The Effects of Turkish Clothing Consumers' Environmental Awareness on Buying Behavior

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Abstract

Environmentally conscious production and marketing activities have started as social marketing in 1970s. Beginning from 1990s these activities are accepted as green marketing and they become widespread. Environmental consciousness and priorities are rapidly increased due to the raise in society's education and income levels. On the one hand the increasing consumer awareness, on the other hand national and international legal regulations cause environmental policies and strategies by institutionalizing enterprise managers. Consequently, corporate social responsibility implementations become widespread. According to the Turkish Statistical Institute, clothing expenditures take place in fifth within household consumption expenditures. As economical aspect, the total value of clothing expenditures is approximately 35 billion dollars. When the sector, which owns a huge market, produces and commercializes environment friendly products and if they are preferred by the consumers, this will be a significant improvement. If the consumers prefer environment friendly clothing products, this attitude can positively affect the policies and strategies of clothing sector in which approximately 50.000 enterprises operate and takes a significant share from Turkish economy.

From this point of view, the study aims to analyze the effects of Turkish clothing consumers' environmental awareness on buying behavior. For this purpose a survey is conducted in the hinterland of İzmir province. After that, the results of the survey are analyzed and evaluated in terms of hypotheses.

Key words: Environmental awareness, environmental factors, green marketing, buying behavior of consumers, clothing sector

1. Environmental Awareness and Its Effects on Buying Behavior

Environment is a physical, biological, social, economic and cultural environment where human beings and other living beings sustain relations with each other during their life and where they interact with each other [1,2]. As for that, environmentalism is a whole belief system which expresses alteration and pleasure in the relationship between mankind and nature. In other words, environmentalism is the public opinion which includes environmental issues like environment protection and elimination of waste [1].

Environmental awareness concept can be defined as the perception level of proved or unproved environmental issues by society, disturbance within the society and reactions of the society [1].

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Various solution suggestions for environmental issues are continuously made and increased. Social responsibilities of enterprises and rapidly increasing environmental awareness of individuals direct the economy. When we look at from this perspective, it can be seen that marketing activities pass from individual satisfaction to the satisfaction of society [3]. In this context, enterprises lead consumers to green buying behavior by using green products which are the elements of green marketing mix.

Eco-credential products (green products) are nonpolluting and recyclable products which conserve natural resources [1,4]. Consumers start to buy the eco-credential enterprises' products which support environment projects and produce eco-credential products. This buying behavior is called as green buying behavior. In other words, green consumption is the buying behavior of ecological and recyclable products as needed [1].

2. The Purpose and the Method of the Research

This study aims to analyze the effects of Turkish clothing consumers' environmental awareness on buying behavior. In accordance with the aim of the research, a questionnaire form consisting of 28 questions is prepared. This survey is conducted within July 2014- August 2014 at the hinterland of İzmir province residents by using face to face interview method. İzmir province population is 4.061.074 according to the Turkish Statistical Institute's address based population registration system results in 2013. Sample size is calculated as 385 at 95% confidence interval with 5% error margin. The consumers which would constitute the sample are determined according to snowball sampling. After the repatriation and evaluation of the sent-back questionnaires, 397 of them are incorporated to the research. After the conduction of the survey, collected data are evaluated with SPSS 16.0 programme. At the beginning of statistical analysis, the reliability of the questionnaire is measured and the reliability co-efficient α is found as 0,903. According to this finding, the scale of the questionnaire is addressed to be highly reliable.

3. General Findings of the Research

The questions which aim to specify the demographic properties of the participants are evaluated firstly. Accordingly, 58% of the participants are men and the remaining 42% is women. 1% of the participants own primary school degree whereas 3% owns secondary school degree, 11% owns high school degree, 76% owns associate and undergraduate degree and 9% owns postgraduate degree. 61% of the participants are at the age of between 18 and 25, 15% is at the age of between 26 and 35, 12% is at the age of between 36 and 45 and 12% is at the age of 46 and over. About 59% of the participants have 1500 TL and lower monthly income whereas 20% has an income between 1501 and 2500 TL, 11% has an income between 2501 and 3500 TL, 7% has an income between 3501 and 5000 TL and 3% has an 5001 TL and over income. Nearly 61% of the participants are at the age of between 18 and 25 and most of them are students. These students belong to the low income group because they live with family support and scholarships.

The survey offers 9 statements which measure the environmental awareness of participants.
 The participants are required to choose their agreement levels for each of these statements. In quinary likert scale I absolutely agree is coded as 5, I agree is coded as 4, I have no idea is coded

as 3, I don't agree is coded as 2 and I don't agree absolutely is coded as 1. The findings are given in Table 1.

Table 1: The environmental awareness of the participants

Statements	N	Mean	Std. Deviation
The humanity exploits the environment considerably.	397	4,4962	0,79335
The environmental issues of the world highly worries me.	397	4,3602	0,78414
The balance of the nature can be easily disrupted.	397	4,3249	0,89200
The advertisements, which include environmental awareness, attract my attention.	397	4,0932	0,88127
I warn someone, who gives harm to environment, without hesitation.	397	4,0277	0,88861
I watch the shows about environment.	397	3,9673	0,87411
I voluntarily want to participate in an activity about environmental cleaning.	397	3,8363	0,94863
I follow the environmental policies of the government.	397	3,6977	0,97666
I follow books, magazines and publications about environment.	397	3,5441	1,00312

Approximately 90% of the participants accept that the humanity exploits the environment considerably (Average=4,49). Nearly 88% of the participants indicate that the environmental issues of the world highly worry them (Average=4,36). About 85% of the participants specify that the balance of the nature can be easily disrupted (Average=4,32). Approximately 84% of the participants accept that the advertisements, which include environmental awareness, attract their attention (Average=4,09). Nearly 76% of the participants indicate that they warn someone, who gives harm to environment, without hesitation (Average=4,02).About 82% of the participants specify that they watch the shows about environment (Average=3,96). Approximately 69% of the participants accept that they voluntarily want to participate in an activity about environmental cleaning (Average=3,83). Nearly 64% of the participants indicate that they follow the environmental policies of the government (Average=3,69). About 57% of the participants specify that they follow books, magazines and publications about environment (Average=3,54).

The survey offers 15 statements about the effects of environmental awareness on buying behavior. The participants are required to choose their agreement levels for each of these statements. In quinary likert scale I absolutely agree is coded as 5, I agree is coded as 4, I have no idea is coded as 3, I don't agree is coded as 2 and I don't agree absolutely is coded as 1. The findings are given in Table 2.

Approximately 84% of the participants accept that if they have to choose between two similar clothes they prefer to buy the environment friendly one (Average=4,17). Nearly 77% of the participants indicate that they prefer to buy clothes which are made from textile materials like organic cotton (Average=4,06). About 72% of the participants specify that they prefer to buy the products of clothing enterprises which use environment friendly packaging materials (Average=3,97). Approximately 69% of the participants accept that they cannot easily find environment friendly clothes in Turkey (Average=3,96). Nearly 71% of the participants indicate that they don't buy environmentally hazardous clothes (Average=3,87). About 71% of the

participants specify that they prefer to buy clothes which carry eco-label (Average=3,85). Approximately 70% of the participants accept that they prefer to buy the products of clothing enterprises which have social responsibility projects (Average=3,84). Nearly 70% of the participants indicate that they don't prefer to buy the products of clothing enterprises which are insensitive to environment (Average=3,81). About 64% of participants specify that they warn their families and friends about not purchasing environmentally hazardous clothes (Average=3,71). Approximately 58% of the participants accept that they prefer to buy clothes which include recycled cotton or another recycled fiber (Average=3,66). Nearly 59% of the participants indicate that the environment friendly clothes meet their expectations as well as other clothes (Ort=3,64). About 54% of the participants specify that the environment friendly clothes' designs are as good as other clothes (Average=3,58). Approximately 48% of the participants accept that they prefer to buy the products of clothing enterprises which retrieve the used clothes of their customers (Average=3,41). Nearly 36% of the participants indicate that they are ready to pay more money for buying clothes which are made from textile materials like organic cotton (Average=3,11). About 28% of the participants specify that they are ready to pay more money for buying clothes which include recycled cotton or another recycled fiber (Average=2,92).

Table 2: The effects of environmental awareness on buying behavior of the participants

Statements	N	Mean	Std. Deviation
If I have to choose between two similar clothes, I prefer to buy the environment friendly one.	397	4,1788	,91605
I prefer to buy clothes which are made from textile materials like organic cotton.	397	4,0630	,88965
I prefer to buy the products of clothing enterprises which use environment friendly packaging materials.	397	3,9798	,88169
I cannot easily find environment friendly clothes in Turkey.	397	3,9673	,82047
I don't buy environmentally hazardous clothes.	397	3,8766	,88042
I prefer to buy clothes which carry eco-label.	397	3,8589	,83500
I prefer to buy the products of clothing enterprises which have social responsibility projects.	397	3,8463	,92609
I don't prefer to buy the products of clothing enterprises which are insensitive to environment.	397	3,8136	,85311
I warn my family and friends about not purchasing environmentally hazardous clothes.	397	3,7103	1,00213
I prefer to buy clothes which include recycled cotton or another recycled fiber.	397	3,6675	1,04942
Environment friendly clothes meet my expectations as well as other clothes.	397	3,6448	,88894
Environment friendly clothes' designs are as good as other clothes.	397	3,5894	,92942
I prefer to buy the products of clothing enterprises which retrieve the used clothes of their customers.	397	3,4181	1,22741
I'm ready to pay more money for buying clothes which are made from textile materials like organic cotton.	397	3,1184	1,12078
I'm ready to pay more money for buying clothes which include recycled cotton or another recycled fiber.	397	2,9219	1,06432

4. Multiple Comparison Tests

The hypotheses of the research are given below.

H_1: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of their buying behaviors in terms of environmentally hazardous clothes.

H_2: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of their preference for buying the products of clothing enterprises which have social responsibility projects.

H_3: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of being able to find the environment friendly clothes in Turkey.

H_4: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of following books, magazines and publications about environment.

H_5: There is a statistically significant difference (at 95% confidence interval) between participating women and men in aspect of their ideas about the disruption of nature balance.

H_6: The participants within different age groups differ significantly (at 95% confidence interval) in aspect of their buying behaviors in terms of environmentally hazardous clothes.

H_7: The participants within different age groups differ significantly (at 95% confidence interval) in aspect of their preferences for buying the products of clothing enterprises which are insensitive to environment.

H_8: The participants within different age groups differ significantly (at 95% confidence interval) in aspect of warning their families and friends about not purchasing environmentally hazardous clothes.

H_9: The participants within different age groups differ significantly (at 95% confidence interval) in aspect of watching the shows about environment.

H_{10}: The participants within different age groups differ significantly (at 95% confidence interval) in aspect of their apprehension levels for world's environmental issues.

H_{11}: The participants within different education levels differ significantly (at 95% confidence interval) in aspect of their preferences for buying the products of clothing enterprises which are insensitive to environment.

H_{12}: The participants within different income groups differ significantly (at 95% confidence interval) in aspect of their ideas about expectation meeting levels of environment friendly clothes.

Table 3: Participating women and men in aspect of their buying behaviors in terms of environmentally hazardous clothes

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	164	3,9817	0,79471	1,999	374,719	0,046
Men	223	3,8072	0,91708			

There is a statistically significant difference between participating women and men in aspect of their buying behaviors in terms of environmentally hazardous clothes (Hypothesis 1) (Table 3). When compared to women, more men buy environmentally hazardous clothes.

Table 4: Participating women and men in aspect of their preference for buying the products of clothing enterprises which have social responsibility projects

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	164	3,9939	0,81773	2,617	375,692	0,009
Men	223	3,7578	0,95135			

There is a statistically significant difference between participating women and men in aspect of their preference for buying the products of clothing enterprises which have social responsibility projects (Hypothesis 2) (Table 4). When compared to men, more women buy the products of clothing enterprises which have social responsibility projects.

Table 5: Participating women and men in aspect of being able to find the environment friendly clothes in Turkey

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	164	4,0976	0,74488	2,733	374,134	0,007
Men	223	3,8744	0,85552			

There is a statistically significant difference between participating women and men in aspect of being able to find the environment friendly clothes in Turkey (Hypothesis 3) (Table 5). When compared to men, women have more difficulty in finding environment friendly clothes in Turkey.

Table 6: Participating women and men in aspect of following books, magazines and publications about environment

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	164	3,7134	0,89830	2,820	378,351	0,005
Men	223	3,4305	1,07106			

There is a statistically significant difference between participating women and men in aspect of following books, magazines and publications about environment (Hypothesis 4) (Table 6). When compared to men, more women follow books, magazines and publications about environment.

Table 7: Participating women and men in aspect of their ideas about the disruption of nature balance

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Women	164	4,5122	0,71348	3,302	384,991	0,001
Men	223	4,2287	0,97569			

There is a statistically significant between participating women and men in aspect of their ideas about the disruption of nature balance (Hypothesis 5) (Table 7). When compared to men, more women specify that the balance of the nature can be easily disrupted.

The participants within different age groups differ significantly in aspect of their buying behaviors in terms of environmentally hazardous clothes (Hypothesis 6) (Table 8). "I don't buy environmentally hazardous clothes" is indicated mostly by the oldest age group (46 and over). This group is respectively followed by the age groups 26-35, 36-45 and 18-25.

Table 8: Participants within different age groups in aspect of their buying behaviors in terms of environmentally hazardous clothes

	N	Mean	Std. Deviation	F	df$_1$	df$_2$	Sig.
18-25	237	3,7806	0,91269				
26-35	57	4,0702	0,72849	3,341	3	386	0,019
36-45	48	3,9375	0,66545				
46 and over	48	4,1250	0,91384				

Table 9: Participants within different age groups in aspect of their preferences for buying the products of clothing enterprises which are insensitive to environment.

	N	Mean	Std. Deviation	F	df$_1$	df$_2$	Sig.
18-25	237	3,7131	0,88894				
26-35	57	3,9474	0,71766	5,108	3	386	0,002
36-45	48	3,8958	0,62704				
46 and over	48	4,1875	0,76231				

The participants within different age groups differ significantly in aspect of their preferences for buying the products of clothing enterprises which are insensitive to environment (Hypothesis 7) (Table 9). "I don't prefer to buy the products of clothing enterprises which are insensitive to environment" is indicated mostly by the oldest age group (46 and over). This group is respectively followed by the age groups 26-35, 36-45 and 18-25.

Table 10: Participants within different age groups in aspect of warning their families and friends about not purchasing environmentally hazardous clothes

	N	Mean	Std. Deviation	F	df$_1$	df$_2$	Sig.
18-25	237	3,5570	1,03842				
26-35	57	4,0702	0,82071	6,305	3	386	0,000
36-45	48	3,8750	0,67240				
46 and over	48	3,9792	0,99978				

The participants within different age groups differ significantly in aspect of warning their families and friends about not purchasing environmentally hazardous clothes (Hypothesis 8) (Table 10). "I warn my family and friends about not purchasing environmentally hazardous clothes" is indicated mostly by the age group between 26-35. This group is respectively followed by the age groups 46 and over, 36-45 and 18-25.

Table 11: Participants within different age groups in aspect of watching the shows about environment

	N	Mean	Std. Deviation	F	df$_1$	df$_2$	Sig.
18-25	237	3,8819	0,95822				
26-35	57	4,1754	0,68460	3,047	3	386	0,029
36-45	48	4,1875	0,64102				
46 and over	48	4,0625	0,75530				

The participants within different age groups differ significantly in aspect of watching the shows about environment (Hypothesis 9) (Table 11). "I watch the shows about environment" is

indicated mostly by the age group between 36-45. This group is respectively followed by the age groups 26-35, 46 and over and 18-25.

Table 12: Participants within different age groups in aspect of their apprehension levels for world's environmental issues

	N	Mean	Std. Deviation	F	df_1	df_2	Sig.
18-25	237	4,2869	0,84995				
26-35	57	4,5263	0,57025				
36-45	48	4,5833	0,53924	3,407	3	386	0,018
46 and over	48	4,5000	0,68417				

The participants within different age groups differ significantly in aspect of their apprehension levels for world's environmental issues (Hypothesis 10) (Table 12). "The environmental issues of the world highly worries me" is indicated mostly by the age group between 36-45. This group is respectively followed by the age groups 26-35, 46 and over and 18-25.

Table 13: Participants within different education levels in aspect of their preferences for buying the products of clothing enterprises which are insensitive to environment

	N	Mean	Std. Deviation	F	df_1	df_2	Sig.
Primary School	5	4,2000	0,83666				
Secondary School	11	3,1818	0,75076				
High School	43	3,8372	0,84319	2,455	4	379	0,045
Associate and Undergraduate	291	3,8076	0,84123				
Postgraduate	34	4,0294	0,71712				

The participants within different education levels differ significantly in aspect of their preferences for buying the products of clothing enterprises which are insensitive to environment (Hypothesis 11) (Table 13). "I don't prefer to buy the products of clothing enterprises which are insensitive to environment" is indicated mostly by the participants who own primary school degree. This education group is respectively followed by the education groups of postgraduate, high school, associate and undergraduate and secondary school.

Table 14: Participants within different income groups in aspect of their ideas about expectation meeting levels of environment friendly clothes

	N	Mean	Std. Deviation	F	df_1	df_2	Sig.
1500 TL and under	224	3,6562	0,85372				
1501-2500 TL	77	3,6883	0,92138				
2501-3500 TL	42	3,9762	0,60438	2,597	4	376	0,036
3501-5000 TL	26	3,5000	0,94868				
5001 TL and over	12	3,1667	1,26730				

The participants within different income groups differ in aspect of their ideas about expectation meeting levels of environment friendly clothes (Hypothesis 12) (Table 14). "Environment friendly clothes meet my expectations as well as other clothes" is indicated mostly by the income group between 2501 and 3500. This income group is respectively followed by the income groups 1501-2500 TL, 1500 TL and under, 3501-5000 TL, 5001 TL and over.

5. Results and General Evaluation

The enterprises should be different and strong so that they could survive in clothing sector which is both dynamic and variable. At this point, environmental awareness confronts as a significant keyword. Nowadays, the increasing environmental pollution attracts the humanity's attention to nature and environment protection. In this context, the individuals, whose environmental awareness are high and who give importance to environment protection, are called as green consumers. These consumers force the enterprises in terms of green production and green products. They don't purchase the products of enterprises which are insensitive to environment. Therefore, Turkish clothing enterprises must produce environment friendly clothes which not give any harm to environment and human health.

According to the results of our research, the environmental awareness of Turkish clothing consumers are substantially high. According to the large majority of the participants; the humanity exploits the environment considerably, the environmental issues of the world highly worry them and the balance of the nature can be easily disrupted. Besides, the advertisements, which include environmental awareness, attract their attention and they warn someone, who gives harm to environment, without hesitation. Therefore, Turkish clothing enterprises must produce environment friendly clothes in order to attract consumers whose environmental awareness are high.

According to the another result of our research, Turkish clothing consumers prefer to buy the environment friendly product if they have to choose between two similar clothes. Besides, they prefer to buy the clothes which are made from textile raw materials like organic cotton and they prefer the products of clothing enterprises which use environment friendly packaging materials. They don't buy environmentally hazardous clothes and they prefer to buy clothes which carry eco-label. On the other hand, the participants indicate that they cannot easily find environment friendly clothes in Turkey. Besides, the participants have no heart for paying more money to environment friendly clothes. As it can be seen from all these results, environmental awareness of Turkish clothing consumers affect their buying behavior. The consumers, whose environmental awareness are high, head towards environment friendly clothes during purchasing activity. Therefore, Turkish clothing enterprises must use environment friendly raw materials like cotton and must prefer nonhazardous packaging materials. Most importantly, their products must carry eco-labels which indicate that the product don't give any harm to environment and human health both during production and utilization. In other words, they must make environment friendly clothes accessible. At the same time these products mustn't bring extra costs in terms of consumers.

As it can be seen from our research results, when compared to men, women's environmental awareness is higher. When compared to women, more men buy environmentally hazardous clothes. Besides, when compared to men, more women buy the products of clothing enterprises which have social responsibility projects and follow books, magazines and publications about environment. In this context, Turkish clothing enterprises, whose target groups are women, must give great importance to producing environment friendly products. These enterprises must be sensitive to environment and must own social responsibility projects.

According to the another result of our research, "I don't buy environmentally hazardous clothes" is indicated mostly by the oldest age group (46 and over). Also, "I don't prefer to buy the products of clothing enterprises which are insensitive to environment" is indicated mostly by the same group. Therefore, Turkish clothing enterprises, whose target groups are at the age of 46 and over, must be sensitive to environment and must produce environment friendly clothes.

As it can be seen from all of our research results, the environmental awareness of Turkish clothing consumers are substantially high and this situation affects their buying behavior. In this context, Turkish clothing enterprises must be sensitive to environment, must use environment friendly raw materials like organic cotton and must own products which carry eco-labels. In brief, they must produce affordable environment friendly clothes.

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