

## **The Effect of Some Demographic Characteristics of Turkish Consumers on Their Socially Responsible Consumption Behaviours**

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**Abstract:** This research was planned to determine the effect of some demographic characteristics (education level and sufficiency of income) of consumers on their socially responsible consumption behaviours. The research was conducted on 345 families with children of medium and high socio-economic levels, living in Ankara. The relationship between education level and socially responsible consumption behaviour of consumers was measured by using variance analysis and the relationship between sufficiency of income and responsible consumption behaviours was measured by using t-test. The results showed that the level of education was influential on views such as environmental protection and recycling waste materials. On the other hand, the results also showed there was no significant relationship between sufficiency of income and socially responsible consumption behaviours.

**Key words:** Socially responsible consumption • Environmentally consumption and responsible consumers

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### **INTRODUCTION**

Today's individuals make their consumption-related decisions in a global market. Even though it may be slow, the society feels the effects of these decisions. What is generally observed in industrialized societies is that the individuals view themselves and are viewed as consumers in more fields of the life. Institutions of culture, health and education are adapting the rules of market economy and are implementing consumer-centered management in order to provide quality services to consumers. Not only the buyers and users of the products but also theatre audience, patients and university students are included in the category of consumer.

Parallel to the increase seen in the extension and volume of the consumption, its meaning also qualitatively expands. Symbolic value of the consumer products has increased and many products have started to serve to the function of communication. Possession of some certain products indicates the membership of certain groups or exclusion from these groups and shapes the relations among people. Using products different from the ones used commonly by the public enables people to reflect their own images and value systems [1].

At the same time, differences were observed among the behaviors of consumers in 1970. While in 1920-1960 having valuable goods, living in private houses and private cars and the concept of comfort became prominent values, in 1960-1990 while people were making their consumption decisions, they were observed to pay attention to the issues such as inflation, environmental pollution and energy crisis. Following 1990s, consumer behaviors started to exhibit efficient and responsible consumption patterns.

On the basis of the growth seen in the consumer-class, the effects of their understanding of consumption and the cultural inclinations lay. There is a lot of evidence showing that the people regard having something and using more goods and services as the only way enhancing personal happiness, providing social status and leading to national success.

Spread of consumptive life styles all over the world brought about the fastest fundamental changes in the lives of modern people. Only within a few generations, people turned into individuals who are drivers of automobiles, watchers of televisions, addicts of shopping malls and continuous buyers with the effects of advertisements. The tragic dimension of this change can be explained through the fact that within the historical

evolution of consumption society, the individuals have been really effective in destroying the environment; yet, they have not been able to lead successful and satisfactory lives [2].

In present day, when all ecologic, ethic and economic conditions are dynamically changing, individuals and families while making their consumption decisions under the influence of technological changes should use the information more accurately and in a more controlled way so that they more consciously evaluate the influence of their decisions on the environment, family and national economy. For the purpose of correcting this negative situation, a deep-rooted change is required in terms of the values determining people's life styles. Increasing importance of consumption and social and environmental problems caused by the consumption patterns have increased the importance of the concept of consumer responsibility. Hence, many publications display the consumer as the focal point of supply and demand interaction [3].

In the study initiated by OECD in 1993 and investigating the connections between sustainable development and production and consumption models, it is stated that governments have three techniques to affect consumer behaviors [4].

These are:

- Administrative and judicial regulations
- Price regulations
- Voluntary participation and responsible consumption

Here only the concept of responsible consumption will be dealt with.

In literature, various definitions such as socially responsible consumption, problematic consumption, socially responsible consumer, environmentally sensitive consumer are commonly encountered and all these various definitions seem to define the same concept [5].

Socially responsible consumption is a kind of consumption in which consumers' decisions and behaviors are not only motivated by the desire to satisfy their personal needs but consider the results of their decisions with regards to environment and society [6].

According to another definition, socially responsible consumption is a kind of consumption where individuals are aware of the effects of their consumption on other people living in local, national and international communities. On the other hand, sustainable consumption means the use of goods and services in such a way as to meet the basic needs and improve the living quality

without violating the balance of their distribution between today's people and future generations [3].

In the report of OECD, it is stated that cultural changes and changes in social attitudes are necessary for sustainable development of consumption and to understand the importance of environmental problems. And possibility of realizing such changes largely depends on consumer motivation.

Creating a motivation among consumers should be one of the aims of any program aiming to affect consumer attitudes and behaviors. The consumer first needs to believe in the existence of problems related to environmental resources and the need of finding solutions to these problems and that his personal efforts can contribute to quest of the solutions to these problems. The research has proved that the consumers thinking that their personal efforts will not contribute much to the solutions to the problems have fewer responsible consumption behaviors. Many consumers believe that they can not contribute to the solutions to energy crisis and related-problems. This is so, because the consumer may be thinking that the responsibility of finding solutions to such problems is on the shoulders of governments, business circles and other larger institutions.

Recognition of the increasing importance of the consumption has showed the connection between consumer responsibility and existing problems. Direct or indirect consumption of products and services causes environmental problems. Hence, recently in many studies, in particular in environment-related literature, it is seen that consumers are presented in the centre of supply and demand balance. As a result, consuming in a environment-friendly manner is viewed to be a necessary condition for a sustainable economy and society. In literature, though both the concepts of socially responsible consumption and responsible consumption are used, there is a subtle difference between the definitions and terminologies of these concepts. For example, Fisk (1973) defined the concept of socially responsible consumer as "socially conscious consumers" and Webster (1975) as "social economists" and Herberger as "ecologically sensitive consumers"; as can be seen from these definitions the same concept is defined with different words. According to another definition, socially responsible consumer means that individuals should not make their consumption decisions only by considering to satisfy their personal needs but also they should consider problems related to natural resources and even the adverse results of their decisions and behaviors [5,6].

Roberts (1993) claims that the definitions of socially responsible consumer are different from each other. And these differences are based on:

- The fact that scales used to determine responsible consumption are taken from other disciplines different from the discipline of consumer behaviors,
- The fact that the dependent variables covering socially responsible consumption are used differently,
- The fact that faulty or incomplete scales are developed and they are applied without conducting their reliability and validity tests,
- And the fact that respondents give incomplete answers [9].

While the concept of social responsibility was being investigated by many researchers, usually the studies conducted on the understanding of social responsibility and ethic by organizations were drawn on [10], that is, social responsibility of the organization was more emphasized. Some other studies focused on unethical behaviors of consumers in the market [11].

Evidence of ethical or socially responsible consumption (SRC) date back hundreds of years [12]. However, close academic scrutiny of this type of consumer behavior began in the 1970s. More recent research shows that consumers increasingly include ethical criteria in their purchase decisions [9]. Such ethical considerations are likely viewed as “added value” above and beyond the basic needs met by the product itself (Crane 2001). Roberts (1996) concludes that price, quality, convenience and value appear to be the most important buying criteria for a large segment of

US consumers, products with an environmental for social appeal may have an edge if they meet other competitive requirements. Manifestations of this type of consumption are numerous. Common examples include the boycotting of firms judged to behave in an unethical manner, or the boycotting of some countries of which one disapproves of its political actions or, at the contrary, the purchase of products deemed to have a beneficial impact on the natural environment or society. Another way of describing this reality is to view these consumption behaviors as consumer “votes” [13].

The issues related to the social responsibility of consumers, ethical beliefs and their effects on the consumer has recently been started to draw attention of researchers. When the social responsibility issues determining consumers’ choices were investigated,

it was found that consumers’ interest in environment (for example, they tend to buy biologically degradable goods), their reactions against the policies of institutions, their reactions against the issues related to being employed or being sacked and their attitudes towards local laws are of great importance especially for the market actors [14].

Today, revival in terms of social awareness and environmental sensitivity is observed. This sensitivity is different from that of 1960 and 1970s (when social awareness was raised and large-scale environmental solutions were emphasized) and it focuses on purchasing behaviors of consumers [15].

**Socially Responsible Consumer Characteristics:** When the topic of social responsibility is dealt with, many individual differences outstandingly increasing are observed. One of them is the general principles guiding the individual’s behaviors. The individual’s behaving in such a way as to improve the welfare of the whole society can be given as example for the consumer’s individual social responsibility. An individual’s feeling responsibility for the other individuals in the society is closely connected with their having high level of cognitive moral development [16,17]. Moral development can be considered a difference varying from one individual to another in a way similar to intellectual development.

Second individual factor, is the series of value judgments possessed by the individual and guiding the individual’s activities and behavior patterns. For example, the importance attached to the clean environment should change the decision making process of the individual and its result.

Third individual factor, “recognition of the effectiveness of the consumer”. This concept can explained as the individual’s believing in primarily the existence of a problem related to environment and then in his ability to contribute to the solution of this problem. Factor of consumer’s recognizing his effectiveness was found to be effective on some behaviors related to environment [18]. In the studies conducted a positive connection was found between consumers’ believing in their effectiveness with regards to solving environmental problems and their interest in environmental issues and their being willing to pay more to buy more environment friendly products [19].

Last factor explains the knowledge level of consumers about environment. In some studies, it is stated that even though they exhibit positive attitudes

towards environment, because of the lack of information about products, these attitudes can not be converted into positive behaviors. Moreover, having information about the product is related with feeling social responsibility [14].

Individual social responsibility is taken as common social responsibility from the viewpoint of marketing. Social responsibility consists of a series of liabilities related to social welfare agreed between the business world and individuals [20]. Social responsibility indicates that the activities of an organization should improve the general welfare of the society. Determining actually what is good is controversial, because a behavior considered to be socially responsible by one group can cause other groups to complain [10].

The study of socially responsible consumption is of critical importance. The very definition of consumption means to consume, waste, squander, or destroy. Consumption has become synonymous with environmental destruction in most corners of the globe. A number of present environmental problems can be linked to consumer lifestyles. More sustainable lifestyles cannot be achieved without marking changes in consumer attitudes and behavior. Anderson and Challagalla (1994) state that "we live in a global village and can ill afford the negative legacy of consumption ...." (p. 174). However, consumption need not be synonymous with environmental destruction and the squandering

of natural resources. Socially responsible consumption can promote social causes consumers deem important. As one type of socially responsible consumer behavior, boycotts have become a pervasive tool to express consumer discontent. Consumers are increasingly willing to withhold patronage and encourage others to do the same, to control corporate abuses and/or heighten their sensitivity to economic, political and social concerns [21]. Simultaneously, firms are asked to support charities, protect the environment and contribute to social causes. Increasingly, firms are being asked to be socially responsible members of society [22]. Anderson and Cunningham (1972) say that as what is desired is to determine the characteristics of consumers constituting good and service market and consumers participating in cultural and social activities, the current interest should be shifted from socially responsible organizations to socially responsible individuals. Webster (1975) defines the socially responsible individual as someone who considers the effects of his own personal consumption on the other individuals and use his purchasing power to create social changes. Antil and Bennet (1979) claim that

social responsibility is basically related with socially responsible consumption. Moreover, socially responsible consumption is defined as a type of consumption in which individuals, beyond the desire of satisfying their personal needs, take the environmental problems into consideration and motivated by the concern about the welfare of the society in their purchasing decisions and behaviors.

The weight of social responsibility in terms of guiding individuals' behaviors varies from one person to another. This has become more important in consumer studies because consumers usually have to make choices by considering the effects of their own behaviors on the society [14].

When the studies investigating responsible behaviors and attitudes are evaluated, it is seen that most of them look at the effects of personality types and demographic features (age, gender, education level, place of residence, race, socio-economic level) on such consumption behaviors and attitudes; and accordingly, the relations between personal attitudes of consumers and their consumption behaviors. Present study was planned and carried out to determine responsible consumer behaviors and to investigate the effects of some demographic features (attaching importance to the adequacy of the income and education level as independent variables) on these behaviors.

The truth of the following hypothesis was tested by considering the fact that consumers' responsible consumption behaviors and the effects of the demographic features on the behaviors determine responsible consumption

**Hypothesis:** Demographic features of consumers (adequacy of the income and education level) are influential on socially responsible consumption behaviors.

## **MATERIALS AND METHOD**

The main purpose of this study is to investigate the effects of consumers' perceptions of their income level and education level on their possessing responsible consumption behaviors.

The population of the study consists of nucleus families with children living in neighborhoods of middle and high socio-economic levels in Çankaya district of Ankara. In this part, the selection process of the district, determination of the universe and sample of the study and data collection methods and tools and the analyses of the data are explained.

**Selection of the District Where the Study Will Be Conducted:** Socially aware or socially responsible consumers are defined as individuals considering the environmental and social consequences of their purchasing activities. In the studies conducted so far, socially responsible consumers have been classified according to their psychological, social and demographic characteristics. Generally, such consumers have been found to be young, good educated, with high income, living in big cities and from middle or high socio-economic levels [26, 27].

In the light of these findings, the consumers to be participated in this study were preferred to be from middle or high socio economic classes. Hence, the district of Çankaya was chosen as the area of the study as it was believed that this district best represents the consumers from the middle and high socio economic classes. Another factor affecting the preference of Çankaya district as the area of the study is its being convenient for the researcher.

**Determination of the Universe and Selection of the Sample:** The universe of the study consists of nucleus families with children living in the neighborhoods of middle and high socio economic levels in Çankaya district of Ankara.

In order to determine the number of the families included in the study based on the results of the studies already conducted in Ankara which can form a parameter for responsible consumption behaviors and the number of 345 was obtained for the sample.

First, the list of the neighborhoods which indicates middle and high socio-economic level in Çankaya district for the purpose of setting the sample was obtained from Çankaya Municipality. Then, with the local governors of the neighborhood were contacted with telephone and number of the families permanently residing in these neighborhoods were determined. It was understood from the telephone conversations with the local governors of the municipalities that it is not possible to exactly determine the number of the municipalities and the families permanently residing. Moreover, distribution information of the neighborhoods within the borders of Çankaya Municipality according to their socio-economic levels was obtained from TUIK (Institute of Statistics of Turkey). After getting this information, in the selection of the sample, "Random Leveled Sampling Method" was used. But as the number of the neighborhoods and families could not be determined exactly, only the neighborhoods were chosen as the level. For this

purpose, out of total 103 neighborhoods in the list, 30 (15 of them in the high socio-economic level and 15 in the middle socio-economic level) (30%) of them were included in the study.

The neighborhoods included in the study and the families taken from these neighborhoods were proportioned with the volume of the sample and almost same number of families was chosen randomly from each neighborhood through random sampling method.

**Data Collection Technique and Tools:** In order to solicit the data showing consumers' responsible consumption behaviors, demographic features affecting these behaviors in the neighborhoods included in the study, "questionnaire technique" was drawn on.

The questionnaires were personally administered by the researcher to the female members of the families. As in the studies examining consumer behaviors women have been found to have the prime role in making decisions related to consumption, the realization of purchasing decisions, post-purchasing evaluations and the use of the product and most conveniently available member of the family is the woman, the women were accepted to this study conducted to determine socially responsible consumer behaviors and factors effecting these behaviors as participants.

**In the Study, a Data Collection Tool Consisting of Two Parts Were Used:** In the first part, there are questions aiming to solicit demographic information of the participants. These questions aim to determine education status of the woman, age of the woman, occupational status of the woman, socioeconomic level of the participants and whether they find their income adequate. In the second part, responsible consumption behaviors were evaluated with 13 statements given under the heading of "Socially Responsible Consumption Behavior Model". The responses were given by marking one of the following options: "always", "usually", "sometimes", "rarely" and "never".

**Designing of Questionnaire:** In the collection of the data, the questionnaire form given in Appendix 1 was used. The questionnaire form was designed by drawing on the studies conducted in this field and reviewing the relevant literature in such a way as to be easily understood by the participants [8, 28, 5, 9,29]. In the studies conducted so far on consumption and consumer behaviors, the studies were designed to measure the concepts related to topic and very little attention was paid to use of valid

measurements [30]. The common approach so far is to get the scales and measurements from other sciences or adapt them. In order to avoid this approach, Socially Responsible Consumption Behavior Scale was developed by Antil (1984) and Iwata (1997) by using valid methods which comply with what was suggested by Churchill (1979) and in the studies this scale was then used. Then all the scales used in the studies were collected and carefully evaluated and for the purpose of adapting them to Turkish society, some questions were added and some questions in the original scales were discarded from the questionnaire at the end of preliminary works as they were found to be contradictory. In order to test the understandability of the statements in the subsections of the questionnaire, the questionnaire was administered to 30 women with high level of education and from high socio-economic level and those among the sentences which most clearly express what is desired to be measured were chosen. Second, the questionnaire was given to a group of lecturers interested in the topic and evaluated by them and in line with their comments, the questionnaire improved and up dated so its content validity was achieved, then, the researcher decided to apply construct validity and reliability tests.

**Application of Validity-Reliability Tests to the Questionnaire:** To test the construct validity of the questionnaire, a factor analysis technique, “basic components analysis” was conducted. Whether the questions included in the questionnaire as a result of factor analysis measure responsible consumption behaviors was tested through construct validity analysis. At the end of this analysis, questions measuring the same and different structure were determined and whether the questions are under one construct or not was evaluated through item factor loading values.

Although loading values obtained at the end of factor analysis are recommended to be .45 or more, in practice, it can be seen that .30 is taken as threshold value. In the present study, an item's having a factor loading value of .30 is accepted to be sufficient. The questions with factor loading values over this value were chosen and included in the questionnaire and others were discarded [31,32].

For the reliabilities of the questionnaire, first, internal consistency coefficient, “Cronbach Alpha” was calculated. In addition, the questionnaire was administered to the same group of people with a 15-day interval and the consistency of the responses given by

the participants to these two applications was interpreted by calculating “test-retest correlation coefficient”. As the 345 participants of the study were from two levels, middle socio-economic level and high socio economic level, the questionnaire was administered to 50 people from the middle level and 50 people from high level with a 15-day interval. The power of the questions in the questionnaire for distinguishing positive attitudes from negative attitudes was evaluated through item analysis. For this purpose, the correlation among the item total scores was estimated.

In the second part, there are “Socially Responsible Consumption Behaviors”. In this part, factor and item analyses of the “Socially Responsible Consumption Behavior Scale” were conducted. As a result of the analyses, it was found that the factor loading values of the scale ranges from .31 to .69 and item correlations range from .20 to .57. These correlations were found to be significant at the level of .05. Alpha value calculated for the reliability is .073, test-retest value is .095 ( $p < 0.05$ ).

**Administration of the Questionnaire:** The questionnaire designed was first administered to total 100 consumers included in the sample, 50 from middle socio-economic level and 50 from high socio-economic level, to pass validity and reliability tests. Validity and reliability tests were conducted on these 100 questionnaires. Required corrections were done according to the results of analyses and the study went on with working questions and the administrations of the questionnaires were completed. Every questionnaire was administered in the houses of the consumers residing in the pre-detected addresses in the neighborhoods within the borders of Çankaya municipality and each administration lasted for 30-40 minutes. In the first stage of the administrations when the validity-reliability analyses were conducted, it was very difficult to persuade the participants to retake the questionnaire 15 days later. Yet, enough participants were persuaded to take the questionnaire again. In the first administration, the telephone numbers of the participants were taken and then they were called to get the appointments for the second administrations. Some of the families did not want to participate in the study but this problem could be easily overcome as the number of the families in the neighborhoods included in the sample list is very high. Moreover, no difficulty was experienced in the understanding of the questions as the families are at middle and high socio-economic levels.

**Evaluation of the Data:** In the studies investigating responsible consumption behaviors; in general, for the variable of education level, mean durations of education for men and women have been used [5,33]. In the present study, variable of education level solicited in the first part of the questionnaire and used as explanatory variable in the other parts was calculated first by finding the mean durations of education for men and women (in years), then calculating the standard deviations of these means and adding standard deviations to the lower and upper values of the means.

As a conclusion of this calculation, education level variable was considered at three levels; low, middle and high.

In the second part of the study, under the heading of “Socially Responsible Consumer Behaviors”, responsible consumer behaviors were evaluated via 13 statements. The responses given to these statements were evaluated in five categories which are “always”, “usually”, “sometimes”, “rarely”, “never”. The choices of the participants were evaluated according to their being negative or positive with numbers ranging from 5 to 1. Mean values for each behavior indicating responsible consumption were evaluated through variance analysis by considering the relation between education level independent variable and socially responsible behavior and when the relation between the variable of perception of adequacy of the income and responsible behavior was evaluated, t test was used.

Then the socially responsible behaviors were considered within a framework of a scale, the effect of education level variable on this scale was estimated through variance analysis and the effect of adequacy of the income was estimated through t-test.

## RESULTS AND DISCUSSION

### Demographics of Socially Responsible Consumer

**Demographic Characteristics of Students:** The demographic data of consumers surveyed in this study are tabulated in Table 1. Majority of the participants' are between 30-49 years old and majority of them are middle education. Approximately more than half of them (52.2%) belongs to middle socioeconomic status. Majority of the consumers' perceptions their income as inadequate (72.7%). And 30.1% of consumers are full time employers.

**Socially Responsible Consumption Behavior:** In this part, first, the extent to which participants agree with the each statement constituting the responsible behaviors was

Table 1: Demographic characteristics of Socially Responsible Consumer

Demographic characteristics	N=345	(%)
<b>Age</b>		
20-29	21	6.1
30-39	144	41.7
40-49	134	38.9
50-59	40	11.6
60 and older	6	1.7
<b>Educational level</b>		
Low	50	14.5
Middle	266	77.1
High	29	8.4
<b>Socio economical status</b>		
Middle	180	52.2
Upper	165	47.8
<b>Adequacy of Income</b>		
Adequate	94	27.3
Inadequate	251	72.7
<b>Occupation status</b>		
Full-time	104	30.1
Part-time	64	18.6
Retirement	45	13.0
Unemployed /Homemaker	132	38.3

determined and the relations between these behaviors and adequacy of the income and education level were looked into. In the second part, the scale developed for responsible consumption behaviors of the consumers and the effects of adequacy of the income and education level were examined.

### Socially Responsible Consumption Behaviors of the

**Consumers:** When the extent of the consumers' agreeing with the statements was evaluated in relation to their total mean scores for each behavior, it was found that the consumers mostly agree with these statements: “If there is an opportunity to make a choice, I always choose the products which are the least harmful to the environment” (X=4.446) and “If some of the products have been proved to be environmentally harmful, I do not buy these products” (X=4.287). These are followed respectively by these statements: “While purchasing products, I do not prefer the ones including chemicals” (X=3.490), “I do not exhibit spontaneous purchasing behaviors” (X=3.449), “I try to buy energy-efficient household utensils” (X=3.191) and “I do not buy packaged products” (X=3.093). Lower level of agreement was found for these statements: “I try to buy only recyclable products” (X=2.991), “I do not buy the

Table 2: Results of variance analysis of the consumers' socially responsible consumption behavior according to their education levels

Socially Responsible Consumption Behaviour	Educational level							
	Low		Middle		High		F	P(Sig)
	X	S	X	S	X	S		
1. I try to buy energy-efficient household utensils.	2.72	1.72	3.27	1.56	3.31	1.47	2.62	0.074
3. I do not buy packaged products.	2.82	1.77	3.14	1.52	3.10	1.32	0.93	0.398
4. When I have an opportunity to choose I always prefer the products the least harmful to the environment	4.38	0.95	4.48	0.91	4.28	0.80	0.81	0.447
6. When some products have been proved to be harmful to the environment, I do not buy these products.	4.10	1.16	4.32	1.05	4.31	0.93	0.91	0.404
7. I separate the household waste and store them appropriately and make their delivery to recycling plants possible.	2.22	1.65	2.71	1.67	3.41	1.59	4.65	0.01
9. While washing the clothes, I use the soaps and detergents with low phosphate content.	1.74	1.37	2.08	1.55	2.35	1.59	1.62	0.200
10. I do not buy the products including aerosol.	3.02	1.53	2.94	1.38	2.93	1.36	.78	0.925
12. While purchasing a product, I do not prefer the ones including chemical substances	2.56	1.54	3.65	1.40	3.66	1.37	1.57	0.000
13. Even if they are more expensive, I buy energy-efficient bulbs.	2.74	1.75	2.73	1.68	2.90	1.47	1.37	0.872
14. I try to purchase only the recyclable products.	2.60	1.33	3.06	1.26	3.00	1.25	2.81	0.062
15. I try to buy the products of the companies making donations to charities.	2.42	1.37	2.74	1.41	3.03	1.27	1.93	0.146
17. I do not perform spontaneous purchasing behaviors.	3.80	1.53	3.42	1.53	3.10	1.59	2.09	0.126
21. For environmental purposes, I put my signature to a petition or participate in a demonstration.	1.52	1.03	2.35	1.39	2.83	1.54	1.93	.000
22. I am willing to travel to work either by bus or on bicycle in order to decrease air pollution.	2.62	1.67	3.01	1.46	2.83	1.44	2.09	.216

\*p&lt;0.01, Sd=2;342, \*\*p&lt;0.01, Sd=2;342

Table 3: Results of t test of the consumers' socially responsible consumption behavior according to their adequacy of the income

Socially responsible consumption	Adequate		Inadequate		t	p (sig)
	X	S	X	S		
1. I try to buy energy-efficient household utensils.	2.95	1.60	3.28	1.57	-1.76	0.07
3. I do not buy packaged products.	2.82	1.55	3.20	1.53	-2.03	0.04
4. When I have an opportunity to choose I always prefer the products the least harmful to the environment.	4.51	0.94	4.42	0.89	0.81	0.42
6. When some products have been proved to be harmful to the environment, I do not buy these products	4.25	1.04	4.30	1.07	-0.45	0.65
7. I separate the household waste and store them appropriately and make their delivery to recycling plants possible.	2.86	1.76	2.64	1.68	1.07	0.29
9. While washing the clothes, I use the soaps and detergents with phosphate low content.	2.04	1.50	2.06	1.55	-0.07	0.94
10. I do not buy the products including aerosol	2.98	1.38	2.94	1.41	0.25	0.80
12. While purchasing a product, I do not prefer including chemical substances	3.56	1.40	3.46	1.49	0.57	0.56
13. Even if they are more expensive, I buy energy-efficient bulbs	2.69	1.66	2.76	1.68	-0.34	0.73
14. I try to purchase only the recyclable products.	2.84	1.30	3.05	1.26	-1.34	0.18
15. I try to buy the products of the companies making donations to charities	2.78	1.42	2.70	1.39	0.45	0.66
17. I do not perform spontaneous purchasing behaviors.	3.30	1.57	3.51	1.53	-1.12	0.26
21. For environmental purposes, I put my signature to a petition or participate in a demonstration.	2.16	1.44	2.31	1.37	-0.90	0.37
22. I am willing to travel to work either by bus or on bicycle in order to decrease air pollution.	2.78	1.52	3.00	1.48	-1.24	0.22

\*p&lt;0.01, Sd=2;342, \*\*p&lt;0.01, Sd=2;342

products including aerosol" (X=2.948), "I am willing to travel to work either by bus or on bicycle in order to decrease air pollution" (X=2.939), "I try to buy the products of the firms making donations to charities" (X=2.722), "I try to separate the household trash, to store them appropriately and send them to recycling plants" (X=2.701), "even if they are more expensive

I buy energy-efficient bulbs" (X=2.742) and the lowest level of agreement (lowest scores) was found for these statements: "while washing the clothes, I use soap or detergent with low content of phosphate" (X=2.052) and "because of an environmental reason, I either put my signature on a petition or take part in a demonstration" (X=2.270) (Table 2).



The study findings show that with increasing level of education, the percentage of those purchasing energy-efficient household utensils (Table 2) ; however, it was found that the education level does not create significant differences among the consumers with regards to the behavior of purchasing energy-efficient utensils ( $p>0.05$ ).

When the consumers' behavior of buying packaged products was evaluated, they were found to be inclined not to buy packaged products (Table 2, Table 3).

When this behavior was investigated according to the variable of education level, it was found that the highest percentage of the consumers buying belongs to those with low level of education (44.0%) and this is followed by those with a middle level of education (26.3%) and those with high level of education (20.7%) (Table 3)

The level of education does not cause significant differences in consumers' using packaged products ( $p>0.05$ ).

When the participants' behavior of using packaged products according to their finding their income adequate was investigated, it was observed that those who find their income adequate are more inclined to buy packaged products ( $X=2.82$ ) than those finding their income inadequate ( $X=3.20$ )(Table 4.2).

The relation ship between finding the income adequate and behavior of using packaged products was found to be significant ( $p<0.05$ ). However, this difference may be thought to stem from the high prices of the packaged products rather than the consumers' sensitivity towards environment.

Schwepker and Cornwell (1991) stated that the consumers are inclined to change their consumption behaviors in relation with the packaging of the products. They also found that the consumers prefer the products offered in small packages rather than the ones offered in big packages.

When the consumers' behavior related to not buying the products harmful to the environment was evaluated according to the adequacy of the income, it was found that there is no significant relation between finding the income adequate and not buying the products harmful to the environment ( $p>0.05$ ).

Purchasing behavior of the environmentally friendly products has been viewed usually as connected with the consumers living in big cities. This connection is explained via the fact that the individual living in big cities confront with environmental problems such as air pollution, water pollution and noise pollution [5]. In the studies conducted so far, it has been understood that the consumers evaluate the products' being environmentally

friendly by means of subjective criteria. These criteria are the color of the wrapping (green color), the name of the product (natural), promotion and advertisement works [27].

When the consumer included in the study was asked whether they separate the household wastes and store them appropriately and make their delivery to recycling plants possible, it was found that the consumers never do this behavior and rarely do this.

In the interviews made with the consumers, many consumers stated that they actually want to separate the household wastes for the purpose of recycling but they can not find appropriate space in their places of residence to store them, even if they store the wastes despite these hurdles, they believe that these wastes are not appropriately collected and delivered to the recycling plants. Hence, the reason why the consumers do not sufficiently participate in the activities of storing the household wastes and delivering them to recycling plants is thought to be the conditions in which they live.

When the education levels of the consumers are considered, differences are observed in their behaviors of separating the household wastes. As can be seen from the findings of the study, with the increasing level of education, the behavior of separating and delivering household wastes to recycling plants also improves. Moreover, as a result of analyses conducted, it was found that the variable of education level is influential on this behavior ( $p<0.01$ ).

The behavior of separating the household wastes and delivering them to recycling plants was evaluated to according to consumers' perceptions of the adequacy of their incomes, it was found that the variable of adequacy of income does not effect this behavior ( $p>0.05$ ).

Oskamp and his colleagues (1991) found that 41% of the families participated in the campaign of recycling household wastes which was organized by the local government. Moreover, in this study, it was also found that more than half of the families (58%) staying outside the campaign were found to be separating the household wastes with their own methods. Most recycled household waste is aluminum (92%) and it is followed respectively by newspaper (79%), glass (48%) and plastic (39%) and other materials (7%).

Bayraktar and Mert (1993) found that 55.1% of the female consumers and 50.3% of the male consumers separate the household wastes.

When the consumers' behavior of using low-phosphate content soap and detergent while washing the clothes was investigated, It was found out from the

findings of the study that with the increasing level of education, the ratio of using soap or detergent with low phosphate content while washing the clothes increases. However, as a result of the statistical analyses conducted, it was found that the education level does not significantly effect this behavior ( $p>0.05$ ). At the same time no significant relation was found between finding the income adequate and using soap or detergent with low phosphate content ( $p>0.05$ ).

These results may be connected with the consumers' lack of information about the contents of the products.

In their study, Herberger and Buchanan (1971) found significant changes in the behavior of choosing detergent of the women after they were informed about the phosphate in detergents by the researchers. Henion (1972) in a similar way, found that after being given ecological information related to detergents including phosphate, the consumers paid attention to the phosphate content of detergents and even the consumers with low level of income became more concerned about the issue. Murphy and his colleagues (1978) found that white consumers choose better detergent with regards to ecologic concerns than black consumers.

When the participants' behavior of using the products including aerosol was investigated, it was found that 17.8% of them never use these products, 18.8% do not usually use them, 27.2% use them sometimes, 13.0% rarely use them and 23.2% always use them (Table 3).

The findings of the study indicate that the consumers with low and high levels of education are less inclined to buy behavior of using the products including aerosol products. This inclination can be explained by the fact that those with high level of education do not buy them as they are conscious and the consumers with low level of education do not buy them as they expensive. The effect of the education level and adequacy of income variables on the behavior of using products including aerosol was found to be statistically insignificant ( $p>0.05$ ).

As can be seen from the findings of the study, the products including chemical substances are less preferred by the consumers with middle and high levels of education than the consumers with low level of education. As a result of the statistical analyses, level of education was found to have a great influence on the behavior of preferring the products including chemical substances ( $p<0.01$ ).

This result may stem from the lack of information about the content of the products on the side of the consumers with low level of education. When the consumers' behavior of preferring the products including chemical substances was evaluated according to their

perceptions of the adequacy of their incomes, it was found that the percentages of the consumers not preferring these products were found to be very close to each other in both groups of finding their incomes adequate (never 34.0%, usually 24.5%) and finding their incomes inadequate (never 34.3%, usually 23.1%). In the statistical analyses, no significant effect of the adequacy of the income was found to have on the behavior of preferring the products including chemical substances ( $p>0.05$ ).

From the findings of the study, it is seen that the consumers do not prefer energy-efficient bulbs as they are more expensive. In addition, as a result of the observations made during the study, it was found out that another reason why the consumers do not prefer these products is lack of information.

When the consumers' behavior of buying energy-efficient bulbs was evaluated in relation to their perceptions of the adequacy of their incomes and education level of participants', statistical analyses show that perceptions of the adequacy of the income and education level variable do not have a significant effect on the behavior of purchasing energy-efficient bulbs ( $p>0.05$ ). On the other hand Oskamp and his colleagues (1991) reported that the families usually buy energy-efficient bulbs.

According to the findings of the study, it is seen that with the increasing level of education, the tendency to use the recyclable products improves. But education level was found to be not significantly influential on this behavior ( $P>0.05$ ). Also variable of adequacy of the income does not have a significant effect on this behavior ( $p>0.05$ ).

In a study done in USA, it was found that the consumers prefer the products within recyclable and biologically degradable wrappings [34].

In a study conducted in Ankara, it was found that majority of the female (76.14%) and male (63.87%) of the consumers prefer to use the products packaged in a recyclable material such as paper, glass etc. [39].

Özgen and Ufuk (1997) found that one third of the consumers make use of the wrappings of the products they have bought.

In his study, De Young (1986) found that the recyclable wrapping is the most important element affecting the purchasing behavior of recyclable products.

As can be seen from the findings, with the increasing level of education, the tendency to buy the products of the firms making donations to charities increases but the education level variable of the consumers does not have a significant effect on this behavior ( $p>0.05$ ).

When this behavior was evaluated in relation to the consumers' perceptions of adequacy of their incomes, as a result of the statistical analyses, it was proved that perceptions of the adequacy of the income are not influential on the behavior of buying the products of the firms making donations to charities ( $p>0.05$ ).

As a result of the study, it can be told that with the increasing level of education, the tendency of performing spontaneous purchasing behaviors increases. This tendency can be because of the fact that the consumers with high level of education have higher incomes. However, as a result of the statistical analyses, it was proved that the level of education does not have a significant effect on spontaneous purchasing behavior ( $p>0.05$ ).

When the relation between the consumers' behavior of spontaneous purchasing and their perceptions of the adequacy of their incomes was examined, it was found that similar behaviors were exhibited by both the consumers finding their incomes adequate and inadequate (Table 3). Statistical analyses showed that the consumers' perceptions of the adequacy of their incomes do not have a significant effect on the behavior of spontaneous purchasing ( $p>0.05$ ).

As can be seen from the findings of the study, with the increasing level of education, the ratio of performing the behavior of putting a signature on a petition and participating in a demonstration for environmental purposes increases. During the interviews performed with the consumers, it was found that the consumers with high level of education prefer to sign a petition rather than participate in a demonstration and most of them are members of a club or association. Moreover, statistical analyses showed that the levels of education have a significant effect on this behavior ( $p<0.01$ ). Also no significant relation was found between finding the income adequate and their performing these behaviors was found ( $p>0.05$ ).

In a study conducted in Ankara, it was found that 24.5% of the consumers with a secondary level or lower level of education sign the petitions related to environment, 22.5% of them participate in environmental associations and support them. It was also found that 40% of the university graduates or the graduates of two year-degree programs of universities put their sign on environment-related petitions and 20.8% of them participate in environmental associations and support them [36].

During the interviews with the consumers, it was found that even if the consumers have their own private cars, they prefer to go to work through public

Table 4: The results of the variance analysis of the consumers' responsible consumption behaviors according to their education level

Education	N	X	S	sd	F	Inter-groups significant differences
1. Low	50	39.260	8.812	2,342	5.621**	1-2
2. Middle	266	43.898	9.653			1-3
3. High	29	45.035	8.187			

\*\* $p<0.01$

Table 5: t test results of the consumers' responsible consumption behavior according to the adequacy of the income

Income	N	X	S	Sd	t
1. Adequate	94	42.510	9.753	343	0.965
2. Inadequate	251	43.625	9.473		

transportation because of the economic reasons. Moreover, it was found that the consumers thinking of going to work on a bicycle think that the roads are not appropriate to ride on.

As a result of the statistical analyses, it was found that education levels of the consumers do not have significant effect on this behavior ( $p>0.05$ ).

When the consumers' behavior of being willing to travel to work by bus or on a bicycle to reduce the air pollution was evaluated according to their perceptions of the adequacy of their incomes, it was found that the costumers who find their incomes inadequate perform this behavior more than the customers who find their incomes adequate (Table 3). But statistical analyses showed that the customers' perceptions of the adequacy of their incomes do not have a significant effect on this behavior ( $p>0.05$ ).

### The Socially Consumers' Responsible Behavior Scale:

The responsible consumption behaviors were examined within the framework of a scale and the relations between this scale and adequacy of the income and education level were explained (Table 4. and Table5)

Through the statistical analyses, it was found that the consumers' responsible consumption behaviors vary according to their education level ( $p<0.01$ ). As can be seen from the table, the difference is between low and middle levels and low and high levels. With the increasing education level, the ratio of the customers' participation in the responsible consumption behaviors increases.

As can be seen from Table 4.4, the consumers' perceptions of the adequacy of their incomes do not have significant effects on responsible consumption behaviors ( $p>0.05$ ).

**Evaluation of the Socially Consumers' Responsible Consumption Behaviors and Suggestions:**

The purpose of this study is to determine the consumers' socially responsible consumption behaviors and to investigate the effects of some demographic features (education level and attaching importance to the adequacy of the income independent variables) on these behaviors. When the responsible consumption behaviors of the consumers were evaluated for this purpose, it was found that when the consumers have the opportunity to make a choice, they prefer the products less harmful to the environment, when they realize the harm the product gives the environment, they do not buy the product. In addition, the consumers were found not to prefer the products including chemical substances and they relatively perform less spontaneous purchasing. In general, the consumers were found to have a tendency to buy packaged products and among the consumers finding their incomes inadequate, this tendency was found to be higher; moreover, the variable of the adequacy of the income was found to be significantly influential on this behavior ( $p < 0.05$ ).

The number of the consumers separating the household wastes and sending them to recycling plants, not buying the products including chemical products and willingly putting signature and participating in a demonstration for environmental purposes was found to be higher among the consumers with high level of education. With the increasing level of education, the ratio of performing these behaviors increases. Furthermore, education level was found to have a significant effect on these behaviors ( $p < 0.01$ ).

Even though the participants were found to be concerned about the environment in this study, it was understood that individuals' being concerned about the environment is not enough on its own for the individuals to strive for solving environmental problems or realize changes in their attitudes towards environment. Moreover, consumers' lack of information about environmental issues was observed. The knowledge level of the consumers about being environmentally-friendly, the energy-efficient products, phosphate content of detergents and existing products in the market was found to be not enough. Moreover, the consumers' environmentally and socially conscious behaviors are highly affected by their economic concerns; for instance, many consumers state that they are concerned about the environment and they are not happy with the depletion of the resources and environmental pollution, yet they are not successful in

dealing with these problems. What seems to be really important is getting individuals to believe the importance of their personal efforts in finding solutions to these problems rather than convincing them that there are environmental problems.

In addition, it is known that personal efforts are not enough on their own to find solutions to environmental problems. For example, many consumers want to sort out household wastes but they can not find space to store these wastes, recycling bins are either too far away from the house or they are not present in the neighborhood. Among the duties of local governments, there are not only issues of collecting household wastes and their recycling but also issues of encouraging the public to use bicycles by planning areas appropriate to ride a bicycle and increasing the capacity of public transportation, etc. Besides the local government, consumers, families, national government and some public institution should take responsibility for the solution of environmental problems. Certainly, the education will be the most effective tool in forming the community that can protect their own interests and the interests of the community and in leading institutions and organizations concerned with these issues into action. Today, in the market conditions in which the individuals are continuously encouraged to consume ever-increasingly, it is of great importance to design formal and informal education programs helping people to develop sensitivity towards the environment and to raise the awareness of responsible consumption. Primarily, in the formal education, courses dealing with environment and relations between the man and environment should be required. The changes made only in formal education may not be enough on their own to raise environmental consciousness. In addition to this, training programs emphasizing the role of the consumer in the elimination of environmental problems (buying environmentally-friendly products, spending the resources thriftily, turning into home production and energy saving activities, buying only the services and products required, etc.) should be incorporated into adult education programs.

As a result, the studies done so far have showed that the consumers need information about environment including ecology, energy saving and responsible consumption and suggestions to help them to change their purchasing behaviors. Governments, business circles, consumers and environmental organizations have been working in cooperation to produce easily available information and educational materials.

The most effective way recommended to enhance the knowledge level of the consumers and to change their consumption behaviors is to initiate education campaign for a product. In this model, currently in use in Finland, the education given does not deal with a general consumption model, but it aims to educate the consumer in the selection of product or service and its use. As different consumer groups have different environmental problems and different solutions, their degree of drawing on the information given may differ. Hence, it is important to know the needs of the consumer group to be subjected to the education. On the other hand, in general convincing all the consumers to believe that finding solutions to environmental problems and responsible consumption require solidarity of the community and

motivating them to work collaboratively may increase the benefits of such education programs for individuals.

Certainly, the environmental problems can not be solved with voluntary participations. Although increasing the energy prices and some putting regulations into effect seem to be effective in energy-saving and pollution reduction, the importance of the concept of socially responsible behavior should not be overlooked either today or in the future.

It is necessary to develop effective policies enabling consumers, manufacturers, local governments, national governments and public organizations, voluntary organizations and particularly the educational institutions to work in cooperation to develop environmentally and socially conscious consumer life styles.

#### Appendix 1

The Results of Factor Analysis and Item Total Correlations The results of responsible consumption behavior scale factor analysis and item analysis

Item No:	Factor loading value	Item-total correlation
2. I try to buy energy-efficient household utensils.	0.51	0.39
3. I do not buy packaged (excessively) products	0.48	0.35
4. When I have the opportunity to choose, I always prefer the products the least harmful to the environment	0.40	0.29
6. When some products have been proved to be harmful to the environment, I do not buy these products.	0.31	0.20
7. I sort out the household wastes and store them appropriately and make their delivery to recycling plants possible.	0.38	0.27
9. While washing the clothes, I use the soaps and detergents with low phosphate content.	0.51	0.38
11. I do not buy the products including aerosol.	0.40	0.28
12. While purchasing a product, I do not prefer the ones including chemical substances	0.61	0.46
13. Even if they are more expensive, I buy energy-efficient bulbs	0.69	0.53
14. I try to purchase only the recyclable products.	0.69	0.57
15. I try to buy the products of the companies making donations to charities.	0.43	0.31
17. I do not perform spontaneous purchasing behaviors.	0.36	0.24
21. For environmental purposes, I put my signature to a petition or participate in a demonstration.	0.52	0.39
22. I am willing to travel to work either by bus or on bicycle in order to decrease air pollution.	0.35	0.23

Alfa=0.73 Test-Retest=0.95

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