

## A Study on the Consumer's Clothing Behavior Related to the Environmental Consciousness I

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### Abstract

*The purpose of this study was to investigate the level of environmentally conscious consumer behavior, and to identify the influencing variables and causal relationship. Data were collected from questionnaires with 275 housewives who were residents of Seoul and Kyunggi-do.*

*The major findings were as follows:*

- (1) The level of environmentally conscious behavior differed significantly according to occupation, income, averaged monthly clothing expenses, residence type and residential area.*
- (2) The consumer's clothing behavior related to the environmental consciousness differed significantly according to age, education, matrimonial status, income, average monthly clothing expenses, residence type and residential area.*
- (3) The use of mass media differed significantly in the consumer's environmental consciousness.*

*Key words : consumer's environmental consciousness, consumer's behavior related to the environment, consumer's clothing behavior related to the environment.*

### I. Introduction

Today, the issue of the environment has become a concern of all human beings, regardless of their color. It is unavoidable for our country to join international environmental organizations and comply with their regulations because the world is globally communalized to the extent that it is called "One Global Village, One Global Economy."

Early concerns with the environment focused on the protection of Nature against the worldwide ecological destruction by industrialization. However, these days people are

likely to take much more positive actions, such as restriction on an entire industry, to protect the environment, which is for humans.

If we harmonize customs more and more with the environment, there would be less unnecessary fluctuations in our daily lives<sup>1)</sup>. As life gets simpler, it is easier to be in harmony with nature. The keys for mankind to survive for a long time is to make most use of the powers of nature, to distribute all resources with balance, and to restrain artificial powers as much as possible.

Therefore, in trades for economical growth, environmental aspects had to be considered,

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<sup>1</sup> Cae-Hwee Chun, *Natural Environment Architectural Design*, (Seoul: Jimun-dang, 1996), 27-28.

and environmental standard for merchandises had to be thought of. Currently, many countries are adopting an environmental mark system and trying to clarify the standard.

Our country has a trade dependency of 54%, so we cannot stand alone. We have to follow the trend of globalization. Therefore, to be a confident member of the globalized world, the government, the company, and we all have to have a new recognition of environmental protection and act wisely.

As a part of the concerns with the environment which has been highlighted under such changes of the times, this study is to find out the consumer's clothing behavior related to the environment by studying the housewives of Seoul and Kyunggi-do. Through these findings, it will be possible to evaluate the level of Korean consumer's clothing behavior related to the environment and their tendencies according to characteristics varying among them. And then, after pointing out problems of clothing consumption patterns involved in environmental issues, this study is to suggest answers to those environmental issues.

## II. Recognition of Environmental Problems

### 1. The Environment and the Ecosystem

The environment is a potential realm of human activity which has the power to induce a certain activity in human. In addition, humans have the instinct and attitude to pursue and act in good will toward the environment. In other words, the environment is a medium through which opportunities are given to human. It passes on the information about a thing or object in the Real World through a stimuli which is in a sensational form. On the other hand, humans reacts to this stimuli in a way and an attitude that is determined by the values of each person.

There is a phenomenon that is induced by these series of stimuli and reactions, and that phenomenon is generally called the environmental phenomena. The environmental phenomena is a spatial behavior or human behavior in non-visual and non-physical form which is between humans and the environment.

The environment is divided into the 'human environment' which includes humans, and the 'non-living environment' which excludes human beings. In general, the environment means the 'human environment' which includes all natural and social conditions that affect humans. The environment consists of many elements, and they can be divided into the natural environment and the social environment as the following<sup>2)</sup>.

- 1) Natural environmental element  
position, geography, climate, soil, plants, water etc.
- 2) Social environmental element  
population, economic activities, culture, settlement, etc.

These elements interact functionally in a system called the environmental system.

The ecosystem is the environmental system excluding the humans and social environmental elements.

The ecosystem is divided into biological community and its habitat, the inorganic environment. The biological community included the plants, the animals and microorganisms. The inorganic environment that sustains life consists of the sun and three spheres-atmosphere, hydrosphere, and lithosphere.

The substance that consists the ecosystem, circulates continuously, from inorganic matter to organic matter by solar energy and from organic matter to inorganic matter. The ecosystem is a circulation of energy and substance(resource). In this point of view, the

<sup>2</sup> Korea Construction Technology Research Center, *Environmental Protection Housing Development* (Department of Construction and Transportation, 1995), 7.

three main elements of the ecosystem is the following<sup>3)</sup>.

1	Sun	Primary energy source
2	Soil	Soil or substance
3	Air	Air and wind
4	Water	Water resource and water-power

The above elements consist the sub-circulations of energy, substance, air, and water which are part of the whole circulation of the ecosystem based on solar energy. The ecosystem is dynamic. The fact that it continues to exist doesn't mean that it doesn't change. For the ecosystem to be maintained, it needs the flexibility that allows it to recover from disasters, and to recover what it has lost.

Sustainable development is a development that satisfies the needs of now without robbing the needs of the future generation. To our descendents, we should pass down the environment at least as it was when we were born.

In the long run, in a static economy, people enjoy a comfortable life without consuming much substance.

The change in earth is possible through the participation of 5 billion individuals. We should support the government in making continuous plans to protect the environment, such as reducing the use of paper, metal, and plastics, growing and buying plants without using insecticide, planting trees, protecting water, recycling, and have less children. It is to change the global village.

## 2. The Change in the Recognition of Environmental Problem

The last few centuries, men have increased material abundance through maximizing the

use of environmental resource. Natural resources were thought as something that is given to for free without limits. We thought that even if we run out of one resource, it could be replaced by a new kind.

The Meuse Valley Smog in December, 1930, Belgium, the famous London Smog in December, 1952, and the mercury poisoning in Minamata, Japan in the 1950's. Such incidents and other environmental disasters have led us to realize the significance of the problems of pollution caused by industrialization.

In addition to the localized or regional environmental problems, more recently the world-wide problems are threatening mankind.

The characteristic of the world-wide problem is such that even if the cause is in one region or a few countries, the damage affects the whole world. In addition, to control this efforts should be made by the whole world.

In the 1980's the concept of "Environmentally healthy and sustainable development" was adopted and became the made theme for future development. These days, after end of the cold age, new order is emerging, and it is based on not only the economy, but also the environment. "The harmony of development and the environment" is becoming a major issue. In fact, in 1992, at Rio Environmental Conference, world leaders agreed that every nation should pursue environmentally sound development.

Although there is a trend of less regulation in trade through GATT, trade regulation for environmental reasons will tighten. While UR stands for free trade and opening of markets, and only the economic aspects of it is emphasized, with the organization of WTO and forming the actual agreement, the en-

<sup>3</sup> Korea Construction Technology Research Center, *ibid.*, 8.

vironment is becoming a major issue. Such movement to use trade issues to solve environmental issue is called "Green Round," and it will surely have more impact and consequences than UR.

The conference of Green Round won't be as abstract as Rio Environmental Conference. It will take a form of realistic regulations. The object of regulation will not only include the individual nation's environmental policy, current conditions, and the products' environmental toxicity, but also the company's environmental management in the production. In addition, the means of regulation will include the actualization of the idea that the one who causes the pollution should pay for it, banning of import of products that harm the environment during the production, and placing heavy taxes on products that is produced under lenient regulations. Also WTO which will lead the Green Round have the power to enforce its decisions unlike GATT. WTO has chosen to decide the matter by the majority, which in UR every nation had to agree. Therefore, the duration of negotiation will shorten, and our prompt preparation is needed.

### III. Trend in Research Related to the Environment

#### 1. Consciousness of Consumer toward the Environment

Both the betterment of living standard and material abundance have turned environmental pollutions into social issues, so people have begun to realize the importance of the en-

vironment and to emphasize the necessity of consumption with the environment in mind<sup>4</sup>

The improvement of living standard and materialistic wealth have caused social problems due to pollution, and people have come to realize the importance of the environment and consumption with the consideration of the environment.

Environmental problems, unlike natural disasters<sup>5</sup>, is a social calamity caused by mankind, and now we, who enjoyed the materialistic convenience have to act for environmental preservation of earth.

Therefore, consumers should recognize the seriousness of environmental pollution and reflect such realization in action by limiting their consumption through reasoning and effective use of resources<sup>6</sup>. Reasonable management of clothing and recycling by consumers are such examples. Henion(1972)<sup>7</sup> defined environmentally conscious consumer as a consumer who pays attention to the effects in the environment as he buys, uses, and disposes any product or service. Such consumer also reflects that attention in his values, attitude, and behavior.

To sum up the studies done by scholars, consumer's consciousness toward the environment leads to action that preserve the environment for himself and for the benefit of society.

Let's take a look at the studies done about this issue. Nam-suk Choi(1994)<sup>8</sup>, in her study of housewives of Seoul, concluded that to cope better with environmental problems, there should be a systemic understanding of environmental consciousness and environment

<sup>4</sup> Moon-Sook Kim, and Seong-ji Han. The study on Apparel Products through Green Marketing Perspective, Seoul Women's University, *The Journal of the Natural Science Institute*, 7, (1996).

<sup>5</sup> Gi-Nam Hong. A study on the Consumer Consciousness and Behavior on living Environmental Problems of Homeworks, Chonnam National University, Unpublished Master's Thesis(1992).

<sup>6</sup> G. Fisk. Criteria for a Theory of Responsible Consumption, *Journal of Marketing* 37, (April, 1973): 24-31.

<sup>7</sup> K. E. Henion. "The effect of ecologically relevant information on detergent sales", *Journal of Marketing Research*, 9, (1972): 10-14.

<sup>8</sup> Nam-suk Choi. A Study on the Environmental Education and Environmental Preservation Behavior in the Housewives, Ewha Women's University, Unpublished Doctoral Dissertation(1994).

preserving action through environmental education. Chae-young Noh(1991)<sup>9</sup>, in the study of consumer's consciousness and behavior about the environment, explained that since consumer's consciousness is the main factor in change of behavior, environmental consciousness should come first. Other studies, such as Hae-kyung Chang(1992)<sup>10</sup>, Jung-woo Lee · Myung-suk Lee(1989)<sup>11</sup> also emphasized the importance of consumer's consciousness and consumer education.

The term 'consumer's environmental consciousness' that is used in this study can be defined as the individual's consciousness that considers the environmental problems that are brought about in the whole process of production and consumption. This concept includes the consciousness to buy products regardless of price, the sympathy for problems of pollution, and the consciousness consider the effects on the environment.

## 2. Consumer's Behavior toward the Environment

For consumers to solve the environmental problem to improve the quality of the environment, the environmental consciousness should lead to specific actions in everyday life. Ways to watch out for people who harm the environment have also been suggested.

Studies done on consumer's behavior related to environmental problems were about the aspect environmental pollution, the aspect of conservation of energy, and the aspect of recycling.

Recently, there has been a study done about the housewives' behavior in buying, using, and processing products in an environmental aspect. Also there was a study done on housewives' behavior in buying, managing

the clothing, housing, and food related to the environment.

Therefore to solve the environmental problem, consumers should behave with environmental consciousness. They should buy, use and manage goods without destroying the environment.

The term 'consumer's behaviors related to the environment' that is used in this study may be defined as those of making rational use of resources with taking the influences upon natural and social environments of their own individual consumption behaviors into account. This concept includes the effort to ban hair spray and moose, use alternatives of plastics, and behavior to process and recycle garbage.

## 3. Environmental Consciousness and Consumer's Clothing Behavior

The initial consumer studies done related to the environment tried to find the relevance of environmental consciousness and socioeconomic status. After the late 1970's, studies began to consider other factors such as effectiveness, self control and tendency of extravagance.

In Korea, such studies started in mid 1980's and have become more active in the 1990's because of the seriousness of pollution.

Many factors have affected the consumer's trend in clothing. Such factors include the growth of textile industry, improvement in the women's status, development of mass media, introduction of color television, more free time, diversity and modernization of circulation structure, and the use of credit card.

The discarding of clothing increased because they are worn for less time, and reckless, unplanned buying have also increased.

<sup>9</sup> Chai-Young No. A Study on the Consumer's Consciousness and Behavior in Environmental Problems, Chonnam University, Unpublished Master's Thesis(1991).

<sup>10</sup> Hae-Kyung Chang. A Study on the Consumer's Consciousness and Resource Preservative Behavior, Sukmyung Women's University, Unpublished Master's Thesis(1992).

<sup>11</sup> Jung-Woo Lee, Myung-Suk Lee. Study on Urban Housewife's Recognition and Management of Pollution, *Substudy*, 28(1989): 123-148.

In the aspect of managing clothes, housewives should realize using extraneous amount of detergent leads to pollution.

Consumers take the dual-role of the a person who causes environmental pollution and a person who is harmed by environmental pollution. Since consumers use ready-made goods, it is impossible for them to deal with environmental problems unless products that don't cause environmental problems are produced. Consumers' environmentally conscious behavior that is reflected in clothing can include saving resources and energy, reusing and recycling of resources, and consumption behavior of alternatives.

In studies, age, education, occupation, monthly income, and residence type are being considered as vital statistical factors, and the results varies.

The term 'consumer's clothing behavior related to the environment in this study can be defined as the practice of behaviors for developmental clothing habits on the basis of scientific knowledge through the entire process of consumer's buying, disposing and recycling clothes. This concept includes planning of clothing purchase, recycling and reusing clothing, and experience of buying used clothes.

#### IV. Research Method and Procedure

##### 1. Topic

The study is done on the following topics.

- (1) To find out if consumer's environmental consciousness affects the consumer's clothing behavior.
- (2) To find out if demographic characteristics affect the consumer's environmental consciousness and consumer's behavior related to the environment.
- (3) To find out if demographic characteristics affect the consumer's clothing behavior related to the environment.
- (4) To find out if consumer's use of mass

<Table 1> Subject's demographic characteristics (N=275)

Variables	Group	Frequency	
Age	20~29	55(20.0)	
	30~39	92(33.5)	
	40~49	71(25.8)	
	50~59	45(16.4)	
	60 and over	12(4.4)	
Occupation	Housewife	129(46.9)	
	Production and Sale	25(9.1)	
	Management	32(11.6)	
	Technical and Office Work	36(13.1)	
	others	53(19.3)	
Education	Elementary School or less	21(7.6)	
	Middle School or less	36(13.1)	
	High School or less	141(51.3)	
	College or less	69(25.1)	
	Graduate School or more	8(2.9)	
Matrimonial status	less than 5 years	58(21.1)	
	5 years~less than 10 years	37(13.5)	
	10 years~less than 15 years	53(19.3)	
	15 years~less than 20 years	44(16.0)	
	20 years ~less than 25 years	37(13.5)	
	25 years and more	43(15.6)	
Averaged monthly household income (unit: ten thousand won)	no response	3(1.1)	
	50 and less	10(3.6)	
	50~less than 100	37(13.5)	
	100~less than 200	121(44.0)	
	200~less than 300	47(17.1)	
	300~less than 400	37(13.5)	
	400~less than 500	15(5.5)	
500 and more	7(2.5)		
Averaged monthly clothing expenses (unit: ten thousand won)	no response	1(.4)	
	5 and less	74(26.9)	
	6~20	119(43.3)	
	21~40	48(17.5)	
	41~60	25(9.1)	
	61 and more	7(2.5)	
Residence type	no response	2(.7)	
	House	74(26.9)	
	Apartment	108(39.3)	
	Alliance House	69(25.1)	
	others	17(6.2)	
Residential area	No response	7(2.5)	
	Seoul	Kangbuk	65(23.6)
		Kangnam	58(21.1)
	Kyunggi	Osan	30(10.9)
		Kumchon	31(11.3)
		Suwon	31(11.3)
		Kwangju	30(10.9)
Anyang		30(10.9)	

media affect the consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment.

## 2. Research Subject and Collection of Data

This study took as its survey subjects housewives living in Seoul and Kyunggi-do. Among 300 pieces of questionnaires distributed from November 25 through 30, 1998, 283 were collected, from which 275 were classified as final analysis data on the basis of sincerity in answering to the questions.

The general characteristics of the subjects regarding the demographic characteristics are as in <Table 1>.

## 3. Instrument

For measurement, questions from previous studies were used as reference. In the study of Whang<sup>12</sup>, SCRBS scale (Socially Responsible Consumption Behavior Scale) developed by Antil and Bennett were used as the scale for environmentally conscious consumer behavior. The questions that were used to evaluate environmental conservation in the study of Kim<sup>13</sup> and the questions related to consumer's participation in the environmental issues from the study of Mon<sup>14</sup> were also used. Among these questions, the questions that fit this study were revised and used in this study.

The questions consist of 10 questions regarding consumer's environmental consciousness, 10 questions regarding consumer's behavior, 12 questions regarding consumer's clothing behavior, and questions for demographic variables. The questions regarding environmental consciousness is scored using

<Table 2> Reliability of survey questions

	Cronbach's $\alpha$
Consumer's environmental consciousness	.77
Consumer's behavior related to the environment	.72
Consumer's clothing behavior related to the environment	.78

the 5 point Likert Type scale, from 1 point, 'not at all,' to 5 points, 'agree very much.' High score indicated higher environmental consciousness. The reliability of questions is as <Table 2>.

## 3. Data Analysis

Data were statistically analyzed with the SPSS PC 7.5 Version for Frequency Distribution, Percentages, Mean, Standard Deviation, One-Way ANOVA, Duncan's Multiple Range Test, T-test, Correlation and Path Analysis.

# V. Result

## 1. Consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment

Subject's score distribution of consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment is as <Table 3>.

<sup>12</sup> In-Chang Whang. An Analysis of Environmentally Concerned Consumers for the Effectiveness of Ecological Marketing, Chonnam National University, Unpublished Doctoral Dissertation(1990).

<sup>13</sup> Yong-Sook Kim. Environmental Consciousness and Environmental Behavior of Clothing Life Cycle Processors, Chungang University, Unpublished Doctoral Dissertation(1996).

<sup>14</sup> Sang-Kil Mon. A Study on Green Marketing Strategy, Seoul National University, Unpublished Master's Thesis(1993).

**<Table 3>** Score distribution of subjects

Variables	Mean	Median	SD	Score range	Possible score
Consumer's environmental consciousness	39.57	39.00	4.34	26~49	10~50
Consumer's behavior related to the environment	34.51	35.00	5.57	20~47	10~50
Consumer's clothing behavior related to the environment	32.12	33.00	6.07	16~48	12~60

**<Table 4>** Correlations of consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment

	Consumer's environmental consciousness	Consumer's behavior related to the environment	Consumer's clothing behavior related to the environment
Consumer's environmental consciousness	1.00		
Consumer's behavior related to the environment	.39**	1.00	
Consumer's clothing behavior related to the environment	.40**	.66**	1.00

\*\* p&lt;.01

Looking at the scores of research subjects, consumer's consciousness related to the environment is 39.57, consumer's behavior related to the environment is 34.51, and consumer's clothing behavior related to the environment is 32.12. When this is evaluated by comparing the possible score and median of each variable, the consumer's environmental consciousness is relatively high, while the clothing behavior is the lowest.

These results indicate that the consumer's environmental consciousness and behavior re-

lated to the general environment do exist. However, promotion and education is needed for the actual practice of consumer's clothing behavior related to the environment. In addition, clothing processing behavior at home should be emphasized.

<Table 4> shows that there is a positive correlation among consumer's environmental consciousness, consumer's behavior related to the environment and consumer's clothing behavior related to the environment. Therefore, efforts to promote consumer's environmental



**<Table 5>** Consumer's clothing behavior related to consumer's environmental consciousness and consumer's behavior related to the environment

	Clothing behavior		F
	Low group	High group	
Consumer's environmental consciousness	30.68	33.77	.00***
Consumer's behavior related to the environment	29.04	35.62	1.16***

\*\*\*  $p < .001$

consciousness and to improve of consumer's behavior related to the environment can be helpful to promote environmentally conscious consumer's clothing behavior.

## 2. Consumer's clothing behavior related to consumer's environmental consciousness and consumer's behavior related to the environment

Using the mean of consumer's environmental consciousness and consumer's behavior related to the environment, lower score group and higher score group were compared. In <Table 5>, the groups showed significant difference in clothing behavior. Such result indicate education is needed.

## 3. Do demographic characteristics affect the consumer's clothing behavior related to the environment?

Consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment according to the demographic characteristics is shown in

<Table 6> and <Table 7>. In the study, different occupation groups showed significant difference in consumer's behavior related to the environment. Monthly spending on clothing had significant effect in consumer's consciousness and behavior. In terms of consumer's environmental consciousness, with the 21~60 group as a border, lower and higher group had significant difference. In terms of consumer's behavior related to the environment, two groups, one with less than 61 and the other one with more that 61, are different. Age, education, matrimonial status, monthly income made no significant difference.

While the residence type made a significant difference in consumer's behavior related to the environment, they were group of same quality. This is probably because the no response group had a significant difference in consumer's behavior related to the environment.

In terms of residential area, groups had a significant difference in both consumer's environmental consciousness and consumer's behavior related to the environment. This difference comes from the difference between housewives of Kangnam and housewives of other groups. The housewives of Kangnam have different consumer's environmental consciousness and consumer's behavior related to the environment.

Consumer's clothing behavior related to environmental consciousness were affected by all factors, including age, occupation, education, matrimonial status, monthly income, monthly clothing spending, residence type, and residential area. In terms of age, the 20~29 group showed a significant difference from the 60 and over group. In terms of years married, the less than 5 years group and the 25 years and more group had a significant differ-

<Table 6> Consumer's environmental consciousness and consumer's behavior related to the environment according to the demographic characteristics

Variables	Group	N	Consumer's environmental consciousness			Consumer's behavior related to the environment			
			Mean	F	Duncan	Mean	F	Duncan	
Age	20~29	55	39.07	1.40		33.43	1.14		
	30~39	92	40.31			35.05			
	40~49	71	39.70			34.44			
	50~59	45	38.82			34.35			
	60 and over	12	38.42			36.58			
Occupation	Housewife	129	39.76	.61		35.55	4.20**	B	
	Production and Sale	25	39.36			33.50		AB	
	Management	32	40.19			35.77		B	
	Technical and Office Work	36	38.69			33.86		AB	
	others	53	39.45			32.16		A	
Education	Elementary School or less	21	37.81	1.49		36.21	1.19		
	Middle School or less	36	40.47			33.83			
	High School or less	141	39.80			34.93			
	College or less	69	39.25			33.65			
	Graduate School or more	8	39.00			34.00			
Matrimonial status	less than 5 years	58	39.60	.91		33.41	1.18		
	5 years ~ less than 10 years	37	39.18			35.22			
	10 years ~ less than 15 years	53	40.59			34.22			
	15 years ~ less than 20 years	44	38.86			34.12			
	20 years ~ less than 25 years	37	39.16			34.12			
	25 years and more	43	35.33			35.97			
	no response	3							
Averaged monthly household income (unit: ten thousand won)	50 and less	10	39.10	2.23*		35.80	1.47		
	50~less than 100	37	39.49			AB			34.14
	100~less than 200	121	40.43			AB			35.29
	200~less than 300	47	39.09			AB			34.13
	300~less than 400	37	38.08			AB			33.51
	400~less than 500	15	37.80			AB			31.67
	500 and more	7	41.14			B			36.13
	no response	1							
Averaged monthly clothing expenses (unit: ten thousand won)	5 and less	74	40.54	3.85**		35.53	3.48**	B	
	6~20	119	39.99			B		35.09	B
	21~40	48	38.36			AB		33.36	B
	41~60	25	38.09			AB		33.28	B
	61 and more	7	36.86			A		29.14	B
	no response	2							A
Residence type	House	74	40.00	.86		36.03	2.71*	A	
	Apartment	108	39.06			33.89		A	
	Alliance House	69	39.91			33.71		A	
	others	17	39.53			34.25		A	
	no response	7							
Residential area	Seoul	Kangbuk	65	40.00	6.89***		B	7.82*	B
		Kangnam	58	36.60			AB		30.48
	Kyunggi	Kumchon	30	40.57		B	37.00		B
		Osan	31	41.45		B	35.17		B
		Suwon	31	40.06		B	35.14		B
		Kwangju	30	40.33		B	34.83		B
		Anyang	30	40.14		B	36.41		B

\*p<.05, \*\*p<.01, \*\*\*p<.001

<Table 7> Consumer's clothing behavior related to the environment according to the demographic characteristics

Variables	Group	N	Consumer's clothing behavior related to the environment			
			Mean	F	Duncan	
Age	20~29	55	29.71	4.46**	A	
	30~39	92	32.15		AB	
	40~49	71	32.06		AB	
	50~59	45	34.02		BC	
	60 and over	12	35.90		C	
Occupation	Housewife	129	33.29	4.14**	B	
	Production and Sale	25	30.88		AB	
	Management	32	33.58		B	
	Technical and Office Work	36	29.50		A	
	others	53	30.89		AB	
Education	Elementary School or less	21	34.75	2.46**	B	
	Middle School or less	36	33.74		AB	
	High School or less	141	32.01		AB	
	College or less	69	30.74		A	
	Graduate School or more	8	31.75		AB	
Marital status	less than 5 years	58	29.48	5.24***	A	
	5 years~less than 10 years	37	32.00		AB	
	10 years~less than 15 years	53	31.90		AB	
	15 years~less than 20 years	44	31.82		AB	
	20 years ~less than 25 years	37	33.50		B	
	25 years and more	43	35.33		C	
Average monthly household income (unit: ten thousand won)	50 and less	10	34.90	3.41**	BC	
	50~less than 100	37	32.77		AB	
	100~less than 200	121	32.73		AB	
	200~less than 300	47	30.47		A	
	300~less than 400	37	30.69		AB	
	400~less than 500	15	29.43		A	
	500 and more	7	37.85		C	
Averaged monthly clothing expenses (unit: ten thousand won)	5 and less	74	33.41	2.63*	B	
	6~20	119	32.60		AB	
	21~40	48	30.62		AB	
	41~60	25	30.26		AB	
	61 and more	7	29.17		A	
	no response	2				
Residence type	House	74	34.23	4.72**	B	
	Apartment	108	31.14		A	
	Alliance House	69	30.98		A	
	others	17	32.25		AB	
	no response	7				
Residential area	Seoul	Kangbuk	65	27.07	10.48***	B
		Kangnam	58	33.25		AB
	Kyunggi	Kumchon	30	34.93		B
		Osann	31	33.27		B
		Suwon	31	33.07		B
		Kwangju	30	32.38		B
		Anyang	30	34.32		B

\*p<.05, \*\*p<.01, \*\*\*p<.001

<Table 8> Consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment according to use of mass media

Use of mass media	Consumer's environmental consciousness			Consumer's behavior related to the environment			Consumer's clothing behavior related to the environment		
	M	S.D	F	M	S.D	F	M	S.D	F
Low group	39.91	4.67	1.50*	33.74	5.53	.01	31.58	5.91	.19
High group	40.14	4.00		34.97	5.56		32.72	6.17	

\*  $p < .05$

ence. In terms of residence type, the house group had a significant difference, and in terms of residential area, the Kangnam area had a significant difference. Therefore, as age increases, years married increases, as monthly clothing spending decreases, when one lives in a house, in an area other than Kangnam, consumer's clothing behavior related to the environment increases.

**4. The difference in consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment according to use of mass media. The score distribution is shown in (Table 8).**

When consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment according the use of mass media, such as TV, radio, newspapers, and magazines are compared using the mean, while consumer's environmental consciousness and consumer's behavior related to the environment made no significant difference, the group with higher use has a higher clothing behavior.

## VI. Conclusion and Remark

Based on the above research, this study comes up with the following conclusions:

1. Consumer's environmental consciousness, consumer's behavior related to the environment, and consumer's clothing behavior related to the environment are positively correlated. Nevertheless, the consumer's clothing behaviors related to the environment have a lower score, compared with those of the other variables. Therefore, more active public relations and education are needed in the consumer's behavior related to the environment and consumer's clothing behaviors related to the environment than in the consumer's environmental consciousness.
2. The group which is high in the consumer's environmental consciousness and the consumer's behavior related to the environment shows a significant difference from the group which is low in them. This is in the same context as showing a difference in social salience between those who have concerns with the environment and those who do not. From this, it can be inferred that the consciousness with the environment has become established firmly and continuously.
3. It was also examined whether the consumer's environmental consciousness and consumer's behavior related to the environment were differently influenced by demographic characteristics. As a result,

the consumer's environmental consciousness showed significant differences by "averaged monthly household incomes," "averaged monthly clothing expenses" and "residential areas"; however, the consumer's behaviors showed differences by "occupations," "averaged monthly clothing expenses," "residence types," and "residential areas." This may show that the consciousness level is high when monthly household incomes and clothing expenses are low. In other words, this may be regarded as a means for leading households with low expenditures. Compared with other areas, the district of Kangnam showed the low consciousness level which might further indicate a close relation between income and expenditure in affluent areas.

As for the consumer's behaviors related to the environment, all the other occupations except "Others" showed a similarity. In particular, the job as only housewife showed a high score. When averaged monthly clothing expenses are low, the consumer's behavior related to the environment is high, and residence types are homogeneous but show significant results in that they may be differentiated from those of the no-reply cases. Residential areas other than the district of Kangnam showed significant differences in the consumer's behaviors related to the environment just like the their consumer's environmental consciousness. One conclusion may be drawn from these results that the consumer's behavior related to the environment also reflects the attempts of housewives to lead their own households with low incomes.

4. It was also examined whether the consumer's clothing behavior related to the environment was influenced by the demographic characteristics. The consumer's clothing behavior related to the

environment was high for the older people with low monthly incomes; when monthly clothing expenses were low, it was also high for those who lived in aliance house, middle for those in apartments and low for residents in single houses. "Residential areas" in the consumer's clothing behavior related to the environment differentiates the district of Kangnam from other areas. Based on these, it can be said that consumer's clothing behaviors complying with their own environmental consciousness are similar to those of housewives who have long led their households with low incomes.

5. An examination over the use of mass media showed an significant difference only in the consumer's environmental consciousness. This is because it is rare for Korean housewives and career women to contact other mass media than TV, and also because, generally speaking, there have been few publicity activities for the environmental consciousness through mass media. Therefore, more specific efforts are needed to make people really act upon their environmental consciousness.

Environmental preservation and balanced development is a rule of all mankind. The concept that the environmental resources will continuously support human activities should be changed.

As for environmental problems in all fields, we should realize that we are all the sufferer and the assailant. NIMBY phenomenon, which stands for 'Not In My Backyard', should not spread through. The environmental issue should not be neglected for a certain field in society, and we should not give up the environment for current gains. All fields should be in harmony for sustainable development.

Green life-style and green consumer campaign does not mean to go back to nature and

live the life of monastery. Green life-style means to learn a life-style of not harming the environment through gradual practice. It can be started by doing a few small things that can be done now and making a habit of it. Our small practice is the responsible actions of citizens and the first step toward saving earth.

Detailed information is required to be based on results of research for consumer's environmental consciousness and behaviors. Appropriate teaching themes to encourage the environmental consciousness, such as the seriousness of environmental problems and the necessity of the preservation of the environment should be included. In addition to these, not only government regulations for the preservation but measures by enterprises for it should be researched.

The significance of this study is that consumer's clothing behavior related to the environmental consciousness of housewives who live in Seoul and Kyunggi-do were compared and evaluated.

In future studies, by doing research on analyzing concrete concepts that promote consumer's behavior related to environmental consciousness rather than doing comparison study of regions and by doing research on the consumer's understanding of environmental mark given to textiles and clothing, we can find out the people's degree of interest and practice in the environment. Such studies will give us a direction for the future.

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