0,97
Avoiding Packing and Non-Product Wastes Cronbach's Alfa:0,80	0,76	0,57	0,46	15,92	CFI = 0,96
The Preference of Environment-Friendly Product Cronbach's Alfa:0,81	0,70	0,49	0,42	14,46	AGFI = 0,90 RMSR = 0,044

4.2. The Correlations between Personal Values and Environmentalist Consumer Purchasing Behavior Factors

In the research, personal values scale and environmentalist consumer behavior scale were used, and a canonical correlation analysis was performed in order to determine the cross-correlations between the dimensions of these 5-dimensional scales. A canonical correlation analysis was performed to determine the correlations between personal values and the environmentalist consumer purchasing behaviour factors. The results of the analysis are shown in Tables 5 and 6.

Table 05. The Functions Obtained as a Result of the Canonical Correlation Analysis between Personal Values and Environmentalist Consumer Behaviors

Canonic Function	Canonic Correlation Coefficient (Rc)	Canonic Square	Wilk's Lambda	Ki-Kare	df	Significant
1	0,672	0,452	0,288	479,463	25	0,000
2	0,565	0,319	0,526	247,682	16	0,000
3	0,345	0,119	0,773	99,398	9	0,000
4	0,340	0,116	0,877	50,420	4	0,000
5	0,089	0,007	0,992	3,089	1	0,079

When Table 5 is examined, it is seen that there are 4 functions for which the correlation coefficient for personal values and environmentalist consumer purchasing behavior data sets is significant. For these functions the "significance level is $p=0,00$; $p<0,05$ ". Therefore, it can be said that the canonical correlation coefficients between the data sets in these functions are significant. As the table shows, the first function accounts for 45%; the second function accounts for 32%; the third function accounts for 12% and the fourth function accounts for 12% of the total variance. The rate of the total variance accounted for by the functions is fairly high. This result indicates that there are strong correlations between personal values and environmentalist purchasing behaviors, and that these correlations can account for the total variance at a high rate. For the reasons mentioned above, *the H_1 hypothesis was accepted*. In other words, there is a correlation between personal values and environmentalist consumer purchasing behaviors.

The descriptive correlation matrix between the independent variable (personal values) and the dependent variable (environmentalist consumer behavior) is shown in Table 6.

Table 06. Correlation Matrix Between Independent and Dependent Variables Data Sets

	Power	Universalism	Hedonism	Achivement	Benevolence
Factor 1: Avoiding Harmful Products for The Environment	-0,2676	0,2081	-0,2084	0,0822	0,0365
Factor 2: Recyclable Product Awareness	-0,1357	0,2327	0,0120	0,4665	0,3263
Factor 3: Tendency to Save Energy and Resources	-0,4601	0,3926	-0,1390	0,0821	0,4820
Factor 4: Avoiding Packing and Non-Product Wastes	-0,4005	0,3677	-0,1513	0,0003	0,3035
Factor 5: The Preference of Environment-Friendly Product	-0,4234	0,1756	-0,0363	0,0939	0,1511

Variables with a correlation of greater than 0.30 are assumed to have a significant load on the relevant component in the correlations. According to the analysis results, the strongest correlations are between "benevolence value and the tendency to save energy and resources" (0,48)", "achievement value and recyclable product awareness (0,47)", "power value and the tendency to save energy and resources (0,42) ", " power value and avoiding packing and non-product wastes (0,40) ", " universalism value and the tendency to save energy and resources (0,39)", "universalism value and avoiding packing and non-product

wastes (0,37)", "benevolence value and recyclable product awareness (0,33)" and "benevolence value and avoiding packing and non-product wastes (0,30)" data sets. One of the most striking findings in the analysis results is the negative correlation between power and hedonic values, and the environmentalist consumer purchasing behaviors.

5. Conclusion and Discussions

In this study, the correlations between personal values and environmentalist consumer purchasing behaviours were investigated. The research surveys were conducted on TEMA, an environmentalist NGO, members / volunteers. Personal values were grouped into 5 dimensions as power, universalism, hedonism, achievement and benevolence. Besides, five factors were identified for consumer purchasing behaviours: avoiding harmful products for the environment, recyclable product awareness, the tendency to save energy and resources, avoiding packing and non-product wastes, and the preference of environment-friendly products. When the correlations between personal values and consumer purchasing behavior dimensions were examined, strong correlations were observed. Among these correlations, it was determined that there was a negative correlation between power and hedonic values, and the environmentalist consumer purchasing behaviors. In other words, it was found that individuals with high power and hedonistic personal values exhibited less environmentalist purchasing behaviors. On the other hand, individuals with universalism, achievement, and benevolence personal values had high levels of environmentalist consumer behaviors. In this respect, it was determined that personal values, which are generally influential on consumer purchasing behavior, also serve as important factors in the environmentalist consumer purchasing behavior (Schultz & Zelezny, 1999; Stern et al., 1999; Thøgersen & Grunert-Beckmann, 1997). From this perspective, it can be said that the institutions and organizations that develop and implement sustainable environmental strategies need to take into account personal values, especially in the promotional activities of marketing practitioners. It is suggested that researchers who might work on environmentalist consumption and sustainable environment issues, explore the correlation between personal values, and environmentalist attitudes and behaviours by carrying out such studies on different research universes. In addition, investigating whether consumers are homogeneous groups in terms of their environmentalist consumer behaviors might provide guidance to the marketing practitioners so that they can develop effective positioning strategies. Besides, it is thought that more generalizable results can be obtained by field studies that are carried out on larger consumer populations with different characteristics.

References

- Aracıoğlu, B. & Tatlıdil, R. (2009). Tüketicilerin satın alma davranışında çevre bilincinin etkileri. *Ege Akademik Bakış*, 9(2):435-461.
- Bardi, A. & Schwartz, S.H. (2003). Values and behavior: strength and structure of relations". *Personality and Social Psychology Bulletin*, 29(10), 1207-1220.
- Candan, F.B. & Yüksel, C. (2008). Tüketicilerin kurumsal sosyal sorumlulukla ilgili tutumları ile kişisel değerleri arasındaki ilişkinin belirlenmesine yönelik bir araştırma". *13. Ulusal Pazarlama Kongresi. Sürdürülebilirlik ve Pazarlama, 30 Ekim-1 Kasım 2008*, Adana, 620-635.
- Clawson, M.P. & Vinson, D.E.. (1978), Human values: an historical and interdisciplinary analysis, In H.K. Hunt (Ed.), *Advances In Consumer Research*, 5, 396-402.
- De Heer, J. & Vliet, V. H. (2001). A means-end chain approach to next generation TV, *A Consumer Research Pilot Study*.

- Devrani, T.K. (2010). Kişisel değerlerin kuramsal yapısı ve pazarlamadaki uygulamalar. *Eskişehir Osmangazi Üniversitesi İİBF Dergisi*, Nisan, 5(1), 49-70.
- Erbaşlar, G. (2008). Yeşil pazarlama. *Paradoks Ekonomi, Politika ve Sosyoloji Dergisi (e-dergi)*, 1, 1-12.
- Erciş, A., Yapraklı, Ş., Can, P. & Yılmaz, M.K. (2013). Kişisel değerler ile marka değeri arasındaki ilişkiler. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 27(2), 21-41.
- European Commission (2013). Attitudes of europeans towards building the single market for green products. *Flash Eurobarometer 367. Report*, http://ec.europa.eu/public_opinion/flash/fl_367_en.pdf, 13/04/2018.
- Evans, M., Jamal, A. & Foxall, G. (2007). *Consumer behavior*, England, John Wiley & Sons, Ltd.
- Gilg, A., Barr, S. & Ford, N., (2005), *Green consumption or sustainable lifestyles? Identifying the sustainable consumer. Futures*, 37, 481-504.
- Grebitus, C., Steiner, B. & Veeman, M. (2012). Personal values and decision making: evidence from environmental footprint labelling in Canada. *American Journal of Agricultural Economics*, 95(2), 397-403.
- Guagnano, G. A., Dietz, T. & Stern, P. C. (1994). "Willingness to Pay for Public Goods: A Test of Contribution Model", *Psychological Science*, 5 (6), 411-415.
- Hair, J.F., Andersen, R.E., Tatham, R.L. & Black, W.C. (1998). *Multivariate Data Analysis*. 5th ed., NJ, Prentice-Hall, Englewood Cliffs.
- Hussein, A.T., Cankül, D. (2010). Üniversite öğrencilerinin yeşil pazarlama faaliyetleri kapsamında çevreye ilişkin davranışlarını belirlemeye yönelik bir araştırma. *Ticaret Ve Turizm Eğitim Fakültesi Dergisi*, 1, 50-67.
- Kahle, L.R. (1985). Social values in the eighties: A Special Issue, *Psychology&Marketing*, Winter, 2,4, <https://doi.org/10.1002/mar.4220020403>, 05.05.2018.
- Kalafatis, S. P., Pollard, M., East, R., Markos, R. & Tsogas, H. (1999). Green marketing and ajzen's theory of planned behaviour: a cross-market examination, *Journal of Consumer Marketing*, 16(5), 441-460.
- Karalar, R. & Kiracı, H., (2010). Bireysel değerlerin sürdürülebilir tüketim davranışı üzerindeki etkisini belirlemeye yönelik öğretmenler üzerinde bir araştırma. *İşletme Araştırmaları Dergisi*, 2(2):79-106.
- Keleş, C. (2007). *Yeşil pazarlama tüketicilerin yeşil ürünleri tüketme davranışları ve yeşil ürünlerin tüketiminde kültürün etkisi ile ilgili bir uygulama* (Yüksek Lisans Tezi). Çukurova Üniversitesi SBE İşletme Anabilim Dalı, Adana.
- Kollmuss, A., & Agyeman J. (2002). Mind the gap: why do people act environmentally and what are the barriers to proenvironmental behaviour? *Environmental Education Research*, 8(3), 239-260.
- Kuşdil, E. M., & Kağıtçıbaşı, Ç. (2000). Türk öğretmenlerin değer yönelimleri ve Schwartz Değer Kuramı. *Türk Psikoloji Dergisi*, 45, 59-76.
- Menzel, S., & Bögeholz, S. (2010). Values, beliefs and norms that foster Chilean and German pupils' commitment to protect biodiversity. *International Journal of Environmental ve Science Education*, 5 (1), 31-49.
- Nakiboğlu, M.A.B. (2003). *Çevreci pazarlama anlayışı ve tüketicilerin çevreci tutumlarının tüketici davranışları üzerindeki etkisi ile ilgili bir uygulama* (Yüksek Lisans Tezi). Çukurova Üniversitesi, SBE Adana.
- Odabaşı, Y., & Gülfidan B. (2002). *Tüketici Davranışı*. Dördüncü Baskı, İstanbul, Mediacat.
- Öztürk, Y.E. (2003). *Sanayi işletmeleri açısından çevre ve yeşil pazarlama (green marketing)*, (Yüksek Lisans Tezi). Celal Bayar Üniversitesi Manisa, SBE.
- Prince-Gibson, E., & Schwartz, S.H. (1998). Value priorities and gender, *Social Psychology Quarterly*, 61 (1), 49-67.
- Rokeach, M. (1973). *The nature of human values*. New York, The Free Press.
- Rosa, E. A., & Dietz, T. (1998). Climate change and society speculation, construction and scientific investigation. *International Sociology*, 13(4), 421- 455.
- Schultz, P. W., Gouveia, V. V., Cameron, L. D., Tankha, G., Schmuck, P., & Franek, M. (2005). Values and Their Relationship to Environmental concern and conservation behavior. *Journal of Cross-Cultural Psychology*, 36 (4), 457-475.

- Schultz, P. W. & Zeleny, L. (1999). Values as predictors of environmental attitudes:evidence for consistency across 14 countries. *Journal Of Environmental Psychology*, 19, 255-265.
- Schwartz, S. H. (1992). Universals in the content and structure of values: theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.). *Advances In Experimental Social Psychology*, 25, 1- 65, New York: Academic Press.
- Schwartz, S. H. (1994). Are there universal aspects in the content and structure of values? *Journal Of Social Issues*, 50, 19-45.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29, 309-317.
- Steg, L., Dreijerink, L., & Abrahamse, W. (2005), "Factors influencing the acceptability of energy policies: A test of VBN theory", *Journal of Environmental Psychology*, 25, 415-425.
- Stern, P. C. (2000). New environmental theories: toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G.A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: the case of environmentalism. (Ed.Thomas Dietz) *Human Ecology Forum: Essays And Commentary*. Winter, 6, 2.
- Straughan, R. & Roberts, J.A. (1999). Environmental segmentation alternatives: a look at green consumer behavior in the new millennium, *Journal of Consumer Marketing*, 16 (6), 558-575.
- Şengüder, T. (2000), *An examination of personal and cultural values between turkish and america consumers concerning cross-national customer satisfaction judgement* (Doctoral Dissertation) Nova Southeastern University, UMI.
- Thøgersen, J., & Grunert-Beckmann, S. C. (1997). Values and attitude formation towards emerging attitude objects: from recycling to general, waste minimizing behavior. *Advances In Consumer Research*, 24, Eds. Merrie Brucks And Deborah J. Macinnis, Provo, Ut: Association For Consumer Research, Pages: 182-189.
- Tıraş, H. (2012). Sürdürülebilir kalkınma ve çevre: teorik bir inceleme. *Kahramanmaraş Sütçü İmam Üniversitesi İİBF Dergisi*, 2(2):57-73.
- Uzkurt, C. (2007). Tüketicilerin yenilikleri benimseme eğilimleri üzerinde kişisel değerlerin etkisi. *Anadolu Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 7(2), 241-261.
- Ünal, S., & Erciş, A. (2006). Tüketicilerin kişisel değerlerinin satın alma tarzları üzerindeki etkisi. *Ticaret Ve Turizm Eğitim Fakültesi Dergisi*, 1, 23-48.
- Yıldırım, S. (2013). *Tüketicilerin kişisel değerleri ile tüketim değerleri arasındaki ilişkinin incelenmesi: çevre dostu ürün kullanan tüketiciler üzerinde bir araştırma* (Doktora Tezi). Kocaeli Üniversitesi, Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Üretim Yönetimi ve Pazarlama Bilim Dalı, Kocaeli.
- Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: green consumer behaviour when purchasing products. *Sustainable Development*. 18, 20–31.
- Yükselen, C. (2003). *Pazarlama İlkeler Yönetim*, Ankara, Detay Yayıncılık.
- Zavolloni, M. (1980). *Values*, ed. H.C. Triandis ve R.W. Brislin *Handbook of Cross-Cultural Psychology*: 73-120. Boston:Allyn & Bacon.