The impact of between the environmental interest, concern and sensitivity level and on purchasing behavior of environmentally friendly product

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Key Words

Environment, Environmental Interests, Environmental Concern, Environmental Awareness, Green Products, Eco-Friendly Product, Purchasing Behavior.

Abstract

In this study, the impact of relationship between environmental interest, concern and sensitivity level on purchase behavior of consumer was investigated for measure. Generally in this context, the research model was tested consumer behavior using a survey technique in Gaziantep on 1074 consumers at the five biggest shopping center. The analysis results showed that significant relationships between environmental interest, concern and sensitivity level with purchasing behavior of environmentally friendly products. According to the results if consumers' environmental interest, concern and sensitivity levels increased, the rates of eco-friendly product purchase behavior increase accordingly.

1. Introduction

One of the most important issues of today's is environmental problems. Environmental issues are vital problems which concerning the existence of human life due to the existence of a direct nature of the problems. Making people sensitive to the environment, a sustainable economy, business and marketing, as well as to improve environmental management approaches and forms of production is extremely important. Today environmentalism is a comprehensive, scientific, social and political phenomenon has become.

Thus, individuals, societies and states beyond the grip has become universal. Organs of the media to be more eco-concept, increasing awareness of environmental problems, the increase in the activities of pressure groups, strict legal regulations and the effects of environmental disasters on public opinion, the concept of environmentalism is considered among the causes of global perception. Individuals' awareness of environmental issues on the one hand, to receive education, should increase their sensitivity to environmental issues, the other hand, businesses need to increase the sensitivity of the natural environment. Cultural change in the time spent in the communities, allowed them to be more sensitive to environmental issues. Cultural values that change people's attitudes and behaviors contributed to the difference in consumption habits affect the environment.

In this context, the increase in awareness of environmental issues, the activities of pressure groups and the effects of environmental disasters on public opinion, has led the concept of environmentalism to the perception of the global level today. Being more than one on the global agenda of environmental problems and the awareness of people's attitude towards environment has become more questionable. Consumers purchase/consumption surveys conducted on the behavior of consumers can afford to pay more to buy environmentally friendly

products were found to be willing to take. According to another study conducted in the UK, 69% of the population express that environmental pollution and other environmental damages affects the everyday life, so the price can be given more environmentally friendly products. 82% of population stated they saw the environment as a problem with the imminent and inevitable.

General consensus in the literature that consumers use on environmental issues and the sensitivity of the information about the environmental impact of products increases, the rate of assessment as a criterion in purchasing decisions, the environment is that it may increase. Therefore, the first step in environmental protection and policy solutions to environmental problems, the relevant individual interests, concerns and sensitivities should be increasing.

For this, primarily for the protection of society, the environment and nature, to investigate behaviors and environmental values, as well as the comparison of these studies must be performed due diligence. Comparison of the results of studies of social dynamism of the changing and evolving global phenomena, to what extent environmental values can be determined to be affected and how effective the measures taken.

The best starting point for understanding the environmental progress of the study of the environmental consumer behavior. This study has been made in this direction in parallel to study the environmental interests of consumers, environmental concerns and environmental awareness levels and examined the relationship between the buying behavior of environmentally friendly products.

2. Factors Affecting Green Product Purchase Behaviour

For businesses to increase their sales they need to review customer buying behaviour and know what the factors affecting purchasing decisions. Businesses which recognizing the significant and insignificant factors for the customers can make the competitive advantage of this information. Moreover, businesses, combined with environmental awareness and sensitivity to advantageously use the facilities provided by the law (Aytekin and Kaynak, 2005:619-620; Ayyıldız and Genç, 2008:507).

In the literature, many acting on the customer's buying behaviour a lot of factors that affect examined. In this study, the most commonly used in the literature can be seen in Figure 1, these three factors determine the effect of eco-friendly product purchase behaviour.

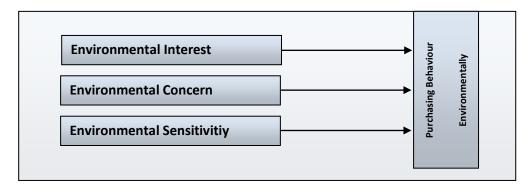


Figure: 2.1. Theoretical Model of the study

2.1. Environmental Interests

Environmental interests, state of the person to be aware of the problems related to the environment, to support efforts to resolve them and/or requests to have the name of the individual to contribute to the level of solutions (Chan and Lau, 2004:274). Crosby and colleagues state that the environmental interest is have an attitude in a strong form to protect the environment (Crosby et al., 1981:20). Society's interest in the environment has increased rapidly over the last thirty years (Schlegelmilch et al., 1996:25).

Environmental interest to reveal the theoretical aspects of the concept, thanks to the researches which took place in the last 30 years. Environmental concerns was investigated by Crosby et al. (1981:19-32), Roberts (1996:217-231); Roberts and Bacon (1997:79-89), Bamberg (2003:190-203), Kim and Choi (2005:592-599), and Albayrak (2008:117-130). However, the most important point of this topic is some studies finding a positive correlation between environmental interest and environmentally friendly products for purchase, while some studies finding a negative correlation that it creates frustration. Measuring the direct impact of environmental interest in many empirical researches on environmental behavior, the relationship between these two variables is low. (Bamberg, 2003).

Studies investigating the relationship between environmental interests and behavior, there is a low correlation of environmental interest, examining environmental influences on behavior should be taken into account in some other variables and indicate situational circumstances (Lee and Holden, 1999:373-392). On the other hand Kim and Choi (2005:592-599), contrary to the Bamberg, say that consumers with high environmental interest would prefer ecofriendly products more than consumers with low environmental interest. In other words, according to Kim and Choi with environmental interests is a positive correlation between the purchasing behavior of environmentally friendly products (2005:592-599).

In this study, the presence of between the environmental interest and the purchasing behavior of environmentally friendly products are tested. Therefore, the first hypothesis of the study;

H1: Environmental interest is a positive correlation between the purchasing behavior of environmentally friendly products.

2.2. Environmental Interest

Environmental concern is a concept that attempting to identify concerns arises of consumers regarding the environmental issues today and in the future (Ay and Ecevit, 2005:246). Environmental concern is called intrinsic awareness which will result from excessive resource use threats and pollute the environment by human (Franzen and Meyer, 2009:220).

In the literature, there is evidence while the environmental concerns of consumers' purchasing environmentally friendly products increases it has the positive effect on behavior. For example, Doughus and Rice (1979), Van Liere and Dunlap (1981:651-676), Roberts (1996:79-89), Roberts and Bacon (1997:79-89), Minton and Rose (1998:37-48), Bacanlı (2000:25), Ay and Ecevit (2005:238-263), and Yeniçeri (2008:1-24) concern that environmentally friendly products

have found a direct effect on purchasing behavior. In this study, environmental concern with the relationship between the purchasing behavior of environmentally friendly products will be tested. Therefore, the second hypothesis of the study;

H2: Environmental anxiety is a positive correlation between the purchasing behavior of environmentally friendly products.

1.3. Environmental Sensitivity

Environmental sensitivity can be defined within the framework of the effects of the environment and on the nature of how it is perceived by the public as proven or not proven possible to identify the problems (Yücel ve Ark., 2003:11). Sensitive environmental awareness is;

- understand the need to use without destroying the environment,
- The individual's environment-related decisions taken by civil society organizations to participate in solving the problems encountered, take initiatives on behalf of the rights of defense and response show.
- understand the individual's social, historical, natural surroundings
- Assessing the importance and indispensability of natural life and natural sources
- In all consuming activities putting cost savings in first plan. (Keleş, 1997:15-18)

Literature provides proof that consumers' environment friendly products purchasing behaviorr are affected by their environment sensitivity. For example; Roberts (1996), Armstrong and Kotler, (2006:138), Yılmaz, Aktaş and Yağızer (2010) state that environmental sensitivity affect purchasing behaviour of environment friendly products. In this study, the relation between environmental concern and purchasing behaviour will be examined. Thus, this study's third hypothesis;

H2: There is a positive correlation between environmental sensitivity and purchasing behaviour of environment friendly products.

2. An Application on Consumers' Purchasing Behaviour of Environment Friendly Products in Gaziantep.

This study was conducted on January and February of 2011. Main population of this study includes all the consumers that visit shopping malls in Gaziantep. Subject of this study is limited by the research subject. In this study, mean of data collection is 5 likert scales. To assess the variations, survey questions are derived from studies of Yağızer et al. (2010), Ayyıldız and Genç (2008), Gallup et al. (1993), Minton and Rose (1997). The sample of the study is elected randomly by face-to-face interviewing techniques. In this context, 891 of 1074 interviews are analyzed. To measure the variations, SPSS for Windows is used.

3.1 Study Findings

The demographics of sample group by obtained findings are shown in Table 3. 1.

Table 3.1.Demographics

Age	Frequency	Percentage	Cumulative Percentage	
<18	43	4,8	4,8	
19-25	259	29,1	34,0	
26-35	325	36,5	70,4	
36-50	205	23,0	93,5	
50+	59	6,6	100,0	
Total	891	100		
Gender	Frequency	Percentage	Cumulative Percentage	
Male	515	57,8	57,8	
Female	376	42,2	100,0	
Total	891	100		
Education Level	Frequency	Percentage	Cumulative Percentage	
Elementary School	148	16,6	16,6	
High School	255	28,6	45,2	
2 year Degree	120	13,5	58,7	
Undergrad	281	31,5	90,2	
Grad Student	87	9,8	100,0	
Total	891	100		
Marital Status	Frequency	Percentage	Cumulative Percentage	
Unmarried	333	37,5	37,5	
Married (no child)	72	8,4	45,9	
Married (1 child)	93	10,5	56,4	
Married (2 children)	251	28,3	84,6	
Married (3 children)	82	9,2	93,8	
Married (4+ children)	56	6,3	100,0	
Total	891	100		

All the scales used in the study are evaluated with factor analysis concurrently. As it's seen in Table 3.2, factor weights resulted mostly high values and variations are loaded to 4 factors. This shows that; the interview questions used to assess the variations have wholeness, and variations are loaded accurately.

Table 3. 2. Results of Factor Analysis

	Inter	Sensitivit	Concer	Purcha
	est	y	n	sing
I watch the shows on environment on media.	0,587			
I read books and magazines on environment.	0,612			
Advertisements with environmental sensitivity get my				
attention.	0,450			
I follow government's policies on environmental				
sensitivity.	0,820			
I follow political parties' policies on environment.	0,790			
I warn anybody that harms environment unreservedly.		0,513		
I would like to volunteer if an event is held to clean		0,742		
environment.		0,742		
If I have to, I can work for free in long term to create		0,670		
liveable environment.		0,070		
Products needed by society should be produced even		0,452		
though if they are not environmental friendly.		0,432		
Humanity notably misuse the environment.			0,781	
I'm worried about world's environmental issues.			0,661	
Balance of nature is really delicate that can be easily			0,743	
turned upside down.			0,743	
To survive, people need to live in balance with nature.			0,600	
I do not buy products that harm environment.				0,769
I would buy environment friendly products, even they				0,627
cost more.				
If I have a chance to choose, I pick the product that harms				0,667
environment least.				0,007
I try to avoid products of companies that are not sensitive				0,811
to environment.				0,011

Total Variance Explained: % 55,70 Varimax Method: Main Components Analysis, Rotation Method: Varimax Rotation (KMO)

In Table 3.3. Reliability of research variations (alpha values), mean, standard deviation and correlation analysis results are given. As shown in table, Cronbach's alpha values are resulted high. In correlation analysis; variations of environmental interest, environmental sensitivity, environmental concern and purchasing behaviour of environment friendly products have 1% significant relation between each other.

Table 3.3. Reliability Correlation, Mean, Standard Deviation and Correlation Analysis

	Alpha	Mean	S.Dev	Interest	Sensitivity	Concern
Environmental Interest	0,762	3,0942	0,84305			
Environmental Sensitivity	0,684	3,5026	0,99507	0,456**		
Environmental Concern	0,730	4,3757	0,65121	0,325**	0,292**	
Purchasing Behaviour of Environment Friendly Product	0,796	3,8490	0,83225	0,463**	0,469**	0,485**

In Table 3.4, regression analysis regarding the dependent variable purchasing behaviour of environment friendly products is presented. In analysis results p>0,05 level, F value 192,06; R value 0,628; adjusted R value 0,395 are derived. In the model, environmental interest, environmental sensitivity and environmental concern explain 39,5% of purchasing behaviour of environmental friendly product. Explained regression values points that environmental concern affects purchasing behaviour of environment friendly products most, while environmental interest is least. Among environmental interest, concern and sensitivity with purchasing behaviour of environment friendly products, there is 1% significant correlation. Environmental interest, concern and sensitivity positively affect purchasing behaviour of environment friendly products. This result supports that, environmental interest (H1 Hypothesis), environmental concern (H2 Hypothesis) and environmental concern (H3 Hypothesis) positively affect purchasing behaviour of environment friendly products.

Table 3.4. Regression Analysis Results

Independent Variations	Standard Beta Coefficient((β)	Significance (ρ)
Environmental Interest	0,231	0,000
Environmental Sensitivity	0,266	0,000
Environmental Concern	0,332	0,000

 $R = 0.628 R^2 = 0.395F = 192, 06 \rho = 0.000$

4. Results and Suggestions

In Gaziantep's biggest 5 shopping malls, analysis of data derived from 891 consumers suggest that; among environmental interest, environmental sensitivity and environmental concern with purchasing behaviour of environment friendly products there are positive correlations. Thus, in the scope of research date, consumers with high level of environmental interest, environmental sensitivity and environmental concern tend to buy more purchasing behaviour of environment friendly products.

In the result of this study, there is a positive correlation between environmental interest and purchasing behaviour of environment friendly products. Thus, ascend in environmental interest results increase purchasing behaviour of environment friendly products. In literature, there is already proof that environmental interest affects purchasing behaviour of environment friendly products in researches conducted by Crosby et al. (1981:19–32), Roberts (1996:217–231), Roberts and Bacon (1997:79–89), Bamberg (2003:190–203), Kim and Choi (2005:592–599) and Albayrak (2008:117–130). In the study, positive correlation between environmental concern and purchasing behaviour of environment friendly products is found. In literature, Van Liere and Dunlap (1981: 651–676), Roberts, (1996:79–89), Roberts and Bacon (1997:79–89), Bacanlı (2000:25), Ay and Ecevit (2005:238–263) have studies that supports environmental concern affects purchasing behaviour of environment friendly products. Furthermore, in the scope of this study, positive correlation is found between environmental sensitivity and purchasing behaviour of environment friendly products. This result is supported by studies of Van Liere and Dunlap (1981: 651–676), Roberts, (1996:79–89), Roberts and Bacon (1997:79–89), Bacanlı (2000:25), Ay and Ecevit (2005:238–263) in literature.

Most effective and sensitive method to solve environmental issues is raising individuals with high environmental interest and concern levels. Moreover to solve the environment related

issues, environmental interest and concern levels are needed to be kept high of individuals. For individuals to change their behaviours for sake of the environment, they need to be educated and gain positive attitudes towards environment. Only the individuals with environmental concern, sensitivity and interest for resolution of environmental issues can do this behaviour change. In the result of this behaviour change, individuals will incline to purchasing behaviour of environment friendly products. The studies that analyze consumers' purchasing behaviour of environment friendly products are crucial for evaluating the factors that leads to this behaviour. If the reason behind why some customers show sensitivity to environment can be understood, desired change on purchasing behaviour for environment can be generated.

References

- Albayrak, T. (2008). İşletmelerin Çevrecilik Politikalarının Tüketici Tutum Ve Davranışlarına Etkisi, Doktora Tezi, Akdeniz Üniversitesi Sosyal Bilimler Enstitüsü, Antalya, ss.117–130.
- Armstrong, G., Kotler, P., Saunders, J., Vong V. (1999). *Principles of Marketing* (2nd Europen Edition), Prentice Hall Europe.
- Ay, C., Ecevit, Z. (2005). Çevre Bilinçli Tüketiciler. Akdeniz İ.İ.B.F. Dergisi, 10:(238–263).
- Aytekin, M. And Kaynak, R. (2005) Makine Hali Sektöründe Satin Alma Davranişina Etki Eden Tedarikçi Performans Kriterleri, V. Ulusal Üretim Araştırmaları Sempozyumu, İstanbul Ticaret Üniversitesi, 619-624.
- Ayyıldız, H. ve Genç, K. Y. (2008). Çevreye Duyarlı Pazarlama: Üniversite Öğrencilerinin Çevreye Duyarlı Pazarlama Uygulamaları ile İlgili Tutum Ve Davranışları Üzerine Bir Araştırma. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 12(2).
- Bacanlı, H. (2002). Psikolojik Kavram Analizleri, Nobel Yayın Dağıtım, Ankara.
- Bacon, D.R., Roberts J.A. (1997). Explaning the Subtle Relationship Between Environmental Concern and Ecologically Conscious Consumer Behavior, *Journal of Business Research*, 40(1):79–89.
- Bamberg S., Hunecke M., Blöbaum A. (2007). "Social Context, Personal Norms and the Use of Public Transportation: Two Field Studies", *Journal of Environmental Psychology*, 27(3):190–203
- Chan R.Y.K. and Lau L.B.Y. (2004). "The Effectiveness of Environmental Claims Among Chinese Consumers: Influences of Claim Type, Country Disposition and Ecocentric Orientation", *Journal of Marketing Management*, 20:273–319.
- Crosby L.A., Gill J.D., Taylor J.R. (1981), "Consumer / Voter Behavior in the Passage of the Michigan Container Law", *Journal of Marketing*, 45(2): 19–32.
- Franzen, A. and Meyer, R. (2009). Environmental Attitudes in Cross-National Perspective: A Multilevel Analysis of the ISSP 1993 and 2000, *European Sociological Review*, 26(2): 219–234 219
- Gallup, G.H., Dunlap, R.E., Gallup, A.M., (1993), "Of Global Concern: Results of the Health of the Planet Survey", *Environment*, 35(9): 33–39.
- Keleş, R. (1997). Kentleşme ve Konut Politikası, A.Ü SBF, Yayını, Ankara.
- Kim Y. and Choi S.M. (2005). "Antecedents of Green Purchase Behavior: An Examination of Collectivism, Environmental Concern, and PCE", Advances in Consumer Research, 2005, 32:592–599
- Lee, J.A., Holden, S.J.S. (1999). Understanding determinants of environmentally conscious behavior. *Psychology & Marketing*, Hoboken, 16(5): 373–392.

- Minton, A.P., Rose, R.L. (1997). The Effects of Environmental Concern on Environmentally Friendly Consumer Behavior: An Exploratory Study, *Journal of Business Research*, College of Applied Professional Sciences, University of South Carolina, 1997, 40(1):37–48.
- Roberts, J.A. (1996). Green Consumers İn The 1990's: Profile And Implications For The Advertising, *Journal Of Business Research*, 36(3): 217–231.
- Roberts, J.A., and Bacon, D.R. (1997), "Exploring the Subtle Relationships between Environmental Concern and Ecologically Conscious Consumer Behavior", *Journal of Business Research*, 40(1): 79-89.
- Van Liere, K. ve Dunlap, R. (1981). Environmental concern: does it make a difference how it's measured? *Environment and Behaviour*, 13(6):651–676.
- Yeniçeri, Tülay. (2008) Çevre Dostu Ürün Satın Alma Davranışına Yönelik Bir Modelin Testi, Beykent Üniversitesi Sosyal Bilimler Dergisi 2(1): 1-24
- Yılmaz, V., Aktaş C., ve Yağızer, C., (2010). Effect of Environmental Sensitivity and Attitude in Ecological Food Purchasing Behavior, *Kocaeli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 20(2):127–140
- Yücel, M., Uslu, C. ve Say, N.P. (2003). Çukurova Üniversitesi Personel Ve Öğrencilerinin Çevre Duyarlılıklarının Belirlenmesi. *Çukurova Üniversitesi Ziraat Fakültesi Araştırma Projesi*, Proje No: Bap Pm 2002–01. Adana