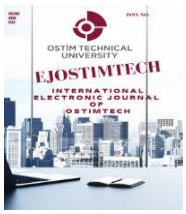

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SUSTAINABLE CONSUMPTION BEHAVIORS OF YOUNG CONSUMERS: A STUDY FROM THE PERSPECTIVE OF CONSUMER ENGAGEMENT

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Abstract

The rapid increase in production activities, technological developments, and globalization have led to a change in consumption habits and an increase in the desire for faster and more consumption. This change in consumption processes has rapidly depleted limited resources and brought them to the point of extinction. Faced with this situation, threatening the lives of current and future generations, the concept of sustainability, which has been on the agenda for the last 30 years, has come to the fore. Thus, concepts such as sustainable development, sustainable life, and sustainable consumption have become important. The development goals published by the United Nations include achieving green growth in the context of sustainable consumption by 2030. In this context, it is important to support and encourage sustainable consumption. It is essential to encourage the participation of the younger generation, who grew up in a society of overconsumption, in sustainable consumption. The literature shows that the concept of consumer engagement is a strategic and important tool for encouraging consumers to perform certain consumption behaviors. However, in studies on sustainable consumption behavior, little attention has been given to the subject of consumer engagement. This study aimed to reveal the sustainable consumption behaviors of young consumers through consumer engagement. In this context, the intermediary role of consumer engagement in the impact of environmental attitude and perceived environmental responsibility on sustainable consumption behavior has been examined. Therefore, quantitative research was carried out by choosing the questionnaire technique and the 134 analyzable data obtained were tested with the Structural Equation Model using AMOS v21. The results show that young consumers' perceived responsibility and environmental attitudes have a statistically significant and positive influence on their sustainable purchasing behavior. Also, the results indicate that consumer engagement plays a partially mediating role in the relationship between environmental attitudes, perceived environmental responsibility, and sustainable consumption behavior.

Keywords: Sustainable Consumption, Consumer Engagement, Young Consumers

Introduction

Globalization, technological development, and the rapid increase of the world population lead to rapid consumption of resources in industrial and individual consumption areas. Modern society simultaneously carries overconsumption, which expresses the desire to consume more, and the concern about the negative effects of resource use on the environment. Overconsumption creates negative ecological effects and disturbs the natural balance by bringing natural resources to the brink of extinction (Shirsavar & Fashkhamy, 2013). However, although environmental concerns are increasing, sustainable consumer behavior has not risen sufficiently.

Policies developed to reduce environmental problems and protect the ecological balance so that present and future generations can continue their lives in prosperity have brought the concepts of sustainability and sustainable consumption to the forefront in all areas. Sustainable consumption is a form of consumption based on the use of the existing resources of the world within limits, trying to find solutions that reduce all kinds of negative impacts on the environment (Roy et al. 2015). According to another definition, sustainable consumption is the individual actions of consumers in the process of acquiring, using, and disposing of goods, products, and services, taking into account their impact on ecological and socioeconomic conditions for present and future generations (Geiger et al. 2018). Studies

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conducted by various international organizations and scientists show that conscious and sensitive consumers toward the concept of sustainability play a positive role in alleviating environmental problems (Mont et al. 2014; Geiger et al. 2018). Most research on sustainable consumption has examined the factors that determine ecologically conscious consumption behaviors of consumers (Pepper et al. 2009; Wang et al. 2014; Biswas & Roy, 2015; Wu et al. 2016). Understanding which factors influence sustainable consumption is considered important as it will show what kind of marketing strategies and tools will be used to make consumer behavior more environmentally aware. Since it is understood that the negative effects of unsustainable consumption behaviors cannot be addressed by one-way communication, numerous studies have been conducted on tools and methods to engage consumers in a two-way and active dialogue (Huber & Hilty, 2015; Mattila et al. 2016). Accordingly, governments, businesses, international institutions and organizations, non-governmental organizations, and consumers should adopt and participate in sustainable consumption behaviors which stand out within the scope of combating environmental problems.

The literature shows that consumer engagement is an important and strategic tool in promoting some consumer behaviors (Hollebeek, 2011; Thakur, 2016; Hollebeek et al. 2016). However, a limited number of empirical studies have been conducted that integrate consumer engagement in the context of sustainable consumption, which occupies an important place on the global agenda. To properly understand the sustainable consumption behaviors of consumers, it is important to determine how consumer engagement changes these behaviors. In addition, it is considered important to examine sustainable consumption behaviors through young consumers, who are future decision-makers. According to Caruana & Rosella (2003), young consumers are a potential force for environmental protection because they have a significant environmental awareness. It is a critical process to include young consumers, especially those who are growing up in the consumption society, in this process in order to promote sustainable consumption. The purpose of this study was to demonstrate the impact of perceived responsibility and environmental attitudes of young consumers on sustainable purchasing behavior through consumer engagement within the context of sustainable consumption behaviors.

Conceptual Framework and Research Hypothesis

Sustainable Consumption

The concept of sustainable consumption refers to the use of goods and services that are economically viable, socially fair, and have a minimal harmful impact on the environment to meet the basic needs of people all over the world. Although sustainable consumption has been on the agenda since 1990, there is still a big difference between people's demands and their buying behavior (Lim, 2017).

The definition of the concept of sustainable consumption is quite complex, as it encompasses both the concept of sustainability and consumption at the same time (Durif et al. 2010). In many definitions, the satisfaction of consumer needs and the protection of the environment are considered as one (Gupta & Agraval, 2017). When sustainable consumption is examined as a term in the literature, it is seen that terms such as "green consumption", "ethical consumption", and "environmentally friendly consumption" is also used as alternatives to sustainable consumption (Peattie, 2010; Adams & Raisborough, 2010; Green & Peloza, 2014).

In 1995, the United Nations Environment Program defined sustainable consumption as consumption that does not compromise the needs of future generations by minimizing the use of natural resources and toxic substances, emissions and pollutants, while using products that meet basic needs and enhance the quality of life (Jones et al. 2011). However, this definition focuses on a single element of sustainable consumption, namely the ecological aspect. Sustainable consumption proposes a form of consumption based on the integration of economic, social and environmental aspects (Balderjahn et al. 2013). In other words, the concept of sustainable consumption also concerned with ecological and social issues such as environmental protection, quality of life and intergenerational equity. However, studies on sustainable consumption focus on one of these three elements, according to the field of study. Since the attitudes and values of consumers are examined in studies on consumer behavior and sustainable consumption, the environment is considered the most important element.

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In terms of sustainable consumption, consumers should include social responsibility toward the environment in the decision-making process in the purchasing process. The important thing here is to convince all consumers (Barber & Deale, 2014). Accordingly, sustainable consumption is a form of consumption aimed at understanding the answers and solutions to ecological environmental problems (Dolan, 2002). When making a decision to purchase a good or service, consumers consider not only consider price, performance and satisfaction. In addition, the consumer's own health and social sensitivity are also included in this process. As consumers gain this sensitivity, they have begun to consider the behavior of purchasing goods and services to meet their own needs without harming the natural balance (Barber & Taylor, 2013). Such purchasing behavior is the basis for sustainable consumption. Consumers who adopt sustainable consumption behavior prefer vehicles that consume less energy and resources, as well as products that are recyclable and less harmful to the environment (Alnıaçık, 2010). In the context of sustainable consumption with a broader perspective, preference is given to ecological, local, fair trade-based and durable products that do not harm the environment (Gilg et al. 2005). Sustainable consumption behavior is realized with environmental awareness.

The scope of sustainable consumption is listed by Hansen & Schrader (1997) as follows:

- Trying to reduce consumption
- Avoiding consumption as much as possible
- Making an effort to consume ecological products
- Considering the ecological nature of the products to be consumed

Sustainable consumption takes place in parallel with social responsibility (Wilhite & Lutzenhiser 1999). Because consumers who are aware of their social responsibility towards the environment engage in sustainable consumption behavior in order to protect their own lives and the lives of all other living beings.

Consumer Engagement

The concept of consumer engagement was introduced to the literature by the study by Brodie et al. (2011). In that study Brodie et al. (2011) defined consumer engagement as a psychological state of mind that includes cognitive, emotional, and behavioral aspects (Brodie et al. 2013; Dessart et al. 2015; Hollebeek et al. 2014). In this context, consumer engagement is a psychological state that results from interactive, co-creative customer experiences with an object.

Whereby the term consumer engagement is used in many different fields of science, it is considered very difficult to find a comprehensive definition for it. Javornik & Mandelli (2013) stated that consumer engagement can be based on the following approaches: Behavioral, psychological (cognitive and emotional), multidimensional and social. Since the multidimensional approach emphasizes the integration of the cognitive and emotional aspects of the consumer, it is considered to be the most studied approach to consumer engagement in recent years. In consumer engagement in marketing, researchers stated that the dimensions of consumer engagement can be single or multidimensional, depending on the research structure, and the number of dimensions changes accordingly (Brodie et al. 2011; Hollebeek, 2011; Hollebeek et al. 2014). Therefore, there is no agreed-upon model for the multidimensional consumer engagement approach. However, the most used model includes cognitive, emotional, and behavioral engagement (Hollebeek et al. 2014).

Brodie et al (2011) point out that engagement is an interactive behavior that is defined as a transitional state that occurs with the development of related engagement processes over a period of time. The definition of consumer engagement is generally based on the level of cognitive, emotional and behavioral relationships of consumers with an organization, product, brand etc. However, the interpretation of the term usually depends on the object of the engagement (company, product, brand, advertising, persuasion, etc.). In other words, engagement reflects an interactive relationship of the consumer to a particular content-specific object (Rather, 2019; Mostafa, 2021).

Consumer engagement stands out as a concept that explains the psychology of consumption behavior. In the literature, there are studies showing that consumer engagement affects consumption

behavior (Vivek et al. 2014; Bly et al. 2015; Miao & Wei, 2016). However, there are studies that try to explain sustainable consumption behavior with consumer engagement and come to positive results (Banyte et al. 2014; Piligrimiene et al, 2020). Based on these studies, the following hypothesis has been proposed:

H1: *Consumer engagements of young consumers have a positive effect on their sustainable consumption behavior.*

Environmental Attitude

Attitude can be considered as an individual's positive or negative reaction to a particular object or phenomenon (Khan & Kirmani, 2015). Similarly, environmental attitudes are positive or negative evaluations of the environment and form the basis of pro-environmental behavior (Nagar, 2015; Uddin & Khan, 2016). Environmental attitudes indicate individuals' perceptions of being a part of the environment. Individuals' positive attitudes towards the environment influence their choices in purchasing behavior (Zsoka et al. 2013; Nguyen et al. 2017).

In studies on sustainable consumption, it has been seen that environmental attitudes are behind consumers' purchasing behavior toward environmentally friendly green products or sustainable products (Akehurst, 2012; Zhao et al, 2014; Uddin & Khan, 2016). However, Kaiser et al (2007) and Uddin & Khan (2018) argued that environmental attitudes are an important antecedent in the sustainable consumption behavior of young consumers. Based on the studies in the literature, the following hypothesis was established:

H2: *Environmental attitudes of young consumers have a positive effect on their sustainable consumption behavior.*

A positive environmental attitude is an important element for sustainable consumption behavior. Kollmuss & Agyeman (2002), Janmaimool & Denpaiboon (2016), and Piligrimiene et al. (2020) stated in their studies that environmental attitudes are among the internal factors that determine the engagement of consumers in their pro-environmental behaviors. It is thought that a part of consumers' engagement towards sustainable consumption will consist of environmental attitudes (Cicala et al. 2016). Because environmental attitudes are assumed to affect the cognitive, emotional, and behavioral dimensions of engagement, the following hypothesis has been developed:

H3: *Consumer engagement has a mediating effect on the impact of young consumers' environmental attitudes on sustainable consumption behaviors.*

Perceived Environmental Responsibility

The responsibility that consumers feel toward the environment is extremely important in terms of sustainable consumption behaviors (Catlin et al. 2017; Capiene et al. 2021). In the study conducted by Milfont & Sibley's (2012), in which they investigated the factors affecting environmentally friendly behaviors, it was found that responsible individuals are more likely to adopt sustainable consumption. Based on these findings, the following hypothesis was formed:

H4: *Perceived environmental responsibilities of young consumers have a positive effect on their sustainable consumption behavior.*

Capiene et al. (2021) showed in their study that perceived environmental responsibility is one of the internal factors in engagement with sustainable consumption. Kollmuss & Agyeman (2002) and Piligrimiene et al (2020) stated in their studies that environmental responsibility is among the internal factors that determine the engagement of consumers in their pro-environmental behavior. Consequently, the following hypothesis has been proposed:

H5: *Consumer engagement has a mediating effect on the impact of young consumers' perceived environmental responsibilities on their sustainable consumption behavior.*

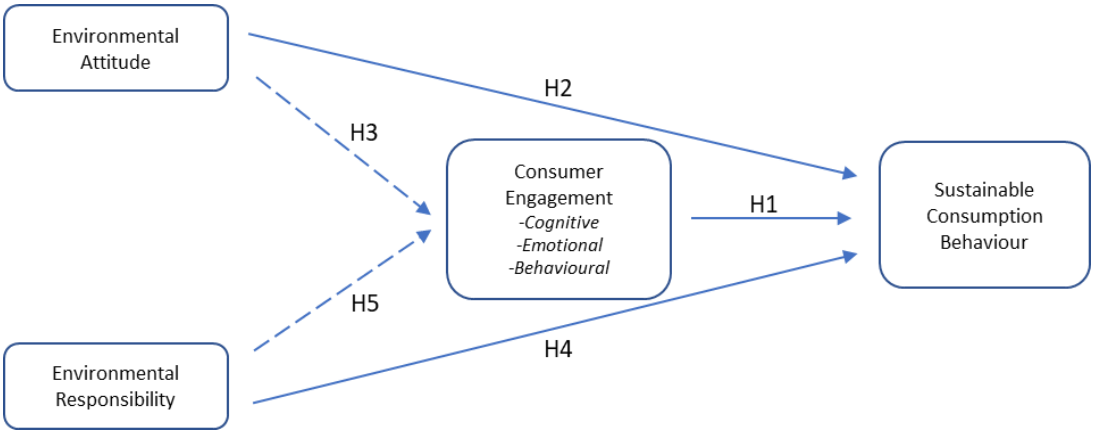

Figure 1. Research Model

Methodology

Data Collection

Questionnaire technique was used as the data collection method in the study. In order to reach young consumers in accordance with the research objective, the sample was formed by university students. Within the scope of the research, analyzable data were collected from 134 young consumers. The scales used in the study were adapted from the study by Piligrimene et al. (2020). Data were collected as online using Google Forms between April 15 and May 10, 2022. The data obtained from the questionnaires were first tested for validity and reliability using the SPSS 21 program and then analyzed for confirmatory factor analysis and discriminant validity using AMOS 21.

Analysis

In order to reveal the validity and reliability of the scales used in the research; factor analysis, Cronbach's Alpha test and confirmatory factor analysis were performed. In terms of testing the research hypotheses, the hypotheses were examined with the structural equation model using AMOS 21. Demographic information regarding the collected data is shown in Table 1.

Table 1. Demographic Data

Gender	N	%
Female	66	49,3
Male	61	45,5
Don't want to specify.	7	5,2
Total	134	100
Age	**N**	**%**
15-17	3	2,2
18-20	64	47,8
21-23	67	50,0
Total	134	100
Income	**N**	**%**
Less than 3000 TL	65	48,5
3001 TL - 4000 TL	37	27,6
4001 TL - 5000 TL	18	13,4
5001 TL - 6000 TL	8	6,0
More than 6001 TL	6	4,5
Total	134	100

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As shown in Table 1, 49.3% of the participants in the study were female and 45.5% were male. 50% of the participants are between 21 and 23 years old, 47.8% are between 18 and 20 years old and only 2.2% are between 15 and 17 years old. The monthly income of 48.5% of the participants is below 3000 TL. The reliability coefficients, factor loadings, and Kaiser-Meyer-Olkin (KMO) values of the scales used in the study are shown in Table 2.

Table 2. Factor Loads, KMO and Cronbach's Alpha Values

	Factor Loads	KMO	Cronbach alpha
Environmental Attitude		0,840	0,941
EA1	0,835		
EA2	0,821		
EA3	0,708		
EA4	0,784		
Perceived Environmental Responsibility		0,804	0,923
PER1	0,750		
PER2	0,824		
PER3	0,782		
PER4	0,727		
Consumer Engagement		0,876	0,938
Cognitive		0,789	
COG1	0,742		
COG2	0,758		
COG3	0,720		
COG4	0,712		
Emotional		0,846	
EMO1	0,807		
EMO2	0,687		
EMO3	0,825		
EMO4	0,766		
Behavioural		0,821	
BEH1	0,616		
BEH2	0,854		
BEH3	0,662		
BEH4	0,728		
Sustainable Consumption Behaviour		0,898	0,918
SCB1	0,804		
SCB2	0,822		
SCB3	0,853		
SCB4	0,776		
SCB5	0,849		
SCB6	0,793		

Looking at the Cronbach's Alpha coefficients for the variables used in the study in Table 2, it is seen that the values range from 0.918 to 0.941. Therefore, the scale items of the variables that make up the study are highly reliable (Cronbach, 1951). As a result of Kayser-Meyen-Olkin (KMO) and Barlett's tests to the data obtained during the study revealed that the KMO values were above .50 and the Barlett's tests were found to be statistically significant. The scale items related to the variables were loaded on the relevant factors, and it was observed that the factor loadings reached values between 0.662 and 0.854. The results of the confirmatory factor analysis, which was conducted to examine the validity of the scales in more detail, are shown in Table 3.

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Table 3. Confirmatory Factor Analysis Results

			B1	B2	S.E.	C.R.	P
EA4	<---	Environmental Attitude	0,942	1			
EA3	<---	Environmental Attitude	0,872	0,975	0,062	15,65	***
EA2	<---	Environmental Attitude	0,811	0,812	0,061	13,277	***
EA1	<---	Environmental Attitude	0,79	0,811	0,065	12,557	***
PER4	<---	Percd. Env. Responsibility	0,93	1			
PER3	<---	Percd. Env. Responsibility	0,831	0,792	0,057	13,812	***
PER2	<---	Percd. Env. Responsibility	0,807	0,856	0,066	12,983	***
PER1	<---	Percd. Env. Responsibility	0,851	1,016	0,07	14,549	***
BEH4	<---	Behavioural CE	0,867	1			
BEH3	<---	Behavioural CE	0,837	1,069	0,087	12,3	***
BEH2	<---	Behavioural CE	0,726	0,819	0,082	10,021	***
BEH1	<---	Behavioural CE	0,866	1,089	0,084	13,023	***
COG1	<---	Cognitive CE	0,926	1			
COG2	<---	Cognitive CE	0,943	0,872	0,046	19,116	***
COG3	<---	Cognitive CE	0,89	0,96	0,06	15,913	***
COG4	<---	Cognitive CE	0,702	0,713	0,07	10,17	***
EMO4	<---	Emotional CE	0,874	1			
EMO3	<---	Emotional CE	0,933	1,047	0,067	15,691	***
EMO2	<---	Emotional CE	0,86	1,05	0,08	13,139	***
EMO1	<---	Emotional CE	0,87	0,967	0,068	14,165	***
SCB1	<---	Sust. Consump. Behaviour	0,92	1			
SCB2	<---	Sust. Consump. Behaviour	0,958	1,015	0,048	21,354	***
SCB3	<---	Sust. Consump. Behaviour	0,913	1,04	0,056	18,512	***
SCB4	<---	Sust. Consump. Behaviour	0,833	0,881	0,062	14,299	***
SCB5	<---	Sust. Consump. Behaviour	0,805	0,872	0,066	13,242	***
SCB6	<---	Sust. Consump. Behaviour	0,849	0,902	0,06	14,944	***

**** p < 0.001*

The results of the confirmatory factor analysis for the scales used in the study are shown in Table 3. Accordingly, all scale items in the scale dimensions proved to be statistically significant (p<0,005). The standardized path coefficients (β1) for each scale item were also above 0.50. Confirmatory factor analysis (CFA) was performed using a maximum likelihood method (MLM) with a five-factor measurement model. The results of the CFA confirmed the validity of the empirically examined constructs. Composite Reliability (CR) and Average Variance Extracted (AVE) values were checked by using AMOS v.21 program in order to ensure convergence and discriminant validity within the scope of confirmatory factor analysis. Achieving convergent validity depends on CR values above 0.70 and AVE values above 0.50. The results of the master validity of the research model are shown in Table 4.

Table 4. Reliability, Convergent and Discriminant Validity Results

	CR	AVE	MSV	MaxR (H)	1	2	3	4	5	6
Environmental Attitude	0,916	0,732	0,571	0,936	0,856					
Percd. Env. Responsibility	0,916	0,733	0,571	0,929	0,755***	0,856				
Behavioural CE	0,895	0,682	0,547	0,905	0,531***	0,481***	0,826			
Cognitive CE	0,925	0,758	0,589	0,95	0,680***	0,588***	0,740***	0,871		
Emotional CE	0,935	0,783	0,455	0,941	0,661***	0,644***	0,675***	0,647***	0,885	
Sust. Consump. B.	0,954	0,777	0,589	0,966	0,596***	0,550***	0,720***	0,768***	0,612***	0,881

** p < 0.050, ** p < 0.010, *** p < 0.001*

Findings

The hypotheses of the study were analyzed with the structural equation model (SEM) using AMOS v.21. SEM is often used to test the proposed model and hypothetical relationships between observed and latent variables (Hoyle, 1995). According to the structural equation model results, the direct effect results are shown in Table 5 and the mediator effect results are shown in Table 6.

Table 5. Direct Effect Results

			Std. C.	Unstd. C.	S.E.	C.R.	P
Sust. Consump. Behaviour	<---	Environmental Attitude	0,273	0,312	0,107	2,903	0,004
Sust. Consump. Behaviour	<---	Percd. Env. Responsibility	0,283	0,322	0,107	3,012	0,003
Sust. Consump. Behaviour	<---	Consumer Engagement	0,706	0,815	0,071	11,483	0,000

According to the results of SEM carried out within the scope of the hypothesis test, consumer engagement has a positive and statistically significant effect on sustainable consumption behavior. Thus, H1 is supported (β=0,706, p<0,00). Environmental attitude has a positive and statistically significant effect on sustainable consumption behavior. SEM results also supported H2 (β=0,273, p<0,00). The results also supported H4, which argues that perceived environmental responsibility positively affects sustainable consumption behavior (β=0,283, p<0,00).

Table 6. Indirect Effect Results

			Std. C.	Unstd. C.	S.E.	C.R.	P
Consumer Engagement	<---	Environmental Attitude	0,281	0,276	0,083	3,332	0,000
Consumer Engagement	<---	Percd. Env. Responsibility	0,422	0,417	0,083	5,019	0,000
Sust. Consump. Behaviour	<---	Environmental Attitude	0,193	0,186	0,084	4,512	0,000
Sust. Consump. Behaviour	<---	Percd. Env. Responsibility	0,243	0,308	0,815	5,072	0,000

Mediator effect tested in the context of complete and partial mediation effect (James et al. 2006). According to the results of SEM for the indirect effect, the effect coefficient of environmental attitude and perceived environmental responsibility on sustainable consumption behavior changed when the variable of consumer engagement was included as a mediator in the model. Therefore, H3 and H5 were supported by a partial mediation effect.

Results and Discussion

Today, consumers' perceptions of the concepts of need and desire have changed due to reasons such as technological developments, globalization and diversity, and this has led to an increase in the desire to consume faster and more. Due to the desire to consume faster and more, limited resources are rapidly depleted, and therefore, the basic needs of today and future generations cannot be met. The existence of such a threat has set in motion the sustainability process, such as sustainable living and sustainable consumption, which began with the concept of sustainable development in the 1980s.

Sustainable consumption is the realization of processes of acquisition, use and disposal of goods, products, and services by consumers, taking into account all possible impacts for present and future generations. The policies regarding sustainability developed by international institutions and organizations and various organizations cannot be realized at the level expected to be accepted by consumers. The need to engage in active dialogue with consumers on environmental issues and to promote sustainable consumption behavior is evident in recent scientific discourse. In this context, one of the areas of great interest in the academic literature is the implementation of the consumer engagement structure, which is used to encourage consumer behavior. This study examined the effects of environmental attitudes and perceived environmental responsibility on young consumers' sustainable consumption behaviors and the mediating role of consumer engagement in these relationships. Thus, a

contribution was made to the implementation of consumer engagement in the field of sustainable consumption and to the sustainable consumption behaviors of young consumers.

As a result of the structural equation model, it was concluded that environmental attitude and perceived environmental responsibility have an effect on the sustainable consumption behaviors of young consumers. Accordingly, young consumers exhibit sustainable consumption behavior when their attitudes towards the environment improve. This finding is consistent with previous work by Kaiser et al. (2007), Zhao et al. (2014) and Uddin & Khan (2016). It was also revealed in the study that young consumers with a high level of perceived environmental responsibility exhibit sustainable consumption behavior. This finding confirms the study of Wang et al. (2014) and Milfont & Sibley (2012). Another issue investigated in the study is the evaluation of consumer engagement within the scope of sustainable consumption. In this context, the mediating role of consumer engagement between young consumers' sustainable consumption behavior, their environmental attitudes, and their perceived environmental responsibility has been investigated. The results indicate that consumer engagement plays a partially mediating role in the relationship between environmental attitudes, perceived environmental responsibility, and sustainable consumption behavior. Within the scope of the findings, a similar conclusion was reached with the study of Piligrimiene et al (2020).

Given the study's findings, governments and businesses should work to make sustainable products more accessible to consumers in terms of price and distribution to increase sustainable consumption. Advertising campaigns should also be designed by considering environmental effects and direct consumers towards sustainable consumption. These campaigns should take place on social media platforms where young consumers spend a lot of time. Improvement activities in environmental attitudes and understanding of environmental responsibility can be implemented through various gamifications and online communities. Thus, the cognitive, emotional and behavioral engagement of young consumers in sustainable consumption behaviors will be encouraged.

In this study, the research model was applied to young consumers. Different results may be obtained when it is applied to consumers of different ages or to different groups of consumers. The research is limited to the fact that it was carried out in Turkey in a geographical sense. It may differ considering different cultures. In this sense, a cross-cultural comparative study can be carried out. In addition, there are several factors in the literature that influence consumers' sustainable consumption behavior. The mediation effect of these factors on consumer engagement can be examined.

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