ANALYSIS OF THE ANTECEDENTS OF ECOLOGICALLY CONSCIOUS CONSUMER BEHAVIOR AND ITS EFFECT ON GREEN PURCHASE INTENTION[1]

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ABSTRACT

Environmental concerns have been on the agenda of both companies and consumers for a long time and have been the subject of scientific studies. The increase in environmental problems has caused consumers to behave ecologically consciously. Ecologically conscious consumer behavior is expressed as ''individuals' postponement of certain requests and needs for the protection of the environment or giving up these requests and needs, sacrificing some costs.'' This study was carried out to examine the underlying reasons of environmentally conscious consumer behavior and whether ecologically conscious consumer behavior leads to green purchasing intention or not. In this study, an online questionnaire was applied to 440 consumers living in Turkey by using convenience sampling method. The questionnaire was applied between 01.05.2021 and 20.05.2021. ''The Ethics Committee Approval Certificate'' with the number of 195 has been taken on 27.04.2021 from the Ethics Committee of Erciyes University. The data were analyzed through structural equation modeling. The findings of the study show that general environmental knowledge and eco-label knowledge have statistically significant effect on attitude towards environment; the attitude towards environment has a meaningful effect on ecologically conscious consumer behavior and ecologically conscious consumer behavior has an effect on green purchase intention

Keywords: General Environmental Knowledge, Eco-label Knowledge, Attitude, Ecological Consumer, Green Purchase Intention

EKOLOJİK BİLİNÇLİ TÜKETİCİ DAVRANIŞININ ÖNCÜLLERİ VE YEŞİL SATIN ALMA NİYETİNE ETKİSİNİN İNCELENMESİ

ÖZ

Çevresel kaygılar uzun süredir hem şirketlerin hem de tüketicilerin gündeminde yer almakta ve bilimsel çalışmalara konu olmaktadır. Çevre sorunlarının artması tüketicilerin ekolojik yönden bilinçli davranmalarına neden olmuştur. Ekolojik bilinçli tüketici davranışı, "bireylerin çevrenin korunması için belirli istek ve ihtiyaçlarını ertelemeleri veya bu istek ve ihtiyaçlarından vazgeçmelerinin doğuracağı yoksunluklara razı olmaları" olarak ifade edilmektedir. Bu çalışma, çevreye duyarlı tüketici davranışlarının altında yatan nedenleri ve ekolojik bilinçli tüketici davranışının yeşil satın alma niyetine yol açıp açmadığını incelemek amacıyla yapılmıştır. Bu çalışmada, kolayda örnekleme yöntemi kullanılarak Türkiye'de yaşayan 440 tüketiciye çevrimiçi anket uygulanmıştır. Anket çalışması 01.05.2021 ile 20.05.2021 tarihleri arasında gerçekleştirilmiştir. Erciyes Üniversitesi Etik Kurulu'ndan 27.04.2021 tarihinde 195 numaralı "Etik Kurul Onay Belgesi" alınmıştır. Veriler yapısal eşitlik modellemesi ile analiz edilmiştir. Araştırmanın bulguları, genel çevre bilgisi ve eko-etiket bilgisinin çevreye yönelik tutum üzerinde istatistiksel olarak anlamlı bir etkiye sahip olduğunu; çevreye karşı tutumun ekolojik bilinçli tüketici davranışı üzerinde anlamlı bir etkisi olduğunu ve ekolojik bilinçli tüketici davranışının yeşil satın alma niyeti üzerinde anlamlı bir etkiye sahip olduğunu göstermektedir.

1. Introduction

Environmental problems have become one of the most important problems faced by societies today. When evaluated both personally and socially, it is known that individuals' having environmental awareness and carrying out environmental activities dates back to ancient times. However, studies and policies for environmental awareness started to become widespread in the second half of the 20th century. The report titled "Our Common Future" published by the United Nations in 1987, pointed out those economic factors and environmental activities should be evaluated as a whole, and that today's individuals should consider future generations while meeting their needs. Therefore, it has become easier for states to support environmental activities and turn them into ones that are more effective. The more comprehensive coverage of environmental problems in the media, legal and administrative (governmental) regulations for states, competition and social responsibility for businesses, desire/concern of consumers for a healthy life and actions taken towards protecting the environment have created awareness in this area and made consumers more conscious of environmental issues and as environmental awareness increases, consumers have begun to deal more with environmental problems. Besides, demographic features such as age, gender and education status are also effective on the environmental sensitivity of consumers (Straughan and Roberts, 1999; Ay and Ecevit, 2005). Today, many consumers are aware of the environmental problems that the products they buy will cause and therefore, they consider environmental factors before choosing a product or service.

Moreover, environmental factors have important strategic implications when evaluated in terms of companies. In order to improve their activities on environmental issues, companies try to understand society's thoughts on the environment and develop their marketing strategies in this direction. In order for companies to continue their activities and survive in a world of intense competition, it is not enough to meet the needs and desires of consumers. Having corporate social responsibility and environmental awareness also provides companies with an important reputation in the eyes of consumers (Karahan, 2017: 360).

The benefits consumers want to derive from businesses today are not just products and services. Ecologically conscious consumers pay attention to many factors, such as the fact that companies produce products that are not harmful to the environment, use methods that do not harm nature in their production processes, and that the packaging of the products is obtained from recycled materials. In other words, in terms of environmental protection, companies will gain a sustainable competitive advantage by increasing their performance if they approach the issue with a holistic approach before, during, and after production. Moreover, consumers shape their purchasing decisions and product/brand preferences accordingly. In this context, it is thought that knowing the factors that lead consumers to exhibit ecologically conscious behaviors is very important for firms

to prepare their strategic plans, make market segmentation, and carry out their marketing activities in this direction (Dembkowski, S., and Hanmer-Lloyd, 1994: 594). It is important to study the ecological awareness levels of consumers in terms of green marketing, as it will help businesses to increase their sensitivity to this unique market. In the globalizing world, the mere functionality of the product may be insufficient to provide superior competitiveness. Consumer attitudes and behaviors that develop in terms of ecological awareness may also be important in opening the door to competitive advantage as a choice in purchasing (Waheed et al., 2020: 1397).

There are two studies examining the relationship of ecologically conscious consumer behavior with general environmental knowledge, eco-label knowledge, and attitude towards environment in the literature. However, Taufique et al. (2016) and Adrita and Mohiuddin (2020) did not examine the effect of ecologically conscious consumer behavior on green purchase intention. In studies conducted by Tamuliene, Kazlauskiene, and Pileliene (2016), Toklu (2019); Sünnetçioğlu, Yıldırım, and Atay (2019), and Yarımoğlu and Binboğa (2019), it was determined that ecologically conscious consumer behavior has an effect on green purchasing intention. However, no study has been found in the literature that examines the relationship between ecologically conscious consumer behavior and eco-label knowledge, general environmental knowledge, attitude towards environment and green purchase intention variables. In this respect, it is expected that this study will contribute to the existing literature.

In this context, the aim of this study is to examine the effect of general environmental knowledge and eco-label knowledge on attitudes towards the environment, the effect of environmental attitude on ecologically conscious consumer behavior and the effect of ecologically conscious consumer behavior on green purchase intention. Other than demand and/or purchase of eco-labeled products, there is a notable gap in understanding the impact of eco-labels on environmentally conscious consumer behavior. This is crucial to explore because the goal of eco-labels is to promote more than only eco-labeled items, but also other aspects of environmentally conscious consumer behavior (e.g., recycling behavior). This research attempts to address a gap in the literature on green consumer behavior by examining the influence of general environmental knowledge and knowledge of eco-labels in the attitude-behavior link of environmentally conscious consumers. This is significant since the eco-label is an environmental communication tool aimed at encouraging environmentally conscious consumer behavior. Given that eco-label knowledge, when combined with general environmental knowledge, has a significant positive impact on attitudes toward the environment, consumers should be educated on eco-label knowledge, which will aid in the formation of positive attitudes toward the environment and, as a result, more environmentally conscious consumer behavior which concludes with green purchase intention.

In the study, the convenience-sampling method was preferred because of the ongoing pandemic and an online survey was conducted on consumers living in Turkey. The data, collected as a result of the research, were analyzed through Structural Equation Modeling.

In this direction, in the study; firstly, the concepts of general environmental knowledge (GEK), eco-label knowledge (ELK), attitude towards environment (ATE), ecologically conscious consumer behavior (ECCB) and green purchase intention (GPI) are mentioned and a conceptual framework is created. After that, the findings are discussed in the conclusion and recommendation section.

2. Conceptual Framework

In this part of the study, detailed information will be given about the concepts of GEK, ELK, ATE, ECCB and GPI. Moreover, studies in the literature regarding these concepts will be reviewed.

2.1. General Environmental Knowledge

GEK is one of the main factors that positively affects consumers' intention to purchase environmentally friendly products (Maichum et al., 2016) and is expressed as all of the trends, ideas, and information about the environment (Fryxell and Lo, 2003; Mostafa, 2007; Mostafa, 2009; Goh and Balaji, 2016). The level of knowledge of consumers about the environment, whether they are aware of environmental problems, their psychological approach to environmental problems, their awareness of the consequences of their behavior on the environment, and whether they have knowledge about environmental products are defined as GEK (Fryxell and Lo, 2003; Goh and Balaji, 2016).

Environmental knowledge is examined in two groups as objective and subjective knowledge (Goh and Balaji, 2016; Pagiaslis and Krontalis, 2014). Objective environmental information is related to the level of knowledge of consumers regarding the consumption of environmentally friendly products (Goh and Balaji, 2016) and subjective environmental knowledge is related to the level of knowledge and awareness of the consumer about environmentally friendly consumption (Jaiswal and Kant, 2018). The findings obtained from some studies on GEK in the literature are given below.

Arcury (1990) found in his study that GEK has a significant relationship with ATE. Barber et al. (2009) observed that an increase in GEK resulted in an increase in consumers' environmental awareness, which in turn had an effect on consumers' purchasing behavior. In their study, Memar and Ahmed (2012) revealed that environmental knowledge has an effect on the intention to purchase environmentally friendly products. In a study carried out by Bhatia and Jain (2013), it was determined that environmental knowledge and ecological awareness significantly affect consumers' environmentally friendly product selection and

purchasing behavior. Stoimenova (2016) emphasized in her study that GEK has a significant effect on environmental concern and environmentally friendly consumption tendency. Maichum et al. (2016) concluded in their study that GEK does not affect the intention to purchase green products. Mosavichechaklou and Bozbay (2018), in their study on consumers living in Turkey and Iran, found that environmental information has a significant effect on green purchasing behavior. Jaiswal and Kant (2018) stated that environmental knowledge has a significant but weak effect on the attitude towards environmentally friendly products and the intention to purchase green products. Kusuma and Handayani (2018) revealed in their study that environmental knowledge has a positive and significant effect on ATE and intention to purchase environmentally friendly products. Shamini and Hariharan (2019) found that general environmental knowledge has an effect on the intention and behavior of purchasing green products. Uyar (2019) stated that perceived environmental knowledge has a significant effect on the intention to purchase green products. Onurlubaş (2019), on the other hand, emphasized that environmental sensitivity and environmental awareness do not have a strong but instead a significant effect on environmentally friendly purchasing behavior.

Some studies in the literature reveal that GEK has a significant effect on ATE (Taufique et al., 2016; Jaiswal and Kant 2018; Kusuma and Handayani, 2018). In light of these studies and other studies mentioned above, the following hypothesis was developed.

H_1: *General environmental knowledge has a significant effect on attitude towards environment.*

2.2. Eco-Label Knowledge

Eco-labels are one of the environmental factors that affect the purchasing behavior of consumers (Thøgersen et al., 2010: 1787). Eco-label is defined as a document in which companies express their sensitivity to the environment to consumers and society and emphasize that they have environmentally friendly production (Kırgız, 2014: 3). The primary purpose of the eco-label is to direct consumers towards the consumption of environmentally friendly products and in this context, to ensure that the green labels are assimilated by the consumers. It is possible for environmental concerns to change the attitudes and behaviors of consumers, not only with GEK, but also by ensuring that consumers adopt environmental issues by companies (Alauddin et al., 2014: 85). Exactly at this point, the importance of eco-labels, which enable consumers to have information about products and express their environmental sensitivity, becomes evident (Kırgız, 2014: 5). Eco-labels should be simple and easily interpretable, have informative features, create a sense of trust, and comply with legal regulations (Horne, 2009: 176-177; Sirieix et al., 2013: 145).

Eco-label applications for environmentally friendly production appeared around the world in the 1970s and expanded their market share by following an increasingly graphic. The first environmentally labeled products were sold in Germany in 1978 with the "Blue Angel" logo. Later, in 1989, the Council of Nordic countries established an eco-label application in Scandinavian countries with the formation of an eco-label called "Nordic Swan", taking the Model "Blue Angel" as an example, and moved the application to a multinational dimension.

The EU Eco-Label System of the European Union has played one of the most important roles in the development, dissemination and adoption of eco label, which is one of the most important tools we have in the development of environmental and product standards and the development of consumer and user awareness. The principles of the "Eco Label" system was brought to discussion by the European Commission in the European Union Parliament in 1987 (Aydın, 2019: 42).

Previous studies in the literature show that ELK has an effect on the ATE (Taufique et al. 2016; Adrita and Mohiuddin, 2020). In line with these studies, the following hypothesis has been developed:

H$_2$: Eco-label knowledge has a significant effect on attitude towards environment.

2.3. Attitude towards Environment

Attitude is one of the important antecedents that are effective in the process of consumers choosing environmentally friendly products (Al Mamun et al., 2018). In many studies in the literature, it is seen that attitude has a strong effect on behavior (Chekima et al., 2016). For this reason, attitude is also one of the most important factors affecting the behavior of consumers, who exhibit ecologically conscious behaviors. (Trivedi et al., 2018).

ATE is expressed not only as a trend towards the consumption of environmentally friendly products, but also as a fundamental factor, that leads consumers to bear higher costs for environmentally friendly products (Chekima et al., 2016). Chan (2001) found in his study that attitude significantly affects green product purchasing behavior. Çabuk and Nakıboğlu (2003) emphasized that environmental attitudes and sensitivities are effective on environmentally friendly consumption. Mostafa (2009), on the other hand, concluded that two important factors affecting green product purchasing behavior are environmental attitudes and green product purchase intention. Hsu et al. (2017) found that attitude significantly affects the intention to purchase environmentally friendly cosmetic products. Kusuma and Handayani (2018) emphasized that environmental attitude has a positive and significant effect on the intention to purchase environmentally friendly products.

Some other studies in the literature have revealed that attitude is effective on ECCB (Taufique et al. 2016; Trivedi et al., 2018; Adrita and Mohiuddin, 2020; Rizki and Hadiansah, 2021). In this context, the following hypothesis was formed:

H₃: Attitude towards environment has a significant effect on ecologically conscious consumer behavior.

2.4. Ecologically Conscious Consumer Behavior and Green Purchase Intention

With the increase in environmental problems, environmentally conscious behaviors have started to be seen more frequently in societies (Roberts and Bacon, 1997). Ecologically conscious consumers primarily consider protecting the environment (Akehurst et al., 2012). In other words, ECCB refers to individuals, who exhibit behaviors aimed at protecting the environment by accepting to bear some personal costs and making some sacrifices from their lifestyle (Wang et al., 2013). Environmental awareness is defined as "to work to minimize the negative effects of products or product groups that harm the environment" (Kang and James, 2007). In this direction, the level of consciousness of consumers leads them to consume environmentally friendly products. In other words, consumers who exhibit ecologically conscious behaviors tend to consume more green products (Fraj and Martinez, 2006).

Some studies examining the antecedents and consequences of ECCB are listed below.

Some studies to identify the antecedents of ECCB have reached the following conclusions. Ay and Ecevit (2005) stated that, compared to demographic factors, psychographic factors are more effective on ECCB. Yeşilada (2009) found that perceived consumer activity and age have an effect on ECCB while Yahya, Hashim, Mohamad, and Ramly (2013) stated that perceived consumer effectiveness is the strongest predictor of ECCB. A study by Gul (2013) resulted that long-term orientation is effective on ECCB; however, perceived consumer effectiveness is not effective. Tilikidou (2013) stated that ECCB is positively associated with consumer education, recycling attitudes, and locus of control over policy. Khare (2014) stated that income is the only demographic factor affecting ECCB. Taufique, Siwar, Chamhuri, and Sarah (2016) stated that GEK and ELK positively affect consumer attitudes in guiding ECCB. Islam and Chandrasekaran (2016) stated that there is a significant and positive relationship between religiosity and ECCB. Yarımoğlu and Binboğa (2019) stated that environmental concern, altruism, and perceived consumer effectiveness are the predecessors of ECCB. Adrita and Mohiuddin (2020) stated that GEK and ELK have a significant effect on the ATE and the ATE on the ECCB. Akdoğan, Durmaz, and Değirmenci (2020) stated that environmental concern significantly affects ECCB and that environmental concern plays a mediating role in the impact of perceived consumer activity on ECCB. Rizki and Hadiansah (2021) found that environmental attitude has no effect on ECCB, but social influence has a significant effect. Nasution and Hadiansah (2021) stated that environmental concern and consumer characteristics have a significant effect on ECCB. Nasr and Safira (2021) emphasized that internal

religious orientation and environmental concern affect ECCB. Yapraklı and Mutlu (2021), on the other hand, revealed that ecological literacy and subjective norms have a significant effect on ECCB, but attitudes towards the environment do not have a significant effect on ECCB.

In addition, some studies have examined the results of ECCB for green product buying behavior. Tseng and Chang (2015) found that subjective norm has a significant effect on consumers' purchase intentions in low ECCB level consumers. Tamuliene, Kazlauskiene, and Pileliene (2016) stated that ECCB has a significant effect on ecological product purchase intention and ecological product purchase behavior. Sünnetçioğlu, Yıldırım, and Atay (2019) stated that ECCB is effective on the intention to prefer green hotels. However, Yarımoğlu and Binboğa (2019) emphasized that ECCB has an effect on GPI. Purchasing intention is defined as the tendency of consumers to purchase any product (Yoo et al., 2000). When consumers think that a brand or product will benefit them, they tend to buy that product/brand. In other words, purchase intention means ''consumers' desire to buy a product/brand and also their ability to buy that product/brand'' (Wu et al., 2015).

GPI, on the other hand, means that consumers tend to buy environmentally friendly products in order to protect the environment. In other words, GPI is the desire of consumers to buy such products in order to prevent environmental problems (Jaiswal and Kant, 2018). Consumers intend to buy green products for many different reasons, including environmental and individual. For example, ecologically conscious consumers are more likely to be willing to buy green products. Healthy nutrition is also one of the individual factors that affect consumers' preference for green products (Cai et al., 2017). It is defined as the purchasing tendency of consumers for any product (Yoo et al., 2000).

Recently, global concerns about the environment have increased considerably. Many factors such as environmental pollution, scarcity of resources, and global warming have increased consumers' interest and concerns about environmental problems. As a result of this awareness, consumers started to change their consumption habits. Apart from elements, such as green marketing, green product, green purchasing behavior, GPI, the concept of ''green consumer'' has also taken its place in the marketing world. The green consumer is defined as individuals, who avoid products that cause great harm to the environment during manufacture, use or disposal, excessive energy consumption, unnecessary waste, and the use of environmentally harmful materials in production (Strong, 1996). Green products, on the other hand, are ''products that are beneficial to the environment and society and are generally products, such as recycled paper, herbal products, energy-saving light bulbs, energy-efficient devices and tools, and household appliances'' (Jaiswal and Kant, 2018).

Some researchers have stated that environmentally sensitive and ecologically conscious consumers are more likely to change their purchasing decisions in

order to protect the environment. Ecologically conscious consumers are cautious about not harming the environment in their daily activities such as "travel, waste disposal, shopping, and energy use" (Arttachariya, 2012).

In some studies, some of which are mentioned above, it has been concluded that ECCB leads to green purchasing intention (Tamuliene, Kazlauskiene, and Pileliene, 2016; Yarımoğlu and Binboğa, 2019; Sünnetçioğlu, Yıldırım and Atay, 2019). Accordingly, the following hypothesis has been developed:

H_4: Ecologically conscious consumer behavior has a significant effect on green purchase intention.

3. Methodology

The population of the study comprises of consumers in Turkey. An online survey was conducted with 440 consumers who were chosen by "convenience sampling method". Questionnaire forms were shared with the participants via the Google Form application.

In the first part of the questionnaire, there are four items regarding the demographic characteristics of the consumers. In the second part, there are nine items to measure ECCB, four items to measure GEK, four items to measure ELK, 4 statements to measure ATE and 3 statements to measure GPI. While creating the questionnaire, the expressions of ECCB, GEK, ELK, and ATE were created with the help of the study conducted by Taufique et al. (2016) and GPI questions were prepared using the scales used by Yarımoğlu and Binboğa (2019). Particular attention was paid to ensure that the questions were understandable and easily answered. The statements in the questionnaire were prepared using a 5-point Likert style scale.

The questionnaire was applied between 01.05.2021 and 20.05.2021. "The Ethics Committee Approval Certificate" with the number of 195 has been taken on 27.04.2021 from the Ethics Committee of Erciyes University. Besides, an "Informed Consent Form" was given to the participants.

3.1. Research Model

The model of the research is given in Figure 1.
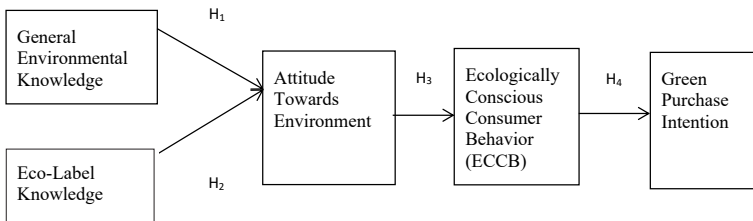
Figure 1. Research Model

The effects of the GEK and ELK levels of consumers on the ATE, the effect of ATE on ECCB, and the effect of ECCB on GPI are shown in Figure 1.

3.2. Data Analysis

In order to analyze the data, firstly, it was tested whether the data were normally distributed. After that, the reliability analyses of the scales, the demographic characteristics of the respondents and descriptive statistics were included. Then, confirmatory factor analysis was conduct to determine whether the data and the research model were in fit with each other. Finally, structural equation modeling (SEM) was used to test the hypotheses developed within the scope of the study. Normality test, descriptive statistics, and reliability analysis were carried out using the SPSS program, besides; confirmatory factor analysis and path analysis were conducted.

3.3. Evaluation of the Findings

The findings obtained as a result of the analysis of the data and the evaluations regarding the findings are shown and interpreted in the tables below. Firstly, the Kolmogorov-Smirnov test was performed to evaluate whether the data collected in the study showed normal distribution. After examining the outliers and histogram graphics, three questionnaires that prevented the ELK scale from showing normal distribution were excluded from the study. After the normality test was performed again, the skewness and kurtosis values of the scales used in the study were examined. In Table 1, the descriptive statistics of the scales are given.

Table 1. Descriptive Statistics

Scales	N	Mean	Sd.	Skewness	Kurtosis
ECCB	437	3.4106	.78185	(-0.366;0.117)	(0.328;0.233)
GEK	437	4.1470	.66531	(-0.353;0.117)	(-0.635;0.233)
ELK	437	4.4582	.51089	(-0.688;0.117)	(0.033;0.233)
ATE	437	4.3490	.61196	(-0.492;0.117)	(-0.612;0.233)
GPI	437	4.0343	.74849	(-0.663;0.117)	(1.107;0.233)

When Table 1 is examined, it is seen that the skewness and kurtosis values of all scales are between +1.5 and -1.5. Accordingly, it is concluded that the data show normal distribution (Tabachnick and Fidell, 2013). After evaluating whether the data show normal distribution or not, the results of the frequency analysis are shown in Table 2.

Table 2. Demographic Characteristics of the Participants

Demographic Characteristics		n	%
Gender	Female	242	55.4
	Male	195	44.6
	Total	**437**	**100**
Age	21 and under	79	18.1
	21-30	92	21.1
	31-40	83	19.0
	41-50	98	22.4
	51-60	68	15.6
	61-70	16	3.7
	71 and above	1	0.2
	Total	**437**	**100**
Monthly Family Income (TRY)	2,000 and below	45	10.3
	2,001-4,000	157	35.9
	4,001-6,000	115	26.3
	6,001-8,000	47	10.8
	8,001-10,000	30	6.9
	10,001-12,000	19	4.3
	12,001 and above	24	5.5
	Total	**437**	**100**
Educational Status	Primary school	87	19.9
	Middle School	70	16.0
	High school	131	30.0
	Associate Degree	44	10.1
	Undergraduate	61	14.0
	Graduate	44	10.1
	Total	**437**	**100**

As seen in Table 2, 55.4% of the participants are female and 44.6% are male. 18.1% of the respondents are 21 years or younger; 21.1% are between the ages of 21-30, 19% are between the ages of 31-40, and 22.4% are between the ages of 41-50. It is seen that 35.9% of the people participating in the research have income between 2,001-4,000 TRY and 26.3% of them have income in the range of 4,001-6,000 TRY. When the education level of the participants is examined, it is concluded that 30% of them graduated from high school, 19.9% from primary school, 16% from secondary school, 10.1% from an associate degree program, 14% from undergraduate programs, and 10.1% from graduate programs.

When the demographic features are examined, it is seen that female participants outnumber male participants by about 10%. The vast majority of respondents

consist of people aged 50 and under. Most of them have monthly family income of 6000 TRY and below. Moreover, it is seen that participants mostly graduated from associate degree and below programs. When the findings of this study are compared to the study conducted by Taufique et al. (2016), it was concluded that participant characteristics were similar in terms of gender and age variables. However, in the study conducted by Taufique et al. (2016), the majority of the participants graduated from undergraduate and higher programs, different from this study.

The Cronbach Alpha values obtained as a result of the reliability analysis are shown in Table 3.

Table 3. Cronbach Alpha Coefficients

Scales	Number of Items	Cronbach Alpha Coefficient
ECCB	9	.881
GEK	4	.764
ELK	4	.793
ATE	4	.850
GPI	3	.782

When the Cronbach Alpha values of the scales in Table 3 are examined, it is seen that the scales are reliable. After the reliability analysis, confirmatory factor analysis was performed to test the validity of the scales.

"Confirmatory factor analysis is used to test whether there is a sufficient relationship between the determined factors and whether the factors adequately explain the model. In this way, the validity of the scales used in the research and the compatibility of the data with the model are tested" (Bayram, 2010). The analysis was carried out by the AMOS program. "I know very well what the term organic product means" (GEK2) in the GEK scale, "I use a recycling method for my household waste" (ECCB2) and "I am trying to buy energy-efficient home appliances" (ECCB6) statements in the ECCB scale, which cause the goodness of fit values to be low and whose factor loads were below 0.500, were excluded from the analysis. Then, the model in Figure 2 was re-executed.
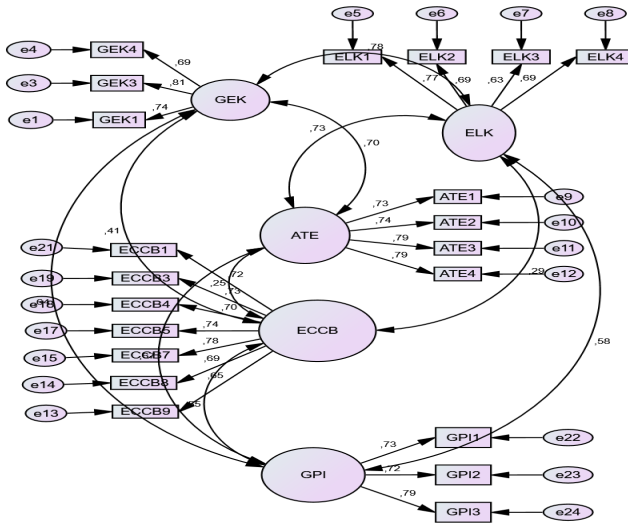
Figure 2. Confirmatory Factor Analysis Model

The fit indices and the reference values (Bentler and Bonett, 1980) are given in Table 4.

Table 4. Goodness of Fit Values

Fit Indexes	Research Model (N=437)	Reference Values	Abbreviations
X² Value	477.611	.000	CMIN
Degrees of Freedom	179	0	DF
P	.000	<.005	P
X²/df	2.668	<5	CMIN/DF
Goodness of Fit Index	.903	.90 ≤GFI ≤.95	GFI
Adjusted Goodness of Fit Index	.874	.85 ≤AGFI ≤.90	AGFI
Incremental Fit Index	.931	.90 ≤IFI ≤.95	IFI
Comparative Fit Index	.931	.90 ≤CFI ≤.95	CFI
Root Mean Square of Approximate Errors	.062	.05 ≤RMSEA ≤.08	RMSEA

"Chi-square statistics are used to test whether the model is compatible with the data" (Bayram, 2010). The chi-square value was found to be significant (p = 0.000). The chi-square value is 2.668. "If this value gives a result below 5, it

shows that the value is acceptable, and a result below 3 shows that the model is in perfect fit with the data" (Chen and Tsai, 2007). According to the values given in Table 4, it is seen that the data is in fit with the model.

The composite reliability and convergent validity analyses of the scales used in the research were also performed. "Composite reliability is used to determine the overall reliability of numerically multiple, heterogeneous, but similar statements." (Raykov and Marcoulides, 2012). The composite reliability value (CR) can be used as an alternative reliability coefficient to the Cronbach Alpha value. Convergent validity (AVE) shows that statements are related to each other and to the factor, they produce. For the convergent validity (AVE) value, the calculation method developed by Fornell and Lacker (1981) was used. Table 5 shows the factor loads of the statements and the AVE, CR, Cronbach Alpha values of the scales.

Table 5. Composite Reliability (CR), Convergent Validity (AVE) and Cronbach Alpha Values

VARIABLES			FACTOR LOADS	AVE	CR	CRONBACH ALPHA
GEK1	<---	GEK	0.736			
GEK3	<---	GEK	0.814	0.5611	0.7924	0.7650
GEK4	<---	GEK	0.692			
ELK1	<---	ELK	0.770			
ELK2	<---	ELK	0.694	0.4865	0.7904	0.7930
ELK3	<---	ELK	0.632			
ELK4	<---	ELK	0.687			
ATE1	<---	ATE	0.733			
ATE2	<---	ATE	0.745	0.5871	0.8503	0.8500
ATE3	<---	ATE	0.794			
ATE4	<---	ATE	0.791			
ECCB9	<---	ECCB	0.647			
ECCB8	<---	ECCB	0.695			
ECCB7	<---	ECCB	0.777			
ECCB5	<---	ECCB	0.738	0.5135	0.8805	0.8800
ECCB4	<---	ECCB	0.700			
ECCB3	<---	ECCB	0.728			
ECCB1	<---	ECCB	0.724			
GPI1	<---	GPI	0.725			
GPI2	<---	GPI	0.718	0.5546	0.7885	0.7820
GPI3	<---	GPI	0.789			

"The composite reliability (CR) value should be above 0.70 and the convergent validity (AVE) value should be above 0.50" (Hair et al., 2010). When the AVE and CR values in Table 5 are examined, it is seen that the scales in the model are reliable and valid. "However, if the CR value is greater than 0.70 when the AVE value is less than 0.5, the analyzed AVE value is acceptable." (Fornell and Lacker, 1981). Thus, it is seen that the scales are valid and reliable.

The method proposed by Fornell and Larcker (1981) was used to determine the discrimination validity of the model. In this method, if the square root of the mean explained variance value (AVE) of a factor is greater than the correlation values of this factor with other factors, it is sufficient for discrimination validity. According to the analyses made, it was observed that the dimensions in the model were separate constructs and discrimination validity was provided (Table 6).

Table 6. Discrimination Validity

Scales	1	2	3	4	5
ECCB	0.717*				
GEK	0.408	0.749*			
ELK	0.288	0.744	0.697*		
ATE	0.249	0.703	0.630	0.766*	
GPI	0.549	0.645	0.576	0.669	0.745*

*Square roots of AVE values

After examining the confirmatory factor analysis, composite reliability, convergent validity, and discrimination validity values, structural equation modeling (SEM) was used to test the hypotheses and the AMOS statistical program was used.
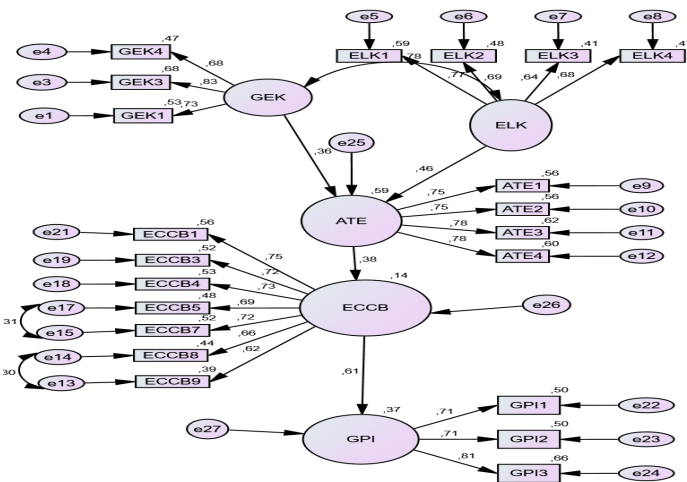
Figure 3. Path Diagram

Figure 3 shows the structural equation model path diagram and standardized regression coefficients. The variables excluded from the scope of the analysis during the confirmatory factor analysis were not included in the model. The fit values are shown in Table 7.

Table 7. Goodness of Fit Values

Fit Indexes	Research Model (N=437)	Reference Values	Abbreviations
χ^2 Value	581.458	.000	CMIN
Degrees of Freedom	182	0	DF
P	.000	<.005	P
χ^2/df	3.195	<5	CMIN/DF
Goodness of Fit Index	.857	$.85 \leq AGFI \leq .90$	AGFI
Adjusted Goodness of Fit Index	.908	$.90 \leq IFI \leq .95$	IFI
Incremental Fit Index	.907	$.90 \leq CFI \leq .95$	CFI
Comparative Fit Index	.071	$.05 \leq RMSEA \leq .08$	RMSEA

When the fit indices were evaluated, it was determined that all values were in accordance with the reference values and the model was in fit with the data. After that, path analysis results and regression coefficients should also be evaluated. The path coefficients and hypothesis test results obtained after running the model are given in Table 8.

Table 8. Path Analysis Results

Hypotheses	Variables			Estimate	Std. Estimate (β)	Sd.	t	R^2	P	Result
H₁	ATE	<---	GEK	.374	.356	.098	3.817	.594	***	Supported
H₂	ATE	<---	ELK	.510	.459	.106	4.825		***	Supported
H₃	ECCB	<---	ATE	.422	.378	.066	6.357	.143	***	Supported
H₄	GPI	<---	ECCB	.678	.608	.078	8.645	.369	***	Supported

When the path analysis results in Table 8 are examined, it is seen that GEK (β=.356; p < .01) and ELK (β=.459; p < .01) have a significant effect on the ATE. It is seen that the 59.4% variances in the ATE are explained by these two variables (R^2= .594). According to the hypothesis test results, it is seen that the ATE has a significant effect on the ECCB (β= .378; p <.01) and explains the ECCB with a 14.3% variances (R^2 =.143). Another finding of the study is that ECCB has a significant effect on GPI (β =.608; p <.01; R^2=.369). The 36.9% variances in GPI are explained by ECCB. As a result of the research findings, all the hypotheses of the research were accepted.

4. Conclusion and Recommendations

One of the problems that have been on the world agenda recently is environmental problems. In fact, awareness of environmental problems and environmental protection practices developed in this direction date back to centuries ago. However, since the 20th century, we have seen detailed scientific research on this issue and the development of policies towards the environment by states. The fact that environmental problems create more agenda in the media, the formation of environmental awareness in individuals, and the impact of environmentalist communities on individuals have caused consumers to exhibit more environmentally sensitive behaviors. As a result, individuals have begun to worry more about environmental issues. Today, many environmentally conscious consumers are also aware of the environmental problems that will be caused by the decisions they make in the purchasing process. For this reason, consumers now consider whether a product will harm the environment when purchasing it. In addition, in order to gather information about the products, they use eco-labels.

In this direction, the aim of this study was to determine the effect of GEK and ELK on ATE, to examine the effect of ATE on ECCB, and the effect of ECCB on GPI.

Previous studies show that ELK is effective on the ATE (Taufique et al. 2016; Adrita and Mohiuddin, 2020), GEK has a significant effect on ATE (Taufique et al., 2016; Jaiswal and Kant 2018; Kusuma and Handayani, 2018), environmental attitudes have an effect on ECCB (Taufique et al. 2016; Trivedi et al., 2018; Adrita and Mohiuddin, 2020; Rizki and Hadiansah, 2021), and ECCB has a significant effect on GPI (Tamuliene, Kazlauskiene and Pileliene, 2016; Yarımoğlu and Binboğa, 2019; Sünnetçioğlu, Yıldırım and Atay, 2019). The findings obtained as a result of the study are similar to the results obtained in the studies done in the literature and mentioned above. This similarity shows that consumers in Turkey are also interested in universal problems and have begun to become conscious, due to reasons such as global warming, environmental pollution, formal training on the environment, and the increasing intensification of shares on the creation of environmental awareness in social media.

The results of the research show that consumers' knowledge about the environment and eco-labels have significant effect on their attitudes towards environment. The findings show the importance of having knowledge about the environment and getting enough information about eco-labels and reading these labels correctly. Consumers should be educated about the environment and environmental protection issues. In addition, training can be given to consumers on how to interpret eco-labels and what points they should pay attention to while shopping. These trainings can be applied to adults and can also be applied to children and young people between the ages of 5-18 in order to raise ecologically conscious individuals from a young age. In fact, 'Ecologically Conscious Consumption'

courses can be added to the curriculum as a compulsory course in primary and secondary education institutions. Activities related to the environment can be carried out with children and youth through ministries and municipalities. It can be ensured that individuals from a young age have knowledge about eco-labels and become conscious consumers by reading the labels correctly, and thus they have the intention to buy green products.

Today, consumers, who are very sensitive to the environment, pay attention to many issues, such as the production of environmentally friendly products, the use of methods that do not harm nature in the production processes, and the importance of recycling. However, consumers also make their purchasing decisions in line with environmental concerns. For this reason, companies try to understand the sensitivities of consumers and develop their strategies in this direction in order to produce environmentally friendly products and not to harm the environment in their production, distribution, and sales processes. By using social media and traditional marketing methods, companies can inform consumers more about eco-labels through integrated marketing activities. In fact, consumers can participate in the process of designing the labels in order to create eco-label awareness. Moreover, competitions for designing eco-labels for young people can be organized. In this way, both consumers get to know more about eco-labels and companies promote their products through these trainings and campaigns. As can be seen, consumers' intention to purchase green products depends on their ecological awareness, which occurs by increasing the knowledge about environment and eco-labels. In this context, knowing the antecedents and consequences of ECCB is very important for companies to carry out their marketing activities and strategies. In this direction, it is thought that the study will guide marketing managers and also all business managers who are in a decision-making state.

The most important limitation of the study is that the convenience sampling method was used due to time and cost savings. One of the random sampling methods can be used in future research. Moreover, the relationships between concepts such as altruism, narcissism, religiosity, personality traits, and ECCB can be examined.

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